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HISTORICAL REPORT  
of the  
32d AIR DIVISION (DEFENSE)

RECEIVED  
JAN 15 1954  
14-02-110-7



THE AIR DEFENSE OF A SECTOR  
JANUARY thru JUNE 1954

SUPPORTING DOCUMENTS III

HISTORICAL OFFICE  
SYRACUSE AIR FORCE STATION, NEW YORK

RSI Cont No  
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HISTORICAL REPORT  
OF THE 32D AIR DIVISION (DEFENSE)

Number Sixteen

THE AIR DEFENSE OF A SECTOR

January thru June 1954

RCS: 1-AF-D2

SUPPORTING DOCUMENTS

VOLUME III (Documents 116 thru 158/5)

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C O P Y

EAFMP-AM-A

7 Apr 1954

SUBJECT: Recommendation for Shred-Out AFSC 27350-D and 27370-D

TO: Commander  
32d Air Division (Defense)  
Syracuse AirForce Station  
Syracuse, New York

1. Reference letter, your headquarters, OOT-A 200.3, Subject: "Director Shortage", 25 September 1953, 1st Indorsement thereto by this headquarters, EAFMP 200.3, 13 October 1953, and your reply thereto. After reviewing the comments from this and other defense forces, Headquarters AirDefense Command has concluded that use of NCO's for manning controller positions is not authorized.

2. Though this decision precludes consistent use of airmen to man the officer controller positions, it does not preclude cross training of selected NCO's into controller duties so that they can assist when needed.

3. Action now being taken by Headquarters United States Air Force provides the prospect that the controller shortage in the Air Defense Command will be eliminated.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major USAF  
Asst Adjutant

Hq EADF EAFMP -AM-A Subj: Recommendation for Shred-Out AFSC 27350-D  
and 27370-D

OOT-A (7 Apr 54)

1st Ind

15 Apr 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. Forwarded for your information.
2. Your attention is invited to paragraph 2, basic letter. It is interpreted by this headquarters that training may be continued but NCO's may not direct active air defense intercepts.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst Adjutant

C O P Y

OPERATIONS  
655TH AC&W SQUADRON  
Watertown Air Force Station  
Watertown, New York

OPS

7 April 1954

SUBJECT: Controllers Proficiency Training  
at Yuma AFB, Arizona

TO: Commander  
655th AC&W Squadron  
Watertown, AF Station  
Watertown, New York

1. The quality of training in the 90° lead collision course interception offered at Yuma is very high, considering the equipment that is available at that Base. Training of this type presents the problems of the aircrew more clearly to the Controller.
2. During the two weeks and throughout the three phases of the course, it is possible for a controller to conduct from 120 to 130 intercepts, plus approximately 60 to 80 simulated intercepts.
3. Having just completed this training, I would recommend that all our controllers be sent to Yuma, for the same purpose.

MUNRO W. HOADLEY  
1/Lt, USAF  
Chief Director

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, N.Y.

GENERAL ORDERS )  
NUMBER 7 )

15 February 1954

ASSIGNMENT AND REDESIGNATION OF UNITS

1. The following units, having been assigned this command from the Tactical Air Command, are further assigned to the 4707th Defense Wing without change in strength or station, effective 15 February 1954:

Hq 532d Tactical Control Group  
617th Aircraft Control and Warning Squadron  
622d Aircraft Control and Warning Squadron  
673d Tactical Control Squadron  
630th Aircraft Control and Warning Squadron

2. Effective 15 February 1954, the following units are redesignated as indicated:

<u>Present Designation</u>	<u>New Designation</u>
Hq, 532d Tactical Control Group	Hq, 532d Aircraft Control and Warning Group, Mobile
673d Tactical Control Squadron	673d Aircraft Control Squadron

3. Concurrent with this redesignation, the 630th AC&W Squadron is assigned to the 532d Aircraft Control and Warning Group, Mobile.

4. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.

5. Authority: Letter, Department of the Air Force, 322 (AFOMO 996h), 26 January 1954, Subject: Reassignment and/or Redesignation of the Hq, 532d Tactical Control Group and Certain Other USAF Units; Assignment of the 630th Aircraft Control and Warning Squadron, with list indorsement thereto, Air Defense Command, ADCMO, 3 February 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:

s/t/ JOHN L. WARREN  
Colonel, USAF  
Adjutant

GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

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HQ 32D AIR DIV DEF HANCOCK FIELD EASTWOOD STA 6  
SYR NY

SECRET

OO 4707 Def Wg Otis AFB Falmouth Mass

ROUTINE

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EAOCT-FT C-703 SECRET

AGFOCT-C-7328. Ref Msg EAOCT-FT COCA 703. Pol Msg From ADC, ADOCT-  
FOXTROT 658, quoted for your info and nec action: "Msg recd fr TAC  
indicates 151th TAC Con GP, Otis AFB, Mass, has a GCI capability and  
desires tng with ADC Ftr-Intep Units prior to deployment os in June  
53 (SECRET). Dir Com m between 141th TAC Con Gp, Otis AFB, Mass, and  
units your comd is authd for purpose of scdg tng flts consistent with  
the msg of Ftr-Intep units concerned." Desire your Hq establish nec  
liaison and work out details on running these tng flts.

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VITA FEDOROVICH, Lt/Col., USAF

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FREDERICK E. YORK  
Major, USAF  
Adjutant

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HEADQUARTERS  
532D AIRCRAFT CONTROL AND WARNING GROUP, MOBILE  
Otis Air Force Base  
Falmouth, Massachusetts

OP-CE

8 Mar 1954

SUBJECT: Request for Frequencies

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. In accordance with paragraph 2109.4, Chapter 11, USAF CEI, the following request for frequency assignment is submitted:

a. 532d Aircraft Control and Warning Group, Mobile, Otis Air Force Base, Mass.

b. Call sign to be assigned by ADC. Present call sign is A04.

c. Request the following frequencies be assigned this organization:

(1) 337.5 KCs.

(2) 3364.0 KCs.

d. 6A3, O.1A1 and O.1F1.

e. N/A.

f. HF Training Net (Voice, C-W and radio-teletype).

g. (C-W and teletype) 400 watts; VOICE (300 Watts).

h. All transmitting and receiving antennas are located within a ten mile radius on Camp Edwards Military Reservation, Massachusetts. Geographical coordinates cannot be given as stations will be moved to meet operational and training requirements.

i. No definite azimuth can be given due to the stations being moved to comply with operational and training requirements. Beam width is 360°.

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j. All transmitting and receiving antennas are located within a ten mile radius.

k. As soon as possible.

l. Present authorization is AF 285.

m. The following organizations are assigned to this group: 617th AC&W Squadron; 622d AC&W Squadron; 630th AC&W Squadron; and 763d Aircraft Control Squadron. This Group and all assigned organizations are located on Camp Edwards Military Reservation within a ten mile radius. In order to provide adequate training for assigned personnel, an administrative and training net is being established, utilizing the AN/GRC-26(a) equipment. To effectively train the assigned personnel, and utilize the above mentioned equipment to the fullest advantage the two frequencies requested in this letter are necessary. In a deployed or operational situation, an administrative net will be a requirement of this unit and these two frequencies will enable this organization to train personnel for this requirement.

FOR THE COMMANDER:

BYRON E. LONG  
Major, USAF  
Adjutant

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Ltr, hq, 532d AC&W Gp, Mobile, Otis AFB, Mass. OP-CE, Subj:  
Request for Frequencies

DWOCE (8 Mar 54) 1st Ind 9 Mar 1954

HEADQUARTERS, 4707TH DEFENSE WING, Otis Air Force Base, Falmouth  
Mass

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. Recommend approval.
2. Requested frequencies were authorized by Tactical Air  
Command, Unit now assigned to this Headquarters.

FOR THE COMMANDER:

GEORGE N. LEITNER  
1st Lt., USAF  
Adjutant

DCE (8 Mar 54) 2d Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Sta 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, N.Y.

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HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADDOOT-C

9 June 1954

SUBJECT: Director Aids

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Air Proving Ground Command is initiating an evaluation of all director aids designed to improve the effectiveness of the intercept director - interceptor - fire control combination.

2. In the past, several Air Defense Command units have developed such aids in an attempt to increase director effectiveness. Some of these aids (relative bearing fans, initial vector computers, etc.), have been constructed and tested at random by various agencies, but no over-all evaluation of aids has been accomplished.

3. A timely evaluation, test, and dissemination of information on the employment of director aids will provide a substantial gain in the over-all system effectiveness in the interim period prior to implementation of electronic intercept computers.

4. Request that the following information on all director aids as may have been designed or constructed be forwarded to this command, Attention: O&T-C, as soon as possible for forwarding to Air Proving Ground Command.

- a. A Working model or full design plans
- b. Operating instructions or method of employment
- c. Results of any evaluation or test, official or otherwise, that has been performed and comments of using personnel.

BY ORDER OF THE COMMANDER:

JOHN J. HAYES  
CWO, USAF  
Asst Command Adj

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HQ ADC, ADOOT-C Subject: Director Aids

EAOOT-TS (9 Jun 54)

1st Ind

26 Jun 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh,  
New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Request information and/or working model desired in paragraph 4, basic, be forwarded as soon as possible. Ideas not yet in design stage which may be of benefit to Air Proving Ground Command for possible evaluation will also be submitted.

2. Name, rank and serial number of originator(s) should accompany each model, design or idea.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OCC

1 Jul 1954

SUBJECT: Relative Motion Intercept Trainer 1-DA-11

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. The following information is submitted on the Relative Motion Intercept Trainer 1-DA-11 as requested by Message EACOT-TS 19146, 17 June 1954.

2. Construction:

a. This Machine seems durable and with reasonable care should present no serious problem. The plastic face should be protected by some sort of cover when not in use to prevent undue scratching.

b. The workmanship is apparently satisfactory.

c. The simplicity of the trainer should make maintenance an easy matter. All parts seem to be assembled in such a manner that repair or replacement of components could be accomplished by almost anyone, without special training.

d. The control panel lighting is satisfactory but could be improved to facilitate easy and accurate reading.

3. Presentation:

a. The controls are relatively simple to operate, however, it would be much more realistic if the blip's, both target and interceptor, were controllable.

b. The display is too easy to read and intercept. Thereby it loses all realism.

4. Use:

a. The capabilities of this equipment are very limited. It could be utilized to demonstrate the basic fundamentals of an intercept

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Hq 32d AD(D) OCC Subj: Relative Motion Intercept Trainer 1-DA-11

to a new Director and to demonstrate the principles of the different types of intercepts to airmen.

b. Lack of realism is the primary fault in this trainer. The major objections are: lack of a realistic scope presentation and secondly inability to control the speed and direction of the target externally.

5. It is recommended that this unit be used for only demonstrative purposes for inexperienced personnel and visitors. There is little or no value that this unit offers qualified control center personnel.

FOR THE COMMANDER:

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

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EAGOT-OS

27 Apr 54

SUBJECT: Tactical Use of the Moving Target Generator (15J-1C)

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. This headquarters is in receipt of correspondence originated by the 640th ACMW Squadron which promulgates a procedure for utilizing the 15J-1C simulator in tracking aircraft employing electronic ECM.
2. This procedure is of value if ECM is effective in destroying normal radar tracking capability. It consists of superimposing a 15J-1C signal on the video return from the jamming aircraft and synchronizing the movements of the two employing the track and ground speed of the jamming aircraft as previously observed. It may become necessary to switch off normal signal to see the simulated target; however, this should not impair operations since the surveillance indicators need not be affected. While this method does not compensate for changes in track and/or ground speed, it is felt that some benefit is derived by use of this method since it will relieve the director of the task of dead-reckoning the jamming aircraft, and will allow him to concentrate on positioning his interceptors on the fabricated target.
3. The same procedure can be utilized on multiple targets limited only by the number of 15J-1C target generators available for use.
4. This procedure is disseminated for your information, and comments on its effectiveness and operational value are encouraged.

BY ORDER OF THE COMMANDER:

JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

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Hq EADP EA00T-08 Subject: Tactical Use of the Moving Target  
Generator (15J-1C)

00T-A (27 Apr 54) 1st Ind 6 May 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass.  
Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. Forwarded for your information and dissemination.
2. In addition to procedure recommended in paragraph 2, basic letter, consideration should also be given to procedure for correcting the 15J-1C signal presentation by triangulation fixes obtained from adjacent direction centers. Also, when jamming intensity saturates the scope to where interceptors cannot be detected, signal may be switched off and tracking continued solely by IFF.
3. Comments as requested by paragraph 4, basic letter will be forwarded through normal command channels to this headquarters.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt., USAF  
Asst Adjutant

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HEADQUARTERS  
SAMPSON AIR FORCE BASE  
AND  
3650TH MILITARY TRAINING WING  
SAMPSON AIR FORCE BASE  
Geneva, New York

PASSIVE ECM DEFENSE PLAN

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4 November 1953

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Passive ECM Defense Plan for Sampson AirForce Base (Cont'd)

SECTION I - GENERAL

1. Purpose. The purpose of this plan is to set forth procedures to be utilized by units of this headquarters operating C-3 (communications-electronic) equipment, as passive defense against electronic countermeasures which may be employed by enemy forces in event of hostilities.

2. Scope. The provisions of this plan are applicable to all units of this headquarters operating USAF C-E equipment that may be susceptible to electronic countermeasures.

3. Responsibilities. It will be the responsibility of C-E officers and supervisors to insure that they and their subordinate C-E operators are thoroughly familiar with ECM tactics and are proficient in ECCM tactics and procedures.

4. Definitions.

a. Electronic Countermeasures (ECM). - That major subdivision of the military use of electronics involving actions taken to reduce the military effectiveness of enemy C-E equipment and/or tactics employing or affected by electromagnetic radiations. Electronic Countermeasures include:

(1) Active Countermeasures:

(a) Electronic Jamming - The intentional deliberate radiation or re-radiation of electromagnetic waves with the object of impairing the use of a specific portion of the electromagnetic wave spectrum.

(b) Electronic Deception - The radiation or re-radiation of electromagnetic waves in a manner intended to mislead the enemy in the interpretation of data received by his electronic equipment. (This does not include manipulative and/or imitative communications traffic.)

(2) Passive Countermeasures - Electronic search or reconnaissance, which is search for electromagnetic radiations to determine existence, source, and pertinent characteristics of enemy C-E equipment for the eventual purpose of using ECM against them.

b. Electronic Counter-Countermeasures (ECCM) - The use of devices and techniques which will reduce or nullify the effects of electronic countermeasures.

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Passive ECM Defense Plan for Sampson Air Force Base (Contd)

5. Utilization of Electronic Countermeasures. In event of hostilities, it must be assumed that the enemy will employ ECM (active countermeasures) extensively in an attempt to disrupt or render ineffective the C-E capabilities of this base. The type of active countermeasures that will be most effective against C-E equipment is operation on this base is electronic jamming. This plan will therefore cover primarily jamming and anti-jamming techniques. The enemy may utilize the following jamming equipment and techniques:

a. Spot Jamming. In this type of jamming, the enemy operator must monitor a search receiver and tune his transmitter to the frequency of an intercepted signal.

b. Barrage Jamming. In barrage jamming, a number of transmitters are pretuned to cover a band of frequencies and are operated unattended. The "Sweep-Through" technique may also be used in barrage jamming, which is accomplished by sweeping a carrier back and forth across a frequency band at a relatively rapid rate (100 to 600 cycles in most cases).

c. Jamming Signals. Jamming signals may consist of "spark" (static) or "noise" (audio tones or resistance noise), and may be pulsating (as in the case of "Sweep-Through" jamming) or a continuous or variable tone.

d. Jamming Equipment. Jamming equipment may be ground-based, mobile, portable or airborne. Expendable type transmitters may also be dropped near the base by parachute or in bomb casings and operated until located and destroyed or until the power supply is exhausted.

6. Jamming Reports. Jamming reports will be submitted in accordance with current directives.

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Passive ECM Defense Plan for Sampson AirForce Base (Contd)

SECTION II - ECCM OPERATIONS PLAN

7. Application of ECCM. Since effective enemy ECM could seriously impair the mission and defense capabilities of this base, it is imperative that adequate defensive measures against ECM are provided. The proficiency of C-E personnel is the most important factor in effectively combating ECM. C-E operators must be able to recognize jamming when it occurs (that is, to be able to distinguish the difference between jamming and equipment trouble or normal interference), and to read through it. If a C-E operator determines that his equipment is being jammed, he will promptly report the facts, including the nature and extent of jamming, the frequency, and equipment involved to his immediate supervisor. Action will then be taken to determine the source and type of jamming, if possible, and to implement the anti-jamming procedures outlined in this plan. Responsibilities of C-E personnel in respect to application of ECCM are as follows:

a. C-E Supervisors. C-E supervisors (officer, airman or civilian) shall evaluate reports of jamming from C-E operators and shall be responsible for implementing and supervising ECCM necessary to combat the jamming effects. C-E supervisors shall be responsible for maintaining overall effectiveness of assigned equipment should jamming be experienced.

b. C-E Operators. C-E operators shall apply ECCM, when so directed, to their specific equipments, and shall be responsible for maintaining its effectiveness. C-E operators shall continue to operate even if completely jammed.

c. C-E Maintenance Personnel. C-E maintenance personnel shall be responsible for applying ECCM to fixed transmitter equipment and shall assist operator personnel wherever possible.

8. C-E Operations. The following operations involving the use of C-E equipment which may be the target of enemy ECM are maintained by this headquarters:

a. Control Tower.

(1) C-E Function.

(a) Maintenance of ground to aircraft communications.

(b) Operation and maintenance of the homing beacon.

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Passive ECM Defense Plan for Sampson Air Force Base (Contd)

- (2) Responsibility for Operation and Maintenance - AACS Squadron
- (3) Location of Equipment.
  - (a) Transmitters - Transmitter Site (remotely controlled by the Control Tower).
  - (b) Receivers - Receiver Site (remotely controlled by the Control Tower).
  - (c) Homing Beacon - Homing Beacon Site.
- b. Crash and Fire Alarm System.
  - (1) C-E Function. Maintenance of communications between the Control Tower and Crash and Fire Alarm vehicles.
  - (2) Responsibility for Operation.
    - (a) Master Station - AACS Squadron
    - (b) Mobile Units.
      1. Fire vehicles - Installation Squadron
      2. Ambulance - Medical Group
      3. Crash Boat - Maintenance Squadron
  - (3) Responsibility for Maintenance - Base Radio Maintenance Section.
  - (4) Location of Equipment.
    - (a) Master Station - Transmitter Site (remotely controlled by the Control Tower).
    - (b) Mobile Units. One (1) each unit per the following vehicles.
      1. Fire Chief's vehicle (1);
      2. Fire Trucks (5).

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Passive ECM Defense Plan for Sampson Air Force Base (Contd)

3. Ambulance (1).

4. Crash Boat (1).

c. Base Security.

- (1) C-E Function. Maintenance of communications between Air Police headquarters and/or the Command Post and Base Security (AP) vehicles.
- (2) Responsible for Operation - Air Police Squadron
- (3) Responsibility for Maintenance - Base Radio Maintenance Section.
- (4) Location of Equipment.
  - (a) Master Station - Communications Supply Warehouse (Building C-1), remotely controlled from Air Police headquarters (Building B-21).
  - (b) Mobile Units - Base Security (AP vehicles) (5).

9. ECM Procedures. The following procedures and techniques will be employed to combat the effects of hostile ECM:

a. Anti-Jamming Procedures (General).

- (1) Transmitter Equipment.
  - (a) Increase power output to maximum.
  - (b) Channels may be changed when multi-channel equipment is being used, or switch to back-up transmission if it operates on a different channel. This, however, may inform the enemy that his jamming is effective.
  - (c) Detune transmitter. This may eliminate jamming signal if its bandwidth is very narrow or if it is slightly off frequency.

Note: When changing frequency or detuning, tune up quickly and accurately. Excessive tuning is an aid to the enemy in tuning his jamming equipment.

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Passive ECM Defense Plan for Sampson Air Force Base (Contd)

(2) Receiver Equipment.

- (a) Employ filter circuits if receiver contains them
- (b) Adjust gain to reduce jamming effects. (This will normally be accomplished by using maximum volume.)
- (c) Change antenna tilt away from sources of a jamming.
- (d) Detune receiver. This may eliminate jamming signal if its bandwidth is very narrow or if it is slightly off frequency.
- (e) If possible, place a natural screen between the receiver and the jamming equipment. (Applicable to portable and/or mobile equipment).
- (f) Employ any other anti-jamming circuits which the equipment may contain.

(3) Operating Through Jamming.

- (a) When sending through jamming, send slowly and distinctly, and send each word twice. If operating on voice, speak slowly and distinctly. Use the phonetic alphabet and speak each word twice.
- (b) In case of communications, authenticate the message. This will prevent fake messages transmitted by the enemy along with his jamming from being accepted as authentic.
- (c) Continue operating. This is very important, even if the equipment is completely jammed, because it denies the enemy information as to the effectiveness of his jamming.

b. C-E Equipment. The following is a list of C-E equipment employed in the operations outlined in paragraph 8 above and the techniques and methods which will be placed into effect when these equipments are subjected to enemy ECM:

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Passive ECM Defense Plan for Sampson Air Force Base (Contd)

- (1) T-282/GR. UHF primary transmitter used in control tower (ground to air) operation. If jammed, employ any of the techniques listed in paragraph 9a(1) above that apply.
- (2) T-217/GR. UHF transmitter, Back-up for T-282/GR. If this transmitter is in operation and jamming is experienced, employ any of the techniques listed in paragraph 9a(1) above that apply.
- (3) BC-640-D. VHF primary transmitter used in control tower (ground to air) operation. If jammed, employ any of the techniques listed in paragraph 9a(1) above that apply.
- (4) BC-625. VHF transmitter. Back-up for BC-640-D. If this transmitter is in operation and jamming is experienced, employ any of the techniques listed in paragraph 9a(1) above that apply.
- (5) R-361/GR. UHF primary receiver used in control tower (ground to air) operation. If jammed, employ any of the techniques listed in paragraph 9a(2) above that apply.
- (6) R-278/GR. UHF receiver. Back-up for R-361/GR. If this receiver is in operation and jamming is experienced, employ any of the techniques listed in paragraph 9a(2) above that apply.
- (7) BC-639. VHF primary receiver used in control tower (ground to air) operation. If jammed, employ any of the techniques listed in paragraph 9a(2) above that apply.
- (8) BC-624. VHF receiver. Back-up for BC-639. If this receiver is in operation and jamming is experienced, employ any of the techniques listed in paragraph 9a(2) above that apply.
- (9) BC-446. Homing Beacon transmitter. Low frequency (200-400 kc), unattended. An enemy may employ countermeasures against airborne receivers dependent on this equipment. In event of jamming, the operator would have little capability of countering it. If the homing beacon facility is deemed unreliable due to jamming, the Control Tower Chief will advise all aircraft within the Sampson Control Area that the homing beacon facility is unreliable.

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Passive ECM Defense Plan for Sampson Air Force Base (contd)

- (10) AN/FRC-27. A 1520174 mc radio set (transmitter and receiver) used as the master station in Crash and Fire Alarm and Base Security operations. If jamming is experienced, employ any of the techniques in paragraph 9a above that apply.
- (11) AN/VRC-19. A 152-174 mc radio set (transmitter and receiver) used immobile units of Crash and Fire Alarm and Base Security operations. If jamming is experienced, employ any of the techniques listed in paragraph 9a above that apply.

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Passive ECM Defense Plan for Sampson Air Force Base (Contd)

SECTION III - TRAINING

10. Training on ECM and ECCM. Training on ECM and ECCM will be incorporated into the C-E operator training program. The most important single factor in defense against jamming is thorough and continuous training of operator personnel. They must be trained to recognize jamming, when it occurs, to report it to their supervisor, and to read through it. The ability of C-E operators to read through jamming and interference can be acquired only through continuous practice and training exercises. A well trained operator can read through 2 to 10 times more jamming power than the inexperienced operator. This is an important factor as, at some frequencies involved, it is sometimes difficult or impossible for the enemy to put out enough jamming power to jam out the experienced operator. The following are techniques and methods to be utilized in the training of C-E personnel of this headquarters on ECM and ECCM:

a. Lectures. Periodic lectures will be conducted by supervisor personnel to indoctrinate all personnel concerned in the utilization of ECM equipment and techniques, to make them aware of the vulnerability of assigned C-E equipment to ECM, and to familiarize them with ECCM methods and techniques which they may employ on their specific equipments. The following reference material is available at the Base Communications Section and may be drawn on hand receipt for use in this training program:

- (1) USAF Communications-Electronics Instructions (CEI).
- (2) War Department Technical Bulletin TB SIG-5, Defense Against Radio Jamming, January 1944 (TO-16-1-156).

b. Training Films. The following training films are available at the Training Aids Film Library, and will be shown to all C-E personnel:

- (1) TF 1-4388, Radio Transmission Security.
- (2) TF 1-4392, Defense Against Radio Jamming.

c. Simulated Jamming Exercises. Monthly simulated jamming exercises will be conducted. Jamming signals may be simulated on C-E equipment by one or more of the following methods:

- (1) By using a signal generator tuned to the frequency of the equipment and coupled into the antenna circuit.

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Passive ECM Defense Plan for Sampson Air Force Base (Contd)

- (2) By use of spark coils.
- (3) By turning the receiver gain to maximum to simulate noise jamming.
- (4) By using any other equipment which will generate unwanted signals that may be picked up by C-E receivers.

11. Responsibility for Training.

a. AACS Squadron. The AACS Squadron shall be responsible for ECM and ECCM training of AACS C-E personnel.

b. Base Radio Maintenance Section. The Base Radio Maintenance Section shall be responsible for ECM and ECCM training of all personnel other than AACS personnel, involved in C-E operations outlined in this plan.

BY ORDER OF THE COMMANDER:

/s/t/ DAVID A. TUNNO  
Capt., USAF  
Asst. Adj.

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE

SUBJECT: OPERATION "COLD SWEAT"

INTEROFFICE ROUTINE SLIP

No. 1 - 26 Jan 54

-----  
No.      Date      From      To      \* \* \* \*

EAOOT      EAODO

1. The attached message is forwarded for your information

2. It is believed that Exercise "Big Top" involving 20 B-36s penetrating the 30th ADiv Sector on 5-6 Feb 54 and Exercise "Heat-wave" involving approximately 20 B-36s penetrating 26th and 32d ADiv Sectors on 10-11 Feb 54 fits in perfectly with the intercept training of Operation "Balloon Pump." It places no undue load on the interceptor and ACMW squadrons.

3. It is further believed that Operation "Cold Sweat" would be an excellent final examination for Operation "Balloon Pump." A comparison of Exercise "Blue Jay" results (B-47s in Nov) with Operation "Cold Sweat" results would be an excellent yardstick in judging the effectiveness of "Balloon Pump."

4. It is recommended that representatives from Fighter Division of this Directorate proceed to Hq 2d AF, Barksdale AFB, La., to coordinate the planning of this mission in order that a maximum training benefit to units of this command may be assured.

t/ MILLER

t/ OLDS

1 Incl  
- Msg fr 2d AF  
Subj as above  
(Secret)

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EXERCISE "HEAT WAVE"

5 F1 021  
PP 3EOA  
DE 5F1 174  
FM 280145DF STEWART AFB NY  
TO HX3/COMDR 26 ADIV/DEF/ROSLYN AF STA NY  
3EOA/COMDR 32ADIV/DEF/SYRACUSE AF STA NY  
7JXA/COMDR 4709 DEF WG MCGUIRE AFB NJ  
ZF6/COMDR 4710 DEF WG NEW CASTLE CITY APRT DEL  
ZEN/COMDR 4707DEF WG OTIS AFB MASS  
ZEN/COMDR 4711 DEF WG PRESQUE ISLE AFB ME  
INFO 3TP/COMDR ADC ENT AFB COLO  
JCPDC/COMDR AOC ADC RCAF STA ST HUBERT QUEBEC CANADA  
NL 1/COMDR CADF P.O. BOX 528 KANSAS CITY MO  
7RE/CG ARAACOM ENT AFB COLO  
D49A/COMDR 30ADIV/DEF/WILLOW RUN AF STA MICH  
ZEN/COMDR SAC OFFUTT AFB OMAHA NEBR  
ZEN/CG EASTARAACOM STEWART AFB NY  
ZEN/COMDR 8TH AF CARSWELL AFB TEX

/SECRET/EACOT-FO C-99. Canada United States Security. Exercise "Heat Wave". This is EADF operations order 4-54. Chart or map ref: as required. Task organization: Hq EADF, 26th Air Division and 32d Air Division.

1. General Situation: On the night of 10-11 February 54, a B-36 strike force of 8th Air Force will conduct an ECM/Big Photo through the 26th and 32d Air Division Defense.

a. Enemy Force.

1. Big Photo Force of 16 to 24 B-36 acft of the 6th Bombardment Wing.
2. Strike Force will consist of 4 formations of 4-6 acft each.
3. Two formations/ "HEAT WAVE RED" and "HEAT WAVE GREEN" / will penetrate 32d Air Division from north and two formations / "HEAT WAVE BLUE" and "HEAT WAVE BLACK" / will penetrate 26th Air Division from the south.
4. Formations within the task forces will be separated by one hour.
5. Folg routes and zebra times calculated on "No wind" conditions. Times are for first formation of each task force.
  - (a) "HEAT WAVE RED" enters EADF region 45-00 north 74-30

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west at 102400Z.

(b) (b) Route for "RED" and "GREEN" will be from 45-00 north 74-30 west to target Harrisburgh, Pa. /110100Z/ to 36-30 North 81-00 West.

(c) "HEAT WAVE BLUE" enters EADF region 36-30 north 79-25 west at 110700Z.

(d) Route for "BLUE" and "BLACK" will be from target Harrisburgh/110800Z/ to 40-39 north 77-35 west to 36-30 north 81-20 west.

6. Altitude will be 35,000 feet base for lead formation of each task force and 36,600 feet base for second formation in each task force.

7. Jamming activity:

(a) "HEAT WAVE RED" and "GREEN" will conduct electronic jamming of "LOVE" band radars.

(b) Jamming will be conducted without prior air-ground communication; however, both formation will monitor 133.20 mcs for possible instructions from ADDCs in accordance with Big Photo procedures.

(c) IFF will be off during periods of jamming except when in ADIZ.

(d) Jamming will start crossing 45-00 north parallel and continue until departure EADF region.

(e) Jamming will not be conducted against Canadian AC&W radars.

(f) "HEAT WAVE BLUE" and "BLACK" will not jam EADF radars, however, prior to penetrating EADF region, task force will conduct jamming against TAC radar south of entry point.

(g) Chaff may be dispensed against AI interceptors.

b. Friendly Forces: RCAF ADC.

2. Mission: To afford Air Defense Training for interceptors and AC&W sq and to increase proficiency of Director-Aircrew in collision course interceptors of high, fast targets.

3. Tasks for participating units.

a. Commander, EADF, will exercise general supervision and coordination of EADF participation.

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b. Commanders, 26th and 32d Air Division will

1. Provide interceptors at Commanders discretion
2. Deploy as desired to provide AI capability at Burlington, Griffiss, Stewart, New Castle, Dover and Andrews.
3. Employ anti-jamming measures as desired.
4. Conduct cross-border operations in accordance with ADCR 55-35.
5. Insure participation of fighter interceptors in accordance with ADCR 51-4 and EADFL 55-16.
6. Provide for relay of messages from bomber to fighter or fighter to bomber through concerned ADDC.
7. Employ GCI Scope recorders in accordance with EADFR 55-25.

X. General Instructions.

1. This is "BIG PHOTO" mission, nickname "HEAT WAVE".
  2. All communications concerning this exercise will be prefixed and suffixed by the phrase "EXERCISE HEAT WAVE".
  3. Simulated Air Defense Wings may be announced in accordance with ADCR 55-34.
  4. Normal weather minimums apply.
  5. Non-AI interceptors may be employed at discretion of Air Division Commanders in accordance with EADFL 55-16.
  6. All current restrictions on F-86D aircraft will apply.
4. Administrative and logistical matters.
- a. Reports as required by ADCR 51-4.
  - b. Commanders, 26th and 32d Air Divisions will submit short narrative reports to include:
    1. Summary of operations
    2. Results of jamming
    3. Effect of strike mission
    4. Recommendations.
  - c. PIO: Not for release to public.

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d. Logs: as normal

5. Command and signal matters.

a. Command

1. Zebra time will be used.
2. SAC radio calls will be accordance with current SACDAL.
3. As prescribed by ADCR 51-4, ACPS, JANAPS and EADF COIs.

b. Command:

1. EADF: as established.
2. Command Post: COC, HQ EADF, Tp Newburgh 4900, Ext 646  
or 578.

EXERCISE "HEAT WAVE".

28/2155Z Jan5F1

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4713TH RADAR EVALUATION (ECM) FLIGHT  
Griffiss Air Force Base  
Rome, New York

EVALUATION OF ECM PENETRATION EXERCISE, 29 APRIL 1954

1. MISSION OBJECTIVE:

This mission was designed to test the ability of three units in the 32nd Air Division to cope with electronic and/or mechanical jamming under simulated combat conditions.

2. MISSION PLAN:

Two B-29 type aircraft were deployed to effect a bombing mission on New York City. Three B-25 type aircraft preceded the B-29's and provided electronic jamming cover and mechanical jamming diversion at the following ADDC's: F-49, Watertown, New York; F-14, St. Albans, Vermont; F-50, Saratoga Springs, New York. Ground-based electronic jamming assisted the aircraft at Saratoga Springs, New York. Radio silence was maintained by the "invaders" and flight plans were withheld from the ADDC's and ADCC concerned, with the following exception: the Commander and Combat Operations Officer of the 32nd Air Division were informed of the purpose and extent of the mission to insure that all action would be confined to the 32nd Air Division. No warning information was passed from Canadian installations in accordance with a previous arrangement.

3. MISSION RESULTS:

a. Enclosure #1 depicts the offensive action taken by the B-29 (A1, A2) and B-25 (B,C,D) aircraft. The overlay to Enclosure #1 depicts the effectiveness of the units tested by illustrating their

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radar plots and defensive measures, as forwarded to Division level by the Squadrons concerned.

b. Both B-29's were intercepted approximately 150 miles from their target area.

c. One B-25 (C) was intercepted twice. The other two B-25's (B,D) were not plotted or intercepted during the entire mission.

4. MISSION ANALYSIS:

a. Since the mission was the first of its type, no requirement had been set prescribing the information which the individual units should furnish for system analysis. The material included in this report was compiled from routine data submitted by the ADDC's; such data was incomplete and is reflected in the report contents. A suggested requirement is forthcoming from this organization. Similarly, this organization will require a more detailed record from its Aircraft Commanders and ECM operators to simplify the analysis of ADDC equipment performance and operator efficiency.

b. It is apparent that the surprise and extent of this mission caused considerable confusion as to tactics and ECCM techniques to be employed.

(1) F-49, Watertown, New York received pre-plots from 32 ACW Sq, Foymont, Canada, of an aircraft in the vicinity of Watertown. Fighters were dispatched to investigate this track. Watertown made no radar contact with this aircraft after a period of 8 minutes of search, and the fighters were diverted to another hostile track which was under observation, on the assumption that an error existed in the pre-plot and the two tracks were actually of one aircraft.

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Fortunately, this maneuver resulted in the interception of one of the B-29 aircraft (A). However, the B-25 (B) which had been dispensing chaff as diversionary cover for the B-29 escaped undetected to continue jamming the station. The upper beam of Watertown's AN/FPS-3 was inoperative at the time of the mission. However, it is felt that intelligent application of the antenna tilt mechanism would have confirmed the 32 AC&W Sq pre-plots and allowed adequate surveillance of both aircraft.

(2) P-50, Saratoga Springs, New York experienced a Condition Five jamming on the Upper Beam of its AN/FPS-3, rendering the upper beam useless for detection or tracking purposes. The anti-jamming technique employed (Enclosure #2) was the extension of the MTI gate to 143 miles. While this eliminated the jamming effects out to 143 miles by eliminating the upper beam video, no long-range surveillance was possible beyond that range.

It is felt that a more effective ECM technique would have been the disabling of the upper beam receiver by reducing its gain so that the level of the jamming signal was below the lower beam noise level. The jamming could be monitored at the maintenance room "A" scope, and the gain level restored to a normal value if the jamming should cease. Under these conditions, maximum surveillance range would be limited by the MTI PRF to 200 nautical miles, a gain of 57 miles. Also, no glaring areas would than be present on the FPI to disturb the operators.

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(3) No report is available on the activities at P-14, St Albans, Vermont, during this mission, so that the extent of the jamming, or the techniques employed cannot be analyzed. However, an intercept was made on an aircraft (E) which was not a part of the hostile force, while the ECM aircraft (D) was in the immediate vicinity dispensing chaff. A cross check of flight plans after identification of the aircraft should have revealed that it was not the offender, and the search for the ECM aircraft should have continued. However, it was assumed by the station that the intercepted aircraft was dispensing chaff.

(4) The effect of such an extensive mission on station personnel is indicated by the delay of approximately 10 minutes in relaying some of the aircraft plots to the Air Division.

5. CONCLUSION:

Overall operation of the stations tested during this mission was good. The mission has aroused considerable interest in ECCM techniques and brought awareness of some of the shortcomings of equipment and personnel to the fore. It is hoped that from a series of these penetration missions, new tactics and techniques might be evolved.

s/t/ DOMENICO A CURTO  
Major, USAF  
Commander

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HEADQUARTERS  
655th AC&W Squadron  
Watertown Air Force Station  
Watertown, New York

C-OPS

29 April 1954

SUBJECT: ECM Mission

TO: Commander  
32d Air Division (Def)  
Syracuse AF Station  
Eastwood Station 6  
Syracuse, New York

1. At 1200Z, 29 April 1954, jamming was observed on the search radar. It started with a condition one (1) and rapidly progressed to condition four (4). The main strobe of the jamming was on a bearing of 290 degrees from the station and progressed to the south of the station to a bearing of 180 degrees. From the nature of the jamming it was believed that the source of it was very close to, if not over, the station. This caused some delay in getting an accurate point on the jamming aircraft as the upper beam of the search radar was RNFP at the time and was of no use to the station. About this time a scramble was called to the 27th Fighter-Interceptor Squadron and they advised P-49 that Jumping Jack Black was preparing to take off. A decision was made to utilize the black flight to intercept the jamming aircraft (track # I-9-I). At 1215Z, track I-9-I was seen dispensing chaff. The course of the track at this time was approximately 095 degrees and track information was cross-told to P-50. Jumping Jack Black was airborne at 1216Z. Interception and pounce took place at AP 4826 at 1230Z. The aircraft was found to be an Air Force B-25, number 428818, at an altitude of 9,5000 feet. The interceptor aircraft was broken off at this time.

2. At 1227Z, P-32 cross-told to this station a track in Q01015, heading south. This track was assigned number I-11-UB. No contact had been made with this track by this station. Jumping Jack Black was diverted to track I-11-UB at 1235Z. Also at 1227Z, a track was observed in PQ 4016 tracking approximately 095 degrees with a speed of 200 knots. This track was assigned number UA-31-I. Still having made no contact with track I-11-UB, it was assumed by the Operations Officer at Amazon and the Direction center Chief at Nightcap that there was no actual aircraft in track I-11-UB but that the pre-plots received from P-32 (Canadian station) were not accurate and that actuality, track I-11-UB was track UA-3k-I. Jumping Jack Black was diverted from I-11-UB to UA-31-I at 1243Z. Track UA-31-I was at this time in AP 3448. Cross-telling to P-14 started at 1234Z and to P-50 at 1240Z. Interception of UA-31-I took place at 1251Z in BP 2530. No numbers were obtained as the pilot was displaying a blinking red light, however, the aircraft turned out to be an Air Force B-29. Jumping Jack Black was broken off the intercept at 1254Z and returned to base, landing at 1317Z.

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3. To summarize, the mission was a good one and it is recommended that more of them be carried on whenever possible. The chaff jamming was very effective and had the B-29 been flying directly over the chaff and slightly behind the jamming aircraft his presence would not have been known to us, however, in flying a course approximately 40 miles north of the jamming aircraft, the jamming presented no problem in detecting the B-29. It is believed that had our radar been operating 100 per cent (that is the upper beam) that earlier pick-up of the B-25 would have been possible. Also had Jumping Jack Red been scrambled instead of waiting for Jumping Jack Black to become airborne, an earlier time of interception would have resulted due to an earlier airborne time.

FOR THE COMMANDER:

s/t/ RONALD L. HANDY  
2/Lt., USAF  
Asst Adjutant

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HEADQUARTERS  
656TH AIRCRAFT CONTROL AND WARNING SQUADRON (ADC)  
Saratoga Springs Air Force Station  
Saratoga Springs, New York

ACNOFS

30 April 1954

SUBJECT: Summary of ECM and Penetration Mission of 29 April 1954

TO: Commander, 32d Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. Summary:

a. This station received electronic jamming at 1206Z. This first attempt reached a "Condition Five" immediately. No prior warning was given and although personnel had suspicions that some ECM activity might occur due to the presence of M/Sgt Williamson of the 4713th ECM Flight, Griffiss AFB, Rome, New York, no one thought that the training mission would reach such intensity and effectiveness.

b. P-49, P-14, P-10 and P-45 were contacted immediately upon recognition of ECM. Only P-49 was in reception of any ECM but a fix was impossible. The azimuth of the jammer remained unknown as P-49 was also reading a "Condition Five". Since the source of the jamming was unknown, a flash report was immediately sent to 32d AD (D). At no time was a single strobe visible on the PPI. Jamming continually covered 360° of each PPI.

c. Pre-plots received from P-14 and P-49 were excellent. Warning telling from P-50 to adjacent stations was not as good as should be expected. This was due to the limitations of present communications equipment, shortage of personnel and personnel error. Penetration tracks were plotted by this station as follows:

First Track: I-9-J, Pre-plots from P-49 started at 1208Z,  
IP by P-50 at 1220Z.

Second Track: I-8-J, Pre-plots from P-14 starting at 1224Z,  
IP by P-50 at 1233Z.

Third Track: UA-31-J, Pre-plots from P-49 starting at  
1240Z, IP by P-50 at 1246Z.

Fourth Track: VK-25-J, called unknown by P-14 at 1251Z  
and identified by interception by that  
station at 1306Z.

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ACNOFS Subject: Summary of ECM and Penetration Mission of 29 Apr 54

Fifth Track: E-16-J, Pre-plots from P-14 at 1304Z, IP  
by P-50 at 1323Z.

d. All interceptions were accomplished by either P-14 or P-49. For the greater part of the mission the 60th FIS was grounded due to insufficient visibility. Both stations scrambled aircraft in sufficient time to intercept all five (5) tracks.

e. ECCM was employed by Radar Operators immediately upon recognition of the jamming. It was possible to track targets and retain track continuity. Jamming occurred on the Upper Beam only. Both the lower beam and MTI were clear of interference. The most successful method of anti-jamming techniques employed by maintenance personnel was the extending of the MTI to 143 miles. The employment of special circuits was only partially effective. The Mechanical jamming was ineffective and aided this station in tracking the targets which dispensed the Chaff.

2. Conclusions:

a. This mission was far superior to any other training mission encountered by personnel of this organization. The simulation of combat conditions was excellent. Missions of this type should have first priority in order to further train all personnel. The element of surprise was particularly effective. Future missions should retain this secrecy. It is recommended that if possible, the jamming be accomplished by B-29 aircraft thus increasing the number of stations that could be trained due to increased range of the aircraft. The aircraft dispensing "Chaff" should be followed by another aircraft or flight using the mechanical jamming for deception. This would also make the mission more realistic. Maximum Manning should be accomplished during missions of this type. Each ADDC should take part in this type of training at least twice a month.

FOR THE COMMANDER:

ERNEST C. SKINNER  
Capt USAF  
Adjutant

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## REPORT OF JAMMING TRAINING

RCS: 2-ADC-V4

TO: EASTERN AIR DEFENSE FORCE THRU: 32ND AIR DIV (DEF) CY TO: 4711TH AD WG FROM: 764TH  
 STEWART AIR FORCE BASE SYRACUSE AFS ST ALBANS AFS  
 NEWBURGH, NEW YORK SYRACUSE 6, NY ST ALBANS VT

Acft Radio Call Sign	Date	Time of Jamming		Type Run (Big Photo)	Condition	Jamming Agency	Remarks:
		Start	Ended				
B-25 AF-5422	29/4/54	1140Z	1158Z	N/A	1	EADF	At 1140Z Chaff jamming appeared inQA 5205 with a stream one to two miles wide. Jamming ended at 1158Z in Aq 1758.
"	29/4/54	1158Z	1315Z	N/A	1-4	EADF	Chaff Jamming appeared at 1210Z in Bq 3238 and ended 1224Z in Cq 0323 (Stream one to two miles wide).
"	29/4/54	1210Z	1224Z	N/A	1	EADF	

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Electronic Jamming (noise) started at 1158Z and continued until 1315Z. This jamming appeared in intervals of one to three minutes and remained on the weapon for a period of one minute or less. Condition was from 1 to 4.

All jamming appeared on VL only (2970 mcs.) and by switching to SL, it was eliminated. At no time did the scope operators have any difficulty in reading through the jamming.

Due to a malfunction in the Scope Camera, the date time group was not photographed. The picture sequence is correct to the best of our knowledge

28 photographs are attached

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s/Operations Officer

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HEADQUARTERS  
656TH AIRCRAFT CONTROL AND WARNING SQUADRON (ADC)  
Saratoga Springs Air Force Station  
Saratoga Springs, New York

ACNOPS

30 April 1954

SUBJECT: Summary of ECM and Penetration Mission of 29 April 1954

TO: Commander, 32d Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. Summary:

a. This station received electronic jamming at 1206Z. This first attempt reached a "Condition Five" immediately. No prior warning was given and although personnel had suspicions that some ECM activity might occur due to the presence of M/Sgt Williamson of the 4713th ECM Flight, Griffiss AFB, Rome, New York, no one thought that the training mission would reach such intensity and effectiveness.

b. P-49, P-14, P-10 and P-45 were contacted immediately upon recognition of ECM. Only P-49 was in reception of any ECM but a fix was impossible. The azimuth of the jammer remained unknown as P-49 was also reading a "Condition Five". Since the source of the jamming was unknown, a flash report was immediately sent to 32d AD (D). At no time was a single strobe visible on the PPI. Jamming continually covered 360° of each PPI.

c. Pre-plots received from P-14 and P-49 were excellent. Warning telling from P-50 to adjacent stations was not as good as should be expected. This was due to the limitations of present communications equipment, shortage of personnel and personnel error. Penetration tracks were plotted by this station as follows:

First Track: 1-9-J, Pre-plots from P-49 starting at 1208Z,  
IP by P-50 at 1220Z.

Second Track: 1-8-J, Pre-plots from P-14 starting at 1224Z,  
IP by P-50 at 1233Z.

Third Track: UA-31-J, Pre-plots from P-49 starting at  
1240Z, IP by P-50 at 1246Z.

Fourth Track: VK-25-J, called unknown by P-14 at 1251Z  
and identified by interception by that  
station at 1306Z.

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ACNOPS Subject: Summary of ECM and Penetration Mission of 29 Apr 54

Fifth Track: E-16-J, Pre-plots from P-14 at 1304Z, IP  
by P-50 at 1323Z.

d. All interceptions were accomplished by either P-14 or P-49. For the greater part of the mission the 60th FIS was grounded due to insufficient visibility. Both stations scrambled aircraft in sufficient time to intercept all five (5) tracks.

e. ECCM was employed by Radar Operators immediately upon recognition of the jamming. It was possible to track targets and retain track continuity. Jamming occurred on the Upper Beam only. Both the lower beam and MTI were clear of interference. The most successful method of anti-jamming techniques employed by maintenance personnel was the extending of the MTI to 143 miles. The employment of special circuits was only partially effective. The Mechanical jamming was ineffective and aided this station in tracking the targets which dispensed the Chaff.

2. Conclusions:

a. This mission was far superior to any other training mission encountered by personnel of this organization. The simulation of combat conditions was excellent. Missions of this type should have first priority in order to further train all personnel. The element of surprise was particularly effective. Future missions should retain this secrecy. It is recommended that if possible, the jamming be accomplished by B-29 aircraft thus increasing the number of stations that could be trained due to increased range of the aircraft. The aircraft dispensing "Chaff" should be followed by another aircraft or flight using the mechanical jamming for deception. This would also make the mission more realistic. Maximum Manning should be accomplished during missions of this type. Each ADDC should take part in this type of training at least twice a month.

FOR THE COMMANDER:

ERNEST C. SKINNER  
Captain USAF  
Adjutant

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HEADQUARTERS  
517TH AIR DEFENSE GROUP  
Ethan Allen Air Force Base  
Winooski, Vermont

O&T

25 May 1954

SUBJECT: ADC Regulation 55-35 dated 3 Jun 52

THRU: Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. Information is requested as to whether flights of ECM aircraft of Air Defense Command are to be construed as training flights in air defense operations, in accordance with Par 5b, subject regulation.

2. The question has arisen at this air base as to whether ECM aircraft landing here from Canadian bases are to be handled by officers specified in Par 6(e)(1), or by the U.S. Bureau of Customs, located across the field from Air Force Operations.

3. Par 6(a), (b) and (c) specifically refers to interceptor aircraft and support aircraft, although ECM missions would appear to be in the nature of training flights.

4. Clarification of this matter will be most helpful to both U.S. Customs officials this location and this headquarters.

FOR THE COMMANDER:

J. C. AUGSBURGER  
1st Lt, USAF  
Adjutant

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CONFIDENTIAL

Hq 517th ADG O&T Subject: ADC Regulation 55-35 dated 3 Jun 52

DO (25 May 54) 1st Ind 2 Jun 54

Hq 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station  
Eastwood Station 6, Syracuse, New York

KAF

OOT-A (25 May 54) 2nd Ind 10 Jun 54

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Request interpretation of paragraph #3, ADC Regulation 55-35.
2. It is recommended that wording contained in this directive be altered to permit aircraft, other than interceptor type, to operate on joint systems training missions.

FOR THE COMMANDER:

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

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**CONFIDENTIAL**

COPY

HEADQUARTERS  
32ND AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OCE

SUBJECT: Inadequate Electronic Countermeasure Training

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. The electronic countermeasure airborne training for the ACW Squadrons, AI Fighters, and AAA Units within this Division is inadequate. During the past five months the ACW Squadrons received 20.6% of their required training, with one squadron receiving only one hour and thirty minutes training. The Fighter-Interceptor Squadrons received 5% of their required training, with two squadrons receiving no training.

2. At the present time every effort is being made to increase the effectiveness of anti-jamming training with the limited amount of material available. All operational personnel are required to participate in a minimum of four hours of ECM training a month. However, this Division cannot maintain an aggressive training program and formulate the required policies and procedures for the employment of active electronic countermeasures if the ECM aircraft are not made available. Past experience in SAC exercises and the penetration mission conducted by the 4713th Radar Evaluation (ECM) Flight in April 1954, has indicated that it is necessary to immediately overcome the tactical advantage gained by the use of electronic countermeasures.

3. During a recent ECM conference conducted at Griffiss AFB by the 4713th Radar Evaluation (ECM) Flight, it was disclosed that due to the lack of chaff the mechanical jamming phase of training has been greatly hampered. The amount of chaff allocated, the 4713th Radar Evaluation (ECM) Flight every three months (10,000 units), is not sufficient to cover the assigned mission of the flight.

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Hq 32d AD(D) OCE Subj: Inadequate Electronic Countermeasure Trg

4. It is therefore proposed that action be taken to procure additional chaff for the 4713th Radar Evaluation (ECM) Flight. In addition it is requested that authority be granted to equip aircraft within the Division with chaff dispensers and/or a supply of chaff to supplement those aircraft assigned to the 4713th Radar Evaluation (ECM) Flight. It is anticipated that with the chaff dispensers the Division can plan and execute missions which will afford the Fighter Interceptor Squadrons and ACW Squadrons training in anti-jamming techniques against mechanical jamming.

5. A coordinated program for the improvement of electronic countermeasures equipment and techniques, both active and passive, is a definite requirement. We are falling short of our goals in the present ECM program due to lack of facilities to accomplish this training. It is imperative that aggressive action be taken to provide the necessary facilities at the earliest possible date.

ROBERT S. ISRAEL, JR  
Colonel, USAF  
Commander

CONFIDENTIAL<sup>2</sup>

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C O P Y

Report of ECM Mission  
Conducted by the 4713th Radar  
Evaluation (ECM) Flight, 25 June 1954,  
Against 654TH AC&W Squadron

1. Captain Michael J. Kentosh of the organization conducting the ECM mission reported to this unit at approximately 1545Z, 25 June 1954. There was no briefing or forewarning of the mission.
2. The 32nd Air Division ADCC informed this unit at 1609Z that P-14 and P-50 were experiencing electronic and window jamming in the DA Area.
3. P-13 experienced electronic jamming (CW Condition 3) from 300° T to 030° T with the strongest strobe at 305° T approximately 5° wide at 1610Z. The Vertical and Slant lower beams were affected. The FTC, AVC, And DBB Anti-Clutter circuits were ineffective. The intensity of the jamming increased to Condition 5 on the same two beams at 1615Z. Changes in frequency were ineffective due to the ability of the jamming aircraft to shift frequency. D/F cuts from P-14, and P-50 and 1610Z were parallel to cuts from this unit indicating that there were more than one jamming aircraft in the general area. A D/F cut from P-10 indicated that the jamming aircraft was over this installation after the Condition 5 was experienced. This Condition of intensity on the Vertical and Slant lower beams existed until 1715Z when it ceased completely. This aircraft became Track A38A.
4. The Vertical Antenna was placed at a negative 1° tilt and the Slant Antenna was placed at 4.5° at 1618Z. Results of this action reduced the effectiveness of the jamming to zero as the Vertical Center beam became the search beam and the jamming operator apparently failed to sense the change. The search ability of this unit was reduced approximately 25%, however, the jamming aircraft was reducing the search ability to near zero prior to this Anti-jamming measure.
5. At 1612Z this station detected an aircraft in the center of the strongest strobe (305° 45 miles) which was believed to be the jamming aircraft. ManIntosh White, 2 F86F's, were diverted from CAP for this Track (A38A) under P-13's control. The Tally Ho-Pounce were accomplished in EP 5055 at 1624Z. The target was recognized as AF 272695, a C-54, with four or five radomes mounted on it. This intercept was completed with the antenna tilted as listed in paragraph four.
6. Voice and CW modulated jamming of the tactical UHF frequencies began at 1620Z and continued until 1715Z. The jamming followed channel switching with minimum delay. Considerable difficulty was experienced by interceptor pilots and directors in working through the

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jamming. Intercepts were completed in spite of the jamming. The most effective means of completing voice transmissions involved a quick short transmission by the director and the pilot acknowledging receipt and understanding by switching IFF modes for short periods of time. Frequencies jammed were 364.2, 239.2, 351 and 243 mc.

7. Jamming bearings received from adjacent stations for triangulatory purposes were not of much value since most of them were parallel. One triangulation located the jammer in a false position. Another triangulation did locate the jamming aircraft (Track A 38A) after it had been intercepted.

8. Unknown Track VA6E was cross told to this station. Control of one F-86D, Lolly-Pop Red, was passed from P-14 to P-13 to P-10. Lolly-Pop Red got a Tally-Ho on the target just as control was being passed from P-13 to P-10. Tally-Ho was accomplished at 1653Z in DN 2530 and recognized as a B-29. The UHF jamming seriously hampered communication between P-13 and Lolly-Pop Red. Some confusion ensued as to fuel status of Lolly-Pop Red. The pilot stated to P-10 that he had sufficient fuel remaining after the intercept and that he would return to his home base which he did without incident.

9. Ablaze Red (1 F-94C) was scrambled for Track VA6E at 1646Z and was airborne at 1649Z. Intercept was accomplished on VA 6E at 1704Z in DN 5920. The aircraft intercepted was a B-29, AF 3019.

10. Track A39A was declared unknown in EP 3234 at 1652Z. Ablaze White, a single F-94C was scrambled at 1652Z and was airborne at 1700Z. Tally-Ho was accomplished in EN 2050 at 1733Z. Pounce was accomplished in EN 1850. The aircraft was recognized as a C-54, AF 272695, the same aircraft intercepted earlier by MacIntosh White. This C-54 had remained close to this station and was in the ground clutter during most of the jamming period.

11. Comments: This mission was of great value to this unit. Capt Kentosh, informed personnel of the unit that there were additional aircraft scheduled through this subsector which were not detected. Particular attention was paid during the entire mission to prevent such an occurrence. A calculated risk was taken in tilting the antenna, however, even with the tilt it was expected that targets in the area through which it was later learned that the additional two B-29's were to have penetrated would have been picked up. Other traffic in these areas were effectively tracked. The original purpose in tilting the antenna was to coach the jammer off the vertical beam and on to vertical upper. The jammer did not fall for the ruse. Previous use of the Anti-clutter circuits failed to reduce the jamming and the jammer followed all attempts at frequency changes. Aside from the tilting and use of the Vertical Center beam for search nothing alleviated the Condition 5 jamming.

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The voice jamming was particularly annoying. While intercepts were completed in spite of it, it is suspected that the jammer could have more effectively jammed the radio channels. The limited number of channels available make this phase of the problem particularly difficult to solve. This unit is presently studying the feasibility of solving the 90° beam intercept problem prior to issuing the scramble order, during the bogey and its associated positioning lines on the intercept table and computing the scramble vector so that it will intersect one of the positioning lines in a tactfully advantageous position. The fighter pilot would be given the scramble vector, the final intercept heading, antenna train angles, the radio channel to monitor, and the code word to indicate to the pilot to take the 90° beam intercept heading prior to take off. No transmission would be made except the code word when the fighter reaches the positioning line. This is a rather grandiose scheme, however, this mission illustrated the mobility of channel switching to effectively combat radio jamming when the jammer makes a determined effort to accomplish his mission. It is believed that the weakness of the present system in this area has been underestimated.

This mission caught the unit unaware and was especially valuable for that reason. The aircraft which penetrated this sub-sector took no action that a potential enemy could not have taken. **It appears that, only** one of the three B-29's was detected and intercepted. It is pertinent, however, that, had the jammer been destroyed, the likelihood of detecting and destroying the other aircraft would have been increased. The jammer in this case could have been destroyed.

Weaknesses in the internal organization of the operations room were detected and steps are being taken to correct them. The biggest difficulty was in getting information to and from the directors controlling the aircraft. A previous solution to this difficulty involved the use of the recorders and it has been directed that their use be discontinued. The likelihood of the jamming aircraft's orbiting the site hadn't been considered and it confused the operations personnel for a while. The effect of this tactic approximate the same condition had a jammer been parachuted or smuggled into close proximity to the site. END

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HEADQUARTERS  
764TH AIRCRAFT CONTROL AND WARNING SQUADRON  
ST. ALBANS AIR FORCE STATION  
Stt. Albans, Vermont

OPNS

30 Jun 1954

SUBJECT: Report of Jamming Mission

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. In compliance with your message ACF OCE 06027, 26 June 1954, the following information is submitted.

a. At 1600Z seven (7) Lollypop F-86D's were airborne on a local training mission under Moscow's control. All seven (7) of these aircraft were in the process of making a GCI-ILS letdown, thus saturating Moscow's control capabilities with regard to qualified directors present. The existing weather was 3000 broken, 8500 overcast, 20 miles visibility at Burlington. f

b. At 1602Z P-14 encountered jamming (condition 5) on VC and VL. At this time all adjacent stations were notified. Radar Maintenance immediately identified the jamming as noise and frequency modulated and started taking countermeasures by shifting the frequency 2 megacycles either side of the operating frequency but this had no effect on the jamming. The scope camera was turned on to photograph the jamming on the scope.

c. At 1608Z the jamming appeared on 8U and WU (condition 5). SL was the only beam clear of the jamming.

d. At 1610Z the jamming was most intense from 240° to 330°. Amazon advised that a mission ECM aircraft was the source of the jamming. P-14 estimated the aircraft's position between 290° and 310° from 50 to 100 miles. At this time P-14's radio channels (UHF) were jammed with noise and voice transmissions. This jamming swept through channels 6, 9, 10 and 12.

e. P-14's Senior Director decided not to scramble Lollypop Red because it would be impossible to make radio or radar contact with the fighters. This radio and radar jamming also endangered the seven (7) local F-86D's making their letdown at this time, because P-14 could not keep positive radio or radar contact with them.

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Subj: Report of Jamming Mission .....CONT'D

f. At 1613Z Wild Bill reported Window jamming and electronic interference on Amber 7 airways.

g. At 1615Z jamming (condition 5) still on radar beams and countermeasures (shifting frequencies) still not effective. Also at this time Blackbird informed Moscow that they had picked up an aircraft flying a distress triangle over a point fifteen miles south of Burlington. Moscow was unable to confirm this information because of the intense radio and radar jamming.

h. At 1618Z jamming (condition 2) appeared on VL, VC, VU and SU. There was strong railing effects. P-14 lowered the antenna to -1° and located the jamming aircraft between 300° to 330°.

i. At 1620Z Blackbird reported track VA6E was unknown. The target position at this time was DA 2828 and heading almost due south. Blackbird did not believe that they would be able to scramble on this track.

j. At 1624Z Blackbird advised that track VA6E was still unknown to them and they were unable to scramble. They advised P-14 that VA6E would penetrate the area. Blackbird requested Moscow to scramble on this track. Blackbird was advised that scramble action would be taken after penetration.

k. At 1626Z VA6E was 1 mile north of the border holding a southbound heading and still unknown. Lollypop Red was scrambled. Control of the fighters was difficult due to the radio and radar jamming. Red 1 was controlled by P-14 until contact was lost with the target aircraft. Wild Bill then took control of Red 1 and while under their control a tallyho was made. While under control of Wild Bill Red 1 used a system of IFF mode changes to roger for instructions.

l. It could not be determined by P-14 or P-13 if Lollypop Red was going to land at BTW, CEF, FMH or Logan International Airport. This was due primarily to the extreme radio jamming encountered. Lollypop Red landed at BTW without incident.

m. The Senior Director decided not to scramble Red 2 due to the traffic in the Montreal area. The target aircraft's position was in this general area.

n. At 1629Z jamming (condition 5) existed on VC, VL, VM and Scramble Action was initiated on E39E Unknown track.

o. At 1633Z, E39E was identified as a Big Photo and the scramble was cancelled.

Subj: Report of Jamming Mission.....CONT'D

p. At 1650 Z the jamming ceased. Amazon and adjacent stations were notified.

q. At 1653Z jamming started again (condition 5 on VC and VL). P-14 unable to locate exact position of target aircraft.

r. At 1700Z jamming (condition 5) still existed. P-14's Senior Director decided to scramble. The radio jamming stopped. There were several aircraft in the area who could have been the target aircraft and Lollypop Red 2 was scrambled to try and determine which of the aircraft were doing the jamming.

s. At 1712Z Lollypop Red 2 was airborne heading toward the general area of the target. (Condition 5 still existed).

t. At 1748Z Lollypop Red 2 pancaked after searching the entire area. The only aircraft Lollypop Red identified was a Bristol Freighter.

u. After the jamming ceased, Amazon identified the jamming aircraft as Freak Show Able, a B-25 type aircraft.

2. The anti-jamming countermeasures employed during this mission were as follows:

a. All beams that were saturated by the jamming had the gain turned down on these to the lowest practical point. This practice continued throughout the mission.

b. All anti-clutter circuits were employed during this mission to maximum.

c. Scope operators changed beam positions and adjusted the gain on their scopes.

d. Beam VIM was taken out of VCIM while VCM was not being jammed and the antenna was lowered to increase coverage on VCM.

e. A local modification allows slant presentation on PPI scopes and SUM was taken out of SLUM while SUM was being jammed.

f. The rate of antenna rotation was lowered from 6RPM to 4RPM to facilitate pick up.

g. The radar operating frequency was shifted 2 megacycles but this had no effect on the jamming.

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Subj: Report of Jamming Mission.....CONT'D

3. Throughout the entire mission the jamming on P-14's equipment, both radio and radar was very effective. At no time could the jamming aircraft be positively identified on the weapon in that the radio channels were being jammed on a sweep-through basis the time any particular channel was being jammed was necessarily limited but it was still very effective.

4. REMARKS: This mission was very unrealistic because the jamming aircraft came through P-14's area from the east and started his jamming close in to this station. If the target aircraft came down from the north he would have required identification by the Canadian station or declared unknown. Also if aircraft had employed any jamming on a southbound heading, the target would have been neutralized.

a. On inclosed photographs the clock is in error. At the time pictures were taken, clock was not operating. Also disregard markings on photographs that show Thinkfast # 5. This identification card was not changed in the hast to get scopephotos made.

FOR THE COMMANDER:

3 Incls:  
1st Incl: 35 photos  
2nd Incl: Overlay  
3rd Incl: ADC Form 143  
(5 cys)

WILLIAM J. BUCHANAN  
1st Lt., USAF  
Adjutant

SECRET

## REPORT OF JAMMING TRAINING

RES: 2-ADC-V4

TO:	THROUGH:	COPY TO:	FROM:
EASTERN AIR DEFENSE FORCE	32ND AIR DIVISION (DEFENSE)	4711TH DEFENSE WING	764TH AC&W SQUADRON
STEWART AIR FORCE BASE	SYRACUSE AIR FORCE STATION	PRESQUE ISLE AFB	ST. ALBANS AFS
NEWBURGH, NEW YORK	EASTWOOD STATION 6	PRESQUE ISLE, MAINE	ST. ALBANS, VERMONT
	SYRACUSE, NEW YORK		

Acft Radio Call Sign	Date	Time of Jamming		Type Run* (Big Photo)	Condi- tion	Jamming Agency	REMARKS: (Include ECM Operator's Name and Rank, if Big Photo)
		Started	Ended				
"Freak- show Able"	25/6/54	1602Z	1617Z		5	EADF	Electronic jamming on VC, VL And VCLM.
		1618Z	1629Z		2	EADF	Railing Jamming on VL, VCLM and VM.
		1529Z	1636Z		5	EADF	Electronic Jamming on VCLM, VM and VL.
		1655Z	1715Z		5	EADF	Electronic Jamming on VCLM, VL and VM.

ECM aircraft out of Rme. did not call us before he started jamming. He was also jamming Egnog, and Wild Bill. Jamming was effective on the channels he tried but we still read through it. Amazon identified aircraft as a B-25 ECM aircraft "Freak-show Able".

OPERATIONS OFFICER:

GLENNON H. WITTBRODT, CAPTAIN, USAF

\*RR - Record Run

\*PRR Practice Record Run

†SAC Wing or TTAF when required (Ref ADCR 51-4 &amp; ADCR 50-8)

\* S - Spot Run

\*M - Malfunction

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C O P Y

HEADQUARTERS  
765TH AIRCRAFT CONTROL AND WARNING SQUADRON  
CHARLESTON AIR FORCE STATION  
Charleston, Maine

OPS

26 June 1954

SUBJECT: ECM Training

TO: Commander  
32nd Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. In compliance with your message ACF OCE 06027, the following summary is submitted:
  - a. At 1605 Zebra 25 June 1954 this station experienced CW jamming on radar, intensity varying from two (2) to three (3). Actions to counteract this jamming was initiated in accordance with existing directives.
  - b. Adjacent stations informed this Air Defense Direction Center of jamming and had informed us jammer was aircraft upon which intercept proceedings were in progress. Track C-10-C.
  - c. At 1625 Zebra this station experienced jamming on UHF frequency 364.20. Jamming was voice and what sounded like heavy static.
  - d. At 1630 Zebra this station affected counter measures on the scope jamming and completely eliminated it from the lower beam and nearly neutralized the jamming of our upper beam.
  - e. At 1640 Zebra this station diverted McIntosh White (2-F-86's) on to C-10-B, the jamming aircraft.
  - f. At 1646 Zebra McIntosh White tally ho on ECM aircraft.
  - g. At 1653 Zebra all McIntosh aircraft were either on five (5) or fifteen (15) minutes status.
  - h. At 1647 McIntosh White pounced on ECM aircraft. Identification was one (1) B-29, AF 1256.
  - i. At 1652 Zebra McWhite broke off from jammer.
  - j. At 1730 Zebra mission over.

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Hq 765th AC&W Sq, OPS, Subject: ECM Training (Cont'd)

2. Summary.

a. This mission was an effective test in that the surprise factor involved enabled an evaluation of limitations of this Air Defense Direction Center as to what would be encountered on an actual strike. It is believed that it was of great practical aid in the determining future preparedness and effectiveness of this station. The strength of the jamming on primary radar never exceeded the strength of four (4) and was never below two (2).

b. We received only spordic radio frequency jamming on UHF GCO common. The voice jamming transmitted at the time that controlled aircraft and GCI stations tried to contact each other was found to be effective enough to hinder to a large extent any attempt at aircraft control. The mechanical jamming was at an intensity too weak to make it difficult for aircraft control.

3. Recommendations.

a. Recommend that more missions of this type be conducted in the division more often.

FOR THE COMMANDER:

3 Incls  
1. ADC Form #143  
2. Overlay (1)  
3. Overlay (2)

JAMES C. HASTINGS  
2nd Lt., USAF  
Asst Adjutant

SECRET

TO:  
COMMANDER  
EASTERN AIR DEFENSE FORCE  
STEWART AFB  
NEWBURGH, NEW YORK

THROUGH:  
COMMANDER  
32ND AIR DIVISION (DEFENSE)  
SYRACUSE AFB  
EASTWOOD STATION 6  
SYRACUSE, NEW YORK

COPY TO:  
COMMANDER  
4711TH DEFENSE WING  
PRESQUE ISLE AFB  
PRESQUE ISLE, MAINE

FROM:  
COMMANDER  
765TH AC&W SQUADRON  
CHARLESTON AF STA  
CHARLESTON, MAINE

Acft Radio Call Sign	Date	Time of Jamming		Type Run (Big Photo)	Conditions	Jamming Agency	REMARKS: (Include ECM Operator's Name and Rank, if Big Photo)
		Started	Ended				
AF 1256	6/25/54	1605Z	1730Z		2 - 4	32ND	OPERATORS NAME UNKNOWN - THE RADIO JAMMING WAS ON JUST ONE (1) FREQUENCY (GCI COMMON UHF), IT WAS PRODUCED BY AF 1256 AND WAS INTERMITTENT AND RANGED FROM VERY GOOD TO GOOD RESULTING AT TIMES WITH COMPLETE LOSS OF CONTACT BETWEEN AIRCRAFT AND ADDC AND MAKING IT IMPOSSIBLE TO CONTROL FIGHTERS PROPERLY ENOUGH TO CONDUCT ACTIVE AIR DEFENSE MISSION. WHAT SOUNDED LIKE MECHANICAL JAMMING WAS LOW IN INTENSITY AND DID NOT HINDER CONTROL OF AIRCRAFT.

OPERATIONS OFFICER:  
s/t/ JOSEPH H. BYRNE  
1ST LT., USAF  
P-65 No. #50

\*RR - Record Run \*S - Spot Run  
\*PRR Practice Record Run \*M- Malfunction  
\*SAC Wing or TTAf when required (Ref ADCR 51-5 &  
ADCR 50-8)

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C O P Y

HEADQUARTERS  
766TH AIRCRAFT CONTROL AND WARNING SQUADRON  
CASWELL AIR FORCE STATION  
Limestone, Maine

Jun 28, 1954

SUBJECT: Report of ECM Mission of 25 June 1954

TO: Commander  
32nd Air Division/Defense/  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. In compliance with your message ACFOCE 06027, dated 25 June 1954, the following information is submitted on the ECM Mission of 25 June 1954.

2. We were off the air for five (5) minutes maintenance. At 1550Z when we came back on, a line ten (10) miles long, the width of a heavy range marker was positioned between Eaglebeak and Buckwheat on Canadian Red #1. This line was not moving. About two (2) minutes later an aircraft traveling southwest came through this line and headed down Canadian Red #1. While we were checking our own equipment for internal interference, Amazon called and alerted us to the fact that Buckwheat and Moscow were being saturated with electronic jamming. We advised Amazon that we were not affected but that we would scramble and check the southwest bound aircraft that we had on Canadian Red #1 (C-10). This aircraft turned south-east and started dispersing chaff. This made a scope presentation of a heavy range marker or just a continuation of the radar blip. An aircraft could not be painted at the head of this line or in it. The chaff was very slow to disperse. This line extended forty (40) miles and then stopped. Then two (2) more blips of chaff were painted in the next thirty (30) miles, each about ten (10) miles apart. An aircraft was finally painted about fifteen (15) miles in the lead of this last blip. It was in a direct line drawn through the solid chaff and the two (2) scattered blips of chaff. In twenty (20) minutes time this line of chaff developed into a rectangle forty (40) miles long and ten (10) miles wide, but seemed thin. We had scrambled Smokering Red to investigate the area a little ahead of the chaff. When the aircraft appeared we intercepted it with Smokering Red. We used the altitude of the chaff (20,000 feet) as our fighter altitude. After identification as B-29, AF1256, we maintained surveillance until advised by Amazon to break it off.

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Hq 766th AC&W Sq, Caswell AF Sta, Limestone, Me., Subj: Report on  
ECM Mission of 25 June 1954, (Cont'd)

3. We had some weak interference on our UHF channels. We used channels 8, 10, and 12. Interference took the form of someone quacking like a duck, giving radio checks with the call sign "Moscow" and singing "On Top of Old Smokey". All this interference was so weak that the fighter and the controller could continue right through it.

FOR THE COMMANDER:

1 Attach:  
Overlay (2 cys)

DOYLE F BOUTWELL  
Captain, USAF  
Adjutant

Info cy:  
4711th Def Wg

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C O P Y

SECRET

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OCE

17 Jul 1954

SUBJECT: ECM Penetration Mission - 25 June 1954

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. This mission was an effective test of the AC&W and Fighter-Interceptor Squadrons' capabilities under ECM conditions. Introduction of the element of surprise permitted evaluation of ECM techniques and status of training of operational personnel in the tactical application of ECM. Missions of this type definitely increase the capabilities of operational personnel to cope with jamming in the event of an actual jamming attack.

2. It is highly recommended that more missions of this type be conducted in lieu of familiarization missions. Operational personnel receive more training in the tactical application of ECM during this type of mission than is possible through familiarization missions and/or ground training. The fighter-interceptor pilot and radar operators also receive valuable training in ECM during these missions.

3. It is suggested that the following recommendations be incorporated in future missions:

a. A code name be assigned to the mission with an additional recall word to withdraw the mission in case of an emergency.

b. Increase the amount of communications jamming and deception.

c. Recommend jamming of airborne equipment and use of chaff during interceptor attack phase.

d. When a mission aircraft has been intercepted he immediately turns off his jamming equipment and descends below radar coverage. He will then proceed to an alternate position to re-enter the mission. By so doing more squadrons can participate in the mission.

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HQ 32D AD(D) OCE SUBJECT: ECM Penetration Mission - 25 June 1954

e. Further recommend that the Division ECM Officer be notified in advance of scheduled penetration missions so that he can observe the mission at an AC&W Squadron.

FOR THE COMMANDER:

6 Incls	HENRY R BROWN
1. Ltr fr 765th AC&W Sq, w/3 Incls (1cy ea)	Major, USAF
2. Ltr fr 764th AC&W Sq, w/3 Incls (1cy ea) (Incl 1 (35cys), (Incl 2(1cy))(Incl 3(1cy)	Adjutant
3. Ltr fr 656th AC&W Sq, w/1 Incl (1cy ea)	
4. Ltr fr 762d AC&W Sq, w/2 Incls (1cy ea)	
5. Ltr fr 766th AC&W Sq, w/1 Incl (1cy ea)	
6. Ltr fr 654th AC&W Sq, w/2 Incls (1cy ea) (Incl 2 a,b, & c)	

SECRET

SECRET

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOCE-E

22 March 1954

SUBJECT: (Unclassified) Redesignation of Mobile Radar Site Designation  
Prefix

TO: Commanders, Air Divisions (Defense) and Defense Wings

1. Those radar programs designated as First, Second, Third and Fourth Phase Mobile Radar Programs have been redesignated as follows:

a. 1st Phase Supplemental Radar Program - site numbers will carry prefix "F".

b. 2nd Phase Supplemental Radar Program - site numbers will carry prefix "S".

c. 3rd Phase Supplemental Radar Program - site numbers will carry prefix "T".

d. 4th Phase Supplemental Radar Program - site numbers will carry prefix "R".

2. Three Canadian sites (Sultan, Ontario; Mattawa, Ontario and Warton, Ontario) have been deleted from the program with the low level coverage of those areas to be provided by automatic gap fillers. In accordance with the USAF policy that the 1st Phase Program remain at forty four (44) sites - S-132 (Ft. Dearborn, New Hampshire) and S-133 (Elizabethtown, Pennsylvania) are redesignated as F-104 and F-107 respectively.

3. For your information, thirteen (13) 1st Phase sites and one 2nd Phase site are assigned Headquarters Eastern Air Defense Force. Sites assigned are listed as follows:

a. 26th Air Division (Defense)

(1) F-107 - Elizabethtown, Pennsylvania

(2) F-121 - Bedford, Virginia

(3) F-123 - Berlin, Maryland

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Hq EADF EAOCE-E Subj: (Uncl) Redesignation of Mobile Radar Site  
Designation Prefix (Contd)

b. 30th Air Division (Defense)

- (1) F-105 - Alpena, Michigan
- (2) F-106,- Two Creeks, Wisconsin
- (3) F-109 - Grand Marais, Michigan
- (4) F-119 - Fire River, Ontario
- (5) F-120 - Peninsula, Ontario
- (6) F-131 - Owingsville, Kentucky
- (7) S-137 - Carmi, Illinois

c. 32d Air Division (Defense)

- (1) F-102 - Cape Sable, Nova Scotia
- (2) F-103 - North Concord, Vermont
- (3) F-104 - Ft. Dearborn, New Hampshire
- (4) F-110 - Buck's Harbor, Maine

BY ORDER OF THE COMMANDER:

s/t/ JAMES R. WORLINE  
Capt., USAF  
Asst. Adjutant

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

SUBJECT: Second Phase Mobile Radar Program 26 April 1954

1. The Second Phase Mobile Radar Program has been approved by Headquarters USAF for implementation, subject to ADC capabilities to provide the necessary personnel and equipment from resources presently programmed for ADC.
2. In addition to the first phase mobile radar sites established within ADC, Headquarters USAF has approved a program to provide additional mobile radar stations (second phase) for ADC which are required to complete the double perimeter concept around the three critical target areas within the United States, and to fill existing low level gaps along the Northeast and West coasts.
3. EADF is responsible for one site at the present time, and upon completion of the 1955 reorganization, we will gain eight additional sites for a total of nine. Siting has been completed on the site for which we are responsible. This site is as follows:

Site	Location	Sq	Function	Equipment	Off	Ann	Programmed B.O. Date
SM 137	Carmi, Ill.	704	Surveillance	TPS-1D	4	68	3QFY 55

The following sites will be gained from CADF following the 1955 reorganization:

Site	Location	Sq	Function	Equipment	Off	Ann	Programmed B.O. Date
SM138	Grand Rapids, Minn.	707	Direction Cen	FPS3, FPS6	23	184	3QFY55
SM139	Willmar, Minn.	721	Direction Cen	FPS8, FPS4	20	157	4QFY55
SM140	Sioux City, Ia.	722	Surveillance	TPS-1D	4	77	4QFY55
SM141	Fall City, Neb	723	Surveillance	TPS-1D	4	79	4QFY55
SM142	Nevada, Mo.	724	Surveillance	TPS-1D	4	79	3QFY55
SM143	Walnut Ridge, Ark.	725	Direction Cen	MFS-11	23	179	3QFY55
SM144	Union City, Tenn	730	Surveillance	TPS-1D	4	77	3QFY55
SM145	Joelton, Tenn	799	Direction Cen	MFS-11, TPS-10D	19	170	3QFY55

4. As automatic remoting equipment becomes available, some of the sites with surveillance functions will be able to reduce their personnel requirements, since it will be possible to remote information received at these sites to adjoining permanent sites.

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HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADOCE-A

18 June 1954

SUBJECT: (Unclassified) Bi-Weekly AC&W Status Report

TO: All Recipients of Report

1. This report supersedes the report dated 4 June 1954, subject as above, which may be destroyed. Report of destruction is not required by this headquarters.

2. 1st Phase Semi-Mobile Radar Program

a. There are 44 radar sites programmed in the 1st Phase. Implementation status is as follows:

- (1) This headquarters has approved 39 site survey reports, including M-114 (see below). Construction directives have been issued for 23 sites. Construction contracts have been awarded for 13 sites.
- (2) Three sites (M-102, Barrington, N.S., Can; M-119, Oba, Ont., Can.; and M-120, Marathon, Ont., Can.) are being held in abeyance pending finalization between Canadian and U.S. government representatives.
- (3) Site M-114 (Fernandina Beach, Fla.) is being held in abeyance pending finalized agreements with the Navy for use of their radar. A preliminary meeting has been held and agreement reached between USN and USAF to utilize the Navy radar at Cecil Field NAS in lieu of ADC equipment at Fernandina Beach.
- (4) Site M-124 (Pope AFB, N.C.) is being resurveyed from Aberdeen, N.C., so that TAC radar equipments may be used as primary search and height finder.
- (5) One site (M-116, Englehard, N.C.) is being resurveyed toward the probably combined use of facilities at Cherry Point MCAS, N. C.
- (6) Construction will be delayed on M-99 (Gettysburg, S.D.), M-101 (Rochester, Minn.) and M-122 (Dallas Center, Iowa) due to difficulty in land procurement.

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Hq ADC ADOCE-A Subj: (Uncl) Bi-Weekly AC&W Status Report (Cont'd)

3. 2d Phase Semi-Mobile Radar Program

a. There are 25 sites authorized for the 2d Phase. Implementation status of these sites is as follows:

- (1) This headquarters has approved 24 site survey reports. Design directives have been issued on 21 sites. No construction directives or contracts have been issued to date.
- (2) One site (SM-153, Kamloops, B.C., Can.) is being held in abeyance pending finalized agreement between U.S. and Canadian government representatives.
- (3) This headquarters has requested USAF to withhold action on one of the 24 ADC approved sites (SM-148, Robins AFB, Ga.), pending a decision on use of TAC radar equipment. This site was formerly programmed for Dublin, Ga.
- (4) Two site survey reports (SM-147 and SM-151) were forwarded to USAF on 28 April 1954 and 7 April 1954 respectively, and to date no design directives have been issued.

4. 3d Phase Semi-Mobile Radar Program

a. There are 29 radar sites in the 3d Phase Program. The siting directive for these sites has been forwarded to the air defense forces for implementation. The proposed squadron numbers are included herein on a one time basis. Site surveys are presently being conducted.

5. Gap-Filler Radar Program

a. Of the 323 unattended Gap-Filler Radars programmed for ADC, 125 will be in the first phase (FY 54-55 budget). These will be identified by a letter suffix added to the site number of its parent radar site. Final location of these sites will be determined only by the siting teams after thorough investigation of the area of responsibility has been completed. Site surveys are presently being conducted.

6. Corrections should be submitted for PC changes in any case where ADC radar equipment is listed in the Bi-Weekly Report but not shown in the current PC. Except for equipment of other commands, the equipment shown in the latest Bi-Weekly Report and the current PC should agree.

7. The next edition of the Bi-Weekly AC&W Status Report will be published as of 2 July 1954. It is requested that this headquarters,

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Hq ADC ADOCE-A Subj: (Uncl) Bi-Weekly AC&W Status Report (Cont'd)

Attn: ADOCE-A, be advised by 30 June 1954 of any changes to the report.

BY ORDER OF THE COMMANDER:

s/WILLARD L. WORDEN, Lt Col  
t/HASKELL E. NEAL  
Colonel, USAF

Director of Communications & Electronics

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March 1954

SUBJECT: Briefing on the EADF Mobile Radar Program

BY: Col J. F. Kirkendall, Director of EAOPM

This morning my briefing will consist of bringing you up-to-date on the status of the First and Second Phase Mobile Radar Programs, as well as to bring you up-to-date with the AC&W units that EADF is responsible for deploying. First, let us review the mobile radar program.

In addition to the 75 permanent radar sites established within ADC, USAF has approved a program to provide additional mobile radar stations (first and second phase sites) which will be located to provide low altitude coverage in areas where coverage is inadequate, and to fill existing gaps in the radar network which is required by the double perimeter air defense system concept. The term mobile radar is a misnomer. Although each site is mobile, USAF and ADC have indicated that a capability of moving all technical facilities within two weeks would satisfy the requirement for mobility. Sites should be more accurately described as semi-fixed although mobile. All radars will be tower mounted, type of tower varying from a 25 foot steel tower furnished with the FFS-8 and MPS-11 to a light wooden affair for the TFS-1D. Prefabricated buildings will be used at all sites.

At this time EADF is responsible for 14 first phase mobile radar sites and three second phase mobile radar sites, and upon completion of the 1955 boundary reorganization, EADF will gain 7 additional first phase sites and 9 second phase sites from CADF which will give EADF a total of 21 first phase sites and 12 second phase sites.

Let us now take the first phase mobile program. I will cover the sites for which we are presently responsible and then cover the first phase sites which we will gain from CADF following the 1955 boundary reorganization.

(I suggest that here we cover the site, its present and ultimate location, the present status of each site, the function of each site, the support base designated for each site, the Wing which has the responsibility for manning, and the programmed beneficial occupancy. Radar equipment can be covered at this time if desired. It should be pointed out here that the responsibility for manning of the Canadian sites has not yet been designated. Two plans have been considered, one is to bring the units up to strength at Grenier prior to movement to Canadian sites; if this plan is adopted the manning

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responsibility in the event this plan is adopted will fall upon the Wing which is closest to the Canadian site.)

All actions required to prepare any given site for integration into the AC&W system are primarily influenced by the availability of the radar gear and other materiel, therefore, I will cover materiel buildup simultaneously with the personnel buildup. It is currently planned to assign a supply officer and two supply airmen to each unit at least 120 days prior to the beneficial occupancy date. These personnel should be further detached to the support base and their primary mission will be to prepare all requisitions for UPREAL property and submit these to the base supply. Following the completion of this action, these personnel will supervise the receipt and storage of the equipment as it is received at the support base, and, in addition, at this time the development of the UAL should begin.

When the beneficial occupancy date of the site is assured, the supply personnel should then go to the site, and the equipment which has previously been received at the support base should be delivered to these personnel at the radar site. These personnel can also continue with the development of the UAL.

Up to now no mention has been made of radar gear. The radar gear for the sites is project equipment, and as such, will be the responsibility of AMC to deliver and install. As the construction contracts are let, Headquarters ADC will be advised, so that ADC can apprise AMC as to the date when radar equipment should arrive at the site. This is determined by contact with the contractors (ADC).

Phasing of personnel into the site should be geared with the beneficial occupancy date and the arrival of equipment, so that the personnel to be assigned to units located at these sites can be retained in the permanent system until actually required at the mobile site. The initial cadre of personnel should begin arriving at the site on the beneficial occupancy date. These personnel should consist of mainly housekeeping and administrative personnel who will be utilized to supervise the administration of the unit and to make the site suitable for occupancy. It is anticipated that it will take approximately 3 weeks to 30 days following the beneficial occupancy before the radar equipment is operational and accepted by DC&E; therefore, maintenance and operational personnel should not begin arriving at the site until just prior to this time.

Radio equipment and the wire equipment necessary to tie into the air defense system should also be programmed so as to arrive at the site in sufficient time to insure that the site can become operational as the radar becomes operational. Wire communication into the site is the responsibility of a commercial telephone company and the wire installation

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within the AF station is a responsibility of AMC. ADC has indicated that the Rome Air Depot has been furnished data to enable them to engineer on-base installation of telephone equipment, and that liaison with the commercial companies has been established and plans have been made to provide communications to the AF station as soon as the right of entry has been provided.

Following the arrival of the maintenance and operational personnel, training can be commenced and preparation made to integrate the site into the air defense system at approximately beneficial occupancy plus 60 days. It is anticipated that the second phase mobile sites will be handled in much the same manner as the first phase mobile sites. The second phase mobile sites will now be covered.

Previous program information available to this headquarters has indicated that this command would be responsible for activating, manning, and deploying seven AC&W squadrons to NEAC. Considerable difficulty was encountered in the activation, manning, and deploying of five similar units during this past year. A study was made, and it was determined that it would be far more economical to activate future squadrons programmed for NEAC at NEAC itself. As a result of this headquarters recommendations, ADC has now taken action to delete two of the squadrons and to reprogram the activation of two additional squadrons at NEAC as recommended. The current responsibility for this command will be to activate, man, and deploy only three AC&W squadrons from Grenier. These units will be deployed to Iceland. The current ADC program indicates that two squadrons will activate in May 1954 and a third in 1QFY55. These units are programmed to deploy 1QFY55. Approximate personnel strength for each of these units is 12 officers and 109 airmen.

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HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADOCE-A

20 Feb 1954

SUBJECT: (Unclassified) Bi-Weekly AC&W Status Report

TO: Commander  
Eastern AirDefense Force  
Stewart Air Force Base  
Newburgh, New York

1. Attached report is the first edition of the "AC&W Status Report" which will be published as of the first and third Fridays of each month. The report will normally cover 1st and 2d phase supplemental radar program; however, from time to time the current status of the "P" program will be inserted, and when appropriate the 3d phase will be presented. It is requested that any recipient of this report, finding errors which should be corrected, advise this headquarters immediately so that the next edition will carry the corrected information.

2. 1st Phase Supplemental Radar Program

a. Of the 44 radar sites in the 1st phase program, 35 site surveys have been approved by this headquarters and forwarded to Headquarters USAF. Twenty-eight (28) of these have been approved by Headquarters USAF. Of the remaining nine sites, three Canadian sites (F-102, 119, 120) are under study by this headquarters and RCAF; two sites (F-92 and 96) are under consideration by Headquarters USAF for replacement by a single site; three sites (F-114, 116 and 124) are being held in abeyance pending arrangements with other commands for combined use of their radars; and one site (F-130) being resurveyed because of real estate difficulties.

b. Construction contracts have been awarded on two sites, F-129 and F-131, with estimated completion 27 June 1954 and 23 September 1954, respectively.

c. Three Canadian sites (Sultan, Ont; Mattawa, Ont.; and Warton, Ont.) have been deleted from the program with the low level coverage of these areas to be provided by automatic gap fillers. In accordance with the USAF policy that the 1st Phase Program remain at 44 sites--S-132 (Ft Dearborn, N.H.), S-133 (Elizabethtown, Pa.) and S-136 (Bowling Green, Mo.) are redesignated as F-104, F-107 and F-108 respectively.

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Hq ADC, ADOCE-A, Subj: (Uncl) BI-Weekly AC&W Status Report (Cont'd)

3. 2d Phase Supplemental Radar Program'

a. The number of sites in the 2d phase program has been reduced to 27. Of these 27 sites, 23 site surveys have been approved by this headquarters and forwarded to Headquarters USAF. Three of these have been approved by Headquarters USAF. Of the remaining four sites, one (S-153, Kamloops, B.C., Can.) is under study in this headquarters; two (S-147, Great Falls AFB, Mont., and S-151, Geiger AFB, Wash.) are being resurveyed by the defense forces; and one (S-140, Sioux City, Iowa) is being held in this headquarters awaiting additional information from Center Air Defense Force.

b. This program has been reduced to 27 sites for the following reasons:

- (1) One site (S-146, Okanogan, Wash.) deleted from the program with the low level coverage to be provided by an automatic gap filler.
- (2) Two Canadian sites (S-152, Nakusp, B.C., and S-154, Birken, B.C.) have been deleted from the program. S-153 (Kamloops, B.C.) provides adequate coverage in these areas, and low level coverage will be provided by automatic gap fillers.
- (3) In accordance with USAF policy of retaining the 1st Phase Program at 44 sites, three 2d Phase sites (S-132, S-133 and S-136) have been redesignated as F-104 (Ft Dearborn, N.H.), F-107 (Elizabethtown, Pa.) and F-108 (Bowling Green, Mo.) respectively.

c. With the change in site numbers (noted in paragraph 2b(3) above), it was possible to reassign a block of site numbers to the new Air Divisions (Defense). They have been assigned S-132 through S-136. This cancels all site numbers above S-166.

4. UHF Program

a. UHF Ground/Air equipment programed for "F" and "S" sites has been changed from AN/TRC-32 equipment to AN/GRC-27, AN/GRR-7/GRT-3. Any AN/TRC-32 units presently in use at any "F" site will be retained until programed equipment is available. Further, sufficient AN/TRC-32 units will be retained by ADC to provide interim Ground/Air UHF communications at any location where required in the future.

b. Rome Air Force Depot has released two TRC-32 units to L-33 (Portland, Oregon), for temporary use until F-100 is activated.

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Hq ADC, ADOCE-A, Subj: (Uncl) Bi-Weekly AC&W Status Report (Contd)

5. Arctic Towers. AN/FPS-8 Arctic Towers have been programed for use with AN/MP-11 radars at the following sites: F-93, F-100, F-102, F-103, F-110 and S-149.

BY ORDER OF THE COMMANDER:

1 Incl  
Bi-Weekly AC&W Status Report

t/TOMAS C. SAVAGE  
Major, USAF  
Asst Command Adj

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HEADQUARTERS  
AIR DEFENSE COMMAND

ADC Diary #32

16 February 1954

DEPUTY CHIEF OF STAFF, MATERIEL

E X T R A C T

1. (CONFIDENTIAL) M-SITE GENERAL: Information was received from the DC&E, this headquarters, that SM-146 Okanogan, Washington; SM-152 Napusp, B.C., Canada, and SM-154 Birken, B.C. Canada, are out of the program and will not be constructed. M-104 Tobermay, Ontario, Canada; M-107 Chapleux, Ontario, Canada, and M-108 Mattawa, Ontario, Canada, are out of the 1st Phase program and will be substituted by SM-132 Fort Dearborn, N.H.; SM-133 Elizabethtown, Pa., and SM-136 Bowling Green, Missouri. This information is the result of a meeting held in DC&E, 11 Feb 54, and has not been confirmed by Hq USAF. (Maj Johnson, 2629, Instl)

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

SUBJECT: EADF 1st Phase Mobile Radar Program 26 April 1954

1. In addition to the 75 permanent radar sites established within ADC, USAF has approved a program to provide 44 1st phase mobile radar sites which will be located to provide low altitude coverage in areas where coverage is inadequate, and to fill existing gaps in the radar network which is required by the double perimeter air defense system.

2. The term mobile radar is a misnomer. Although each site is mobile, USAF and ADC have indicated that a capability of moving all technical facilities within two weeks would satisfy the requirement for mobility. Sites should be more correctly described as "semi-fixed", although "mobile". All radars will be tower mounted, the type of tower varying from a 25 foot steel tower furnished with the AN/FPSS and AN/MPS-11, to a light wooden affair for the AN/TPS 1D. Prefabricated buildings will be used at all sites.

3. EADF is responsible for 13 first phase mobile radar sites at this time, and upon completion of the 1955 boundary reorganization, EADF will gain 8 additional sites for a command total of 21. Siting surveys for the sites which EADF is now responsible have been completed. Construction on the sites for which surveys have been completed is expected to be finished as indicated below. The thirteen EADF first phase sites are as follows:

Site	Sq	Location	Auth Str		Function	Equipment
			Off	Ann		
M 102	672	Barrington, N.S.	4	68	Direction Center	MPS11, TPS 10D
M 103	911	No. Concord, Vt.	19	170	Direction Center	MPS 11, TPS 10D
M 104	644	Ft Dearborn, N.H.	4	66	Surveillance	TPS1D
M 105	677	Alpena, Mich.	4	67	Surveillance	TPS1D
M 106	700	Two Creeks, Wis.	4	68	Surveillance	TPS1D
M 107	690	Elizabethtown, Pa.	4	46	Surveillance	TPS1D
M 109	906	Grand Marais, Mich	4	68	Surveillance	TPS1D
M 110	907	Bucks Harbor, Me.	4	66	Surveillance	MPS11
M 119	639	Oba, Ont.	17	167	Direction Center	MPS7, MPS 14
M 121	649	Badford, Va	15	153	Direction Center	MPS11, TPS10D
M 120	645	Marathon, Ont	15	153	Direction Center	TPS 1D, TPS10D
M 123	651	Berlin, Md	4	89	Surveillance	TPS 1D
M 131	809	Owingsville, Ky.	4	68	Surveillance	TPS 1D

4. Following the 1955 boundary reorganization, the following units will be gained from CADF:

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Site	Sq	Location	Auth Str		Function	Equipment
			Off	Ann		
M 101	808	Rochester, Minn.	4	77	Surveillance	TPS 1D
M 108	699	Bowling Green, Mo.	4	74	Surveillance	TPS 1D
M 115	701	Ft Fisher, N.C.	24	176	Direction Center	MPS 7, MPS 14
M 116	614	Englehard, N.C.	24	176	Direction Center	MPS 7, MPS 14
M 117	632	Roanoke Rapids, N.C.	19	167	Direction Center	MPS 11, TPS 10D
M 122	650	Dallas Center, Ia	15	147	Direction Center	TPS 1D, TPS 10D
M 124		Aberdeen, N.C.	19	167	Direction Center	TPS 1D, TPS 10D
M 130	810	Winston Salem, N.C.	19	167	Direction Center	MPS 11, TPS 10D

5. The following data concerning activation, location and disposition of 1st phase mobile AC&W squadrons is programmed as indicated.

Site	Sq	Activation or Location & Date	R	Ultimate	B.O.
				Location	Date
M 101	808	Ft Snelling, Minn	Now	Rochester, Minn.	Jul 55
M 102	672	Grenier		Barrington, N.Y.	Sep 55
M 104	644	Grenier		Ft Dearborn N.H.	Oct 54
M 107	690			Elizabethtown, Pa.	May 55
M 108	699			Bowling Green, Mo.	Jul 55
M 119	639	Grenier	3QFY55	Oba, Ont.	Sep 55
M 120	645	Grenier	3QFY55	Marathon, Ont.	Sep 55
M 106	700	Willow Run	Now	Two Creeks, Wisc.	Nov 54
M 105	677	Willow Run	Now	Alpena, Mich.	Nov 54
M 115	701	Dobbins AFB	Now	Ft Fisher, N.C.	Sep 54
M 103	911	Hancock AFS	Now	No. Concord, Vt.	Oct 55
M 116	614	Dobbins AFB	Now	Englehard, N.C.	Unk
M 109	906	Willow Run Aprt	Now	Grand Marais, Mich.	Nov 54
M 117	632	Dobbins AFB	Now	Roanoke Rapids, NC	Sep 54
M 110	907	Hancock AFS	Now	Bucks Harbor, Me.	Nov 54
M 122	650	Tinker AFB	Now	Dallas Center, Ia.	Jul 55
M 121	649	Roslyn AFS	Now	Bedford, Va.	Sep 54
M 123	651	Roslyn AFS	Now	Berlin, Md.	May 55
M 131	809	Willow Run Aprt	Now	Owingsville, Ky	Sep 54
M 130	810	Dobbins AFB		Winston Salem, NC	Unk
M 124	652	Dobbins AFB	Now	Aberdeen, N.C.	Unk

The aforementioned units that have been activated are presently being maintained at record strength.

6. Original plans called for "on-site" activation; however, the progress of construction at the sites was such that on site activation was impossible. The current plan is to assign the units to the wing which will have the ultimate responsibility of providing support for the units concerned. Instructions have been forwarded to each wing outlining their responsibilities of manning and supporting these units. A phased buildup of personnel following the beneficial occupancy date of the site is planned.

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOPM

29 Mar 54

SUBJECT: First Phase Mobile Radar Squadron

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. This command has 7 First PhastAC&W squadrons currently in a holding status at record strength pending completion of their ultimate sites. Five of these squadrons are located at division sites (649th AC&W Squadron, 26th Air Division site; 809th and 906th AC&W Squadrons, 30th Air Division site; 907th and 911th AC&W Squadrons, 32d Air Division site), the 677th AC&W Squadron is located at Fort Williams, Maine, and the 700th AC&W Squadron, at Grenier Air Force Base, New Hampshire. Authority has been requested, by letter this headquarters, EAOPM, 19 February 1954, Subject: Movement of the 677th and 700th AC&W Squadrons, to move the 677th and 700th AC&W Squadrons, less personnel and equipment, from their present location to the 30th Air Division site since their ultimate site is located in the 30th Air Division area.
2. It is proposed to assign these squadrons to the wing which will have the responsibility formanning these units and for furnishing logistical supervision for their sites in the near future. It is not desired to move these units to their sites prior to the beneficial occupancy dates of these sites. A request will be forwarded to your headquarters formovement of these units when beneficial occupancy dates are firm.
3. Approximately 90 days prior to beneficial occupancy date, it is proposed to increase the manning of each of these units by approximately one officer and two airmen who will be assigned to the unit concerned with duty station at thebase furnishing support for that site. These additional personnel will be assigned in order to initiate supply actions and will remain at the support base pending the beneficial occupancy of the site. The remainder of the authorized personnel will be assigned to the unit after the unit has been moved to the site.
4. It is requested that the plan as outlined in paragraphs 2 and 3 above be approved and that this headquarters be given authority to assign these AC&W squadrons to the wing concerned.

FOR THE COMMANDER:

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Hq EADF EAOPM Subject: First Phase Mobile Radar Squadron

ADOMO (29 Mar 54)

1st Ind

8 Apr 1954

HQ AIR DEFENSE COMMAND, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Authority is granted to assign the 649th, 809th, 906th, 677th, and 700th AC&W Squadrons to appropriate defense wings.

2. The beneficial occupancy date of the 907th and 911th AC&W Squadrons is June 1955. As it has not been determined what wings will be in existence at that time it is not desired to make wing assignment of these units at present.

3. Other instructions:

a. Report of completed action will be in accordance with Air Defense Command Regulation 20-1.

b. Additional distribution of order published to effect this action will be ten (10) copies marked for the Director of Manpower and Organization, this headquarters.

BY ORDER OF THE COMMANDER:

s/t/ JOHN J. HAYES  
CWO, USAF  
Asst Command Adj

C O P Y

JEPNB 8037  
NBBO44  
TMAO42  
TTCO25  
JEPHO 8012  
RR JEDEN JEDWF JEPNB JEPNY JWPMC 555  
DE JEPHO 280A  
R 312051Z  
FM HQ USAF WASH DC  
TO JEDEN/COMAIRDEFCOM ENT AFB COLO  
INFO JEDWF/COMAMC WRIGHT PATTERSON AFB OHIO  
JWPMC/COMWESAIRDEFOR HAMILTON AFB CALIF  
JEPNB/COMEASTAIRDEFOR STEWART AFB NY  
JWPMC/COMDR HAMILTON AFB CALIF  
JEPNY/COMDR ROSLYN AFS NY  
FROM CLN AFOOT-OC-C 36698

1. THIS IS A TELEGRAPHIC DAF MV DIR.
  2. IT IS REQ THAT NEC ORDERS BE PUB TO MVE THE FOLLOWING UNITS CMA LESS PERS CLN A. THE 651ST AC&W SQ FR HAMILTON AFB CMA CALIF TO ROSLYN AFS CMA NY. B. THE 677TH AC&W SQ FR FT WILLIAMS CMA ME TO WILLOW RUN AFS CMA MICH CMA AT THE EPD AFTER 15 APR 54. SPECIFIC REF IS DIR TO PAR 38C CMA AFR 35-13.
  3. THESE MVS CONSTITUTE A PCS. AFTER ARR AT NEW STATIONS CMA THE NITS W/B RE-ASSIGNED AS FOL CLN A. THE 651ST AC&W SQ FR THE 28TH ADIV TO THE 26TH ADIV. B. THE 677TH AC&W SQ FR THE 4711TH AIR DEF WG TO THE 30TH ADIV. C. THE 700TH AC&W SQ FR THE 4707TH AIR DEF WG TO THE 30TH ADIV.
  4. MV W/B MADE IAW APPL PROVS OF AFR a75-2 CMA 75-20 AND 75-38.
  5. UNITS WILL MV LESS EQUIP.
  6. DTS OF DEPT AND ARR OF UNITS W/B REPORTED BY MEANS OF THE AFOSCR PAREN RCS AF-01 PAREN. SPECIFIC REF IS DIR TO PAR 12E CMA AFR 75-20.
  7. IN ADD TO OTHER DISTR CMA TWO PAREN 2 PAREN CYS OF MV ORDERS PUB W/B FURN THE DIR/OPRS CMA DCS/O CMA HQ USAF.
  8. MV W/B ACCOM LISHED AT NO EXPENSE TO THE GOVT
- 31/2128Z MAR JEPHQ

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOPM

14 April 1954

SUBJECT: Movement Orders, 677th and 700th Aircraft Control & Warning Squadrons

TO: Commanders, 30th and 32d Air Divisions (Defense) and the 4707th and 4711th Defense Wings

1. Effective 22 April 1954, the 677th and 700th Aircraft Control and Warning Squadrons are moved, less personnel and equipment, as indicated:

<u>UNIT</u>	<u>FROM</u>	<u>TO</u>
677th AC&W Sq	Ft Williams, Maine	Willow Run AF Station, Mich
700th AC&W Sq	Grenier Air Force Base, N.H.	Willow Run AF Station, Mich

2. This movement constitutes a Permanent Change of Station and involves no expense to the government. Concurrent with the above action, the 677th and 700th AC&W Squadrons are relieved from assignment to the 4711th and 4707th Defense Wings, respectively, and are reassigned to the 30th Air Division (Defense).

3. Movement will be made in accordance with provisions of AFR 75-2, 75-20 and 75-38. Provisions of paragraph 38c, AFR 35-13, dated 10 April 1953, will be complied with by the wings and division concerned.

4. The pertinent provisions of the following directives are applicable:

AFM 171-6  
AFR 181-5

5. Upon completion of action directed herein, report of action taken will be made by means of the Air Force Organization Status Change Report (RCS AF-01). Specific reference is directed to paragraph 12e, AFR 75-20.

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Hq EADF, EACIM Subject: Movement Orders, 677th and 700th Aircraft Control & Warning Squadrons

6. Authority: Air Defense Command message, ADOMO 11139, 6 April 1954, and USAF message, AFOOP-OC-C 36696, 31 March 1954.

BY ORDER OF THE COMMANDER:

s/t/ JOHN L. WARREN  
Colonel, USAF  
Adjutant

DISTRIBUTION:

- 2 - Hq USAF, Directorate of Operations, DCS/O
- 5 - Hq ADC, Attn: M&O (Unit Con Hr)
- 15 - Hq EADF (Staff)
- 5 - AF Liaison O, Kansas City, Mo.
- 15 - Hq 30th ADiv (Def), Willow Run AF Sta, Belleville, Mich
- 15 - Hq 32d ADiv (Def), Syracuse AF Sta, Syracuse, NY
- 15 - Comdr 4707th Def Wg, Otis AFB, Falmouth, Mass
- 15 - Comdr, 4711th Def Wg, Presque Isle AFB, Presque Isle, Me
- 15 - Comdr 677th AC&W Sq, Fort Williams, Me
- 15 - Comdr 700th AC&W Sq, Grenier AFB, Manchester, NH
- 5 - EAOPM (EADF)
- 4 - EACST (EADF)

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, NY

GENERAL ORDERS ) 5 May 1954  
NUMBER 27 )

REORGANIZATION OF UNITS . . . . . SECTION I  
ASSIGNMENT OF UNITS . . . . . SECTION II  
REVISION OF GENERAL ORDERS . . . . . SECTION III

SECTION I

1. Effective 8 June 1954, the following units are reorganized with strength and T/O composition as indicated:

<u>UNIT</u>	<u>AUTH STR</u>
	<u>OFF AMN</u>
ACW Squadron 646	34 219
1-2129P, 1 Jan 52, 1 x Parts IIAH, CA, CC, CD, CH, OI, RA, RI, SK, SL, SM; 2 x Parts IICG, CI; 3 x Parts IIICE, OA; 14 x Part IIOH	
1-2129P-B, 15 Nov 52, 1 x Part IIAC (Remark 1 does not apply)	
1-4101, 1 May 52, 1 x Part IIICL	
648	32 205
1-2129P, 1 Jan 52, 1 x Parts IIAH, CA, CC, CD, CH, OI, RA, SK, SL; 2 x Parts IICG, CI; 3 x Parts IIICE, OA; 14 x Part IIOH	
1-2129P-B, 15 Nov 52, 1 x Part IIAC (Remark 1 does not apply)	
1-4101-B, 15 Mar 53, 1 x Part IIICL	

2. Required personnel will be furnished from sources available to the 4709th Defense Wing.

3. The above units are Category D units and are authorized Unit Essential and Base Support Equipment as listed in their Unit Property Record Equipment Authorization Lists. The UPREAL's will be prepared based on Columns 3A and B of the MEAL, and above T/O composition.

4. Pertinent provisions of AFM 171-6, June 1950, as amended, will apply.

5. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.

GO 27, Hq EADF (ADC), Stewart AFB, Newburgh, NY, 5 May 54 (cont)

6. Authority: Letter, AFOMO 160j, Department of the Air Force, 13 April 1954, Subject: Reorganization of the 646th and 648th Aircraft Control and Warning Squadrons, with Air Defense Command 1st Indorsement thereto, 20 April 1954.

SECTION II

1. Effective 15 May 1954, the following units are further assigned, without change in strength or station, as indicated:

<u>UNIT</u>	<u>FURTHER ASSIGNMENT</u>
ACW Squadron	Defense Wing
649	4710
677	4708
700	4706
809	4708
906	4706

2. Pertinent provisions of AFM 171-6, June 1950, as amended, will apply.

3. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.

4. Authority: Letter, EAOFM, Headquarters, Eastern Air Defense Force, 29 March 1954, Subject: First Phase Mobile Radar Squadron, with Air Defense Command 1st Indorsement thereto, 8 April 1954.

SECTION III

The rescission of EADF General Orders Number 62, 13 November 1952, effective 9 November 1953, is hereby confirmed.

BY ORDER OF : THE COMMANDER:

OFFICIAL:

GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

s/t/ J. W. FOUNTAIN JR.  
Major, USAF  
Asst Adjutant

DISTRIBUTION:

A plus  
30 - AAG, Hq USAF, Attn: Pub Div  
10 - Comdr, ADC, Attn: M&O (Unit Con Br)  
5 - AF Liaison O, Kansas City, Mo  
6 - EAOFM  
4 - EACST

SECRET

C O P Y

Support of Mobile Radar Program

EACOT  
EACOE  
EACDC  
EAMMP  
EAMIS  
EAPPL

EAOPM

19 May 54

1. To acquaint you with the actions that have been taken by this headquarters in planning for the integration of the mobile AC&W units into the air defense system, the attached letters which have been forwarded to appropriate Wing Commanders are forwarded for your information and file.

2. It should be noted that responsibilities pertaining to each of the mobile AC&W units have been outlined to the appropriate Wing Commander with the exception of the three 1st phase mobile AC&W squadrons which are programmed to be located in Canada and Nova Scotia. At this time actions pertaining to these units are being worked out between ADC and RCAF.

3. Upon withdrawal of Inclosures, the classification of Secret on this Disposition Form may be canceled.

PETERS  
644

KIRKENDALL  
460

5 Incls  
1. Ltr, Subj as above, to 4706th WG  
2. " " " " " 4707th WG  
3. " " " " " 4708th WG  
4. " " " " " 4710th WG  
5. " " " " " 4711th WG

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOFM

30 Apr 54

SUBJECT: (Unclassified) Support of Mobile Radar Program

TO: Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. The Mobile Radar Program (1st and 2d Phase) has reached a status wherein defense wings can actively supervise and/or assume certain responsibilities pertaining to the construction and subsequent occupancy of mobile radar sites and, in addition, begin planning for the phased buildup in personnel and equipment at these sites to insure that they may be integrated into the air defense system in a timely manner. An outline of the actions that have been taken by this headquarters in the preliminary planning stages is indicated on the attached chart. (Incl 1)

2. Your headquarters will be responsible for the 911th and 907th AC&W Squadrons and for the sites which these squadrons will ultimately occupy, M-103 (No. Concord, Vt.) and M-110 (Bucks Harbor, Me.) respectively. The latest information available at this Headquarters indicates that the scheduled beneficial occupancy will be June 1955 for both M-103 and M-110.

3. To clarify your responsibility in regards to the construction of sites M-103 and M-110 and to outline a procedure to be followed by personnel who intent to visit these sites, the following action will be taken:

a. Personnel, including Installations Officers of R&U support bases, will fully acquaint themselves with the provisions of ADC Regulation 88-1, 5 June 1952, before making any visits to these facilities.

b. This headquarters will be notified by letter, ATTN: EAMIS within three days after completion of a visit, and the following information will be furnished:

(1) Name of person or persons making visit.

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EAOPM Subject: (Unclassified) Support of Mobile Radar Program (Cont'd)

(2) Subjects discussed.

(3) Observations, comments, and/or recommendations.

c. Unless directed by this headquarters, visiting officers have no official responsibility in connection with the construction work being accomplished and will not issue instructions to the construction agency or contractor nor will they, in any way, interfere with the project. Visits, however, by representatives of your command with resultant comments and recommendations are encouraged.

d. In accordance with ADC Regulation 88-1, command and final acceptance inspections of the M-sites will be made by representatives of this headquarters. Your headquarters will be advised of these inspections and representatives invited to attend.

e. Desire that you estimate the FY56 Budget requirements and prepare and process AF Forms 734 for these sites in accordance with instructions contained in unclassified letter, this headquarters, EAMIS-A2, Subject: M&O P4x9.1 and P4x9.3 FY55 Financial Plan and FY56 Budget Estimate, 26 February 1954.

4. This headquarters will publish a general order directing the assignment of the 911th and 907th AC&W Squadrons to your wing as soon as possible. For your information the 911th and 907th AC&W Squadrons are currently located at Hancock AFS. These squadrons are currently manned at record strength. Upon assignment to your command, you will be responsible for manning these units within your resources in accordance with operational requirements. Allocations of pipeline personnel will be made by this headquarters in cognizance of manning requirements for these squadrons. It should be emphasized that these units are not to be moved to their ultimate sites prior to the beneficial occupancy dates. Instructions will be forwarded to your headquarters directing the movement of these units to their ultimate sites when the beneficial occupancy dates are assured.

5. These units will remain at record strength until approximately 90 days prior to the beneficial occupancy date of each of the sites, at which time you will assign a supply officer and two airmen to the appropriate squadron with duty station at the support base concerned. These personnel will report to the support base (Incl 1) with a copy of the UPREAL. The period 90 to 60 days prior to the beneficial occupancy date will be utilized to develop a tentative UAL and to determine what UPREAL items are required. The required requisitioning documents will

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EAOPM Subject: (Unclassified) Support of Mobile Radar Program (Cont'd)

be prepared indicating receiving dates desired. These documents will be held until 45 days prior to beneficial occupancy at which time they will be presented to the base accountable supply officer concerned. The period 45 days prior to beneficial occupancy date will be used to receive and store requisitioned property at the support base. Following the beneficial occupancy date, the squadron supply officer will arrange for shipment of the property to the site in the sequence required. M-site property which is received by BASO subsequent to the beneficial occupancy date will be shipped directly to the site by the BASO concerned.

6. In conjunction with the foregoing, your attention is invited to EADF Regulation 400-1, 10 June 1953. Your headquarters will prepare and distribute the necessary ADC Forms 15 with the least practicable delay.

7. Your headquarters will be advised as changes in the status of sites M-103 and M-110 occur to insure the current plan of integrating these sites into the AC&W system in a timely manner may be accomplished.

8. When Inclosure 1 is withdrawn or not attached, the classification of SECRET on this letter will be canceled.

BY ORDER OF THE COMMANDER:

1 Incl  
Logistic Spt for  
M-Sites Data

Info cy to:  
Comdr, 32d ADiv (Def)  
Comdr, 528th AirDef Gp

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOPM

17 May 54

SUBJECT: (Unclassified) Support of Mobile Radar Program

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. The Mobile Radar Program (1st and 2d Phase) has reached a status wherein defense wings can actively supervise and/or assume certain responsibilities pertaining to the construction and subsequent occupancy of mobile radar sites and, in addition, begin planning for the phased buildup in personnel and equipment at these sites to insure that they may be integrated into the air defense system in a timely manner. An outline of the actions that have been taken by this headquarters in the preliminary planning stages is indicated on the attached chart. (Incl 1)

2. Your headquarters will have responsibility for the 644th AC&W Squadron and for site M-104 (Fc. Dearborn, N.H.) which this squadron will ultimately occupy. The latest information available at this headquarters indicates that the scheduled beneficial occupancy for site M-104 will be March 1955.

3. To clarify your responsibility in regards to the construction of facilities at site M-104 and to outline a procedure to be followed by personnel who intend to visit this site, the following action will be taken:

a. Personnel, including Installations Officers of R&U support bases, will fully acquaint themselves with the provisions of ADC Regulation 88-1, 5 June 1952, before making any visits to these facilities.

b. This headquarters will be notified by letter, ATTN: EAMIS, within three days after completion of a visit, and the following information will be furnished:

- (1) Name of person or persons making visit.
- (2) Subjects discussed.
- (3) Observations, comments, and/or recommendations.

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EACPM Subject: (Unclassified) Support of Mobile Radar Program (Cont'd)

c. Unless directed by this headquarters, visiting officers have no official responsibility in connection with the construction work being accomplished and will not issue instructions to the construction agency or contractor nor will they, in any way, interfere with the project. Visits, however, by representatives of your command with resultant comments and recommendations are encouraged.

d. In accordance with ADC regulation 88-1, command and final acceptance inspections of the M-site will be made by representatives of this headquarters. Your headquarters will be advised of these inspections and representatives invited to attend.

e. Desire that you estimate the FY 56 Budget requirements and prepare and process AFForms 734 for this site in accordance with instructions contained in unclassified letter, this headquarters, EAMIS-A2, Subject: M&O P4x9.1 and P4x9.3 FY 55 Financial Plan and FY 56 Budget Estimate, 26 February 1954.

4. The 644th AC&W Squadron is programmed to activate on site in the 3QFY 55. The general order activating this squadron will be published approximately 90 days prior to the activation date. This squadron will be assigned to your wing following activation, at which time you will be responsible for manning this unit within your resources in accordance with operational requirements. Allocations of pipeline personnel will be made by this headquarters in cognizance of manning requirements for this squadron.

5. Approximately 90 days prior to the beneficial occupancy date of site M-104 and subsequent to the publication of the general order activating this unit, a supply officer and two airmen should be earmarked for assignment to the 644th AC&W Squadron and placed TDY at the support base concerned (Incl 1) with a copy of the UPREAL. The period 90 to 60 days prior to the beneficial occupancy date will be utilized to develop a tentative UAL and to determine what UPREAL items are required. The required requisitioning documents will be prepared indicating receiving dates desired. These documents will be held until 45 days prior to beneficial occupancy at which time they will be presented to the base accountable supply officer concerned. The period of 45 days prior to beneficial occupancy date will be used to receive and store requisitioned property at the support base. Following the beneficial occupancy date, the squadron supply officer will arrange for shipment of the property to the site in the sequence required. M-site property which is received by BASO subsequent to the beneficial occupancy date will be shipped directly to the site by the BASO concerned.

6. In conjunction with the foregoing, your attention is invited to EADF Regulation 400-1, 10 June 1953. Your headquarters will prepare

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EAOPM Subject: (Unclassified) Support of Mobile Radar Program (Cont'd)

and distribute the necessary ADC Forms 15 with the least practicable delay.

7. When Incl 1 is withdrawn or not attached, the classification of SECRET on this letter will be cancelled.

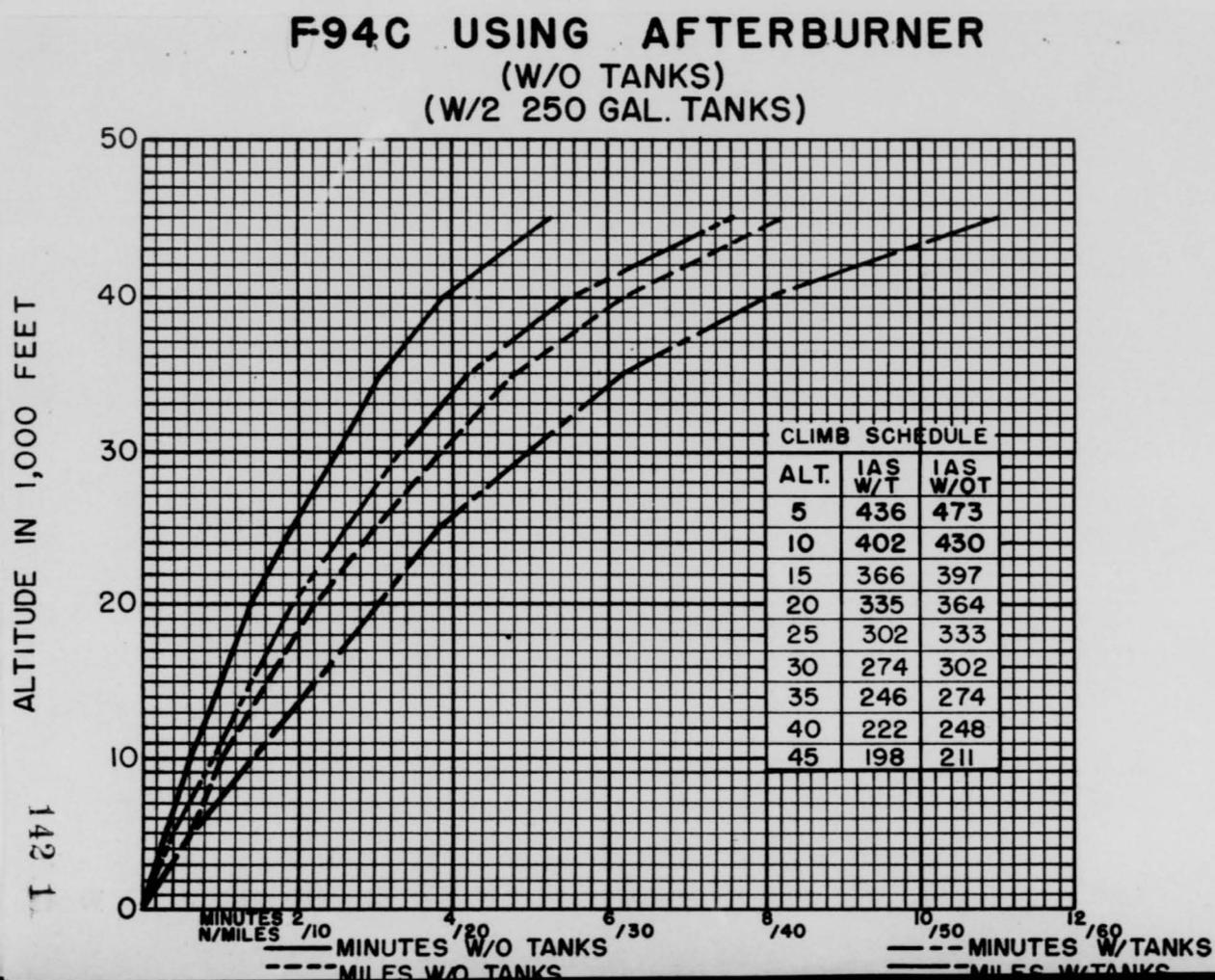
BY ORDER OF THE COMMANDER:

1 Incl  
M-Site Data Chart

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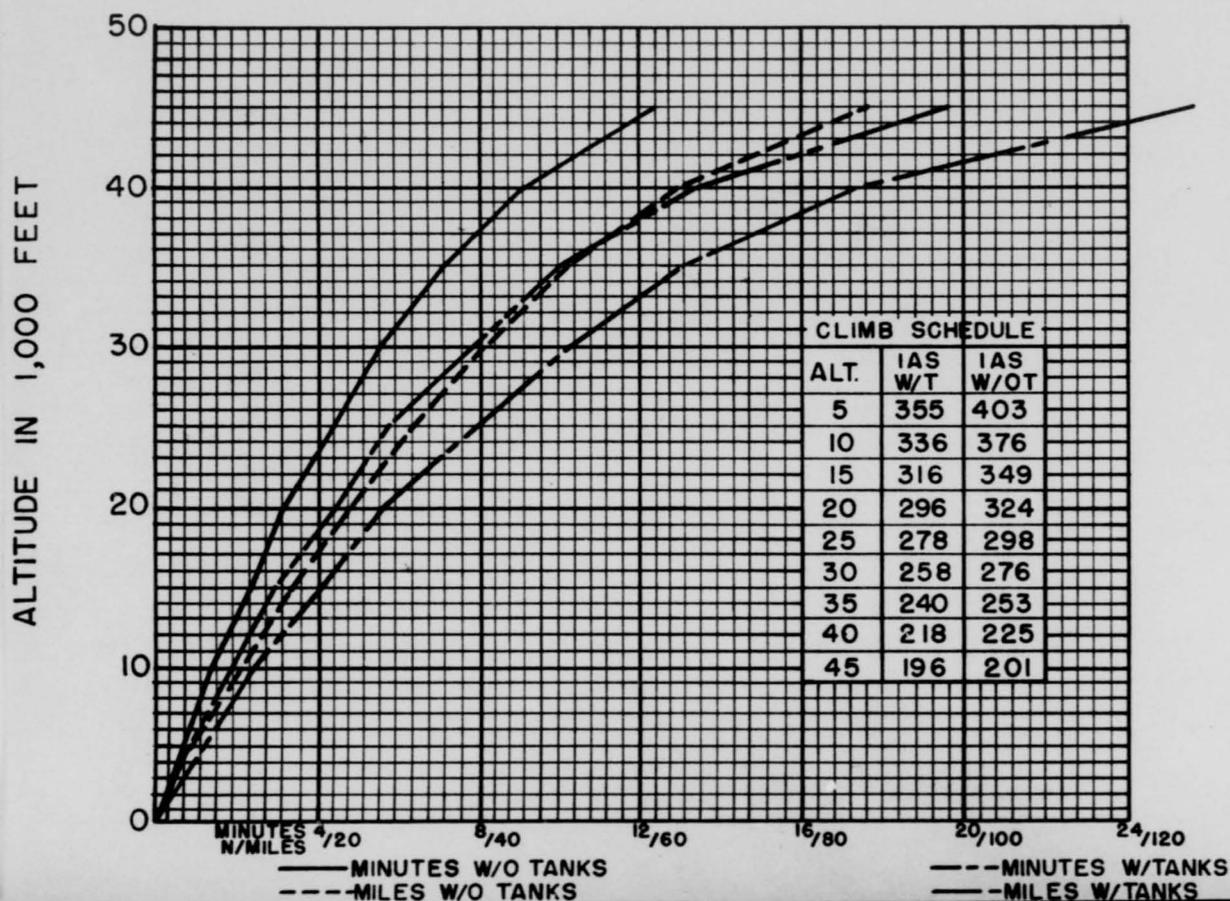
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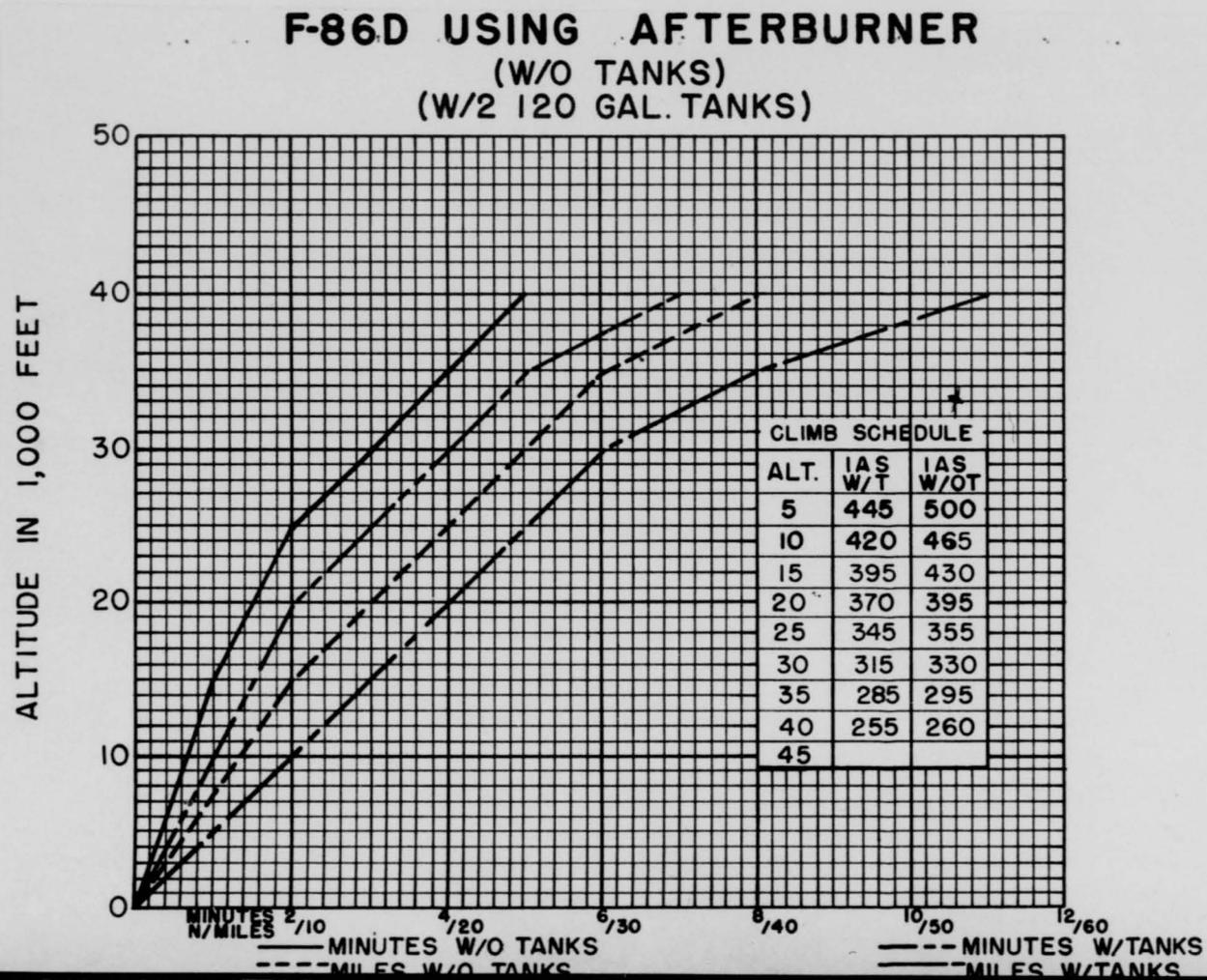


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### F-94C W/O AFTERBURNER

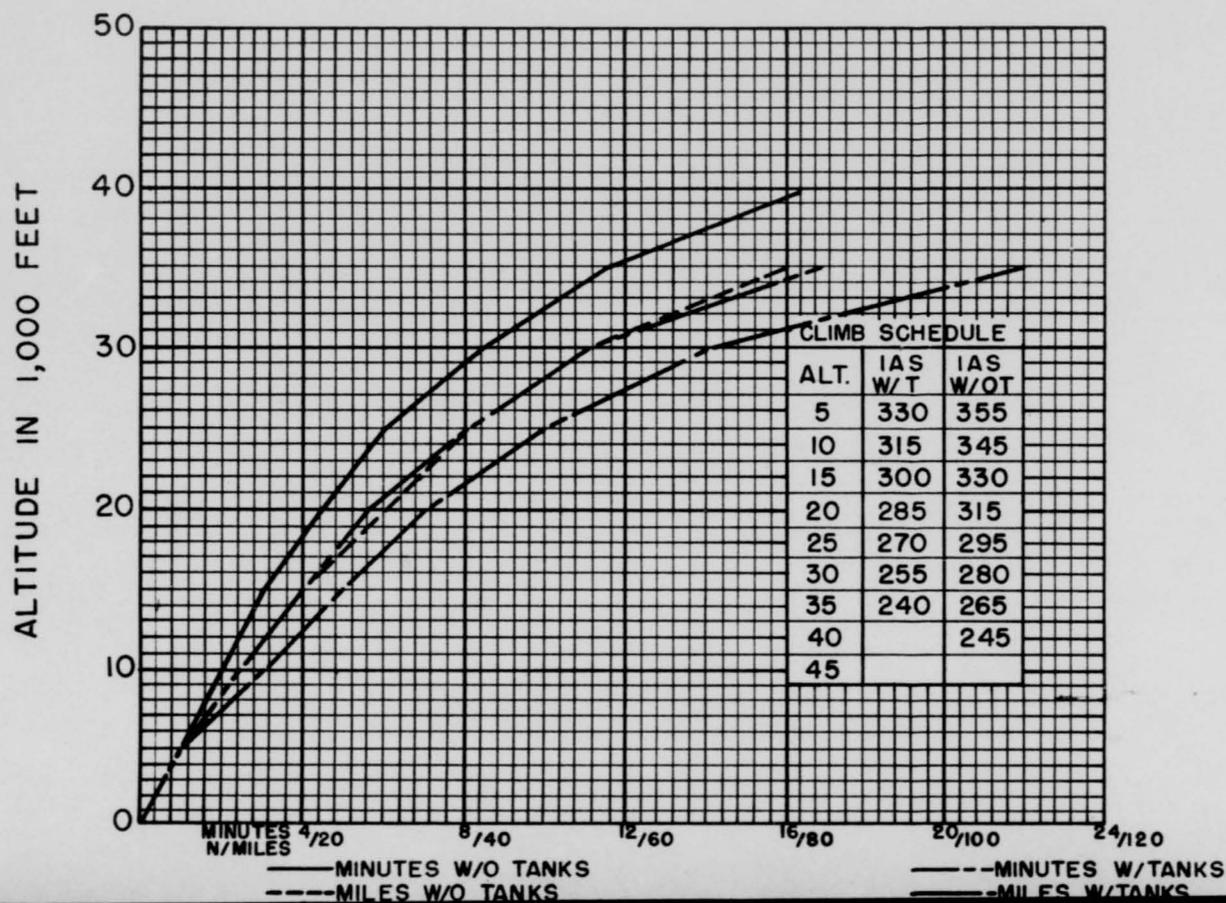


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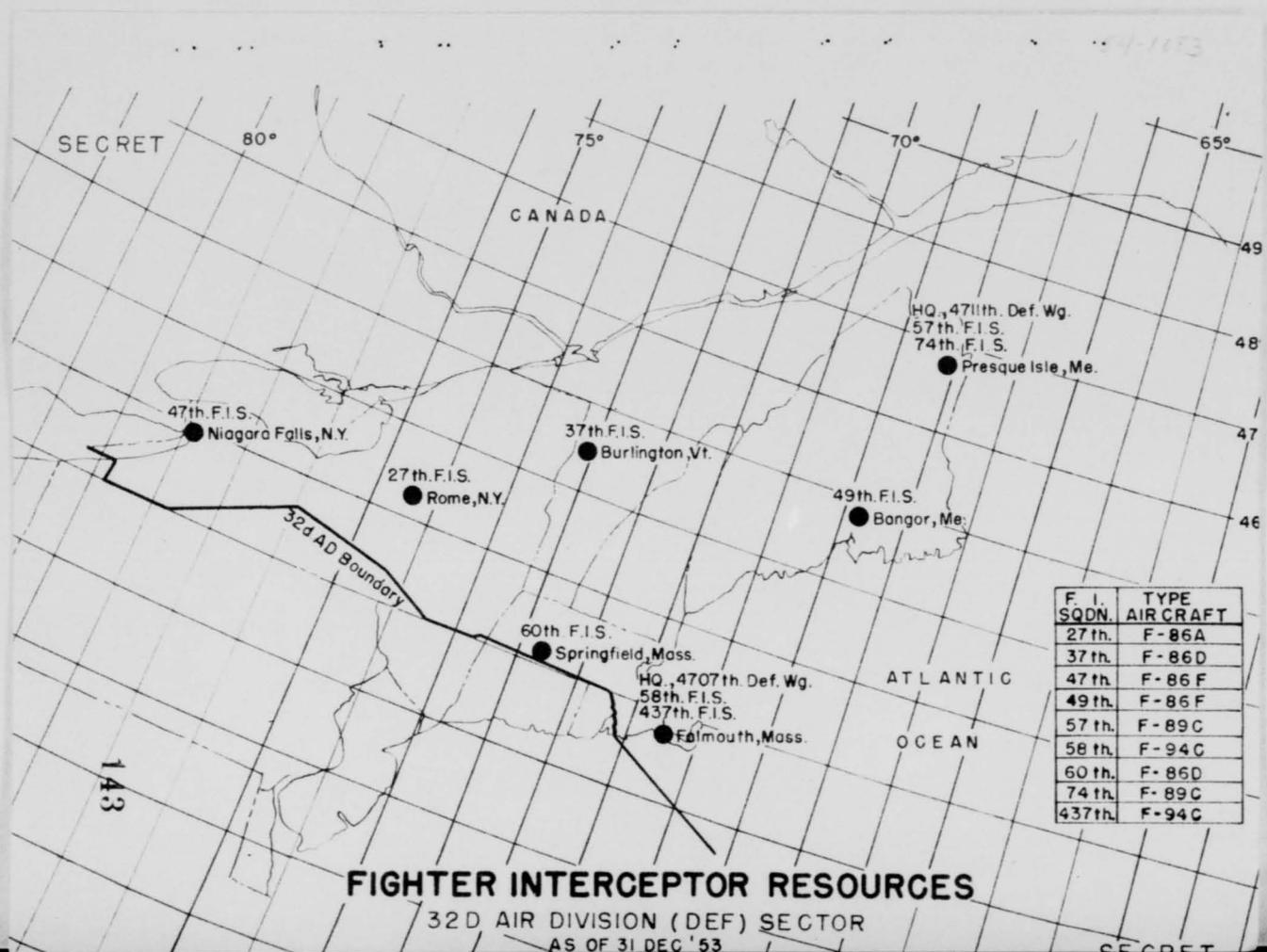


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F-86D W/O AFTERBURNER



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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION

1 January 1954 through 31 January 1954

1-AF-D2A

Chapter I . . . . . Aircraft

*William F. Daniels*  
WILLIAM F. DANIELS, Major, USAF  
DEPUTY FOR MATERIEL

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CHAPTER I

AIRCRAFT

The aircraft status for January for units under jurisdiction of this headquarters is as follows.

The 27th Fighter-Interceptor Squadron possessed, during January, 13 F-94-C type aircraft. Little trouble, it seems, has been experienced by this unit in converting from F-86-A type aircraft to F-94-Cs. This is borne out by the following percentage figures for combat ready aircraft. High for the month is 95% attained on the 1st and 8th of January. Low figure for January was 62% on the 25th. Phase out of F-86-A type aircraft in this unit is 3/4 complete.

The 37th Fighter-Interceptor Squadron, now completely equipped with F-86-D type aircraft, has during January bettered it's combat ready picture over December. High mark is 81% for this unit. This figure was maintained from the 8th through the 21st of January. Low was 62% on the 27th.

The 47th Fighter-Interceptor Squadron, still in the process of converting from F-86-F type aircraft to F-86-Ds, remained in the lower percentage figures of combat ready aircraft during January. Only one (1) D model was received by this unit during December. High of 52% attained on the 22nd and 27th and a low of 26% on the 29th of January is the picture.

The 49th Fighter-Interceptor Squadron, also in the lower percentage brackets had the following figures. High of 48% on the 29th. Low on the 25th with 19 percent.

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The 57th Fighter-Interceptor Squadron fell below their good mark in December by 10%. High of 71% attained on the 11th and 15th of January. Low, 39%, on the 22nd.

The 58th Fighter-Interceptor Squadron, after many months in the lower percentage brackets, has established a more respectable and encouraging high percentage of combat ready aircraft. Starting the month with 38%, dropping to a low of 26% on the 18th, the unit rounded out the month with a high of 67%.

The 60th Fighter-Interceptor Squadron for the first three weeks of January carried over from December a high mark of 57%, dropping to a low mark on the 27th through the end of the month of 10%. The low percentage figure is due to 17 of this units aircraft undergoing calibration of the fuel control regulator.

The 74th Fighter-Interceptor Squadron's combat ready picture is none too bright at the following figures. High, 71% on the 6th and 8th of January. Low of 31% on the 29th.

The 437th Fighter-Interceptor Squadron has finally broken through the 75% level reaching 81% on the 22nd of January. Low for the month is 33% on the 25th.

It is hoped that the new AFR-67-51 which sets up RCS: AF-552 will present a more up to date picture of the AOCIP situation as was heretofore available.

There were no reports of logistical difficulties affecting aircraft and/or radar during the month of January.

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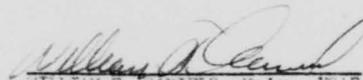
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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION

1 February 1954 through 28 February 1954

1-AP-02A

Chapter I. . . . . Aircraft  
Chapter II . . . . . Food Service  
Chapter III. . . . . Air Installations

  
WILLIAM F. DANIELS, Major, USAF  
Deputy for Materiel

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CHAPTER I

AIRCRAFT

Percentage figures for Combat Ready aircraft during February is as follows:

27th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
90%	12th	54%	24th

This unit possessed, as of 28 February 1954, twenty-one (21) F-94C type aircraft and six (6) F-86A type aircraft. The latter type are being retained to meet alert commitments. F-94C aircraft will assume this responsibility in March.

37th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
62%	5th thru 17th, 10th & 22nd	42%	24th

This unit still has one (1) F-51D type aircraft to be phased out to Air National Guard.

47th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
38%	12th	10%	10th

This unit still in conversion process from F-86F's to D's, possessed ten (1) F-86F's and twenty-one (21) F-86D's as of 28 February. F-86F type aircraft are committed to alert responsibility in this unit.

49th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
63%	17th	33%	10th

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Twenty-six (26) F-86D type aircraft possessed by this unit as of 28 February. The high mark for this unit reflects a 15% gain over January.

57th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
96%	26th	43%	12th

This unit posts a 25% gain over January.

58th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
73%	3rd	18%	15th

The 58th F.I.S. also gained 6% over the previous month. This unit departed to, and returned from, Yuma, Arizona during February where they underwent gunnery training.

60th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
65%	17th	10%	1st

Gain eight (8) percentage figures for this unit over January.

74th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
59%	5th	0%	15th

On the 15th this unit physically possessed eight (8) F-89C type aircraft. Three (3) were down for period maintenance. Five (5) were down for unscheduled maintenance. Six (6) of this units aircraft were away for IRAN. As of 28 February ten (10) F-89C type aircraft are physically possessed by this unit.

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Page 3

437th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
67%	5th	27%	12th & 24th

Percentage figures for combat ready aircraft by Wing and Command

are as follows:

4707TH DEFENSE WING

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
56%	3rd	28%	1st

4711TH DEFENSE WING

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
68%	26th	49%	15th

COMMAND

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
59%	3rd	49%	15th

There were no reports of logistical difficulties affecting aircraft and/or radar during the month of February.

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## CHAPTER II

### FOOD SERVICE

N/Sgt Oscar E. Kerstetter, AF 12309105, Food Service Supervisor from the Deputy for Materiel Office, this headquarters, conducted the Semi-Annual Food Service Staff Visits to the 51st Air Defense Group, Niagara Falls Municipal Airport, Niagara Falls from 15 - 17 February 1954 and the 763d AC&W Squadron, Lockport Air Force Station, Lockport, New York from 18 - 19 February 1954.

It is thought that the current authorized allowance of personnel to the various food service facilities is not adequate to successfully accomplish the mission. As an example, the current authorization of personnel to the Food Service Facility at the 51st Air Defense Group is thirty (30), but at the same time there are fifty-one (51) permanently assigned and ten (10) airmen assigned on a daily basis. The Food Service Activity was rated as being excellent, but it is easily seen that with only the authorized allowance of personnel there would be a rating of unsatisfactory because of the large work load that could not possibly be accomplished with thirty (30) personnel.

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## CHAPTER III

### AIR INSTALLATIONS

During the month of February word was received that the Headquarters Administration building had been approved, funded and forwarded to Griffiss Air Force Base for contracting. A copy of the blue prints and specifications were forwarded to this headquarters.

Notification was received from the New York District Engineers to the effect that negotiation for hangar space with the city of Syracuse was under negotiation.

A conference was attended with the City of Syracuse in reference to the water furnished this installation. Settlement was not effected since the city first has to make a study and furnish costs to the various military organizations concerned.

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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION  
1 March 1954 through 31 March 1954

1-AF-D2A

Chapter I. . . . . Aircraft  
Chapter II . . . . . Food Service  
Chapter III. . . . . Air Installations

  
WILLIAM F. DANIELS, Major, USAF  
Deputy for Materiel

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## CHAPTER I

### AIRCRAFT

Percentage figures for Combat Ready aircraft during March is as follows:

27th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
77%	1st	27%	12th

One (1) F-86A aircraft still possessed by this unit. Awaiting pick-up by ferry crew. Alert commitments were assumed by F-94C aircraft on 8 March 1954.

37th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
65%	5th	38%	12th & 19th

This high is a rise of three (3) percentage figures over February.

47th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
48%	31st	7%	15th

Low percentage figures for this unit due to F-86D type aircraft fire control system requiring boresighting and harmonizing.

49th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
56%	10th	24%	17th

This units high percentage figures could be much higher but for the fact that a relatively high number of aircraft are processed through periodic inspection at one time.

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Page 2

57th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
92%	12th	31%	17th

58th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
59%	5th, 10th, 12th, 24th, 26th.	26%	1st

60th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
52%	1st, 3rd	26%	17th

74th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
100%	24th	25%	12th

437th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
64%	22nd	24%	26th

Percentage figures for combat ready aircraft by Wing and Command are as follows:

4707TH DEFENSE WING

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
40%	26%	29%	17th

4711TH DEFENSE WING

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
63%	1st	42%	12th

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Page 3

COMMAND

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
48%	1st	38%	17th

There were no reports of logistical difficulties effecting aircraft and/or radar during the month of March.

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## CHAPTER II

### FOOD SERVICE

M/Sgt Oscar E. Kerstetter, AF 12309105, Food Service Supervisor from the Deputy for Materiel Office, this headquarters, conducted the Semi-Annual Food Service Visit to Otis Air Force Base during the week of March 15 - 20, 1954.

The 564th Air Defense Group rated as satisfactory. The 532d Air Defense Group, which was recently assigned to this command, was also rated as satisfactory. Both of these organizations are operating their dining halls in the old World War II buildings that were designed as Infantry company messes and while their use is satisfactory, they do not compare favorably with new consolidated messes as commonly used by the Air Force. One problem causing difficulty is that of feeding pilots on alert status and those who are working on the far side of the field away from the dining halls. Pre-cooked frozen meals were given a trial period and it is felt that with more variety in the meals this will prove an acceptable way to feed the alert pilots.

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CHAPTER III

AIR INSTALLATIONS

During the month of March the FY-55 Major Repair and Minor Construction program for the division was submitted. A review panel was held at this headquarters and all projects reviewed for essentiality, proper submission and that justifications were complete and properly written.

Instructions were received and disseminated for the preparation of the FY-56 PWP, (Call for Estimates). The submission of the new items program will be called for in April.

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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION  
1 April 1954 through 30 April 1954

1-AF-02A

Chapter I . . . . . Aircraft  
Chapter II . . . . . Food Service  
Chapter III . . . . . Air Installations

*William T. Daniels*  
WILLIAM T. DANIELS, MAJG, USAF  
Deputy for Materiel

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CHAPTER I

AIR RAFT

Percentage figures for Combat Ready aircraft during April is as follows:

27th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
69%	12th	48%	26th

This unit has now completely phased out their F86-A type aircraft.

37th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
54%	5,7,12, 14,19th	38%	2nd

47th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
87%	26th	30%	16th

The high mark as shown was not maintained. The monthly average for this unit is approximately 50%.

49th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
75%	23rd	33%	5th & 16th

The high mark represents a gain of 19% over last month. Low mark is a gain of 9%.

57th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
69%	5th	23%	14th

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Page 2

58th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
56%	7th	24%	23rd

60th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
60%	23rd&26th	26%	2nd

74th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
90%	21st	30%	5th

437th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
68%	9th&12th	31%	21st

Percentage figures for combat ready aircraft by Wing and Command are as follows:

470TH DEFENSE WING

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
63%	26th	37%	2nd

4711TH DEFENSE WING

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
61%	23rd	46%	14th

COMMAND

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
59%	26th	42%	14th

There were no reports of logistical difficulties affecting aircraft and/or radar during the month of April.

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## CHAPTER II

### FOOD SERVICE

W/Sgt Oscar B. Kerstetter, AF 12309195, Food Service Supervisor for the Deputy for Materiel Office, this headquarters, conducted the Semi-Annual Food Service Staff Visits to the 656th ACGW Squadron, Saratoga Springs Air Force Station, Saratoga Springs, New York from 5 - 7 April 1954 and the 655th ACGW Squadron, Watertown Air Force Station, Watertown, New York from 29 - 30 April 1954.

The Food Service facility of 656th ACGW Squadron is rated as excellent. Records were being kept in a satisfactory manner although an accurate headcount is not being kept. It is felt that the current authorized allowance of personnel is not adequate to successfully accomplish the mission since they have a large work load.

The Food Service facility of the 655th ACGW Squadron is rated as satisfactory. The food service records are unsatisfactory. Stock records and Headcount Plotters weren't being properly maintained. Equipment was in need of replacement. The Master Menu was not being followed. A Master Menu board should be appointed. There could be an improvement in food preparation and acceptability. The overall deficient factor is lack of adequate supervision.

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## CHAPTER III

### AIR INSTALLATIONS

During the month of April the FY-56 Public Works Program new items program was submitted by units of the division. The required review of this program was held at this headquarters on 22, 23, 24 April 1954. There was a total of 128 line items submitted by all bases and ACGW sites of the division. The program was hand carried to EADF and defended before the review panel during the week of 26 April 1954. Also during this month the FY-55 Major Repair Minor Construction Program was forwarded to EADF.

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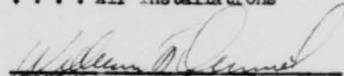
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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION

1 May 1954 through 31 May 1954

1-AF-D2A

Chapter I . . . . . Aircraft  
Chapter II. . . . . Food Service  
Chapter III . . . . . Air Installations

  
WILLIAM F. DANIELS, MAJOR, USAF  
Deputy for Materiel

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CHAPTER I  
AIRCRAFT

Percentage figures for Combat Ready aircraft during May are as follows:

27th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
67%	21st	42%	31st

37th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
46%	31st	23%	17th & 19th

47th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
43%	3rd	15%	7th

The low percentage rate can be attributed to the lack of trained maintenance personnel and a large number of aircraft out of commission for maintenance and parts.

49th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
67%	5th	46%	10th

57th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
79%	26th	43%	31st

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Page 2

58th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
72%	21st	31%	7th

60th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
60%	31st	52%	11th

74th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
77%	12th	30%	5th

437th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
73%	26th	38%	17th

Percentage figures for combat ready aircraft by Wing and Command are as follows:

4707TH DEFENSE WING

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
59%	21st	41%	7th & 12th

4711TH DEFENSE WING

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
59%	12th & 11th	48%	5th

COMMAND

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
57%	21st	48%	5th & 7th

There were no reports of logistical difficulties affecting aircraft and/or radar during the month of May 1954.

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## CHAPTER II

### FOOD SERVICE

M/Sgt Oscar E. Kerstetter, AF 12309195, Food Service Supervisor for the Deputy for Materiel Office, this headquarters, conducted a follow-up Food Service Staff Visit to Headquarters Squadron Section, 32d Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York on 29 May 1954.

The purpose of this staff visit was to investigate the degree of compliance with the recommendations set forth in the Reports of Audit and Staff Visits covering the 1953-1954 period of operations. This food service facility was found to be operating in an excellent condition.

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CHAPTER III

AIR INSTALLATIONS

During the month of May this headquarters received the Line Item Listing of Eastern Air Defense Force Fiscal Year 1956 Public Works Program (New Projects) as approved by Air Defense Command. This headquarters will be advised when the Line Item Listing is approved by Headquarters, USAF.

The Major Repair and Minor Construction Budget Estimate for Fiscal Year 1956 was reviewed by the panel in this headquarters on 14 May 1954. The Budget Estimate was hand carried to Eastern Air Defense Force on the same date.

Bids were received for the construction of the Division Headquarters Administration Building during May. The lowest bid was in excess of \$2,500 of the amount authorized for the construction. Additional funds have been approved by the Eastern Air Defense Force for the above amount.

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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION  
1 June 1954 through 30 June 1954

1-AP-00A

Chapter I . . . . . Aircraft  
Chapter II . . . . . Food Service  
Chapter III . . . . . Messel Activities

*William D. Daniels*  
WILLIAM D. DANIELS, MAJ, USAF  
Deputy for Materiel

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CHAPTER I  
AIRCRAFT

Percentage figures for Combat Ready aircraft during June are as follows:

27th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
67%	23 June	33%	4 June

37th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
54%	1030 June	27%	14 June

47th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
52%	9 June	22%	30 June

49th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
72%	7 June	32%	21 & 23 June

57th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
83%	9 June	20%	28 June

The low percentage rate can be attributed to Project "BANK".

58th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
66%	9-28 June	31%	21 June

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Page 2

60th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
72%	11:11, June	44%	18:21 June

74th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
60%	21 June	36%	28 June

This squadron is near completion of project "BMAN".

147th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
60%	2 June	44%	7 June

Percentage figures for combat ready aircraft by Wing and Command are as follows:

<u>1470TH DEFENSE WING</u>				<u>1471TH DEFENSE WING</u>			
<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
59%	2 June	40%	21 June	69%	4 June	42%	28 June

COMMAND

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>
61%	4 June	47%	21 June

There were no reports of logistical difficulties affecting aircraft and/or radar during the month of June 1951.

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## CHAPTER II

### FOOD SERVICE

Staff visits to the 517th Air Base Squadron, 761st ACW Squadron, 765th ACW Squadron, 528th Air Base Squadron, 766th ACW Squadron and the 762nd ACW Squadron during the month of June 1954 completed the semi-Annual Food Service Technical Visits for the second half of Fiscal Year 1954.

The lack of a definite overall Food Service Career Program has lowered morale generally in the Food Service field, and in the next few months with many of the cooks coming up for discharge, it is thought that Food Service in the Division will suffer greatly. The lack of Food Service attendants in this career field, and the recent personnel reductions in all Food Service sections with little regard to the military work load and including mid-night feeding has contributed to the weakness in the Food Service field.

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## CHAPTER III

### DIESEL ACTIVITIES

Six ACGW Sites were visited in June 1954 in order that the Diesel Operator Technician could acquaint himself with the power plant conditions. Sites visited were 706th ACGW Squadron, 762nd ACGW Squadron, 765th ACGW Squadron, 654th ACGW Squadron, 764th ACGW Squadron and the 656th ACGW Squadron.

It was found in most installations that the condition of the plants and the skill of the operators was satisfactory, although the support bases were slow in supplying spare parts, as authorized in ACGM 66-1, to the ACGW Squadrons.

Fuel injector carbonization and frequency variation were found where light loads were carried.

Few tools were found in most power houses and to date no tools have been authorized. ACGM 66-1, Chapter V, Paragraph 2, August 1953, state that a list of tools required for maintenance of diesel generators was compiled by ACGW and submitted to Headquarters AMC and Headquarters USAF.

At sites where the generators were operating much of the time, the best grades and brands of high detergent lubricating oils were used and asked for. Installations used only on a standby basis consumed non-detergent and standard issue oils.

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CONFIDENTIAL

HQ EADF STEWART AFB NEWBURGH NY	PRIORITY	PRIORITY
COMDR 32ADIV (DEF) SYRACUSE AF STA EASTWOOD STA 6 SYRACUSE NY		x
COMDR 4711 DEF WG PRESQUE ISLE AFB PRESQUE ISLE ME	x	x
COMDR 27 FTR INTCP SQ GRIFFISS AFB ROME NY		

INFO:

COMDR ADC ENT AFB COLO SPRINGS COLO

EA00T-FO C- 81 . Effective 20 Jan 54, 27th FIS is relieved of ADC UPD training requirements until 16 Mar 54. Effective 20 Jan 54, alert for 27th FIS will be based on and met in 6 F-86A aircraft retained by that unit. All 6 of these will be on "Back-up" (1 hr) or higher. Alert commitments will be based on and met in total fighter-interceptor aircraft possessed when 12 crews are alert qualified in F-94C aircraft or not later than 8 Mar 54, whichever occurs first.

CONFIDENTIAL 1 1

t/ CAPT W. D. TAYLOR  
EA00T-FO 221400 Jan 54

t/ J. W. FOUNTAIN, JR., Major, USAF  
Asst Adjutant

CONFIDENTIAL

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CONFIDENTIAL

C O P Y

HQ EADF STEWART AFB NEWBURGH NY

COMDR 32d ADIV (DEF) SYRACUSE AF STA  
EASTWOOD STA 6 SYRACUSE NY  
CCMDR 4707 DEF WG OTIS AFB FAIRMOUTH  
MASS  
COMDR 518 AIR DEF GP NIA FALLS MUNI  
APRT NIA FALLS NY  
COMDR 47 FIS NIA FALLS MUNI APRT  
NIA FALLS NY

INFO:

COMDR ADC ENT AFB COLO SPRINGS COLO

EA00T-FO C- 186 . Effective 12 February 1954, 47th FIS is relieved of ADC UPD training requirements until 1 April 1954. Effective 12 February 1954, alert for 47th FIS w/b based on and met in 6 F-86F aircraft retained by that unit. All 6 of these w/b on "back-up" (1 hr) or higher. Alert commitments w/b based on and met in total fighter-interceptor aircraft possessed when 12 crews are alert qualified in F-86D or NLT 1 April 1954, whichever occurs first.

CONFIDENTIAL 1 1

t/ CAPT J.P. LOONEY  
EA00T-FO 171630 Feb 54

t/ JAMES R. WORLINE, Captain, USAF

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C O P Y

**CONFIDENTIAL**

HQ EADF STEWART AFB NEWBURGH NY

ROUTINE

ROUTINE

COMDR ADC ENT AFB COLO SPRINGS COLO

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COMDR 30TH ADIV (DEF) WILLOW RUN AF  
STA BELLEVILLE MICH

COMDR 4707TH DEF WG OTIS AFB FALMOUTH MASS  
COMDR 47TH FTR INWCP SQ NIAGARA FALLS MUNI APRT NIAGARA FALLS NY

EAOOT-FT C-) 185 . This headquarters proposes deployment of 47th  
Fighter-Interceptor Squadron to Yuma County Airport, Yuma, Airzona for  
approximately 45 day period to facilitate transition and checkout during  
conversion. Primary reason is seasonal weather at home station. Upon  
receipt of your concurrence details w/b provided.

CONFIDENTIAL 1 1

t/ MAJ P. A. RAND  
EAOOT-FT 201050 Feb 54

t/ JAMES R. WORLINE, Captain, USAF  
Asst Adjutant

**CONFIDENTIAL**

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C O P Y

CONFIDENTIAL

HQ EADF STEWART AFB NEWBURGH NY

PRIORITY

PRIORITY

COMDR 32D ADIV (DEF) SYRACUSE AF STA  
EASTWOOD STA 6 SYRACUSE NY

x

x

x

INFO:

COMDR 4707TH DEF WG OTIS AFB FAIRMOUTH  
MASS

COMDR 47TH FTR INTCP SQ NIAGARA FALLS MUNI  
AFPT NIAGARA FALLS NY

EACOT-TW C- 205 . Your message ACFOOT-2032. Request to deploy flight element of 47th Fighter-Interceptor Squadron to Patrick AFB not considered logistically feasible nor operationally desirable. Therefore plan not favorably considered by this headquarters. Headquarters ADC queried as to availability of Yuma Weapons Training Center for deploying 47th Fighter-Interceptor Squadron minus required alert effort for a 45-day period to accomplish desired conversion training. Verbal approval and indication of necessary support capability received. Current construction presently limits flying activities to one 5500 ft runway. In consideration of the above, do you desire this deployment? Also require your desire on similar deployment of 49th Fighter-Interceptor Squadron when occasion arises. Expeditious reply desired.

1 1

t/ MAJ P. A. RAND  
EACOT-TW 261545 Feb

t/ JAMES R. WORLINE, Captain, USAF  
Asst Adjutant

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JEPNE 53  
PARAPHRASE NOT REQUIRED CONSULT CRYPTOCENTER BEFORE DECLASSIFYING  
CRYPTO NBR 1069  
ROUTINE DTG 271305Z

FM COMDR 518 ADG NIA FALLS NY  
TO COMDR EADF STEWART AFB NY  
TO COMDR 32ADIV SYRACUSE NY  
COMDR 47071W OTIS AFB MASS

/C O N F I D E N T I A L/ cite NAB DDCO 571. Reference your message EACOT-  
FT 185. This Headquarters does not concur with proposed deployment of 47 F1G  
to Yuma Co Airport because of Following Reasons: A. Distance from home base  
and source of supplies. B. Time involved flying U/E aircraft and supporting  
personnel would leave little time for actual training. C. Accident potential  
in checking out new and inexperienced pilots on only 5900 foot runway at  
Yuma. D. Lack of available airlift aircraft. E. Lack of funds to support  
this kind of effort. F. Standdown period 12 Feb to 1 April 54. Due to  
short time left to become proficient it is deemed advisable to leave squadron  
at home base rather than disrupt a training program that has already started.  
TORC 271941Z Feb 61

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JEPNB 40  
PARAPHRASE NOT REQUIRED CONSULT CRYPTO CENTER BEFORE DECLASSIFYING  
CRYPTO NBR 261  
PRIORITY 051650Z  
FM COMDR ADC  
TO COMDR EADF STEWART AFB NY  
INFO COMDR 4750 TNG WG (AIR DEF) YUMA CG APRT YUMA ARIZ  
/CONFIDENTIAL/ ADOOT-C 0344. Your message RAOOT-FT 0185 and  
confirming telephone conversation Maj Rand your Headquarters and Maj  
Johansen this Headquarters. TDY to Yuma of 47th FIS for period of 45 days  
is approved. Direct coordination your Headquarters and Commander 4750  
Tng Wg (Air Def), and between Commander 47 FIS and Commander 4750, is  
authorized. Provisions of Par 3B (3)(c) and 3B(4) of ADC Opr Order 3-53  
dated 1 December 1953 will apply to the Movement of this unit.  
TORC 051732Z Mar 58

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COPY

HQ EADF STEWART AFB NEWBURGH NY

	PRIORITY	PRIORITY
COMDR 32 ADIV (DEF) SYRACUSE AF STA		x
EASTWOOD STA 6 SYRACUSE NY	x	x

INFO:

COMDR 4750 TNG WG YUMA CITY APRT  
YUMA ARIZ  
COMDR ADC ENT AFB COLO SPRINGS COLO

EACOT-CW C- 230 . Your message ACFOOT 3001. This message in 2 parts. Part 1. On 12 March 1954, 47th Fighter-Interceptor Squadron will deploy to Yuma Cty Aprt for a period of 45 days to conduct transition training in F-86D aircraft. Commander, 47th Fighter-Interceptor Squadron will coordinate deployment date with Commander, 4750th Training Wing. Deployment will be made under the provisions of EADF Opr Plan 6-53 except when it conflicts with this message in which event this message will take precedence. a. Provisions of the Opr Plan directly pertaining to rocketry training will not apply. b. 47th Fighter-Interceptor Squadron pilots will ferry their aircraft to Yuma and return if aircrews are qualified in accordance with ADCR 67-1. Commander, 4707th Defense Wing, and Commander, 32d ADiv, will provide available qualified F-86D pilots as required to complete the deployment. Additional ferry assistance required will be requested of this headquarters. c. Maximum possible airlift will be proved by Commander, 32d ADiv, and requirements beyond his capability will be reported as soon as possible to this headquarters. d. Reference paragraph 3c (3), EADF Opr Plan 6-53, Comdr, 47th FIS will contact Commander 4750th Tng Wg, under provisions of paragraph 5a of EADF Opr Plan 6-53 to coordinate supply support requirements. Supply actions required which are beyond the capability of both units concerned will be reported to this headquarters under provisions of ADCR 67-4. A list of ground handling equipment available at Yuma is contained in Incl 1 to ADC ltr, file ADMLO-3, Subj: Ground Handling Equipment Available at Yuma Airport, 9 Jan 54, forwarded to you by 1st Ind, this headquarters, file EAMAC-ACS, 27 Jan 54. e. All pertinent actions outlined in EADF Opr Plan 6-53 which are to be accomplished a given number of days prior to deployment will be accomplished as soon as practicable. f.

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Par 3c (1) (2) and (4) of EADF Opr Plan 6-53 will apply. g. Alert consideration will be the same as those under gunnery deployment. Request, Commander, 32d ADiv notify EADF his intention so that this headquarters may make suitable recommendations to ADC for deployment or effective suitable re-assignment of F-36F aircraft in consonance with decision regarding alert plans. Part 2. Deployment of 49th FIS to Yuma is subject ADC approval. Information will be forwarded to you when available.

CONFIDENTIAL 2 2

t/ CAPT J.P. LOONEY  
EAOOT-GW 051430 Mar 54

t/ JOHN L. WARREN, Colonel, USAF  
Adjutant

CONFIDENTIAL

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C O P Y

JEPNB 017  
PARAPHRASE NOT REQUIRED CONSULT CRYPTO CENTER BEFORE DECLASSIFYING  
CRYPTO NBR 741  
ROUTINE DTG 132304Z  
FM COMDR ADC ENT AFB COLO  
TO COMDR WADF HAMILTON AFB CALIF  
COMDR EADF STEWART AFB NY  
NCCOMDR CADF GRANDVIEW AFB MO

//S E C R E T// This message in 4 parts. Part I. Alert commitments for units converting. Defense Force commanders are authorized to relieve converting units from alert 15 days prior to and until 60 days after receipt of first aircraft providing identification capability is met for the area concerned. This policy will become Par 3X(2) (H) of Ops Order 3-54. Part II. Par 3X(11) and (12) Ops Order 3-54 are being revised to state that rockets and ammunition will not be carried in participating aircraft during airshows. Part III. Par 3X(13) Opr Order 3-54 is rescinded and will read as follows: For those units scheduled to deploy overseas, alert requirement specified in Par 3X(2) may be reduced as follows: 30 days prior to departure of first squadron echelon, either ground or flight, all aircraft capable of being put in command within three hours may be placed on reserve providing necessary alert aircrews are available. Part IV. Provisions above are effective as of date this message.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OPR

SUBJECT: Study on AirDefense of Maine, New Hampshire, and Vermont

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

PROBLEM: To provide adequate air defense within the states of Maine, New Hampshire and Northern Vermont during the period from 1 July to 1 October 1954.

FACTORS BEARING ON THE PROBLEM:

1. The facts are:

- a. The 74th Fighter-Interceptor Squadron, Presque Isle Air Force Base, Maine was scheduled for deployment to Thule AFB, Greenland on or about 1 August 1954, according to the "ADC Program Book", however, due to engine modification ordered by message EAMAC-ADC 12789, Headquarters EADF, the deployment will be delayed until approximately 1 September 1954.
- b. The 57th Fighter-Interceptor Squadron, Presque Isle AFB, Maine, was scheduled for deployment to Keflavik, Iceland on or about 1 October 1954 according to the "ADC Program Book", however, due to engine modification ordered by message EAMAC-ACD 12789, Headquarters EADF, the deployment will be delayed until approximately 20 January 1955.
- c. The 318th Fighter-Interceptor Squadron, Thule AFB, Greenland has been programmed for deployment to Presque Isle, Maine to replace the 74th Fighter-Interceptor Squadron.
- d. The 82nd Fighter-Interceptor Squadron, Keflavik, Iceland, has been programmed for deployment to Presque Isle, Maine, to replace the 57th Fighter-Interceptor Squadron.

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e. Upon arrival in the ZI, the aircraft belonging to the 318th and 82nd Fighter-Interceptor Squadrons will be transferred to an Air Force depot for modification and these units will be equipped with F-89D aircraft.

f. The 49th Fighter-Interceptor Squadron, Dow AFB, Maine will begin conversion from F-86F to F-86D on or about 1 July 1954.

g. The 32nd Air Division (Defense) will be unable to deploy any assigned units for the Air Defense of this area without endangering other sectors of responsibility.

2. Assumptions:

a. Aircraft assigned to the 74th Fighter-Interceptor Squadron will be undergoing IRAN and engine modification at OCAMA from the present time until approximately September 1954.

b. Aircraft assigned to the 57th Fighter-Interceptor Squadron will be undergoing IRAN and engine modification OCAMA from the present time until approximately 20 January 1955.

c. The 318th and 82nd Fighter-Interceptor Squadrons will require at least 45 days, from date of arrival in the ZI to complete conversion from F-94B to F-89D.

d. The maximum number of aircrews and maintenance personnel belonging to the 318th and 82nd Fighter-Interceptor Squadrons will be granted leaves upon their arrival in the ZI.

e. The 49th Fighter-Interceptor Squadron will require a minimum of 60 days to complete conversion from F-86F to F-86D aircraft.

DISCUSSION:

1. The area northeast of a line from Burlington, Vermont, to Otis AFB, Massachusetts requires a minimum of two (2) all-weather fighter-interceptor squadrons, to maintain adequate air defense of vital targets and approach routes.

2. Since approximately 50% of the aircraft assigned to the 74th and 57th Fighter-Interceptor Squadrons will be undergoing IRAN and engine modification during the months of May and June, the area in mention will be defended by the equivalent of one (1) all-weather squadron located at Presque Isle AFB and one (1) day-fighter-interceptor squadron located at Dow AFB, Maine, during May and June.

3. For the month of July, this area will be defended with the equivalent of one (1) all-weather squadron. The 49th Fighter-Interceptor Squadron will begin conversion to F-86D aircraft on or about 1 July and

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approximately fifty per cent (50%) of the 74th and 57th Fighter-Interceptor Squadrons aircraft will still be undergoing IRAN and engine modification.

4. During the month of August this area will be defended by one (1) all-weather fighter-interceptor squadron. The 74th Fighter-Interceptor Squadron will be preparing for overseas deployment and the 49th Fighter-Interceptor Squadron will be undergoing F-86D conversion.

5. For the month of September, the active air defense strength of this area is estimated to be one and one-half ( $1\frac{1}{2}$ ) all-weather fighter-interceptor squadrons. One third ( $\frac{1}{3}$ ) of the 57th assigned aircraft will be undergoing IRAN at OCAMA; 74th Fighter-Interceptor Squadron will deploy overseas; and the 49th Fighter-Interceptor Squadron will be approximately two-thirds complete with the conversion program. The 318th Fighter-Interceptor Squadron will be deploying to Presque Isle AFB from Thule AFB during that month. The only factor which will change the estimated strength would be the rapidity with which the 49th Fighter-Interceptor Squadron becomes proficient in F-86D's.

6. During the months following September, the strength of this area should not fall below the equivalent of two (2) all-weather fighter-interceptor squadrons at any time.

7. Due to the geographical area in which the 82nd and 318th Fighter-Interceptor Squadrons were located, it is anticipated that the maximum number of aircrews and maintenance personnel assigned these units will be granted leaves upon their arrival in the ZI. This will increase the period of time necessary to complete the conversion of these units from F-94B to F-89D type aircraft to approximately 45 days.

8. It is not considered feasible to deploy any of the all-weather fighter-interceptor squadrons assigned to the 32nd Air Division (Defense) for the air defense of this sector. With the exception of the Boston area, all remaining sectors are depending upon one fighter squadron for air defense and to deploy a squadron would leave an area undefended. The two (2) fighter-interceptor squadrons, located at Otis AFB, are considered the minimum necessary for air defense of the Boston area due to the concentration of vital targets and possible attack routes located there.

CONCLUSION:

1. During the period from 1 July to 1 October 1954, the area northeast of a line from Burlington, Vermont to Otis AFB, Massachusetts will be without adequate air defense due to the conversion and deployment of the fighter-interceptor squadrons assigned within that area.

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2. No unit of the 32nd Air Division (Defense) could be deployed to this area without leaving the area it is permanently assigned without adequate air defense.

RECOMMENDATIONS:

1. That Eastern Air Defense Force arrange for the deployment of an all-weather fighter interceptor squadron to Presque Isle AFB, Maine for the purpose of conducting active air defense during the period from 1 July to 1 October 1954.

2. That the deploying squadron be equipped with sufficient equipment and spare parts, particular to assigned aircraft, for a ninety (90) day period of operation.

FOR THE COMMANDER:

1 Incl:  
"Conversion & Deployment  
Program"

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

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Deployment and Conversion of F/I Sqdns for Maine

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
49th F/I Sqdn, Dow AFB, Me.	F-86C		Conversion to F-86D					
74th F/I Sqdn, Presque Isle, Me.	IRAN & Engine Modification		Deploys to Thule					
57th F/I Sqdn, Presque Isle, Me.	IRAN & Engine Modification		Deploys to Iceland					
318th F/I Sqdn, Thule	Leave for personnel & conversion to F-89D.							
82nd F/I Sqdn, Iceland	Deploys to Presque Isle		Leave for personnel & conversion to F-89D					

Although there is nothing in the TWX pertaining to the 318th and 82nd F/I Sqdns it is safe to assume their return to the 21 will be delayed until the deployment of the replacement squadrons.

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PO&R

DO

17 Apr

1. Desire you get together with O&T, D/M and come up with a brief Staff Study on this by about Thurs noon.
2. Plan on requesting an All Wx Sq from EADF.
3. Point up the fact that due to our location & weakness we should not move a Sq.
4. The Sqd will go into PQI
5. Check 4711 for housing etc # pers in All Wx Sq?
- 6, Period will be from about 10 July to 1 Oct.

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I. PROBLEM.

How will the 32d Air Division (D) adequately defend its area of responsibility, especially the states of Maine, New Hampshire and part of Vermont, during the period 1 May - 31 October 1954.

II. CAUSE.

Factors causing this problem are as follows:

1. The 74th FIS deploys to Thule on or about 1 August 1954.
2. The 57th FIS deploys to Iceland on or about 1 October 1954.
3. The 49th FIS converts to F-86D type aircraft on or about 1 July 1954.
4. The aircraft assigned to the 74th and 57th FIS will be undergoing modification through the IRAN project until such time as they depart for NEAC.
5. The 82d FIS deploys from Iceland to Presque Isle during October 1954.
6. The 318th FIS deploys from Thule to Presque Isle during August 1954.
7. The 82d and 318th FIS aircraft will be transferred to a depot for modification upon their arrival in the ZI and will be re-equipped with F-89Ds.

III. RESULTS.

The results of the conversion and deployment of these squadrons are as follows:

1. During the entire period in question the area east of a line from Burlington, Vt. to Otis AFB, Mass. or the states of Maine, New Hampshire, and part of Vermont will be under-strength in both aircraft and crews.
2. During the period 1 May to 1 July 1954 the strength within the area in question will be equivalent to approximately one (1) all-weather FIS and one day FIS.
3. During the month of July 1954 the overall area strength will be equivalent to 1 1/2 all-weather squadrons.
4. During the month of August 1954 the overall strength of the area will drop to a low of approximately 3/4 of one all-weather FIS.

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5. During the month of September 1954 the strength of the area will be between one and two all-weather FIS depending on the phasing out of the 57th FIS and the rapidity with which the 49th FIS has become proficient in the F-86D.
6. During the month of October 1954 the strength of the area will be one all-weather squadron.

IV. RECOMMENDATIONS:

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HEADQUARTERS  
27TH FIGHTER INTERCEPTOR SQUADRON  
Griffiss Air Force Base, Rome, NY

FIS27-0FR

11 March 1954

SUBJECT: Waiver of ADC UFD Requirements

THRU: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

TO: Commander  
Eastern Air Defense Forces  
Stewart Air Force Base  
Newburgh, New York

1. Waiver of ADC UFD 10-4 requirements are requested for this organization in accordance with EADF Regulation 50-16 for the period of 1 April to 30 April 1954.

a. Description of Waiver.

- (1) Phase of training: Radar Scope recording and aerial rocketry requirements.
- (2) Percent of training for which a waiver is desired: 100%.

b. Justification of Waiver.

- (1) This unit is not scheduled for gunnery training during the current fiscal year. Equipment and facilities are lacking for the local conduct of radar scope recording and aerial rocketry training.

FOR THE COMMANDER:

THOMAS E. TAGER  
Captain, USAF  
Adjutant

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Hq 27th FIS FIS27-OPR Subject: Waiver of ADC UPD Requirements

DO (11 Mar 54) 1st Ind 22 Mar 1954

Hq 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

1. Recommend waiver be granted as requested in basic letter.
2. Since the 27th Fighter-Interceptor Squadron possesses no radar scope recording mounts and since none will be available during April, it will be impossible to complete the specified requirements.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

OOT (11 Mar 54) 2nd Ind 29 Mar 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base, Newburgh, New York

Recommend approval.

FOR THE COMMANDER:

FREDERICK B. YORK  
Major, USAF  
Adjutant

C O P Y

Hq 27th FIS FIS27-GPR Subject: Waiver of ADC UPD Requirements

EA00T-TW (11 Mar 54) 3d Ind 5 Apr 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, NY

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

Approved.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR  
Major, USAF  
Asst Adjutant

OCT-FO (11 Mar 54) 4th Ind 7 Apr 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Presque Isle, Maine

For your information and necessary action.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

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HEADQUARTERS  
520TH AIR DEFENSE GROUP  
PRESQUE ISLE AIR FORCE BASE  
PRESQUE ISLE, MAINE

CO

31 Mar 1954

SUBJECT: Alert Requirements

TO: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. It is requested that the alert commitments for this base be changed from a two-squadron commitment to a one-squadron commitment for the following reasons:

a. The present combined number of F-89's possessed by both squadrons totals 23, which approximates the normal complement of one fighter squadrons.

b. It is anticipated that in May of this year the number of aircraft possessed will decrease even further due to loss of 57th Fighter-Interceptor Squadron aircraft to IRAN and the fact that seven aircraft sent to IRAN by the 74th Fighter-Interceptor Squadron are scheduled to the 433rd Fighter-Interceptor Squadron rather than return to the 74th Fighter-Interceptor Squadron.

c. Our in-commission rate will be adversely affected for a period of time due to the 8th stage engine modification underway at this station.

2. In view of the above it is felt that a two-squadron alert commitment for this base is unrealistic until the aircraft situation improves and that the request contained in paragraph 1 is justified.

FRANK Q. O'CONNOR  
Colonel, USAF  
Commander

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Hq 528th ADG CO Subject: Alert Requirements

COMDR (31 Mar 54) 1st Ind ⑤

Hq 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

1. This headquarters strongly recommends favorable consideration of above request.

2. An additional consideration is the fact that the 74th Fighter-Interceptor Squadron is preparing to deploy to Thule Air Force Base, Greenland on or about 3 August 1954. Any additional respite given this Squadron could be utilized to great advantage in continuing to train unqualified pilots and in preparing for the cited deployment.

JAMES G. BREKWITH  
Colonel, USAF  
Commander

OOI-FO (31 Mar 54) 2nd Ind

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York, 10 April 1954

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base, Newburgh, New York

1. Recommend approval.

2. In addition to a critical shortage of possessed aircraft, it is anticipated that the squadrons assigned to Presque Isle will lose qualified F89C crews to the 433rd Fighter-Interceptor Squadron. Any new crews assigned, to bring the 57th Fighter-Interceptor Squadron, and 74th Fighter-Interceptor Squadron up to TO strength, will require training in assigned aircraft before they become combat qualified. This training will be greatly accelerated by the requested change in alert requirements.

ROBERT S. ISRAEL, JR  
Colonel, USAF  
Commander

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Hq 520th Air Def Gp Subject: Alert Requirements

8AGOT-OW (31 Mar 54) 3rd Ind 16 Apr 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh,  
New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. Action requested in basic letter was effected 13 April  
1954.
2. This Indorsement is Unclassified.

BY ORDER OF THE COMMANDER:

J. W. FOURFRAIN, JR  
Major, USAF  
Asst Adjutant

OOT-FO (31 Mar 54) 4th Ind 4 May 1954

HQ 32d AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Presque Isle,  
Maine

For your information and guidance.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

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57TH FIGHTER INTERCEPTOR SQUADRON  
528TH AIR DEFENSE GROUP  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

FIB57-OPN

14 April 1954

SUBJECT: Waiver of ADC UPD Requirements

THRU: Commander  
528th Air Defense Group  
Presque Isle Air Force Base  
Presque Isle, Maine

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Under the provisions of EAD Regulation 50-16, a waiver of all ADC UPD requirements is hereby requested during the month of April for the 57th Fighter Interceptor Squadron, Presque Isle Air Force Base, Presque Isle, Maine.

a. This squadron presently has thirteen (13) UE aircraft assigned. An average of five (5) to six (6) aircraft are grounded for lack of engines. Technical Order modification of available engines further curtails the operation of this squadron, as approximately 150 man hours extra is required when an aircraft is due inspection. This situation is expected to continue throughout the entire month of April.

b. With the alert commitments imposed on this organization, further reduction of flying hours is indicated so that the number of aircraft remaining in commission is sufficient to meet alert commitments.

c. Toward the end of April, inlet screens must be replaced on all aircraft and a major inspection performed on ten (10) of the aircraft prior to IRAN at Hill Air Force Base, Ogden, Utah, scheduled 9 May 1954. This is expected to aggravate the situation and further hamper our operation.

2. It is anticipated that additional waiver requests will be made for May and June as ten (10) aircraft are scheduled for IRAN on 9 May 1954, the remainder in June, leaving this organization with no UE aircraft until delivery of aircraft from IRAN.

CLAUDE W. HANLEY, JR.  
Major, USAF

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FIS57-OPN Ltr., Subject: Waiver of ADC UPD Requirements

DO (14 Apr 54) 1st Ind 29 Apr 54

HQ 520TH AIR DEFENSE GROUP, Presque Isle AFB, Maine

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. Recommend approval.
2. All available resources have been utilized. A continued effort will be made to accomplish training requirements for the period.

FRANK J. O'CONNOR  
Colonel, USAF  
Commander

DO (14 Apr 54) 2nd Ind 30 Apr 54

HQ 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station  
Eastwood Station 6, Syracuse, New York

1. Recommend approval.
2. All available resources within this Wing have been utilized to alleviate the problems cited in basic letter. As a result, the following information is submitted:
  - a. This headquarters has been advised that 20 engines are in transit to this base.
  - b. Twelve civilian mechanics from Middletown AMA are presently on duty with the 520th Material Squadron working in minor repair and engine buildup. These mechanics will remain at this station until the present situation is alleviated.
3. Reference is made to paragraph 1c, basic letter. Aircraft from the 57th Fighter-Interceptor Squadron have been rescheduled for IRAN in September, October and November.

JAMES F. REED  
Colonel, USAF  
Commander

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57th FIS FIS57-OPN Subject: Waiver of ADC UP. Requirements

OCT-FO (14 Apr 54) 3d Ind

HQ 38D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base, Newburgh, New York

1. Recommend approval.
2. All available resources are being utilized to the maximum extent in an effort to accomplish as much training as possible.

ROBERT S. ISRAEL, JR  
Colonel, USAF  
Commander

EAOOT-IV (14 Apr 54) 4th Ind 14 May 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N.Y.

TO: Commander, 38th Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

Approved.

GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

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57th FIS FIS57-0FN Subject: Waiver of ADC UPD Requirements

OOT-FO (14 Apr 54) 5th Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse,  
New York, 25 May 1954

TO: Commander, 4711th Air Defense Wing, Presque Isle AFB, Presque  
Isle, Maine

1. Approved.
2. If waivers for May and June are still anticipated, desire each requested waiver be submitted as early as practical to insure approval by higher headquarters within the time limitation.

ROBERT S. ISRAEL, JR  
Colonel, USAF  
Commander

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HEADQUARTERS  
27TH FIGHTER-INTERCEPTOR SQUADRON  
Griffiss Air Force Base, Rome, NY

FIS27-OPR

16 April 1954

SUBJECT: Waiver of ADC UPD Requirements

THRU: Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Waiver of ADC UPD 10-4 requirements are requested for this organization in accordance with EADF Regulation 50-16 for the period of 1 May 1954 to 31 May 1954.

a. Description of Waiver.

- (1) Phase of training: Radar scope recording and aerial rocketry requirements.
- (2) Percent of training for which a waiver is desired: 100%.

b. Justification of Waiver:

- (1) This unit is not scheduled for gunnery training during the current fiscal year. Equipment and facilities are lacking for the local conduct of radar scope recording and aerial rocketry training.

FOR THE COMMANDER:

THOMAS E. TAGER  
Captain, USAF  
Adjutant

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Hq 27th FIS FISCYOPR Subject: Waiver of ADC UPD Requirements

DO (16 Apr 54) 1st Ind 22 May 1954

HQ 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. Recommend approval.
2. There are no radar scope recording kits available within this command for the F-94C.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

C O P Y

Hq 27th FIS F1527-OPR Subject: Waiver of ADC UPD Requirements

OCT-FO (16 Apr 54) 2nd Ind 1 Jun 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Recommend approval.

2. Availability of scope recording kits was investigated and the Deputy Material Section determined no available means of mounting scope cameras exist or will be available during period stated in above request for waiver. However, drawings for modification of camera mount will be available in the near future.

FOR THE COMMANDER:

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

C O P Y

Hq 27th FIS FIS27-OPR Subject: Waiver of ADC UPD Requirements

RADOT-IW (16 Apr 54) 3d Ind 5 June 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, NY

TO: Commander, 32d Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. Approved.

2. Plans and specifications for F-94C scope recording kits  
and funding citation for local manufacture are being forwarded by  
Headquarters Air Defense Command.

BY ORDER OF THE COMMANDER:

JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

OOT-FO (16 Apr 54) 4th Ind 8 June 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Presque Isle,  
Maine

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HEADQUARTERS  
27TH FIGHTER-INTERCEPTOR SQUADRON  
Griffiss Air Force Base, Rome, NY

FIS27-OPR

4 May 1954

SUBJECT: Waiver of ADC UPD Requirements

THRU: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Waiver of ADC UPD 10-4 requirements are requested for this organization in accordance with EADF Regulation 50-16 for the period of 1 June 1954 to 30 June 1954.

a. Description of Waiver

- (1) Phase of training: Radar scope recording and serial rocketry requirements.
- (2) Percent of training for which a waiver is desired: 100%.

b. Justification of Waiver.

- (1) This unit is not scheduled for gunnery training during the current fiscal year. Equipment and facilities are lacking for the local conduct of radar scope recording and serial rocketry training.

FOR THE COMMANDER:

THOMAS E. TAGER  
Captain, USAF  
Adjutant

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C O P Y

Hq 27th FIS FIS27-OPR Subject: Waiver of ADC UFD Requirements

DO (4 May 54) 1st Ind 14 Jun 1954

Hq 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. Recommend approval.
2. There are no radar scope recording kits available within  
this command for the F-94C.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

C O P Y

27th FIS FIS 27-OPR Subject: Waiver of ADC UPD Requirements

OOT-PO (4 May 54) 2nd Ind 18 June 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Recommend approval.
2. Plans and specifications for F-94C scope recording kits  
and funding citation for local manufacture are being forwarded  
by Headquarters Air Defense Command.

FOR THE COMMANDER:

s/t/ FREDERICK E. YORK  
1st Colonel, USAF  
Adjutant

C O P Y

Hq 27th Ftr Intcp Sq FIS 27-0PR Subject: Waiver of ADC UFD  
Requirements

EACOT-TW (4 May 54) 3d Ind 26 Jun 54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, NY

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

Approved.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

**SECRET**

57TH FIGHTER INTERCEPTOR SQUADRON  
520TH AIR DEFENSE GROUP  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

FIS57-OPN

5 June 1954

SUBJECT: Waiver of ADC UPD Requirements

THRU: Commander  
520th Air Defense Group  
Presque Isle Air Force Base  
Presque Isle, Maine

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Under the provisions of EADF Regulation 50-16, a waiver of all ADC UPD requirements is hereby requested during the month of June for the 57th Fighter-Interceptor Squadron, Presque Isle Air Force Base, Presque Isle, Maine.

a. The squadron presently has seventeen (17) aircraft assigned and fourteen (14) possessed.

b. Of the fourteen (14) aircraft possessed, nine (9) will have departed for IRAN at Hill Air Force Base, Ogden, Utah by 11 June 1954 and the remaining five (5) aircraft will depart for IRAN in July.

c. The first aircraft are not scheduled for return from IRAN until August 1954 and will return in small increments through September 1954.

CLAUDE W. HANLEY, JR.  
Major, USAF  
Commander

54-1719 151 6

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C O P Y

FIS57-Opn Letter, Subject: Waiver of ADC UPD Requirements

DO (5 Jun 54) 1st Ind 8 June 1954

HQ 528TH AIR DEFENSE GROUP, Presque Isle Air Force Base, Maine

TO: Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine

1. Recommend approval of request.
2. All available resources have been utilized and a continued effort will be made to accomplish training requirements for the period.
3. This correspondence is classified SECRET in accordance with par 23c, AFR 205-1.

FRANK G. O'CONNOR  
Colonel, USAF  
Commander

DO (5 Jun 54) 2nd Ind 29 Jun 1954

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

1. Recommend approval.
2. All available resources within this command have been utilized.

JAMES F. REED  
Colonel, USAF  
Commander

2

**SECRET**

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C O P Y

SECRET

FIS57-Opn Letter, Subject: Waiver of ADC UPD Requirements

OOT-FO (5 June 1954) 3rd Ind 7 Jul 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Webburgh, New York

1. Recommend approval.
2. F-33 aircraft will be used to accomplish as much of the  
UPD requirements as possible.

ROBERT S. ISRAEL, JR  
Colonel, USAF  
Commander

3

SECRET

J 1 6 8

C O P Y

**SECRET**

Hq 57th Ftr-Intcp Gp, 580th Air Def Gp FIS 57-000 Subject: Waiver  
of ADC UPD Requirements

EACOE-IW (5 Jun 54) 4th Ind 19 Jul 54

Hq EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh,  
New York

TO: Commander, 39d Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

Approved.

BY ORDER OF THE COMMANDER:

JAMES R. MORLINE  
Captain, USAF  
Asst Adjutant

**SECRET**

C O P Y

74TH FIGHTER-INTERCEPTOR SQUADRON  
520TH AIR DEFENSE GROUP  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

FIS74

14 June 1954

SUBJECT: Request for Waiver of Par. 23, AFM 75-37

TO: Commander  
520th Air Defense Group  
Presque Isle Air Force Base  
Presque Isle, Maine

1. AFM 75-37, Paragraph 23, requires combat-ready status of all unitpilots before going overseas. This organization has found it impractical to raise all pilots to combat-ready level, due to the lack of local gunnery facilities and a heavy transition program.

2. This squadron has thirty-eight (38) pilots assigned. These officers are in the following stages of combat readiness:

15 completely combat ready  
12 combat qualified  
11 pilots in transition

This squadron anticipates an overseas movement in the near future and is conducting a transition program for newly assigned pilots with the exception of gunnery. A gunnery encampment would be impractical at this time. The gunnery range which is located 150 miles (nautical) from this station is not readily accessible for the squadron's use due to the distance involved. At best the F-69C has a duration during gunnery missions of one hour and thirty minutes. This allows only a minimum of time at the gunnery range and requires that weather conditions be ideal for a successful sortie. The weather conditions are not usually suitable for firing gunnery a large percentage of the time. In addition, the operational facilities at Dow Air Force Base, Maine are overcrowded and are not capable of supporting this organization for a gunnery encampment at that station.

3. In view of these restrictive factors, and the fact that a gunnery range will be available at our overseas base, it is requested that the requirement that all pilots be combat-ready prior to overseas movement be waived.

FOR THE COMMANDER:

FRED W. JOHNSON  
1st Lt., USAF, Adjutant

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C O P Y

FIS 7<sup>4</sup>, Letter, Subject: Request for Waiver of Par 23, 75-37,

DO (14 Jun 54) 1st Ind

Hq 528th AIR DEFENSE GROUP, Presque Isle AFB, Maine

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Maine

Concur.

FOR THE COMMANDER:

JAMES R. BOYLES  
1st Lt., USAF  
Asst Adjutant

C O P Y

74th FIS 538th ADG FIS74 Subject: Request for Waiver of Par 23  
AFM 75-37

DO (14 Jun 74) 2nd Ind

Hq 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. It is anticipated that the 74th Fighter-Interceptor Squadron will not be relieved from their alert commitment until 15 days prior to their departure date. This burden necessitates the use of supervisory type personnel who would have to be used as instructors and flight leaders in any gunnery program.

2. This headquarters has no assurance that the 74th Fighter-Interceptor Squadron will have enough aircraft to maintain alert and complete the transition program on the eleven (11) pilots presently undergoing training in time to deploy overseas. There are at present two (2) aircraft at IRAN, three (3) to go to IRAN shortly, and twelve (12) that have been to IRAN. Nine (9) aircraft are programmed, but no word has been received as to when they will be delivered. Of the twelve (12) aircraft available, eight (8) or nine (9) can conceivably be maintained flyable. Six (6) of these are required for alert, leaving two (2) or three (3) for transition.

3. In view of the above it is inconceivable that a successful gunnery program could be consummated.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

74th FIS 528th ADG FIST4 Subject: Request for Waiver of Par 23,  
AFM 75-37

OOT-FC (14 Jun 54) 3rd Ind 23 Jun 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Recommend approval of requested waiver.
2. Aircraft are not available in sufficient quantity at Presque Isle Air Force Base, Presque Isle, Maine to permit the 74th Fighter-Interceptor Squadron to complete transition and gunnery requirements prior to overseas deployment.

FOR THE COMMANDER:

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

C O P Y

74TH FIS, 528TH AIR DEF GP, FIS 74 Subject: Request for Waiver of Paragraph 23, AFM 75-37

EACOT-TW (14 June 54) 4th Ind 6 July 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

This headquarters can find no requirement for tactical pilots to be combat-ready prior to their deployment overseas. No such statement appears in Air Force Manual 75-37 other than, Training requirements for appropriate AFSC will be met prior to movement overseas. Combat-readiness is a desired item of accomplishment, though not specifically required, and will not be a basis for preventing or delaying overseas movement of individuals or units. In view of the above, it is felt that subject request for waiver is not appropriate prior to deployment of the 74th Fighter-Interceptor Squadron to an overseas destination.

BY ORDER OF THE COMMANDER:

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

OOT-FO (14 Jun 54) 5th Ind 12 July 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Presque Isle, Maine

C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
ENT AIR FORCE BASE  
COLORADO SPRINGS, COLORADO

ADOOT-B

11 February 1954

SUBJECT: Request for Waiver of AFR 60-2

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. The enclosures contained herein are furnished for your information and guidance.
2. Reference paragraph 2, 1st Indorsement, all TB-25K aircraft of this command are on project to be transferred to the Air National Guard, thereby eliminating possibility of interceptor pilots and observers maintaining proficiency in these aircraft.
3. Reference paragraph 3, 1st Indorsement; this matter is under study by this headquarters. Your recommendations and comments are requested.

BY ORDER OF THE COMMANDER:

- 2 Incls
1. Cy ltr fr ADC  
to Hq USAF,  
9 Dec 1953
  2. 1st Ind fr Hq  
USAF to ADC,  
22 Jan 54

JOHN J. HAYES  
CWC, USAF  
Asst Command Adj

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C O P Y

Hq ADC ADOOT-B Subject: Request for Waiver of AFR 60-2

EAOOT-FT (11 Feb 54) 1st Ind 23 Feb 54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

Desire comments and recommendations, as indicated in paragraph 3  
of the basic, be forwarded to reach this headquarters not later than  
15 March 1954.

BY ORDER OF THE COMMANDER:

1 Incl  
Corrected Listing -  
1. Cy ltr fr ADC to  
Hq USAF, Subj as  
above, 9 Dec 53  
w/1 Ind

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

OOT-FO 2nd Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth,  
Mass.  
Commander, 4711th Defense Wing, Presque Isle Air Force Base,  
Presque Isle, Maine.

Request compliance with 1st indorsement by 10 March 1954 in order  
that this headquarters may consolidate material prior to suspense  
date indicated in 1st indorsement.

BY ORDER OF THE COMMANDER:

1 Incl  
n/c

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst Adjutant

C O P Y

GENERAL ORDER 73 is the last of the series for 1953.

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, N.Y.

GENERAL ORDERS )  
NUMBER 1 )

25 January 1954

ACTIVATION AND ASSIGNMENT OF UNITS

1. The following units (having been constituted and assigned to this command) are activated, effective 18 March 1954, with station, T/O composition and strength, as indicated:

UNIT & STATION	T/O COMPOSITION	AUTH STR	
		OFF	WO AMN
49th Crash-Rescue Boat Flight, Kinross Air Force Base, Kinross, Michigan	1-1616, 1 Apr 52, 1x Parts IIBA, DC CA; 2 x Part IIOC	3	24
460th Fighter-Interceptor Sq, Presque Isle Air Force Base, Presque Isle, Maine	1-1257, 1 Jan 52, 1 x Part II; 1-1258 1 Feb 53, 1 x Part IIC	60	246

2. Concurrent with activation, the 49th Crash-Rescue Boat Flight is assigned to the 4706th Defense Wing and the 460th Fighter-Interceptor Squadron is assigned to the 528th Air Defense Group.

3. Personnel will be furnished from sources available to the defense wings concerned.

4. The above are Category D units and are authorized Unit Essential Equipment as listed in their Unit Property Record Equipment Authorization Lists. The UPREALS will be prepared based on Column 3A of the MEAL, and above T/O composition.

5. The precedence categories for the above units, as established in the current issue of the USAF Operating Program - Priorities of Programmed Units, are as follows: (a) 49th Crash-Rescue Boat Flight - XXV-33; (b) 460th Ftr-Intcp Sq - XVII-11. Any changes will be reflected in subsequent issues of the cited publication.

6. Upon activation, the 460th Fighter-Interceptor Squadron is entitled to the history, battle honors, and any colors belonging to the 460th Fighter Squadron, Single Engine, inactivated 20 February 1946. If desired, unit history may be obtained from the USAF Historical Division, Air University, Maxwell Air Force Base, Alabama.

7. Pertinent provisions of AFM 171-6, 1 June 1950, as amended, are applicable.

GENERAL ORDERS NUMBER 1 (Cont'd)

8. Upon completion of attention directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.

9. Authority: Letter, Department of the Air Force, 322 (AFOMO 913b), Subject: Constitution and Activation of the 49th Crash-Rescue Boat Flight; Activation of the 460th Fighter-Interceptor Squadron, 2 December 1953, with 1st Indorsement thereto, Headquarters Air Defense Command, ADCOM 322, 23 December 1953.

BY ORDER OF THE COMMANDER:

OFFICIAL:

GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

s/t/ JOHN L. WARREN  
Colonel, USAF  
Adjutant

DISTRIBUTION:

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4 - EACST

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, N.Y.

GENERAL ORDERS )  
NUMBER 6 )

12 February 1954

REORGANIZATION OF UNITS

1. Effective 23 February 1954, the following units are reorganized with strength and T/O composition as indicated:

UNIT	T/O COMPOSITION	AUTH STR	
		OFF	ANN
Fighter-Interceptor Squadrons 74, 433	1-1258, 1 Feb 53, 1 x Parts II, IIA, C	83	269

2. Required personnel will be furnished from sources available to the defense wings concerned.

3. The above units are Category B units and are authorized Unit Essential, Base Support and Field Support Equipment, as listed in their Unit Property Record Equipment Authorization Lists. The UPREAL's will be prepared based on Columns 3A, B, and C of the MEAL, and above T/O composition.

4. Pertinent provisions of AFM 171-6, June 1950, as amended, will apply.

5. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the 'as of' date.

6. Authority: Letter, Department of the Air Force, 322 (AFOMO 992h), 20 January 1954, Subject: Reorganization of the 74th and 433d Fighter-Interceptor Squadrons, and 1st Indorsement thereto, Headquarters Air Defense Command, ADCOM, 4 February 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:  
s/t/ JOHN L. WARREN  
Colonel, USAF  
Adjutant

GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

DISTRIBUTION:  
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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE ( ADC )  
Stewart Air Force Base, Newburgh, N.Y.

GENERAL ORDERS )  
NUMBER 9 )

16 February 1954

AMENDMENT OF GENERAL ORDERS

1. Paragraph 1, Section I, EADF General Orders Number 70, dated 23 November 1953, is amended by deleting the T/O composition and strength of the 49th Fighter-Interceptor Squadron, and substituting the following therefor:

T/O Composition:

1-1257-B, 1 Aug 53, 1 x Part  
II; 1-1258, 1 Feb 53, 1 x  
Part IIC

Authd	Str
Off	Ann
47	247

2. Authority: Letter, Department of the Air Force, 322 (AFOMO 16j), 29 January 1954, Subject: Reorganization of the 49th and 497th Fighter-Interceptor Squadrons, and 1st Indorsement thereto, Headquarters, Air Defense Command, ADCMO, 8 February 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:

GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

s/t/ JOHN L. WARREN  
Colonel, USAF  
Adjutant

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6 - EAOPM  
4 - EACST

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N.Y.

GENERAL ORDERS )  
NUMBER 12 )

25 February 1954

AMENDMENT OF GENERAL ORDERS

1. So much of paragraph 1, General Orders Number 1, this headquarters, 25 January 1954, is amended by deleting the T/O composition and strength of the 460th Fighter-Interceptor Squadron, and substituting the following therefor:

<u>T/O Composition</u>	<u>Auth Str</u>	
	<u>Off</u>	<u>Ann</u>
1-1257-B, 1 Aug 53, 1 x Part II;	47	247
1-1258, 1 Feb 53, 1 x Part IIC		

2. Authority: Letter, Department of the Air Force, AFMEMO 17J, 3 February 1954, Subject: Constitution and Activation of the 49th Crash-Rescue Boat Flight; Activation of the 460th Fighter-Interceptor Squadron, and 1st Indorsement thereto, Headquarters Air Defense Command, ADOMO, 9 February 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:

s/t/ JOHN L. WARREN  
Colonel, USAF  
Adjutant

GEORGE F. SMITH  
Brigadier General USAF  
Vice Commander

DISTRIBUTION:

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, N.Y.

GENERAL ORDERS ) 3 March 1954  
NUMBER 14 )

REORGANIZATION OF UNITS

1. Effective 18 March 1954, the following units are reorganized with strength and T/O composition as indicated:

UNIT	T/O COMPOSITION	AUTH STR	
		OFF	AMN
Fighter-Interceptor Squadrons 2, 5, 13, 37, 42, 47, 56, 60, 62, 63, 71, 75, 86, 95, 97, 331, 432	1-1257-B, 1 Aug 53, 1 x Part II; 1-1258, 1 Feb 53, 1 x Part IIC	47	247 (each)
57	1-1258, 1 Feb 53, 1 x Parts II, IIA, IIC	83	269
438	1-1258, 1 Feb 53 1 x Parts II, IIA, C, F	83	242
27, 46, 48, 58, 96, 332, 437	1-1257-B, 1 Aug 53, 1 x Parts II, IIA; 1-1258, 1 Feb 53, 1 x Part IIC	84	247 (each)

2. Personnel rendered surplus by above action will be appropriately absorbed, without loss in grade, in the defense wings concerned, or reported to this headquarters for reassignment instructions.

3. The above units are Category D units and are authorized Unit Essential Equipment as listed in their Unit Property Record Equipment Authorization Lists. The UPREAL's will be prepared based on Column 3A of the MEAL, and above T/O compositions.

4. Pertinent provisions of AFM 171-6, June 1950, as amended, will apply.

5. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.

6. Authority: Confidential Letter, Department of the Air Force, AFOMO 18j, 3 February 1954, Subject: (Unclassified) Reorganization of the 2d and

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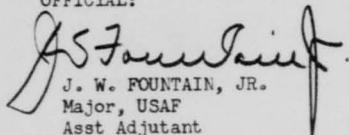
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GENERAL ORDERS NUMBER 14, 3 March 1954, Cont'd

Certain Other Fighter-Interceptor Squadrons, and 1st Indorsement thereto,  
Headquarters Air Defense Command, ADOMO, 15 February 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:

  
J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

DISTRIBUTION:

A plus  
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30 - Comdr, ADC, Attn: MEO (Unit Con Br)  
5 - AF Liaison O, Kansas City, Mo  
6 - EAOPM  
4 - EACST

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, NY

GENERAL ORDERS )  
NUMBER 35 )

23 June 1954

REORGANIZATION OF UNIT

1. Effective 8 July 1954, the following unit is reorganized with strength and T/O composition as indicated:

<u>UNIT</u>	<u>T/O COMPOSITION</u>	<u>AUTH STR</u> <u>OFF AMN</u>
57th Fighter Interceptor Squadron	1-1258, 1 Feb 53, 1 x Parts II, IIA, IIC; 1-750hF, 1 Dec 51, 1 x Part IIB	84 314

2. Required personnel will be furnished from sources available to the 4711th Defense Wing.

3. The above is a Category B unit and is authorized Unit Essential, Base Support and Field Support Equipment as listed in the MEAL. The UPRMAL, or the UME column of the Unit Allowance List, as applicable, will be prepared based on Columns 3a, b, and c of the MEAL and the above T/O composition, except that Equipment Component List 10-Series Kits only are authorized for T/O 1-750hF, 1 December 1951, 1 x Part IIB.

4. Pertinent provisions of AFM 171-6, June 1950, as amended, will apply.

5. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.

6. Authority: Headquarters Air Defense Command message ADOMO 18622, 10 June 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:

s/ J. W. Fountain, Jr.  
J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

GEORGE F SMITH  
Brigadier General, USAF  
Vice Commander

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OO 35 HEDEADF (ADC) Stewart AFB Newburgh NY 23 JUN 54 (CONT)  
(Distribution Page Only)

DISTRIBUTION:

: A plus  
30 - AAG, Hq USAF, Attn: Pub Div  
12 - Comdr AFG, Attn: MEO (Unit Con Br)  
5 - AF Liaison O, Kansas City, Mo  
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4 - EACST

SECRET

5F1 036  
PP 3EOA  
DE5F1 156  
P 281635Z  
FM HQ EADP STEWART AFB NEWBURGH NY  
TO COMDR 26TH ADIV (DEF) ROSLYN NY  
COMDR 30TH ADIV (DEF) WILLOW RUN APRT BELLEVILLE MICH  
COMDR 32D ADIV (DEF) HANCOCK FLD EASTWOOD STA 6 SYRACUSE NY  
INFO COMDR ADC ENT AFB COLO SPRINGS COLO  
/S E C R E T/ EAOOT-F C-1617. Eff 1 Dec 53 until 1 Mar 54, the folg  
min alert rqmts will be eff: Alert commitments per base during both  
duty and non-duty hrs will be 2 acft on "readiness" ( 5 min) and 4 acft  
on "back-up" ( 1 hr). Remainder of possessed and in-commission ftrs to  
be on reserve(3 hrs). Div comdrs will use discretion on mvng acft fr  
"back-up" to "readiness" when 5 min acft are scrambled for identification.  
Single acft scrambles may be utilized at the discretion of div comdr.  
Two of the acft on "back-up" will be kept in alert bays when bays are  
aval.

CCC Line 4 Gp 8 Shud Read QU53 EEE Quote Rpt Quote

C-10561

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N.Y.

EAOOT-OW

15 Jun 1954

SUBJECT: Semi-Monthly Aircraft Activity Reports (RCS: ADC-A1)

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. The Commander, 30th Air Division (Defense), has directed assigned interceptor squadrons to include specific information in semi-monthly aircraft activity reports that will enable interceptor squadron commanders and other interested personnel to compare like-equipped squadrons.

2. Your comments are desired relative to a requirement for including the following an/or additional items in subject reports:

a. Total flying time, by type aircraft, for the periods:

(1) First through 15th of the month to be included on report required as of the 20th day of the month.

(2) Sixteenth through last day of month to be included on report required as of the 5th day of the month.

b. In-commission rate for the same periods outlined in paragraphs 2a (1) and (2) above. In-commission rate to be computed by dividing total aircraft hours possessed by total hours in-commission.

c. AOCF rate for these same periods. AOCF rate to be computed by dividing total aircraft hours AOCF by total hours possessed.

3. Such information as average number of aircraft combat ready or possessed is undesirable for it will require classification of the reports. It is further believed that utilization figures, numbers and types of inspections performed, etc., are actually reflected in paragraphs 2a, b and c above or would not be a matter of interest to the majority of the people that read these reports.

BY ORDER OF THE COMMANDER:

Info Cy  
Com, 30th Air Div (Def)

BEN D. MOORHEAD  
1st Lt, USAF  
Asst Adjutant

156 1

J 1 8 7

Hq EADF, EA00T-OW Subj: Semi-Monthly Aircraft Activity Reports  
(RCS: ADC-A1)

OOT-FO (15 Jun 54) 1st Ind 29 Jun 54

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Inclusion of information listed in paragraph 2, basic letter  
would create a tendency to compare squadrons by hours flown, in-  
commission, and AOCF rates.

2. In that no two squadrons, with the possible exception of  
those stationed on the same base, are faced with the same problems  
(supply, refueling, personnel, etc.) a comparison by these factors  
is not considered satisfactory.

3. Subject information is available through the materiel section  
and could be compiled by the materiel section upon request.

FOR THE COMMANDER:

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

NORTH AMERICAN AVIATION  
LOS ANGELES OPERATING DIVISION  
OPERATION AND SERVICE NEWS

Volume 10, Number 23

2, 1954

PROJECT PULL-OUT

To make the F-86D Airplane an even more effective combat weapon, program known as "Project Pull-out" is getting underway in Sacramento and Fresno. The purpose is to incorporate late engineering changes in service F-86D Airplanes. These changes resulting from flight test, design development, and service experience will improve operational performance, promote flight safety, and ease maintenance easier.

Almost all present service F-86D's will make the journey to Fresno or Sacramento sooner or later. Individual parts from these airplanes will be reworked at various locations. The rear fuselage section will be taken to the North American Aviation plant in Los Angeles. S-4 fire control system components will be sent to Hughes Aircraft Co; auto-pilot components to Lear Inc; engines to USAF depot.

Fire Control System

The modified F-86D's are going to have a better fire control system. Engineering changes will be made to increase the reliability of the system.

Provision for a MADAR tape recorder will be included. MADAR is a new development in magnetic tape recording designed to permit recording radarscope data. It automatically provides a record of the attack phase, which may be played back immediately after flight as an aid in training and evaluation. Motion picture film, which was formerly used for attack evaluation, involved a long delay for processing.

Flight Control System

Improvements in the longitudinal flight control system will eliminate pilot-induced oscillation, sensitivity and overcontrol. The pilot will also notice a marked improvement in tracking and the ability to fly formation. Preliminary flight tests show a reduction in scatter of rocket vertical miss distances of approximately 25 percent with a resulting increase in hit probability of a approximately 15 percent. These changes to the stabilizer control system have been termed the variable-slope feel system.

Essentially, this system will provide the pilot with stick force gradients which vary depending on where the horizontal stabilizer is trimmed. (See figure 1.) For example, when the airplane is trimmed for low speed, the stick force for a given stick movement will be light.

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NORTH AMERICAN AVIATION  
LOS ANGELES OPERATING DIVISION  
OPERATION AND SERVICE NEWS

June 25, 1954

Volume 10, Number 23

PROJECT PULL-OUT

To make the F-86D Airplane an even more effective combat weapon, a program known as "Project Pull-out" is getting underway in Sacramento and Fresno. The purpose is to incorporate late engineering changes on service F-86D Airplanes. These changes resulting from flight test, design development, and service experience will improve operational performance, promote flight safety, and make maintenance easier.

Almost all present service F-86D's will make the journey to Fresno or Sacramento sooner or later. Individual parts from these airplanes will be reworked at various locations. The rear fuselage section will be taken to the North American Aviation plant in Los Angeles. E-4 fire control system components will be sent to Hughes Aircraft Co; autopilot components to Lear Inc; engines to USAF depot.

Fire Control System

The modified F-86D's are going to have a better fire control system. Engineering changes will be made to increase the reliability of the system.

Provision for a NADAR tape recorder will be included. NADAR is a new development in magnetic tape recording designed to permit recording radarscope data. It automatically provides a record of the attack phase, which may be played back immediately after flight as an aid in training and evaluation. Motion picture film, which was formerly used for attack evaluation, involved a long delay for processing.

Flight Control System

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Essentially, this system will provide the pilot with stick force gradients which vary depending on where the horizontal stabilizer is trimmed. (See figure 1.) For example, when the airplane is trimmed for low speed, the stick force for a given stick movement will be light.

As speed is increased, the forces will be higher, but never high enough to be uncomfortable.

In addition, the stick deflection to maneuver the airplane will be increased approximately 50 percent in the high-speed flight range. (See figure 2). Since the stick deflections at high speed are small, the increased stick movement will not be noticeable to the pilot, but it is mainly this change that eliminates pilot-induced oscillation, sensitivity and overcontrol.

Another feature of the new control system is the take-off trim position. With the lighter stick forces at low speed, the trim light has been set to come on with the stick well forward of the old full-aft trim position. With the airplane trimmed for take-off at the new trim light position, the pilot will find that the force to pull the nose off, as well as the push force after take-off during gear and flap retraction and acceleration to high speed, will be less than half of that obtained with the old control system. In addition, the trim lag will be reduced by more than 50 percent, so that the control system will respond to trimming faster.

All of these improvements to flying qualities have been obtained by mechanical changes to the control system. (See figure 3.) The pilot will now find that he can fly the airplane instead of the airplane flying him.

Another major flight control change scheduled for "Project Pull-out" is the installation of manual rudder control on those airplanes now having power rudder control. This will standardize all F-86D Airplanes and simplify the drag chute installation.

#### Drag Chute, Autopilot, and Armament

Installation of a pilot-operated drag chute will add another safety factor to F-86D operation. The new system will make it possible to reduce normal landing distance approximately 40 percent, making it possible to land on shorter runways. (See figure 4).

Approximately 36 changes will be made in the autopilot system. Among these will be the addition of a Type MS-1 approach coupler to provide automatic and more accurate control during instrument landing. Autopilot roll sensitivity will be improved for smoother control and better stabilizer trim control will be provided. To accomplish the latter the trim rate will be made proportional to the trim error. This will eliminate abrupt trim changes due to automatic trim.

Armament improvements will include revision of the rocket pod downlock switch to ensure positive operation, a strengthened pod jettison solenoid spring to prevent inadvertent jettisoning, and replacement of the nose wheel armament safety switches with more reliable hermetically sealed switches.

J47-GE-17B Engine

The Air Force will modify the engines into J47-GE-17B engines. Improvements will include a "hot streak" ignition system to make possible quicker afterburner light-ups and light-ups at higher altitude. A tail-pipe drip drain system will reduce the hazard of fires after shutdown, and the amplifiers will be replaced by a later-model open type.

For greater reliability, the modified engines will have beaded and perforated thermocouples, and rewiring to the thermocouples. These changes will provide a more trouble-free engine control system.

Other engine improvements will include a new exhaust cone and a flame holder for longer tail-pipe life, an improved main fuel valve for better control, and a longer-lasting compressor discharge pressure sensor. Changes to the emergency fuel regulator (ED-4) will make possible improved altitude operation.

Allotment Schedule

Following modification, F-86D-10 Airplanes will be designated F-86D-11; F-86D-15 will be F-86D-16; F-86D-20 will be F-86D-21; F-86D-25 will be F-86D-26; F-86D-30 will be F-86D-31; F-86D-35 will be F-86D-36; and F-86D-40 will be F-86D-41.

Because squadron operational strength must be maintained during the program, modification schedules may not necessarily allow the same airplanes to returned to their original owners. However, airplanes coming from "Project Pull-out" will contain all of the latest engineering developments.

This program will give us airplanes that are easier to maintain and safer to fly.

*Secret*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

DCE

18 March 1954

SUBJECT: UHF Tactical Frequency Assignment

TO: See Distribution

1. The inclosed Annex to ADC COI 36-1, dated 1 June 1953, hereby supersedes the 32d Air Division SOP 55-69 and/or the redesignated 32d Air Division Regulation 100-5, effective 1 April 1954.

2. Air Defense Command Regulation 100-17, dated 12 February 1954, provides ten to eleven possible tactical channels in airborne equipment depending on the types possessed.

3. The exact channelization has been left to the individual FIS Commanders' discretion, in light of his local commitments and equipment.

4. It is suggested that close coordination between the FIS Commander and their parent GCI station commanders be effected for their primary channelization. Pass-over to adjacent GCI station to be of secondary consideration for the remaining vacant ARC/27 channels that are determined to be available.

5. Channel nine will be for Picket Vessel operation for those squadrons concerned.

BY ORDER OF THE COMMANDER:

1 Incl  
Annex to ADC COI 36-1

*FE York*  
FVH VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

DISTRIBUTION:

B  
Comdr 26th AD(D)  
Comdr 30th AD(D)

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FIGHTER-INTERCEPTOR UHF TACTICAL FREQUENCY PLAN NUMBER 1

Site	Tactical Frequency		1st Alt Freq	2d Alt Freq
	Primary	- Secondary		
<u>27th FIS</u>				
P-49	238.5	- 292.8	297.9	316.1
P-21	239.4	- 254.5	288.7	293.7
P-14	254.7	- 239.6	288.9	293.9
<u>37th FIS</u>				
P-14	229.0	- 262.2	288.9	293.9
P-49	287.8	-	297.9	316.1
P-50	292.5	- 287.5	229.2	254.9
P-13	261.8	-	288.5	293.5
<u>47th FIS</u>				
P-21	228.8	- 262.0	288.7	293.7
P-49	261.1	-	297.9	316.1
<u>49th FIS</u>				
P-65	239.0	- 288.3	298.4	316.3
P-13	254.3	-	288.5	293.5
P-80	261.0	-	292.7	297.8
<u>58th FIS</u>				
P-10	239.5	- 262.1	298.9	316.2
P-13	239.2	-	288.5	293.5
P-50	287.5	- 297.6	229.2	254.9
<u>60th FIS</u>				
P-50	238.2	- 315.9	229.2	254.9
P-10	254.6	- 288.8	298.9	316.2
P-13	261.8	-	288.5	293.5
P-14	239.6	-	288.9	293.9
<u>74th FIS</u>				
P-80	238.4	- 287.7	292.7	297.8
P-65	261.6	- 293.3	298.4	316.3
<u>437th FIS</u>				
P-10	228.9	- 293.8	298.9	316.2
P-13	228.6	-	288.5	293.5
P-50	260.8	-	229.2	254.9

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FIGHTER-INTERCEPTOR UHF TACTICAL FREQUENCY PLAN NUMBER 2

Site	Tactical Frequency		27th FIS	1st Alt. Freq	2d Alt. Freq
	Primary	- Secondary			
P-49	238.7	- 293.0		298.1	316.0
P-21	239.5	- 254.6		288.8	293.8
P-14	254.8	- 262.3		289.0	294.0
<u>37th FIS</u>					
P-14	229.1			289.0	294.0
P-49	288.0			298.1	316.0
P-50	261.7	- 288.4		298.5	315.8
P-13	262.0			288.7	293.7
<u>47th FIS</u>					
P-21	228.9	- 262.1		288.8	293.8
P-49	261.3			298.1	316.0
<u>49th FIS</u>					
P-65	238.9	- 288.2		298.3	316.3
P-13	254.5			288.7	293.7
P-80	239.6	- 254.7		262.2	288.9
<u>58th FIS</u>					
P-10	239.2	- 261.8		298.6	315.9
P-13	239.4			288.7	293.7
P-50	254.2	- 293.4		298.5	315.8
<u>60th FIS</u>					
P-50	228.5			298.5	315.8
P-10	254.3	- 288.5		298.6	315.9
P-13	262.0			288.7	293.7
P-14	239.7			289.0	294.0
<u>74th FIS</u>					
P-80	229.0			262.2	288.9
P-65	261.5	- 293.2		298.3	316.3
<u>437th FIS</u>					
P-10	228.6	- 293.5		298.6	315.9
P-13	228.8			288.7	293.7
P-50	239.1				

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FIGHTER-INTERCEPTOR UHF TACTICAL FREQUENCY PLAN NUMBER 3

Site	Tactical Frequency		1st Alt Freq	2d Alt Freq
	Primary	- Secondary		
<u>27th FIS</u>				
P-49	239.0	- 293.8	298.4	316.5
P-21	239.7	- 254.8	289.0	294.0
P-14	254.4		288.6	293.5
<u>37th FIS</u>				
P-14	228.7	- 261.9	288.6	293.5
P-49	288.3		298.4	316.5
P-50	293.1	- 298.2	229.2	254.9
P-13	262.2		288.9	293.9
<u>47th FIS</u>				
P-21	229.1	- 262.9	298.0	214.0
P-49	261.6		298.4	316.5
<u>49th FIS</u>				
P-65	238.7	- 288.0	298.1	316.5
P-13	254.7		288.9	293.9
P-80	261.1	- 287.8	292.8	297.9
<u>58th FIS</u>				
P-10	239.4	- 262.0	298.8	315.1
P-13	239.6		288.9	293.9
P-50	288.1	- 316.0	229.2	254.9
<u>60th FIS</u>				
P-50	238.8		229.2	254.9
P-10	254.5	- 288.7	298.8	315.1
P-13	262.2		288.9	293.9
P-14	239.3		288.6	293.5
<u>74th FIS</u>				
P-80	238.5		292.8	297.9
P-65	261.3	- 293.0	298.1	316.5
<u>437th FIS</u>				
P-10	228.8	- 293.7	298.8	315.1
P-13	229.0		288.9	293.9
P-50	261.4		229.2	254.9

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

OCE

16 April 1954

SUBJECT: UHF Tactical Frequency Assignment

TO: See Distribution

1. The inclosed Annex to ADC COI 36-1, dated 1 June 1953, hereby supersedes all previous issues and is effective immediately.
2. Air Defense Command Regulation 100-17, dated 12 February 1954, provides ten to eleven possible tactical channels in airborne equipment depending on the types possessed.
3. The exact channelization has been left to the individual FIS Commanders' discretion, in light of his local commitments and equipment.
4. It is suggested that close coordination between the FIS Commander and their parent GCI station commanders be effected for their primary channelization. Pass-over to adjacent GCI station to be of secondary consideration for the remaining vacant ARC/27 channels that are determined to be available.
5. Channel nine will be for Picket Vessel operation for those squadrons concerned.

BY ORDER OF THE COMMANDER:

1 Incl  
Annex to ADC COI 36-1 (16 Apr 54)

DISTRIBUTION:

B  
Comdr 26th AD(D)  
Comdr 30th AD(D)

*Virginia L. Sweet*  
VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

156 4

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*54-174*

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*Secret*

FIGHTER-INTERCEPTOR UHF TACTICAL FREQUENCY PLAN NUMBER 1

<u>Site</u>	<u>Primary - Secondary</u>	<u>27th FIS</u>	<u>1st Alt Freq</u>	<u>2d Alt Freq</u>
		<u>27th FIS</u>		
P-14	254.7 - 239.6		288.9	293.9
P-21	239.4 - 254.5		288.7	293.7
P-49	238.5 - 292.8		297.9	316.1
		<u>37th FIS</u>		
P-13	261.8		288.5	293.5
P-14	229.0 - 262.2		288.9	293.9
P-49	287.8		297.9	316.1
P-50	292.5 - 287.5		229.2	254.9
		<u>47th FIS</u>		
P-20	239.2			
P-21	228.8 - 262.0		288.7	293.7
P-30	239.7			
P-49	261.1		297.9	316.1
P-62	287.6			
		<u>49th FIS</u>		
P-13	254.3		288.5	293.5
P-65	239.0 - 288.3		298.4	316.3
P-80	261.0		292.7	297.8
		<u>57th FIS</u>		
P-65	288.3 - 239.0		298.4	316.3
P-80	287.7 - 238.4		292.7	297.8
		<u>58th FIS</u>		
P- 9	254.4			
P-10	239.5 - 262.1		298.9	316.2
P-13	239.2		288.5	293.5
P-45	261.7			
P-50	287.5 - 297.6		229.2	254.9
		<u>60th FIS</u>		
P- 9	261.9			
P-10	254.6 - 288.8		298.9	316.2
P-13	261.8		288.5	293.5
P-14	239.6		288.9	293.9
P-30	262.3			
P-45	254.2			
P-50	238.2 - 315.9		229.2	254.9

Annex to ADC COI 36-1  
16 April 1954

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FIGHTER-INTERCEPTOR UHF TACTICAL FREQUENCY PLAN NUMBER 1 (Cont'd)

Site	Primary - Secondary	1st Alt Freq	2d Alt Freq
<u>74th FIS</u>			
P-65	261.6 - 293.3	298.4	316.3
P-80	238.4 - 287.7	292.7	297.8
<u>437th FIS</u>			
P-9	293.6		
P-10	228.9 - 293.8	298.9	316.2
P-13	228.6	288.5	293.5
P-45	239.1		
P-50	260.8	229.2	254.9

Annex to ADC COI 36-1  
16 April 1954

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FIGHTER-INTERCEPTOR UHF TACTICAL FREQUENCY PLAN NUMBER 2

<u>Site</u>	<u>Primary - Secondary</u>	<u>1st Alt Freq</u>	<u>2d Alt Freq</u>
<u>27th FIS</u>			
P-14	254.8 - 262.3	289.0	294.0
P-21	239.5 - 254.6	288.8	293.8
P-49	238.7 - 293.0	298.1	316.0
<u>37th FIS</u>			
P-13	262.0	288.7	293.7
P-14	229.1	289.0	294.0
P-49	288.0	298.1	316.0
P-50	261.7 - 288.4	298.5	315.8
<u>47th FIS</u>			
P-20	239.7		
P-21	228.9 - 262.1	288.8	293.8
P-30	254.4		
P-49	261.3	298.1	316.0
P-62	261.2		
<u>49th FIS</u>			
P-13	254.5	288.7	293.7
P-65	238.9 - 288.2	298.3	316.3
P-80	239.6 - 254.7	262.2	288.9
<u>57th FIS</u>			
P-65	288.2 - 238.9	298.3	316.3
P-80	254.7 - 239.6	262.2	288.9
<u>58th FIS</u>			
P- 9	254.6		
P-10	239.2 - 261.8	298.6	315.9
P-13	239.4	288.7	293.7
P-45	261.4		
P-50	254.2 - 293.4	298.5	315.8
<u>60th FIS</u>			
P- 9	262.1		
P-10	254.3 - 288.5	298.6	315.9
P-13	262.0	288.7	293.7
P-14	239.7	289.0	294.0
P-30	261.9		
P-45	288.1		
P-50	228.5	298.5	315.8

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FIGHTER-INTERCEPTOR UHF TACTICAL FREQUENCY PLAN NUMBER 2 (Cont'd)

<u>Site</u>	<u>Primary - Secondary</u>	<u>1st Alt Freq</u>	<u>2d Alt Freq</u>
<u>74th FIS</u>			
P-65	261.5 - 293.2	298.3	316.3
P-80	229.0	262.2	288.9
<u>437th FIS</u>			
P-9	288.8		
P-10	228.6 - 293.5	298.6	315.9
P-13	228.8	288.7	293.7
P-45	293.1		
P-50	239.1		

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FIGHTER-INTERCEPTOR UHF TACTICAL FREQUENCY PLAN NUMBER 3

<u>Site</u>	<u>Primary - Secondary</u>	<u>1st Alt. Freq</u>	<u>2d Alt. Freq</u>
<u>27th FIS</u>			
P-14	254.4	288.6	293.6
P-21	239.7 - 254.8	289.0	294.0
P-49	239.0 - 293.8	298.4	316.5
<u>37th FIS</u>			
P-13	262.2	288.9	293.9
P-14	228.7 - 261.9	288.6	293.6
P-49	288.3	298.4	316.5
P-50	293.1 - 298.2	229.2	254.9
<u>47th FIS</u>			
P-20	239.3		
P-21	229.1 - 262.3	298.0	294.0
P-30	254.6		
P-49	261.6	298.4	316.5
P-62	260.8		
<u>49th FIS</u>			
P-13	254.7	288.9	293.9
P-65	238.7 - 288.0	298.1	316.3
P-80	261.1 - 287.8	292.8	297.9
<u>57th FIS</u>			
P-65	288.0 - 238.7	298.1	316.3
P-80	287.8 - 261.1	292.8	297.9
<u>58th FIS</u>			
P-9	254.3		
P-10	239.4 - 262.0	298.8	315.1
P-13	239.6	288.9	293.9
P-45	261.0		
P-50	288.1 - 316.0	229.2	254.9
<u>60th FIS</u>			
P-9	261.8		
P-10	254.4 - 288.7	298.8	315.1
P-13	262.2	288.9	293.9
P-14	239.3	288.6	293.6
P-30	262.1		
P-45	287.7		
P-50	238.8	229.2	254.9

Annex to ADC COI 36-1 (16 April 1954)

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Page 5 of 6 Pages

*Secret*

FIGHTER-INTERCEPTOR UHF TACTICAL FREQUENCY PLAN NUMBER 3 (Cont'd)

<u>Site</u>	<u>Primary - Secondary</u>	<u>1st Alt Freq</u>	<u>2d Alt Freq</u>
<u>74th FIS</u>			
P-65	261.3 - 293.0	298.1	316.3
P-80	238.5	292.8	297.9
<u>437th FIS</u>			
P-9	288.5		
P-10	228.8 - 293.7	298.8	315.1
P-13	229.0	288.9	293.9
P-45	292.7		
P-50	261.4	229.2	254.9

Annex to ADC GOI 36-1  
16 April 1954

Page 6 of 6 Pages

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*54-174*

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
STEWART AIR FORCE BASE, NEWBURGH, NY

EAOOT-OW

15 Jul 1954

SUBJECT: Semi-Monthly Aircraft Activity Reports (RCS: ADC-A1)

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Reference ADC Regulation 55-55, 12 February 1954.
2. Effective 1 August 1954, interceptor squadrons will include the following information in Semi-Monthly Aircraft Activity Reports (RCS: ADC-A1).
  - a. Total flying time (airframe), UE and T-33 aircraft for the periods:
    - (1) First through 15th of the month to be included in report required as of the 20th day of the month.
    - (2) First through last day of the month to be included in report required as of the 5th day of the month.
  - b. In-commission rate for the same periods outlined in paragraphs 1a(1) and (2) above. In-commission rate to be computed by dividing total aircraft hours possessed by total hours in-commission.
  - c. AOCF rate for these same periods. AOCF rate to be computed by dividing total aircraft hours by total hours possessed.
3. It is desired that when possible subject reports not be classified. It must be remembered that although the information in the report from one squadron is unclassified, as a result of normal distribution, a compilation of information valuable to an aggressor becomes available. Therefore, it is desired that combat ready figures, strength figures, and other information that falls into this category not be included.

BY ORDER OF THE COMMANDER:

BEN D. MOORHEAD  
1st Lt, USAF  
Asst Adjutant

156 5

J 2 0 4

C O P Y

Hq EADF, EAOOT-OW Subj: Semi-Monthly Aircraft Activity Reports  
(RCS: ADC-A1)

OOT-FO (15 Jul 54) 1st Ind 21 Jul 1954

HEADQUARTERS, 32d AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth,  
Mass.  
Commander, 4711th Defense Wing, Presque Isle AFB, Presque Isle,  
Me.

Forwarded for your information and necessary action.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Assistant Adjutant

SECRET

C O P Y

JEPNB 26

PARAPHRASE NOT REQUIRED CONSULT CRYPTOCENTER BEFORE DECLASSIFYING  
CRYPTO NBR 633

PRIORITY DTG 122351Z

FROM COMDR ADC ENT AFB COLO

TO 5F1/COMDR EADF STEWART AFB NEWBURGH NY

LO/3/COMDR WADF HAMILTON AFB CAL

NLI/COMDR CADF GRANDVIEW AFB MO

/S E C R E T/ ADOOT-C 0401. The following alert commitment has been recommended for the period commencing 1 Apr 54. Single squadron bases: During duty hours, two aircraft on readiness, six aircraft on back-up, remainder of aircraft which can be put in command within three hours on reserve. Multiple squadron bases: During duty hours, two aircraft on readiness, twelve aircraft on back-up, remainder of aircraft which can be put in command within three hours on reserve. During no-duty hours, two aircraft on readiness, two aircraft on readiness, two aircraft on availability twelve aircraft on back-up, remainder of aircraft which can be put in command within three hours on reserve. Fifty percent of reserve aircraft may be on cross-country flights at any given time, providing that alert commitments up to and including back-up are met with combat ready aircraft. Desire your comments reach this headquarters not later than 18 Mar 1954.

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TORC 130255Z MAR 67

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C O P Y

HQ EADF STEWART AFB NEWBURGH NY

PRIORITY

COMDR ADC ENT AFB COLORADO SPRINGS  
COLO

x

ADDOOT-C 0401

EAOOT-OW C 268 . Ref your class msg ADDOOT-C 0401. This msg in 2 pts. Part 1. Concur in proposed alert commitments as outlined in your message. Part 2. Request the following recommendations be considered: a. That alert requirements for multiple squadron bases be considered the same as those for single squadron bases when one of the squadrons goes to Yuma for gunnery. b. When the squadron from a single squadron base goes to Yuma, the alert commitment be left to the discretion of the ADiv Commander concerned. c. That duty hours and non-duty hours be specified by Air Defense Group Commanders or Tenant Squadron Commanders dependent on interceptor squadron training schedules.

SECRET 1 1

t/ MAJ MILLER

t/ JAMES R. WORLINE, Captain, USAF

EAOOT-0@ 170930 Mar 772

Asst Adjutant

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C O P Y

HQ EADF STEWART AFB NEWBURGH NY

PRIORITY

COMDR 26 ADIV (DEF) ROSLYN AF STA		
ROSLYN NY	x	
COMDR 30 ADIV (DEF) WILLOW RUN AF		
STA BELLEVILLE MICH		x
COMDR 32 ADIV (DEF) SYRACUSE AF STA		
EASTWOOD STA 6 SYRACUSE NY	ADOOT-C 0495	SECRET

EACOT-OW C- 305. . The following message from Headquarters ADC is quoted for your necessary action: "ADOOT-C 0495. Eff 1 Apr 54, the following minimum alert requirements per base will apply. A. At single squadron bases during duty hours: 2 aircraft on readiness (5 min), 4 aircraft on back-up (1 hr) and the remaining aircraft which can be put in commission w/i 3 hours on reserve (3 hr). B. At single squadron bases during non-duty hours: 2 aircraft on readiness (5 min), 2 aircraft on availability (15 min), 2 aircraft on back-up (1 hr) and remaining aircraft which can be put in commission w/i 3 hours on reserve (3 hr). C. At 2 squadron bases during duty hours: 2 aircraft on readiness (5 min), 8 aircraft on back-up (1 hr) and remaining aircraft which can be put in commission w/i 3 hours on reserve (3 hr). D. At 2 squadron bases during non-duty hours: 2 aircraft on readiness (5 min), 2 aircraft on availability (15 min), 8 aircraft on back-up (1 hr), and all remaining aircraft which can be put in commission w/i 3 hours on reserve (3 hr). E. Duty hours are defined as those hours during which the unit training schedule provides sufficient alert qualified aircrews, present for duty in the squadron to man the back-up aircraft as required in A and B above. F. The alert requirement for multiple squadron bases w/b the same as a single squadron base when one of the squadrons goes to Yuma. G. When the Squadron from a single squadron base goes to Yuma, the alert requirement w/b at the discretion of the air defense force concerned. H. A maximum of 20 percent of possessed fighter-interceptors may be absent from home station on long range naval training flights which are more than 3 hours flight distance from their base providing that alert commitments up to and including "Back-up" are met."

SECRET

t/ MAJ R.T. MILLER

t/ JOHN L. WARREN, Colonel USAF

EACOT-OW 271000 Mar 54

Adjutant

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JEPNE 03  
PARAPHRASE NOT REQUIRED CONSULT CRYPTOCENTER BEFORE DECLASSIFYING  
CRYPTO NBR 1147  
PRIORITY DTG 231835Z  
FM COMDR 32D AIR DIV ROCLYN AF NYA NY  
TO COMDR EADF STEWART AFB NY  
INFO COMDR 4711th DW PRESQUE ISLE AFB NY  
COMDR 27th FIS GRIFFISS AFB NY  
COMDR BURLINGTON MUNI APMT VT  
// S E C R E T // CITE ACFOOT-PO4063. ATTN COL NANCE IN ACCORDANCE WITH  
ADC OPS ORDER 3-54 REQ PERMISSION TO DEPLOY 2 F94C ACFT FR 27 FIS  
GRIFFISS AFB TO 37 FIS BURLINGTON AFB FOR PERIOD 23 APR TO 29 APR 54.  
THESE ACFT WILL BE USED TO STRENGTHEN THE DEF CAPABILITY WITHIN THE  
BURLINGTON AREA AND IN TNG OF GOI AND FTR INTCP CREWS IN INTCP AND  
TURN-AROUND PROC FOR F94C TYPE ACFT.  
TORC 23/2123Z APR 52

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HQ 8ADF STEWART AFB NEWBURGH NY

ROUTINE

X Original

CCMR ADC ENT AFB COLO SPRINGS COLO

EACOT-OW C- 44 . Ref ADC Opr O 3-54. Three F-94C acct of  
27th Ftr-Intep Sq have been deployed to Burlington AFB to strengthen  
def capability in that area. Def capability was low due to partici-  
pation of a tm fr 37th Ftr-Intep Sq in rocketry meet at Otis AFB.

SECRET 1 1

t/Maj Miller

t/James R. Worline, Captain, USAF

EACOT-OW 261615 Apr 54

Asst Adjutant

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C O P Y

**CONFIDENTIAL**

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-A

7 Jun 1954

SUBJECT: Temporary Redeployment of 47th FIS

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass.  
Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. During the period of approximately forty days in which Niagara Falls Municipal Airport will be undergoing runway repairs, the 47th FIS will be redeployed to Burlington Municipal Airport.

2. To maintain director proficiency at the 763d AC&W Squadron and to provide an opportunity for training thru exchange of interceptor control, the following procedure is established for the redeployment period:

a. Burlington Municipal Airport will be designated as a "Two Squadron Base", for the purpose of establishing alert commitment.

b. Scramble for identification of unknown tracks in the 763d AC&W Squadron subsector will be ordered thru the 655th AC&W Squadron to the 27th FIS.

c. For training flights, after checkin with "Nite Cap", interceptors of the 27th FIS will proceed to control of "Migrate". Interceptors of the 47th FIS will proceed to control of "Nite Cap" after checkin with "Moscow".

d. When tactically feasible, alert aircraft at Burlington will be scrambled for identification of unknown targets in the 655th AC&W Squadron subsector to relieve the 27th FIS of an undue workload.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst Adjutant

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**CONFIDENTIAL**

1892-54

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SECRET

JEPWB 13

PARAPHRASE NOT REQUIRED CONSULT CRYPTOCENTER BEFORE DECLASSIFYING  
CRYPTO NBR 55  
PRIORITY 021830Z  
FM COMDR 32ND ADIV SYRACUSE AFB NY  
TO COMDR RADF STEWART AFB NY  
INFO COMDR 4707th DEF WG OTIS AFB MASS  
COMDR 60th FIS WESTOVER AFB MASS  
// S E C R E T // Cite ACFOOT-FO 6005. This Hq has been notified by  
1600 Air Base/Mats/, Westover AFB, Mass that Westover AFB will be  
closed 12-11, June 54 during New England Natl Sports Car Races.  
Req per to deploy all aval alert capable acft from the 60th FTR  
Intcp Sq to Otis AFB during this pd. Acft of the 60th FTR Intcp  
will maintain a 1 hr back up status with 6 ACFT in spt of alert  
commitments at Otis AFB.  
Torc 02/2121Z Jun 55

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 12 January 1954

At the staff meeting held on 12 January 1954 at 0900 hours, briefings were given by the deputies and directors as follows:

Comptroller. Colonel Dawson announced the annual budget call would be the latter part of this month and that he would be around to check on estimates for the coming year.

Adjutant. Major York stated that there still is laxity in properly filling out disposition forms, which require filling in the date, number of comment and the signature of the deputy.

He also requested that the Adjutant be notified immediately of any administrative or organizational changes. In regard to TDY orders, when orders are requested and travel not performed, Major York requested that the AG section be informed, in order that those orders may be cancelled. Also, Major York reported there is still quite a bit of correspondence coming in after 1500, which necessitates his leaving it at the post office; therefore, he requested that arrangements be made for mailing all correspondence which must go out after 1500.

Major York introduced a discussion of whether the central filing system should be continued. Colonel Clark recommended that an administrative instruction be written on this subject and circulated to each staff section for comments.

Inspector. Colonel Thomas urged the staff to visit the IG office or call, as copies of inspection reports and staff visits are retained by the IG and might be of use to the staff.

Deputy Commander. Colonel Clark stated that it was Colonel Israel's desire that the staff have in mind exactly who will replace a man who is going on leave or is transferred, and he requested each staff member to compile a list for his information.

Colonel Clark announced that General Smith at ADC has requested recommendations concerning the GOC program, and he requested that the Deputy for Operations get together with a panel and prepare a list of recommendations to present to Colonel Israel on his return from leave.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 19 January 1954

At the staff meeting held on 19 January 1954 at 0900 hours, briefings were given by the deputies and directors as follows:

Deputy for Operations. Colonel Ingenhutt recommended that the staff meetings be held at 10 a.m., as they were formerly, and Colonel Clark concurred and stated that in the future the meetings will be set up for 1000.

Comptroller. Colonel Dawson announced that there will be a meeting of all NGOIC's on Thursday at 1330, in connection with the correct submission of reports.

Adjutant. Major York suggested that in requesting blank forms or publications the regular requisitions be used.

He also stated that the AG section receives many routine questions which could be answered by insuring that all clerks read the administrative HOI's.

Deputy for Materiel. Major Daniels stated that a communication was received from EADF that USAF has taken steps to straighten out the hangar situation.

Inspector. Colonel Thomas reported that a TWX was received from EADF requiring an inspection be made on the handling and storage of high explosives, with particular emphasis on compliance with safety regulations and state and local laws. Niagara and Burlington have been tentatively selected for this inspection.

Deputy for Personnel. Colonel Spivey briefed the staff on the overall picture of airmen strength and stated that this headquarters is over strength in food service personnel, mechanics and AP's. He reported that shortages exist in the 70250 field, clerk-typist, and suggested that, if possible, some people be cross-trained and upgraded for this field. In regard to the overages, he stated that these people will be sent to the wings.

Deputy Commander. Colonel Clark brought up the subject of the work schedule during an exercise and stated that he would like it understood that in the event of an emergency all sections are on the same basis. He stated that it may be necessary to have meals served and that it should be understood that everybody may be called upon to work longer hours.

Colonel Clark asked Colonel Ingenhutt whether anything has been done yet in looking over the area of Sky Watch to see if any recommendations could be made, and Colonel Ingenhutt stated that he would have some in about ten days.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 26 January 1954

At the staff meeting held on 26 January 1954 at 1000 hours, briefings were given by the deputies and directors as follows:

Adjutant. Major York stated that he thinks it is time for the staff to review the regulations and HOI's for which they are responsible and to bring them up-to-date. Colonel Clark suggested doing a thorough job at this time and repeating it once each quarter. He also recommended including pertinent regulations from higher headquarters.

He also stated that EADF Manual 23-1 has been received and partial distribution has been made, with additional copies ordered. Colonel Clark suggested that the staff use judgment and adjust these charts according to the new organization under which this headquarters is now operating.

Deputy for Materiel. Major Daniels announced that the '55 Major Repair and Minor Construction Program will be called for on 15 February, as the recommendations for this headquarters have to be in EADF by 1 March. He asked for a discussion among the staff on their ideas for converting the space behind the plotting board into office space and submitting this as a project in the '55 program. Colonel Ingenhutt recommended waiting, as he said ADC is coming out with a standard control center. Colonel Clark suggested, however, that a project for this should be submitted for approval. Major Daniels requested that everyone review his requirements and submit them to Major King.

Inspector. Colonel Thomas stated he had talked to Colonel Cellini in connection with the program for taking over the 532d and discussed a proposed meeting to be set up for 4 February. Colonel Clark stated that he desired each section to take a look at the business of training the 532d and see where this headquarters can help in training these people.

Deputy for Personnel. Colonel Spivey announced that nominations for Communications and Electronics Staff Officers, Logistic Staff Officers, Intelligence Staff Officers, Controller Staff and Field Officers Courses have been advanced from 1 March 1954 to 8 February 1954. Any interested officers should apply as quickly as possible.

He also announced that in connection with individual training, Captain Burak, Mr. Havenstein and Mr. Yeoman will leave tomorrow to visit Lockport, Saratoga Springs, Brunswick, North Truro and the 4707th. He suggested that if any of the staff has anything which they could look into for them, to contact their office some time today.

Colonel Spivey also announced that 14 of our food service people will be transferred to Burlington on 5 February, where a critical shortage exists and that permission has been requested to transfer 9 additional airmen in the supply, AP and auto mechanic fields soon. He stated that permission was received to transfer a jet mechanic from the 4707th and this man will report here the 5th.

Deputy Commander. Colonel Clark requested that everyone check their EASA papers for completeness and bring them up to date. He also cautioned the staff, in regard to the work schedule, not to let people build up the idea of a straight 8-hour work shift. He stated that is the normal schedule but that any extra time off may be granted, providing work is up to date. He said people are expected to work beyond 1700 if there is work to get out.

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 2 February 1954

At the staff meeting held on 2 February 1954 at 1000 hours, briefings were given by the deputies and directors as follows:

Deputy for Operations. Colonel Fuller inquired as to the status of the proposed reveille, and Captain Stout replied that Major King made an inspection of the barracks yesterday morning, which was to be the deciding factor. Colonel Clark asked what time it was proposed to hold reveille and Captain Stout stated that it was planned for 0530. Colonel Clark stated that in his opinion holding reveille would not clean up the barracks and that consideration must be given to shift workers to give them enough time for sleep; also, he stated that there is no reason why the barracks can't be cleaned during off-duty time. He stated that he preferred that this be taken care of on an individual basis, as the person who doesn't do his work should suffer and not the others. Colonel Fuller added that he doesn't feel it is right to use this as a punitive measure.

Comptroller. Colonel Dawson stated that in reviewing his HOI's, some are all right as they are, and he raised the question of whether these should be rewritten and re-issued. Colonel Clark stated that he saw no reason for reissuing them but the matter should be referred to the Adjutant.

Surgeon. Major Reberdy announced that he is leaving for school and will be absent for a period of approximately ten weeks. Colonel Clark suggested that he call the Surgeon at EADP and notify him of his absence.

Inspector. Colonel Thomas reported that he has an info copy of a TWX from EADP to the units of the 4707th announcing survey type inspections to be conducted this month by EADP. The first will be held at the 762d AC&W Sq. from 11-13 February and the second at the 656th from 15-19 February. He stated that he would send a copy of this TWX to the staff, and that the emphasis in these inspections will be on O&T and M&S activities.

Deputy for Personnel. Colonel Spivey announced that the training inspection tour being conducted through the 4707th has already visited Lockport and a copy of this inspection report is in the process of being circulated to the staff. He stated that this will show the deficiencies in syllabuses, also in the necessary information needed to standardize their program. Also, each wing will be asked to summarize its deficiencies to furnish the Training Command additional information on what is needed to upgrade an individual from the 3 to the 5 skill level. He stated that right now there are so many different types of equipment that it is difficult for one man to work from one type of equipment to another, so one of the recommendations to USAF will be to retain a man once he is trained, in order that he may do some good.

Commander, 4673d GOS. Major Leppas announced that he received a letter from ADC in regard to assistance being given by Sears-Roebuck stores in a GOC recruiting program. Colonel Clark recommended furnishing ADC a list of the stores and the effect, if any, on recruiting.

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 9 February 1954

At the staff meeting held on 9 February 1954 at 1000 hours, briefings were given by the deputies and directors as follows:

Inspector. Colonel Thomas stated that he had just sent around a disposition form pointing out current special subjects and reminding the staff that they are supposed to comply with this when making field trips, if they are qualified in a certain special subject. Each office should be on the distribution list for a copy, if it pertains to their activity, and if there is any question of what to look for, the IG section should be contacted.

Colonel Thomas also stated that he is having trouble meeting suspense dates on inspection reports and endorsements. Regulations require they be forwarded within ten days after receipt, and he said there is a delay in getting them back from the staff. He stated that he would try to send them on to the staff for comments and then send it to the Deputy Commander as a finished product, ready for forwarding.

Deputy Commander. Colonel Clark recommended that the deputies and special staff be ready to bring Colonel Israel up to date when he returns from leave.

He also instructed the staff that in the event of receipt of business pertaining to another section, to remind personnel to pass the information to the proper section in order to preclude two people doing the same job.

Minutes of Staff Meeting - Cont'd

Major Lappas stated that there will be a meeting at Green Bay, Wisconsin on 19 February, which he plans to attend, and he inquired as to the availability of an airplane on that date. Colonel Clark directed Colonel Fuller to check on this.

Colonel Clark stated that he wanted to get the GOC and GCI people together, to see how the flow of information from the GOC to the GCI could be improved.

Commander, Headquarters Sq Sec. Captain Stout discussed the snow removal problem and stated that there are atleast seven men on the base who are qualified to operate the equipment. Colonel Clark stated that he considers this a responsibility of the Headquarters Squadron Section.

Inspector. Colonel Thomas announced there will be an informal type inspection, starting Monday, of the Headquarters Squadron, with emphasis on the flight section. Also, the filter center in Syracuse will be inspected.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 9 February 1954

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 16 February 1954

At the staff meeting held on 16 February 1954 at 1000 hours, briefings were given by the deputies and directors as follows:

Deputy Commander. Colonel Clark discussed the transfer, conversion or deployment of units. He stated that he thought a project should be set up for each unit that will be transferred, deployed, activated or converted to new type equipment. He said that EADF had published Manuals 56-1, -2 and -3 in connection with this, and that Colonel Fuller will set up a project on each of these in his shop. He explained that although personnel at the division level are acting more as a monitoring agency, they should be informed in order to make decisions. He recommended that the staff obtain manuals pertaining to this subject. Colonel Israel added that this headquarters has a great responsibility to all units attached to this division, in this regard.

Deputy for Operations. Colonel Fuller further explained that it was his desire to maintain a record in PC&R of follow-up action and he stated that he would inform each section of its responsibilities.

Colonel Fuller also stated that there is still trouble in the Command Post with people who do not know how to operate the switchboard. He requested that any one unfamiliar with this be checked out.

He announced that on Wednesday, 17 February, there will be 25 pilots from the 58th FIS coming here for orientation. He also announced that there will be a CPX sometime between 20 February and 15 March.

Deputy for Personnel. Colonel Spivey discussed the personnel authorizations and assignments for the detachments of the 4673d GCS. He stated that the officer strength is not so good, but that only 8 airmen are lacking to bring the airmen strength up to 100%.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 23 February 1954

At the staff meeting held on 23 February 1954 at 1000 hours, briefings were given by the deputies and directors as follows:

Deputy for Operations. Colonel Ingenhutt voiced complaints that have been brought to his attention concerning the PX, some of which are the inadequate service, attitude of personnel working there and the uncleanliness of the snack bar. He recommended that these conditions be rectified.

Comptroller. Colonel Dawson clarified the status of individuals performing TDY who go out on a trip, return to the base, and then go out again. He explained that, as far as the finance office is concerned, the trip is completed when the individual returns to the base the first time, and a new set of orders must be published before he can go out again.

This topic initiated a discussion on the responsibility of officers signing in and out, and it was recommended that a sign-out book be placed in the Ops building for the convenience of personnel concerned.

Commander, Hq Sq Sec. Major King announced that he will circulate a regulation to the staff in connection with a flight request form. He also stressed the fact that all persons departing on a flight via military aircraft must be covered by adequate leave in the event a three-day pass is not sufficient to cover their absence. Colonel Clark concurred in his statement and reiterated that all such persons must travel on orders, leave or a three-day pass.

Surgeon. Captain Cronin introduced the subject of ascertaining what facilities are available at the units for the decontamination of water, and Colonel Clark agreed that such knowledge was vital and should be studied. Major York stated that past policy instructed that water should be boiled, while awaiting further instructions.

Adjutant. Major York requested the staff to check on all requests for reproduction in order to prevent high-pressuring the reproduction section with last-minute work.

Major York stated that an airman must sign out in the orderly room before performing travel, as it is necessary for an officer to certify his orders prior to payment for travel, and such certifying officers desire to see evidence of an individual's signing out.

Deputy for Materiel. Major Daniels reported that the submission of the Major Repair and Minor Construction program has been postponed until 18 March and that new instructions will probably be forthcoming.

Minutes of Staff Meeting (Cont'd)

Major Daniels also stated he had received notification that the administration building plans and specifications have been forwarded to Griffis for negotiation with contractors and he has copies of the blueprints and specifications.

Inspector. Colonel Thomas repeated that he would like to request the staff to review more carefully reports of inspection, not only of this headquarters, but of other headquarters as well.

Deputy Commander. Colonel Clark announced that it is Colonel Israel's desire to revert to the hour of 0900 for staff meetings in the future.

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 2 March 1954

At the staff meeting held on 2 March 1954 at 0900 hours, briefings were given by the deputies and directors as follows:

Deputy Commander. Colonel Clark stated that he would like to know the whereabouts of all members of the staff when absent from their offices. He also recommended that the staff go through his office first, before consulting Colonel Israel, and if he deems necessary, he will bring any matters to Colonel Israel.

Colonel Israel concurred with his recommendation and stated that it is his desire that Colonel Clark see everything first and bring to his attention only those matters which he considers important.

Deputy for Operations. Colonel Ingenhutt reported that in a conversation with the state police mention was made of the fact that Air Force personnel are beginning to get a bad name because of speeding through North Syracuse and Mattydale. Colonel Israel suggested that Major King put a notice in the Daily Bulletin calling attention of personnel to this.

Colonel Ingenhutt initiated a discussion concerning the transfer of pilots and Colonel Israel stated that he had taken action with the wing commanders to level off pilots.

Executive Officer. Major Casety announced that the Red Cross has opened its campaign, and Colonel Israel suggested waiting until official word is received before soliciting contributions.

Adjutant. Major York requested that each section insure that a responsible person use the records disposition schedules. He stated that the suspense date is the 10th but he would like to have them as soon as possible.

Inspector. Colonel Thomas announced that there are several inspections scheduled for the week beginning 15 March, and that the assistance of an AC&W operations inspector was required.

Commander. Colonel Israel commented on his visits to the squadrons last week and reported that notable progress has been made in all of them. He remarked that he thought the most remarkable progress has been made at Niagara, due to a great extent to the large influx of qualified maintenance and supply personnel. The weakest spot was in engineering in the 37th, and he stated that he believed this was due to the fact that, at the time, both the squadron engineering officer and the line maintenance chief were at jet training school. He suggested recommending that squadron commanders visit the 47th and the 27th to note what can be done in the way of equipment in the hangars. He also suggested to the staff that whenever they make staff visits or inspection trips, they look around and note any ways of speeding up operations.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 9 March 1954

At the staff meeting held on 9 March 1954 at 0900 hours, briefings were given by the deputies and directors as follows:

Commander. Colonel Israel discussed the unethical practice of looking at Effectiveness Reports and discussing their contents with unauthorized persons. He emphasized the fact that all Effectiveness Reports are to be treated as confidential and that the contents are not to be divulged to:

Chaplain. Lt Shirley briefed the staff on the details of the Protestant and Catholic missions to be held on the base, and he asked the cooperation of officers in attendance.

Deputy for Personnel. Captain Burak announced that he had received a letter informing that effective 1 April all Effectiveness Reports must contain a mandatory statement indicating the manner in which an officer carries out his civic responsibilities and represents the Air Force. These statements should be supported by facts based upon knowledge. He also quoted an article in the Air Force Times with reference to the padding of statements in Section IV of Effectiveness Reports.

Adjutant. Major York stated that division regulations and HOI's which are being rewritten should be coordinated.

He also stated that as far as routine matters are concerned, the 4673d GOS is to be considered the same as other sections and all correspondence will go through the AG section. Colonel Israel stated that he thought a good rule to follow would be that anything having to do with administration of personnel or funds should be signed by the squadron Commander and anything to do with operations would be a division matter.

Major York recommended that all ER's be passed in sealed envelopes.

Executive Officer. Major Casety questioned Major King as to the probability of tennis courts being laid out and Colonel Israel stated that he would like to have courts for both officers and airmen.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 23 March 1954

At the staff meeting held on 23 March 1954 at 0900 hours, briefings were given by the deputies and directors as follows:

Deputy for Operations. Colonel Ingenhutt reminded the staff of the farewell party to be held Friday for Colonel Hayes and Major Kobel.

Comptroller. Colonel Dawson announced that in connection with the budget estimate, he would be around to get the TDY estimates for FY 56.

Commander, Hq Sq Sq. Major King reported that, according to a food service inspector from AAF, this headquarters is going against regulations in serving four meals a day to some people. Colonel Israel stated that an authorization for extra food for personnel working the 11-7 shift could be obtained, and he recommended that Colonel Thomas and Major Daniels work with Major King in submission of a letter requesting extra rations.

Commander. Colonel Israel asked what had happened to the Red Cross drive and Major King stated that it was being handled by each section and that it will continue until after payday. Colonel Israel recommended that the Women's Club be informed.

Colonel Israel also mentioned that there is an article in the Air Force Times on identification cards for dependents, and Major King stated that this headquarters has application forms but not the cards. Colonel Israel suggested that Captain Burak work on this.

In connection with personal affairs, Colonel Israel recommended that Captain Burak publish information concerning wills, lists of benefits, such as social security, etc. He also mentioned the possibility of securing the services of the lawyer, who has volunteered his services to this base, in writing or revising wills for personnel.

Colonel Israel asked if anyone knew anything about the Air Power Show to be held the 9th of May at Eglin AFB and stated that Mr. Ballantyne, Director of Civil Defense, desires an invitation and a ride down. He suggested that Major Lappas inquire through civil defense channels to EADF concerning this.

Adjutant. Major York discussed unnecessary amendments and revoking of special orders and Colonel Israel requested that amendments be kept to a minimum.

Major York stated that HOI 11-11 requires that certain data be placed on the lower left-hand corner of envelopes.

He announced that there are two copies of the current history available in the Historical Section. He also announced that mail leaves this headquarters at 1000 and 1500, and all mail should be in the AG section at least half an hour early. Rush mail should be so identified by a note attached to it.

Chaplain. Major Archer announced that a weekly Mass is celebrated at 1600 on Fridays and he hoped that section heads would permit personnel to attend.

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32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 30 March 1954

At the staff meeting held on 30 March 1954 at 0900 hours, briefings were given by the deputies and directors as follows:

Commander, 4672d GOS. Major Lappas stated that an official request had been submitted for a ride for Mr. Ballantyne to Eglin. He also reported that he had a request for a fly-by on 25 April, and Colonel Israel stated that a clearance would have to be obtained.

Inspector. Colonel Wilson announced that the field at Westover would be closed for stock-car races to be held on 12 and 13 June, the dates scheduled for the civil defense exercise. He also announced that a PCM inspection would be conducted at Otis in April and Presque Isle in May.

Deputy Commander. Colonel Clark discussed the areas of responsibility and "flow chart" and recommended that the staff inform the squadrons, when making staff visits, of the type of correspondence that is desired in and through this headquarters.

Deputy for Operations. Colonel Ingenhutt reminded the staff that flying time is needed by a number of people.

Deputy for Materiel. Major Daniels announced that the call for the public works '56 program is out. He stated that the review panel would meet on 22-23 April, and that this is more or less a preliminary of the '56 program, as all items submitted will go to USAF and come back for final submission in August.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 6 April 1954

At the staff meeting held on 6 April 1954 at 0900 hours, briefings were given by the deputies and directors as follows:

Commander. Colonel Israel briefed the staff on some of the topics discussed at the Commanders' Conference held at EADF. He listed various plans with which he wished the staff to become familiar, upon which our operations plans are based, and he announced that we are writing our own emergency war plan. He stated that one thing which has been worrying everybody is the Air National Guard, or Annex E to the EADF emergency war plan; however, there is legislation in Congress now, whereby the divisions may be given the authority to call these forces into service during an emergency. Colonel Israel also stated that the alternate command post for EADF is at this headquarters.

Allocations of Congress, regarding personnel, were discussed, and he reported that in connection with officer manning, all losses must be anticipated and officer replacements must be requisitioned three months in advance. Consideration must also be given to obtaining the proper rank and job. He stated that we do not have nearly the number of nominations for special quotas that we had. Also, he stated that it is necessary to bring people in from the field to higher headquarters, and inasmuch as it is done here, we can expect the same from EADF and ADC.

The training program was discussed, and he stated that each squadron must have a complete training program, which must be approved by the next higher headquarters. In the unit training programs, time must be reserved for EADF and ADC. Regarding individual training, for a rough idea, Colonel Israel reported that 186,000 new individuals are anticipated in the Air Force by next year.

He announced that non-obligated funds must be obligated by 30 April. Also, in regard to the use of operational facilities, he stated that whenever such facilities are used for any purpose other than that intended, such use must be explained. There is a questionnaire out, and he directed that the wings be checked on for compliance with this questionnaire.

Also, Colonel Israel announced that ADC staff notes will be received at the division level; and that weather detachments come under almost complete control of the base commander to which they are assigned, except for technical supervision.

Colonel Israel discussed his trip to Dow and the supply problems existing there. He suggested that the Inspector go up there and make an inspection to prove that the base is not furnishing proper support, if they are capable of doing so.

Deputy for Materiel. Major Daniels reported that Captain Meyer just returned from an inspection of all units on ammunition and the manner in which it is removed from aircraft, in compliance with directives.

Inspector. Colonel Thomas stated that the IG team is scheduled to inspect the base at Otis next Monday, and that inasmuch as it might run over the Easter weekend, he requested permission to postpone it. Colonel Israel stated that he had no objection.

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Syracuse, New York

MINUTES OF THE STAFF MEETING - 13 April 1954

At the staff meeting held on 13 April 1954 at 0900 hours, briefings were given by the deputies and directors as follows:

Commander, Headquarters Squadron Sec. Major King announced that the typing school would be started within two or three weeks, and Colonel Ingennutt recommended that appropriated money be used, as attendance could not be made mandatory if personnel paid own fees.

Commander. Colonel Israel recommended that Major King get started on the picnic grounds and they discussed the possible locations.

Adjutant. Major York reminded the staff of the list of documents which are on file in the Historical Office.

Deputy Commander. Colonel Clark requested each section to make certain they have a suspense system for follow-up of incomplete actions.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 27 April 1954

At the staff meeting held on 27 April 1954 at 0900 hours, briefings were given by the deputies and directors as follows:

Commander. Colonel Israel announced that we have to fill a quota for the ECM course the 31st of May, and he thought the person who would get the most from the course is Major Mack.

Colonel Fenn reported that a TWX was received from EADF requesting the number of quotas this headquarters desires, and he suggested that one quota per month be requested.

Adjutant. Colonel York stated that three copies of the new Air Force Register were received and distributed to the Command Section, Personnel and the AG Section. He also stated a letter from one of the wings had been received complaining of receipt of insufficient copies of correspondence with information that has to be disseminated to the units, particularly mimeographed correspondence. He requested that when sending such correspondence to the wings, a few more copies be added.

Deputy for Personnel. Colonel Fenn stated that the Air Force has started a system of setting up records for the purpose of trying to give officers an assignment of their preference. He stated that this form, AF Form 625, is due from HQ USAF in a few weeks.

Surgeon. Colonel Griffith reported he has just returned from a trip around the sites and sanitation conditions are about the same.

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32D AIR DIVISION (DEFENSE)  
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Syracuse, New York

MINUTES OF THE STAFF MEETING - 4 May 1954

At the staff meeting held on 4 May 1954 at 0900 hours, briefings were given by the deputies and directors as follows:

Deputy Commander. Colonel Ingenhutt raised the question of why the typing class was cancelled, as he said the DO shop sent in over five names. He also stated that he has seen examples of poor typing coming in from other sections. Colonel Israel suggested teaching the use and care of machines.

Colonel Ingenhutt reported that a few people are getting in trouble on cross-country trips because they have no flight orders. Colonel Israel asked who publishes orders for the Syracuse University boys and Colonel Ingenhutt replied that this headquarters should.

Colonel Ingenhutt discussed CAA violations and announced that we are having some of an emergency nature; he stated that no matter how minor a violation is, it must be reported to the commanding officer within 24 hours.

He also reported that he has already observed personnel in summer uniform with no ties in stores, while travelling to and from the base. Colonel Israel emphasized that personnel must wear ties if going into stores.

Colonel Ingenhutt stated that the EADF Command Data Book is out and he recommended that the staff read it; Colonel Israel added that he thought it should be read very carefully by each staff officer.

He stated that there are 13 supply accounts in this building and he asked Major Daniels why some of them couldn't be consolidated. Colonel Israel asked why there couldn't be a building custodian for all the property in this building.

Commander. Colonel Israel requested that he be kept informed of what is going on and stated that if the staff were connected in any way with an activity which includes outside agencies, that he be informed.

Executive Officer. Major Casety reported that there will be a static display on the flight line on Armed Forces Day. Colonel Israel stated he thought we should do better this year, as last year we were not even allowed a fly-by.

Inspector. Colonel Wilson stated that a letter had been received from ADC with regard to the initiation of comparative ratings of AC&W squadrons and fighter units. He added that it is still in the planning stage. Colonel Israel stated that he is against this system, as it promotes isolation and is damaging to the spirit of cooperation. He stated that he believes a norm should be established.

Deputy for Materiel. Major Daniels announced he had just returned from EADF and he reported that in connection with the '56 public works items, we ended up with 128 projects.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 11 MAY 1954

At the staff meeting held on 11 May 1954 at 0900 hours, briefings were given by the deputies and directors as follows:

Inspector General: Colonel Thomas stated that a TWX was received from Eastern Air Defense Force stating that they have two survey type inspections under way; one on the tenth of May at the 655th AC&W Squadron and one on the twelfth of May at the 764th AC&W Squadron.

Commander: Colonel Israel requested that Colonel Fuller look into the matter of whether or not a reorganization or realignment of the personnel at Otis Air Force Base is feasible and whether it should be done at this time in view of the reorganization which will take place during the third quarter.

Deputy for Operations: Colonel Fuller reviewed 32d AD HOI 55-1, concerning the Battle Staff, dated 22 April 1954. He stated that too many people had to be notified in the event of an actual or simulated air defense emergency and suggested that the Senior Controller notify the Commander, Deputy Commander, Deputy for Operations, Chief Controller and Weather Officer and that the switchboard operator notify each deputy, the Base Commander and all liaison officers. The deputies, in turn, would alert their directors and respective staff officers if necessary. Colonel Israel agreed, and stated that during such an emergency all liaison personnel would be stationed in the control center. Colonel Fuller stated that he would submit a new plan, showing the breakdown, for approval.

Colonel Fuller inquired as to the proper method of completing AF Form 625, "Officer Assignment and Preference Record", and Colonel Penn stated that personnel coordinate with the squadron personnel office for the correct information.

Also, at the personnel conference at Eastern Air Defense Force it was stated that we were to be authorized one training officer and one airman at each AC&W and fighter squadron. Colonel Israel stated that the majority of squadrons do have an officer and airman on duty as same although they were not authorized.

Deputy for Materiel: Captain Meyer reported that the review panel will meet on Friday, 14 May 1954, at 0830 hours in the Conference Room to discuss the FY-56 Major Repair and Minor Construction Program submitted by the wings.

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Commander, Headquarters Squadron Section: Major Bell stated that the parking plan will go into effect in approximately three days. Parking lines are now being painted. There will be ten reserve parking spaces on the east side of the flag pole; six spaces will be for officers and four will be for visitors.

In reference to Armed Forces Day, 15 May 1954, there will be a static display at the Marine drill ground, Hancock Field. We will have an F-86D, F-94C and General Electric is furnishing seven truckloads of radar equipment. In addition, General Electric will set up a complete model of a 6B site in the Administration Building at Hancock Field. A schedule of fly-overs for 15 May 1954 is as follows:

1047 hours - 8 F-4U's  
1056 hours - 7 PV and 4 TBM's  
1325 hours - 3 B-29's  
1343 hours - 3 B-36's  
1355 hours - 3 B-47's  
1500 hours - 8-10 F-94C's

All fly-overs will be at 2500 feet.

The Armed Forces Day Ball will be held at the Hotel Onondaga main ballroom at 2100 hours. Uniform is formal. There will be no charge for admission.

Reference grass cutting, AIO has two power mowers, three hand mowers, and sickles which can be borrowed at any time. The senior officer of each building will be responsible for seeing that the grass close to the building is kept cut.

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MINUTES OF THE STAFF MEETING - 18 MAY 1954

At the staff meeting held at 0900 hours on 18 May 1954, briefings were given by the deputies and directors as follows:

Commander: Colonel Israel stated that M/Sgt Fraser is the duty sergeant for the operations building and cleaning details will be selected for each section through him. Non-commissioned officers (top three grades) will not be put on cleaning detail. The lower three grades will be assigned this duty. Personnel scheduled for detail will be made available for an hour or two each day in order to keep the building in a presentable condition. Colonel Israel desires all personnel conform to the cleaning roster which will be initiated by M/Sgt Fraser.

Colonel Israel spoke on flying safety and standardization, which applies to all personnel. SOP's and training directives will be written at Headquarters ADC. There may be some modifications to the directives because of local conditions but these modifications will be recommended by the units, approved and initiated by ADC. It is our responsibility to comply with the directives and to observe the performance of duties of subordinate commanders and just how they enforce these publications. It has been strongly recommended that we try to get down to the cause of flight accidents; not so much with the aim of taking disciplinary action but to assist individuals in overcoming difficulties which are causing these accidents. No one is to be criticized or held responsible in a disciplinary manner unless he fails to carry out or put into effect duties which were assigned to him. A Standardization Board, similar to the Instrument Board, will be put into effect at this division.

Deputy for Operations: Colonel Fuller reported the activities scheduled for the months of May and June as follows:

22 thru 23 May 1954: Civil Defense Exercise "Sky Scan". This will include the Bangor and Manchester Filter Centers.

24 May: Conference at EADF. Lt Colonel Shelton will attend from this headquarters. After the conference, he will visit the ANG units and brief them on the phase of Air Defense.

Symposium at Lincoln Laboratory which will be attended by Colonel Israel and Major Mack.

1 June: Four squadrons coming in on active duty. They will have two aircraft. We plan to utilize and get at least one mission in. If it is not an actual intercept, it will be a training mission.

Staff Meeting, 18 May 1954 (Cont'd)

2 & 3 June: Commanders' Conference at this headquarters. Agenda has been set up.

12 June: 113th ANG Wing on active duty until 26 June, Summer Training Camp.

14 & 15 June: Civil Defense Exercise "Operation Alert", which is a nation-wide civil defense exercise. Our responsibility will be that of initiating the exercise from this level.

20 June: 175 ROTC Cadets will be at Burlington, Vt. until 17 July. Also, 200 ROTC Cadets will be at Otis AFB until 17 July. Colonel Fuller will coordinate with Otis and Burlington.

Colonel Israel stated that on 4 June there will be a dedication of the new filter center. On 3, 4 and 5 June there will be a filter center exercise in Syracuse. General Heubner, Director of Civil Defense, will be present and General Nelson may possibly attend.

Colonel Fuller announced that all personnel should become familiar with ADC Operations Plan 5-54 and know their responsibilities.

Also, each Tuesday at the ODO briefings, Major Hart will give a resume of the present situation in Indo-China. All officers are invited to attend.

Adjutant: Colonel York reported that:

A check for accuracy be made by all sections on requests for orders.

That although certain official correspondence is unclassified, nevertheless, its contents should be safeguarded.

Distribution of all regulations will be made to each of the ANG Wings. Previously they have only received the operations series.

ADC War Mobilization Plan is in his section and that Lt Colonel Dawson, Lt Colonel Shelton, Lt Colonel Fedorovich, Major Daniels, Major Bell and Major Mack make arrangements to borrow it for reading.

Commander, Hq Sq Section: Major Bell announced that this headquarters is furnishing two flights, one WAF airmen and one male airmen, for the Memorial Day Parade, on 31 May 1954.

Colonel Israel stated that Colonel Clark will be Grand Marshal of the parade.

Major Bell stated that the Armed Forces Day Program was very successful and that the GE display can be seen at the Administration Building, Hancock Field, until Wednesday.

Staff Meeting, 18 May 1954 (Cont'd)

The parking plan will be put into effect as soon as the lines are painted. Parking lot on the south side of the main street can be used. Each section will be asked, in turn, to park there so that lines can be painted in the area surrounding the flag pole.

AIO Work Orders are far behind, going back to October and November of last year. Airmen will be assigned to paint external doors and frames so that work orders will be brought up to date prior to the next inspection which is due in July. This work will be under the supervision of the barracks chiefs.

Proper saluting procedures was discussed and Colonel Israel stated that personnel be reminded of their obligations in this matter.

Deputy for Personnel: Colonel Fenn stated that the Squadron Officers' Course at Command and Staff School has been changed from 10 to 14 weeks. Two officers will attend from this headquarters.

Colonel Fenn also reported that there has been quite a bit of difficulty getting effectiveness reports in proper order. PDP Memorandum, dated 17 May 1954, has been distributed to all sections and it was suggested that personnel check their effectiveness reports against this memorandum for correctness.

Inspector General: Colonel Thomas reported that prior to each inspection trip a briefing is set up to cover any problems the staff would like the inspection team to look into. Attendance at these briefings, when first put into effect, was very good but it is slowly dwindling down. The next inspection is scheduled for 14 June at Niagara and a staff briefing will be called two weeks in advance. The cooperation of all sections is necessary.

Deputy Commander: Colonel Clark mentioned that a letter from General Smith was received by Colonel Israel, concerning the assignment and transfer of highly qualified and, particularly, critically trained officers for key positions. If anyone knows of an officer of any grade who may be needed at this headquarters, or any station in the Air Defense Command, his name must be submitted four months prior to being transferred from his overseas or ZI duty station, stating why this officer is qualified and what his qualifications are. Copies of General Smith's letter will be disseminated to all sections.

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Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 25 May 1954

At the staff meeting held at 0900 hours on 25 May 1954, briefings were given by the deputies and directors as follows:

Deputy for Operations:

Lt Colonel Fuller. Attended a meeting at Burlington, Vt. on 24 May 1954 with Colonel Cellini of the 4707th Defense Wing, Colonel Downing of the 517th Air Defense Group, Lt Colonel Smith of the 518th Air Defense Group and Lt Colonel Woody of the 47th FIS. It concerned the deployment of the 47th FIS for a period of 40 days from Niagara Falls, N. Y. to Burlington, Vt. This will take place during the latter part of June. Longer runways are being resealed and two shorter runways resurfaced. The contract will be let on 2 June and work will start shortly thereafter.

Lt Colonel Shelton attended the conference at EADF on 24 May concerning the Air National Guard, and it is anticipated that we will become closer affiliated with ANG units.

Division Surgeon:

Major Reberdy. Colonel Scamahorn, EADF Surgeon, will visit this headquarters on 26 May 1954.

Commander, Hq Sq Section:

Major Bell. There does not seem to be much consistency in the discipline and promotion of personnel at this headquarters. It is requested that if section heads are having difficulty with personnel in their sections, the squadron commander be advised so that he may take the necessary action.

Deputy Commander:

Colonel Clark. Only those people who are doing their jobs properly should be promoted. The matter should be discussed with the section heads individually and by coordination with the promotion board. By closer contact and closer supervision on the part of each section head with the personnel working in his section, reasons for lack of discipline and good morale may be found. Every person has the right to be told and trained on how to perform his job. They should know what their responsibilities are and what is expected of them.

Staff Meeting, 25 May 1954 (Cont'd)

Inspector General:

Colonel Thomas. Two letters were received in the IG section which required action. One is from Headquarters EADF, over the signature of Brigadier General Smith, transmitting a letter from Major General Smith, ADC, directing a general tightening of security on all installations, especially directing vulnerability tests be made at local level by units themselves to check the security of their installations. We are sending a letter out to the wings on this subject. The second letter was entitled, "Condition of Internal Supply Accounts", which points out numerous difficulties and irregularities reported by the IG office at EADF of supply accounts of various organizations in the division. Also, that many of these require "after-the-fact" clarification action. The letter also indicates that the IG office at EADF will be making survey inspections of supply accounts throughout the division area and they will make maximum use of reports of audits to determine the reliability of supply accounts. The first survey inspection will be made at Niagara Falls on 14 June by our inspection team. It will be a general inspection of the whole group, including fighter squadrons.

We also received a letter from EADF formally sending us suggestions on comparative ratings of tactical units. It will be sent out to all staff sections for additional comments.

Colonel Clark. Outgoing letters, messages, etc., affecting another section, should be coordinated with that section prior to leaving this headquarters.

All letters of criticism going out to subordinate units of this headquarters are to be coordinated with and signed by the commander. In his absence, the deputy commander will coordinate for him.

Adjutant:

Lt Colonel York. When correspondence is erroneously misrouted to another section, it should be returned to the adjutant's office as soon as possible for forwarding to the correct action agency.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 2 JUNE 1954

At the staff meeting held at 0900 hours on 1 June 1954, briefings were given by the deputies and directors as follows:

Deputy for Operations:

Colonel Ingenhutt. Disciplinary action was taken on a member of the operations section during the absence of the Deputy for Operations. Any complaints, etc., regarding a member of the operations section will be brought to the attention of the Deputy for Operations for any disciplinary action deemed necessary.

Lights on the runway have been changed and they are now located halfway down the new runway extension, marked by white check marks.

Commander:

Colonel Israel. While the Cape Code System is shut down, converting from the 53 to the 54 Cape Code System, the Lincoln Project personnel have asked if there is any way of getting them multiple flights. They will forward this headquarters a letter requesting same.

Comptroller:

Lt Colonel Dawson. The staff is reminded that whenever individuals come out on TDY orders and fail to go on TDY, a revocation of the TDY order should be submitted.

Adjutant:

Lt Colonel York. Personnel frequently call the Adjutant's office asking for their TDY orders. SOP has been announced several times that TDY orders are delivered to the Orderly Room.

Permission to use the hot line was requested, in contacting subordinate units, to see if action has been taken on correspondence carrying a suspense date. Permission was granted.

Division Surgeon:

Major Reberdy. Colonel Scamahorn, Flight Surgeon from EADF, informed us that a preventive medicine technician will be set up at each site. Also, a sanitary engineer will be sent to Watertown, N. Y., St. Albans, Vt. and Charleston, Me.

Staff Meeting, 1 June 1954 (Cont'd)

Commander, Hq Sq Section:

Major Bell. Transportation has been set up for the Commanders' Conference on 2 and 3 June. We will have a total of three staff cars, which includes the Buick. The host officer will be notified as soon as members of the conference arrive so that transportation will be available for them.

A Work Order for a door to safeguard the Supply Room was disapproved and will not be effected until the next Fiscal Year.

Colonel Israel inquired as to when work on the new Administration Building will begin. Major Bell stated he would check on it.

Parking signs will be put up on Thursday, 3 June. A notice will be put in the Daily Bulletin.

Deputy for Materiel:

Captain Meyer. Lieutenant Hart of the Flight Section will go to California to pick up the new T-33 assigned to this division.

Colonel Israel stated that we should make some arrangement with the 27th FIS for a UHF airplane until the B-25 is returned.

Inspector General:

Colonel Thomas. Information received indicates that Headquarters ADC inspection schedule has been changed due to the POM inspection at the 74th FIS which will be conducted during the period 14-18 June. Also, a special inspection is scheduled at the 765th and 766th AC&W Squadrons during the same period. The special inspection scheduled at the 49th FIS on 20 June has been cancelled.

Colonel Israel gave a resume' of the conference, 24 through 29 May, at the Lincoln Laboratory, Cambridge, Mass.

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MINUTES OF THE STAFF MEETING - 22 JUNE 1954

At the staff meeting held at 0900 hours on 22 June 1954, briefings were given by the deputies as follows:

Commander:

Colonel Israel. General Nelson, SADF, has not signed the final action on Major Harter's assignment to the 655th AC&W Squadron. Suggest the Deputy for Personnel check for other possible assignments, while SADF does the same. In the meantime, Major Harter must be informed not to make any further arrangements until he is notified.

At the meeting called by General Nelson at SADF on Monday, 21 June, several items were pointed out as follows:

That the responsibilities of commanders at higher echelons be known.

That base commanders know what their job is.

That a Training Program be established for base commanders, and that all commanders know all regulations governing actions they take or should take. The Air Traffic Program and various regulations, CAA, AF, ADC, SADF, 60-13, etc., be consolidated into one outline or index for the base commander.

Base responsibility for control of aircraft and other agencies' control responsibilities were discussed. He also pointed out the various aspects of communication with aircraft and that we have positive supervisory control of communications throughout.

Colonel Richmond, 564th Air Defense Group, suggested that some system be brought up whereby an AF regulation would be indorsed down to lower echelons instead of having an additional original regulation written at each echelon. The result would be one master regulation instead of several on the same subject.

General Nelson placed particular emphasis upon the problem at Otis AFB, where the Air National Guard is stationed and also the ROTC, with whom we will be doing a lot of flying.

Reference AFR 20-51, General Nelson emphasized that it stipulate that the base commander will assume operational control of the tower personnel who are provided by AACS.

Colonel Vaughn, SADF, suggested that the airplane be returned to the pilot. In other words, any communications you have on the ground, GCA, ILS, etc., are only an aid to the pilot. The pilot still has full responsibility for the aircraft.

Staff Meeting, 22 June 1954 (Cont'd)

I would like to have pilots instructed that when they are approaching an airbase, they will make themselves realize that they have a more difficult problem to cope with than they have had with the rest of the mission and to concentrate on the problem of getting the aircraft on the ground. Pilots must shake themselves mentally and physically and consider the landing problem as a phase completely different from what they have been doing.

General Nelson pointed out that we have gone a long way in WADP within the past few years but that we still have a long way to go.

Colonel Legg, 4707th Defense Wing, suggested that we "pickle" part of our aircraft due to lack of personnel. We will not do this. Rather, we will build up our SOP by flying twice a day instead of four times a day. We cannot accept anything less than the maximum SOP possible.

We must get through to the lower echelons and give them a pat on the back for the work that has been accomplished. Also, we must watch for discipline and morale.

Deputy for Operations:

Colonel Ingenhutt. ADC Regulation 55-10, Rules of Engagement, is in and we will check it to see what the differences are.

Adjutant:

Lt Colonel York. Wish to remind the staff of 32d HOI 11-1 which lists certain items which should be brought to the attention of the Command Section.

Also, outgoing mail should be in the Adjutant Section by 1000 hour and 1500 hours each day.

There seems to be some confusion as to the delivery of TDY orders. Previously all TDY orders were delivered to the Orderly Room. They will now be delivered to each section and the individual concerned will be responsible for signing out.

Captain Stout was selected for the Honor Guard on 15 July in honor of Governor Cross.

Commander, Hq. Sq. Section:

Major Bell. A permanent clean-up detail has been initiated in the Operations Building, supervised by Sgt Brown of AIO. Any complaints about the time, etc., of cleaning the various offices should be brought to his attention, and other arrangements will be made. Clean-up will take place from 0800 to 1700 everyday. All offices and hallways will be cleaned with the exception of the

Staff Meeting, 22 June 1954 (Cont d)

Cryptocenter and the Control Center. This will be the responsibility of the section itself.

Deputy for Materiel:

Major Daniels. Bids are being let for necessary invitation copies of bids for construction at Hanscom Field. Construction on the Administration Building should be ready to start after the first of July.

Deputy for Personnel:

Lt Colonel Fenn. We now have a command file on all division key personnel. It presently consists of a copy of Form 66. If anyone needs any information, they should contact the Personnel Section.

Colonel Clark suggested a file of all key personnel losses for three months in advance.

7 24

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 29 JUNE 1954

At the staff meeting held at 0900 hours on 29 June 1954, briefings were given by the deputies as follows:

Deputy Commander:

Colonel Clark. We have received three pieces of correspondence pertaining to Exercise "Check Point", the Operations Order, a message and a letter. Each lists the responsibilities of this division. Particularly, we will have augmentation forces during this exercise. Each staff member must go through the plan and be sure of the communications we will use with the Air National Guard, Navy and others and know what their responsibilities are in connection with the test as indicated.

Comptroller:

Lt Colonel Dawson. Any member of the staff who has subordinate members who have performed travel during the month of June but have not had it published in orders, should do so prior to the thirtieth. No VCC's will come out after 30 June.

Adjutant:

Lt Colonel York. We have three copies of the Operations Order on Exercise "Check Point". The Deputy for Operations has two and the Adjutant has one. The Deputy for Operations also has copies of the message.

I would like to point out that personnel coming in from the various subordinate units are being furnished classified correspondence to take back with them. This practice is frowned upon by regulations. Classified correspondence should be mailed to the individual at the unit concerned. If the individual does carry classified correspondence back with him, he should be designated as courier for such correspondence by Letter Order or letter from the commander of the unit furnishing the correspondence.

We still have Top Secret documents which should be read by the following: Colonel Ingenhutt, Lt Colonel Fuller, Lt Colonel Shelton, Major Randle and Major Mack. Also, a document, just received, for Colonel Thomas to read.

Deputy for Materiel:

Major Daniels. Items approved for '56 Public Works Program for this division are as follows: Technicians training building, modification of heating system and airmen's club. FY '55 Installations Program, major repair and minor construction, is being picked up at HADF today. As soon as it arrives, we will know what is approved.

Staff Meeting, 29 June 1954 (Cont'd)

Colonel Clark: Until Colonel Israel's return, correspondence will be prepared for the signature of Colonel Richard A. Legg. The Deputy Commander will sign for Colonel Legg, in his absence, and correspondence that permits will be prepared for the signature of the Deputy Commander.

*RC*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 6 July 1954

At the staff meeting held at 0900 hours on 6 July 1954, briefings were given by the deputies as follows:

Deputy for Operations:

Colonel Ingenhutt. Colonel Ingenhutt gave a resume' of EADF Operations Order 7-54, Exercise "Check Point" and of the responsibilities, etc., pertaining to the division and each staff section.

Also, that ADC Regulation 22-4 and 24-9 sets up the organization for EADF and air divisions. We have our plan on this and it is written according to the directives. The Flying Safety Office now comes under the Deputy Commander and Ground Safety remains under the Deputy for Personnel.

Deputy for Materiel:

Major Daniels. The Logistics Operations System 1-54, dated 15 June 1954, was initiated by ADC and there will be a test on it during the forthcoming Exercise "Check Point". A display board will be set up in the MDM office and a card file to explain or further support the items posted on the board will be available. Problem areas will be denoted by a red tape in that particular unit.

Also, a commitment was received from EADF that materiel observers would be furnished within the division to designated bases. This has been taken care of whereby the 4711th Defense Wing will furnish observers to the 4707th Defense Wing units and the 4707th, in turn, will furnish observers to the 4711th Defense Wing units that participate in the exercise.

Inspector General:

Colonel Thomas. Two representatives from EADF will be at Presque Isle Air Force Base to observe the Installations Defense Plan during Exercise "Check Point".

Commander:

Colonel Israel. Colonel Israel read in part a letter addressed to him from General Nelson in reference to the Ground Accident Rate. The 4711th Defense Wing is first and the 4707th Defense Wing is second with the highest accident rate in the entire Air Defense Command. Lt Colonel Penn stated that letters had already gone out to both wing commanders, regarding this accident rate, for necessary action.

Colonel Israel also stated that Governor Cross of the State of Maine would visit this headquarters on 15 July for an air defense briefing.

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**HISTORICAL REPORT  
of the  
32d AIR DIVISION (DEFENSE)**

APPROVED FOR RELEASE DATE 11-14-84 BY SP-6 V.S.	K-DIV-32-H1
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THE AIR DEFENSE OF A SECTOR  
JANUARY thru JUNE 1954

SUPPORTING DOCUMENTS IV

HISTORICAL OFFICE  
SYRACUSE AIR FORCE STATION, NEW YORK

RCT Form No  
S10177

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HISTORICAL REPORT  
OF THE 32D AIR DIVISION (DEFENSE)  
Number Sixteen

THE AIR DEFENSE OF A SECTOR  
January thru June 1954

RCS: 1-AF-D2

SUPPORTING DOCUMENTS  
VOLUME IV (Documents 159/1 thru 197/2)

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ADC Operation Plan 4-54

EACDO

EACOT

30 Mar 54

1. ADC Operations Plan 4-54 allocates additional augmentation forces to EADF. The specific actions required of defense forces are substantially as follows:

a. Provide augmentation forces with a current file of operational directives (EACOT). (EADF Operations Order 2-53, Augmentation Forces, is being revised and this requirement will be included).

b. Accomplish indoctrination briefings for augmentation forces on a recurring basis (EACOT). (This is required now by EADF Operations Order 2-53 and the revision will continue the requirement).

c. Provide liaison officers at base of deployment (EACOT). (This is required by EADF Operations Order 2-53; however, it could be stated more in detail and this will be done in the revision).

d. Provide augmentation forces with copies of let-downs, SARPs, etc. (EACOT). (This is required by EADF Operations Order 2-53 and will continue as a requirement in the revision).

e. Notify concerned EADF commands and bases when ADC implements ADC Operations Plan 4-54 (EACOT). (Procedures for this will be included in the revision of EADF Operations Order 2-53).

f. Provide for small numbers of augmentation aircraft to be deployed to their augmentation bases for purpose of training (EACOT). (This is provided for in EADF Operations Order 2-53 and will be in the revision).

g. Defense force commanders, to whom a specific augmentation unit is allocated, may divert deploying aircraft en route when necessary to repel attacks or when necessary due to weather or as the tactical situation requires (EADCG).

h. When deployment commences, air defense force commanders will coordinate with commanders of the deployment bases to insure that necessary stock levels are established to support deployed units. Supply support is not required until 5 days subsequent to arrival of deployment forces (EAMDM).

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ADC Operation Plan 4-54

i. Provide POL, ammunition, oxygen, transportation, quarters, messing, etc., for deployed forces. (Portions of this requirement not covered by EADF Operations Order 2-53 will be included in the revision and coordinated with EAMDM).

j. Distribute authentication codes (ADC COIs 10, 11 and 14 series), COIs and SOPs to augmentation units (EAOCE).

k. Provide augmentation forces with directives on anti-jamming techniques and ECM reporting procedures (EAOCE).

l. Supply pin and lug settings to augmentation units (EAOCE).

m. Assign UHF frequencies and call words to augmentation units (EAOCE).

n. Coordinate with augmentation commands on VHF requirements (EAOCE).

o. Insure that AC&W squadrons maintain required stock of VHF crystals (EAOCE).

p. Place orders for engineered circuits as required for augmentation units (EAOCE).

q. Provide for utilization of augmentation radars in accordance with existing agreements (EAOOT). (Provisions for utilization of AAA radars are listed in EADFL 55-15, procedures for USN Radars in EADF SOP 55-19 and Commander, 32d Air Division has been directed to establish procedures for utilization of the AFGRC radars).

2. EAOOT is revising EADF Operations Order 2-53 to be 4-54 and include the EAOOT responsibilities outlined above. EAMDM and EAOCE each have been requested to provide an annex to this revision. Information received from them indicates they are effecting actual actions required in addition to preparing the annexes.

t/LOONEY

t/OLDS

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PARAPHRASE NOT REQUIRED CONSULT CRYPTOCENTER BEFORE DECLASSIFYING  
CRYPTO NBR 355  
ROUTINE 100012Z  
FM COMDR ADC ENT AFB COLO SPNGS COLO  
TO COMDR MOODY AFB VALDOSTA GA  
INFO COMDR ATRC SCOTT AFB ILL  
CREW TRAINING AF RANDOFF TEXAS  
COMDR TAC AIR COMD LANGLEY AFB VA  
COMDR 18 AF DISBIXSIB AFB SC  
COMDR RESEARCH AND DEVELOPMENT COMD MD  
COMDR EADF STEWART AFB NY  
COMDR 35th AIR DIV DOBBINS AFB GA  
COMDR 30TH AIR DIV WILLOW RUN APRT MICH  
COMDR 32D AIR DIV HANCOCK FLT NY

// S E C R E T // Cite ADOOT-BO219. URMSG XG009A, 27 Jan 54. The  
felg change to draft of ADC Opr Plan 4-54 is quoted FYI due to inabi-  
lity of Dever to spt Augm Ftr. Quote the 3550 flying tng wg will  
deploy F-94C Acft and Aircrews located at Moody AFB as fols: 1 half  
(Det Z) to Griffis AFB via Grtr Pitt AFB (Refuel) for conby 32 AD (Def)  
1 half (Det ZA) to Wurtsmith AFB Via Wright Patterson AFB (refuel)  
for con by 30AD (DEF). The 3550 Flying Tng Wg will deploy all F-89D  
ACFT and Aircrews located at Moody AFB (Det ZB) to Kinross AFB for con  
by 30 AD(Def). Unquote latest rept aval ftrs fr Moody is 27 E-94C  
and 15 F-89D. P 35 AD; ADC plans for Moody Forces are deployment  
regardless of warning time.  
TORC 101045Z Feb 54

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HEADQUARTERS  
NAVAL AIR RESERVE TRAINING COMMAND  
U.S. Naval Air Station  
Glenview, Illinois

In Reply Refer To  
NE/3/N-5.2:RE

Ser PL- 0174  
14 June 1954

CONFIDENTIAL

From: Chief of Naval Air Reserve Training  
To: Commanding General, Air Defense Command

Subj: Authentication Blocks; assignment of

Ref: (a) OPNAV NOTICE 02600 of 19 MAY 1954

1. Reference (a) requested that a list of the U. S. Navy and U. S. Marine Corps Aircraft Control and Warning or fighter units conducting air/ground communication in defense of the United States be furnished to the Commander, Air Defense Command to facilitate the assignment of authenticator blocks of challenges and replies from the AFSAL 5370 series.

2. The following stations of this command possess fighter aircraft and pilots available for emergency defense of the United States:

NAS Akron	NARTU MCAS Miami
NARTU NAS Anacostia	NAS Minneapolis
NAS Atlanta	NAS New Orleans
NAS Birmingham	NAS New York
NAS Columbus	NAS Niagara Falls
NAS Dallas	NARTU NAS Norfolk
NAS Denver	NAS Oakland
NAS Glenview	NAS Olathe
NAS Grosse Ile	NAS St. Louis
NARTU NAS Jacksonville	NARTU Seattle
NAS Lincoln	NAS Spokane
NAS Los Alamitos	NAS South Weymouth
NARTU NAS Memphis	NAS Willow Grove

It is requested that authenticator blocks be assigned to those stations for the common use of fighter squadrons attached thereto inasmuch as aircraft limitations would restrict the utilization of Reserve squadrons in the event of an emergency.

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NE/3/N-5.2:RE

Ser PL-0174  
14 June 1954

3. The following stations of this command possess radar equipment and have been assigned the task of operating as Ground Control Intercept Stations by the cognizant Air Divisions (Defense) in the event of an emergency:

NARTU NAS MEMPHIS  
NAS ATLANTA

D. V. GALLERY

H. L. GRANT  
By direction

Copy to:

CNO

CHATRA

COMWESTSEAFRON

COMSEAFRON

CG, EADF

CG, CADF

CG, WADF

Commander 25th Air Div (DEF)

Commander 26th Air Div (DEF)

Commander 27th Air Div (DEF)

Commander 28th Air Div (DEF)

Commander 29th Air Div (DEF)

Commander 30th Air Div (DEF)

Commander 31st Air Div (DEF)

Commander 32nd Air Div (DEF)

Commander 33rd Air Div (DEF)

Commander 34th Air Div (DEF)

Commander 35th Air Div (DEF)

COMMART

COs all NASs and NARTUs this Command less NARTUs Lakehurst and Santa Ana

(2)

CONFIDENTIAL

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HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

21 January 1954

OFFICE OF THE COMMANDER

Major General Morris R. Nelson  
Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Morrie:

Recently, General Twining and the Air Staff have placed increased emphasis on the Reserve Forces Program. Certain elements of this program are of particular importance to this command since they will provide for our immediate augmentation in the event of an attack. In addition, we share with other Major ZI Commands, an obligation to do what we can in support of the overall program and to assist Con AC in providing a strong, well trained Reserve.

In addition to the flying units of the Air Reserve and the Air National Guard, there are the other types of units in the Reserve Forces Program, such as the Volunteer Air Reserve Training Units, the Civil Air Patrol, Air Explorers, etc. Soon it is expected to have Aviation Engineer Units transferred from the Army Reserve. All of these Reservists are keen friends of the Air Force, anxious to keep abreast of Air Power developments and the latest training concepts so that they will be ready to operate effectively when they are needed. It is to these groups, who are most likely to call on the nearest Air Force Base for help in their training problems, that Base or Installations Commanders can be of great assistance.

Here are some of the ways in which I think help can be provided:

- a. Transportation for Reservists by air, staff car, truck or bus, to meet special training commitments, conferences, etc.
- b. Loan and transportation of training aids, such as mock-ups and training films.
- c. Encouraging qualified active duty personnel to serve as guest speakers or special instructors.
- d. Provision of on-base facilities for special training, assemblies, military drill and recreation.

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e. Arrangements by subordinate commanders to meet the Reserve Unit Commanders and local heads of the various civilian service associations to discuss training matters.

Each of your subordinate commanders should be made aware of the necessity for aiding the Reserve Program and constantly encouraged to actively offer friendly assistance to Reserve units stationed near their bases.

Sincerely,

t/FREDERIC H. SMITH, JR.  
Major General, USAF  
Vice Commander

C O P Y

THE COMMANDING GENERAL  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base  
Newburgh, New York

25 February 1954

Major General Frederic H. Smith  
Vice Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

Dear Fred:

In regard to your recent letter concerning the Reserve Forces Program, I have reviewed the situation as it affects this command.

I have passed on the information contained in your letter to the Division Commanders, as well as all facts and figures available on our commitments concerning each of the reserve and civilian auxiliary organizations we support.

I believe you will want to look over our present commitments because of the extent to which we are involved in the program. Inclosure #1 lists our reserve and civilian auxiliary commitments of a continuing and short term nature.

We are expending serious effort in an attempt to meet these requirements. In some cases we may be forced to shift certain encampment dates, but I believe we will be able to accomplish necessary support and assistance to the satisfaction of the unit involved add to the benefit of the Reserve Program.

Sincerely,

1 Incl  
EADF Commitments to  
the Reserve Program

M. R. Nelson  
Major General, USAF  
Commander

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CONTINUING AND SHORT TERM COMMITMENTS  
TO AIR RESERVE AND CIVILIAN AUXILIARY COMPONENTS  
WITHIN EASTERN AIR DEFENSE FORCE

The following ANG units are tenant on EADF bases:

134th FIS - Burlington

107th FIWing

136th FIS

107th MAS Group

107th Medical Group

107th Air Base Group

- Niagara

176th FIS

128th Air Base Group

- Truax

141st FBS

- McGuire

112th FB Group

146th FBS

147th FBS

112th MAS Group

112th Air Base Group

112th Medical Group

- Greater Pittsburgh

142d FBS

- New Castle

108th FBS

- O'Hare

168th FBS

The following ANG summer encampments are scheduled by current program information (fighter bomber and fighter-interceptor squadrons included with troop strengths as indicated):

<u>Troop Strength</u>	<u>Unit</u>	<u>Encampment</u>
Approx 2,000	102d FI Wing (Massachusetts ANG)	Otis - 2 weeks
	103d FB Wing (Connecticut ANG) (R.I. ANG)	Otis - 2 weeks

NOTE: Date of above encampments unknown at this time.

Incl #1

Although this headquarters has not been formally advised of ANG encampments at McGuire AFB, informal information indicates that your headquarters has approved summer encampments at McGuire AFB for the following:

<u>Troop Strength</u>	<u>Unit</u>	<u>Encampment</u>
Approx 2,000	108th FB Wing (New Jersey ANG)	McGuire - 2 weeks

NOTE: Date of encampment unknown

The following are programmed ANG AC&W summer encampments:

<u>Troop Strength</u>	<u>Unit</u>	<u>Train With and Be Supported By</u>	<u>Period of Training</u>
70	101st ANG AC&W Flt (Summerville, Mass.)	764th AC&W Squadron, St Albans, Vt.	10-24 July
79	102d ANG AC&W Sq (Howard, R. I.)	646th AC&W Squadron, Highlands, N.J.	12-26 June
84	103d ANG AC&W Sq (Hartford, Conn.)	648th AC&W Squadron, Benton, Pa.	21 Aug-4 Sep
115	108th ANG AC&W Flt (Syracuse, N.Y.)	763d AC&W Squadron, Lockport, N.Y.	10-24 July
101	123d ANG AC&W Sq (Blue Ash, Ohio)	664th AC&W Squadron, Bellefontaine, Ohio	10-24 July
99	112th ANG AC&W Flt (State College, Pa.)	772d AC&W Squadron, Claysburg, Pa.	12-26 June
100	128th ANG AC&W Sq (Milwaukee, Wisc.)	755th AC&W Squadron, Williams Bay, Wisc.	31 Jul-14 Aug

Summer encampments for ANG Communication Squadrons are as follows:

<u>Troop Strength</u>	<u>Unit</u>	<u>Train With and Be Supported By</u>	<u>Period of Training</u>
100	271st ANG Comm Sq (White Plains, N.Y.)	Stewart AFB	12-26 June
94	269th ANG Comm Sq 251st ANG Comm Gp (Springfield, Ohio)	Stewart AFB	10-24 July
85	274th ANG Comm Sq (New Cumberland, Pa.)	Stewart AFB	31 Jul-14 Aug

The following are tenant AF Reserve units on EADF bases:

<u>Unit</u>	<u>Location</u>
2256th AFROTC 445th FB Wing	Niagara
2290th AFRSTC	Buffalo (Supported by Niagara)
2242d AFRCTC 439th FB Wing	Selfridge
2253d AFRCTC 375th TC Wing	Grt Pittsburgh
2237th AFRCTC 512th TC Wing	New Castle
2471st AFRCTC 437th TC Wing	O'Hare
2257th AFRCTC 441st FB Wing	Youngstown (Tentative activation pending construction items)

AF Reserve units scheduled for summer encampments on EADF installations (with logistical support requirements) are as follows:

<u>Troop Strength</u>	<u>Unit</u>	<u>Train With and Be Supported By</u>	<u>Period of Training</u>
600	512th TCW (Wilmington, Del.)	New Castle County Aprt	18-Jul-1 Aug
600	375th TCW (Grt Pittsburgh, Pa.)	New Castle County Aprt	7 Aug-21 Aug
450	438th FB Wing (Milwaukee, Wisc.)	Selfridge AFB	17-31 July
450	439th FB Wing (Selfridge AFB, Mich.)	Selfridge AFB	8-22 Aug

ROTC summer encampments (with support requirements) as related to this command are scheduled as follows:

<u>Troop Strength</u>	<u>Location</u>	<u>Period of Training</u>
200	Otis	20 Jun - 17 Jul
200	New Castle	20 Jun - 17 Jul
165	Selfridge	20 Jun - 17 Jul
175	Ethan Allen	20 Jun - 17 Jul

Finalized planning relative to CAP summer encampments on EAINF installations and support requirements have not been resolved as of this date. Tentative information regarding CAP encampments as affecting this command are listed as follows:

<u>Troop Strength</u>	<u>Location</u>	<u>Training Encampment</u>
50 female 150 cadets 18 instructors	New Jersey	McGuire AFB
250 male 47 female 33 instructors	Massachusetts	Otis AFB
225 male 75 female 15 male instructors 5 female instructors	Michigan	Selfridge AFB
300 male 30 instructors	New York	Stewart AFB
100 male 50 female 5 male instructors 2 female instructors	Wisconsin	Truax Field

In addition to the above, it is anticipated that a number of "Air explorer" encampments will be scheduled. Relative information is not available at this time.

C O P Y

CONFIDENTIAL

MESSAGEFORM

23 June 1954

FM COMDR 32D ADIV SYRACUSE AF STA  
EASTWOOD STA 6 SYRACUSE NY  
TO COMDR RADP STEWART AFBENBURGH NY

PRIORITY

/C O N F I D E N T I A L/ ACFOOT-FO 6668. Reference your message EAOOT-OW 18490, The following augmentation forces were indoctrinated on dates indicated at their home stations: 101 FIW, Dow AFB, Me, 14 Feb 54; 132 FIS, Dow AFB, Me, 14 Feb 54; 133 FIS, Greener AFB, NH, 14 Feb 54; 134 FIS, Burlington Muni Pt, Vt, 14 Feb 54, 102 FIW, Logan Apt, Mass, 24 Feb 54; 101 FIS, Logan Apt, Mass, 24 Feb 54; 131 FIS Barnes Apt, Westfield, Mass, 24 Mar 54; 107 FIW, Niagara Falls Muni Apt, NY, 15 Mar 54; 135 FIS, Niagara Muni Apt, NY, 15 Mar 54; 138 FIS, Syr Muni Apt, NY, 10 Jan 54; 139 FIS, Schenectady, NY 25 May 54, Detachment from Moody AFB, Ga was indoctrinated at Griffiss AFB, NY on 19 Jun 54.  
TORG 231848Z JUN

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COPY

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADDOCF-2A

13 Apr 54

SUBJECT: (Unclassified) Air National Guard Air Defense Augmentation

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Attached is a general description of the plan whereby fifteen Air National Guard Squadrons place two aircraft at the disposal of Air Defense Command for air defense purposes. Air National Guard aircraft committed for this purpose will be supported and maintained by inactive AWG Squadrons and will be manned by active duty AWG officers who are members of these squadrons. Implementation of this plan will provide this command an additional identification capability and the maximum realistic training for the AWG Squadrons which have mobilization assignments to ADC. To insure maximum training for the air defense mission each AWG aircraft should be given frequent scrambles. Weather permitting, each aircraft will be scrambled at least once a day.

2. Your responsibilities prior to implementation of the plan:

- a. Install communications facilities required for the operational control of the Air National Guard elements participating in the plan.
- b. Forward to AWG Squadrons all operational directives, regulations, and intelligence information required in the performance of the air defense mission.
- c. Forward operational instructions under which the AWG Squadrons may conduct their operations.
- d. Detail liaison officers to AWG Squadrons to indoctrinate personnel and assist in the establishment of operational procedures. It is desired that the initial briefing be conducted by a senior field grade officer experienced in AWG operational procedures from the air division exercising operational control of the AWG Squadron. During the first few days of operation, an experienced fighter interceptor pilot will remain with the AWG Squadron to advise an assist during the initial stages of operation.

161 1

ADOOB-El Subject: (Unclassified) Air National Guard Air Defense Augmentation (Contd)

3. We desire that the execution of this plan be monitored very closely and that there be no occasion for reflection on the command for failure to show the proper interest. The successful execution of this plan will enable us to expand it to include many other ANG Squadrons.

4. More detailed instructions will be forwarded to your headquarters at a later date.

BY ORDER OF THE COMMANDER:

s/t/ LEWIS E. SMITH  
Captain, USAF  
Asst Command Adj

1 Incl  
Plan onbANG  
Air Def Augm

AIR NATIONAL GUARD AIR DEFENSE AUGMENTATION

I. General:

A. The National Guard Bureau has agreed to provide two aircraft for air defense purposes at fifteen locations. These aircraft will be maintained and supported by the inactive ANG Squadrons and will be manned by active duty ANG officers who are members of the squadrons.

II. Air National Guard Squadrons Participating in the Plan and Locations From Which They Will Operate:

A. Eastern Air Defense Force Region:

1. Begin operations 1 June 1954.
  - a. 101st Fighter-Interceptor Squadron, Boston, Mass.
  - b. 126th Fighter-Interceptor Squadron, Milwaukee, Wis.
  - c. 131st Fighter-Interceptor Squadron, Westfield, Mass.
  - d. 137th Fighter-Interceptor Squadron, White Plains, N. Y.
  - e. 138th Fighter-Interceptor Squadron, Syracuse, N. Y.
  - f. 164th Fighter-Bomber Squadron, Mansfield, Ohio.
  - g. 166th Fighter Bomber Squadron, Columbus, Ohio.
2. Begin Operations 1 September 1954:
  - a. 133d Fighter Interceptor Squadron, Manchester, N. H.
  - b. 163d Fighter Bomber Squadron, Fort Wayne, Indiana.
  - c. 172d Fighter Bomber Squadron, Battle Creek, Michigan.

B. Central Air Defense Force Region.

1. Begin operation 1 May 1954:
  - a. 170th Fighter Bomber Squadron, Springfield, Ill.
2. Begin operations 1 August 1954:
  - a. 175th Fighter-Interceptor Squadron, Sioux Falls, S. D.

- b. 178th Fighter Interceptor Squadron, Fargo, N. D.
- C. Western Air Defense Force Region:
  - 1. Begin Operation 1 May 1954.
    - a. 194th Fighter Bomber Squadron, Hayward, Calif.
  - 2. Begin operation 1 June 1954:
    - a. 115th Fighter Bomber Squadron, Van Nuys, Calif.

III. Command:

- A. Supervisory Control: The Air National Guard Unit Commander will retain supervisory control over the AMG active duty personnel in respect to those matters necessary to carry out the normal functions of his unit.
- B. Operational Control: Operational control will be exercised over the active duty Air National Guard crews and aircraft participating in the air defense mission by Air Division (Defense) designated by the Air Defense Force.

IV. Personnel and Administration:

- A. Officer Personnel Spaces: Five active duty officer spaces (pilot) will be authorized to the Air Defense Group nearest the Air National Guard Squadron which participates in the plan.
- B. Entry and Release from Active Duty: The Air Instructor at each Air National Guard Squadron will be delegated as an assistant adjutant by the appropriate ComdC numbered air force and will call the Air National Guard officers to active duty, assign them to the appropriate Air Defense Group and release them when their tours are completed.
- C. Administrative Processing: The administrative processing of the active duty personnel will be performed by the Air National Guard Squadron.
- D. Tours of Duty: Air National Guard officers who participate in the plan may be placed on active duty for at least one day but not more than fifty-nine days.
- E. Medical: Active duty AMG personnel participating in the air defense mission are authorized hospitalization and out-patient medical services at armed services medical facilities on the same bases as other active duty Air Force personnel. Emergency medical and dental care by civilian medical attendants will be subject to the provisions of AFR 160-53 and AFR 160-53A. The Air Defense Group to which the individual active duty officer is assigned will be the approving authority for such care as provided in paragraph 5a (2), AFR 160-53A.

F. Legal: Courts Martial jurisdiction over the AMG active duty personnel will be the responsibility of the Air Defense Group to which such personnel are assigned. The processing of claims resulting from accidents or property damage involving AMG active duty personnel will be the responsibility of the claims officer of the Air Defense Group to which such personnel are assigned. The Air National Guard Unit Commander will provide all reasonable assistance to the claims officer to properly process such claims.

G. Reports: Personnel reporting procedures will be those normally required by ADC directives. In order that the Air Defense Group may include the AMG active duty officers on the daily morning report, the COMAC Instructor will issue the special order placing such officers on active duty sufficiently in advance so that a copy may reach the Air Defense Group prior to the day a morning report must be prepared.

V. Operations:

A. Operations Requirements: The AMG aircraft and crews will be combat ready and combat alert qualified as outlined in ADC Regulation 55-2, "Criteria for Determining Combat Ready Aircraft, Combat Ready Aircrews, and Combat Alert Aircrews," 24 July 1953. All operations will be conducted under the provisions of ADC operational directives.

B. Operations Instructions:

1. The Air National Guard Squadrons will place two aircraft on "Readiness" alert from 0600 hours until 2000 hours daily. The squadrons will be relieved of their alert commitments during the annual field training period.
2. Aircraft will be scrambled in elements of two and will operate with hot guns unless guns can be charged in flight. Safety precautions required by ADCG 55-11, "Transporting Live Bombs and Other Munitions on Aircraft," 7 December 1953, will be observed.
3. Upon completion of an interception, the aircraft will be released for training for the remainder of the flight; however, the crews will remain on the Direction Center frequency and will be considered in a status of airborne alert.
4. When aircraft are scrambled, additional aircraft will not be brought to a state of "Readiness" unless the AMG Squadron consents to do so by mutual agreement. If additional aircraft are advanced to "Readiness", the pilots who man them must be active duty personnel.

5. Since the pilots who participate in the plan may be on active duty for only one day, the ACSW Squadron exercising directional control of the aircraft must insure that these aircrews receive maximum training through scrambles. Weather permitting, each aircrew will be scrambled at least once a day.
6. Air National Guard crews participating in the air defense mission will not be directed to operate from other than their home bases except in cases of absolute necessity.

VI. Materiel.

- A. Normal logistic support will be furnished by the ANG Squadron.

Hq ADC ADOOF-BI Subject: (Unclassified) Air National Guard Air Defense Augmentation

EA00F-0W (13 Apr 54)

1st Ind

29 Apr 54

Hq EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 26th Air Division (Defense), Roslyn Air Force Station, Roslyn, New York

1. Forwarded for necessary action.

2. Supplementary information and instructions relative to basic letter and Inclosure 1, Plan for ANG Air Defense Augmentation, is as follows:

a. It is desired that your command be made cognizant of the importance of supporting this plan and of its potential for increasing our air defense capability. The continuance of the plan plus the availability of additional Air National Guard Squadrons in the future is dependent upon our initial and continued actions.

b. Reference paragraph 2a basic letter. Air division a will submit requests to this headquarters for full period talk (SC) circuits from the direction center to the ANG Squadron. At those ANG installations presently utilizing SMLs for this purpose, it is suggested that the PPT be in addition to the SML. If at any future date, this plan is discontinued, the PPT will be converted to an engineered (SC and SF) status. Where a SML and an ENG (SC, SF and FX) circuit is installed, the ENG circuit will be placed on an PPT basis.

c. Reference paragraph 2b basic letter. It will be the responsibility of this headquarters to provide all operational directives, regulations, and intelligence information that originated at this headquarters or Headquarters Air Defense Command. Air division and subordinate unit commanders will provide applicable publications to the ANG squadrons that originated with their organizations.

d. Reference paragraph 2c basic letter. Air divisions will provide instructions relative to ANG Squadrons operating under their operational control. The establishment of weather minimums, SAMP, alternate recovery bases, scramble and alerting procedures, etc., fall in this category.

EA00T-OW Subject: (Unclassified) ANG Air Defense Augmentation (Contd)

e. Reference paragraph 2d basic letter. Initial briefing of the ANG Squadrons will be conducted by a senior field grade officer from the air division exercising operational control. Liaison officers will be detailed from the AC&W Squadron that will scramble the ANG Squadron, from an interceptor squadron that is scrambled by the same AC&W Squadron if possible, and from the air defense group that has been designated certain administrative responsibilities for each ANG Squadron. Those liaison officers may assist the air division briefing officer; however, they will be responsible for indoctrinating ANG personnel and assisting in the establishment of operational procedures. Liaison officers will be detailed to ANG Squadrons until air division commanders determine their services are no longer required.

f. Reference Inclosure 1, Plan for ANG Air Defense Augmentation. Paragraph II A. 1. Add 139th Fighter-Interceptor Squadron, Schedecady, New York

g. Reference Paragraph III B. Air division (defense) commanders will exercise operational control over active duty ANG crews and aircraft participating in the air defense mission as follows:

(1) Commander 26th Air Division (Defense)

137th Fighter-Interceptor Squadron

(2) Commander, 30th Air Division (Defense)

126th Fighter-Interceptor Squadron

163d Fighter-Bomber Squadron

164th Fighter-Bomber Squadron

166th Fighter-Bomber Squadron

172d Fighter-Bomber Squadron

(3) Commander, 32d Air Division (Defense)

101st Fighter-Interceptor Squadron

131st Fighter-Interceptor Squadron

133d Fighter-Interceptor Squadron

138th Fighter-Interceptor Squadron

139th Fighter-Interceptor Squadron (This squadron is not listed in basic letter but is scheduled to place personnel on active duty).

h. Reference Paragraph IV A. Active duty officer spaces and the air defense group to which they will be allocated effective 1 June 1954 are as follows:

EA00T-OW Subject: (Unclassified) ANG Air Defense Augmentation (Contd)

<u>ANG Ftr- Intep Sq</u>	<u>Group Asgmt</u>	<u>Loc</u>	<u>Maj</u>	<u>Capt</u>	<u>Lt</u>
101st	564th AD Gp	Otis AFB	1	3	5
131st	564th AD Gp	Otis AFB	1	2	2
137th	4700th AB Gp	Stewart AFB	1	2	4
139th	4700th AB Gp	Stewart AFB		2	2
138th	517th AD Gp	Ethan Allen AFB	1	2	4
126th	501st AD Gp	O'Hare Intl Aprt	1	2	2
166th	502d AD Gp	Youngstown Muni Aprt	1	2	2
164th	502d AD Gp	Youngstown Muni Aprt	1	2	2
133d	517th AD Gp	Ethan Allen AFB		2	2
172d	575th AD Gp	Selfridge AFB		2	2
163d	575th AD Gp	Selfridge AFB		2	2

i. Reference Paragraph V A. It is considered that EADP and air division operational directives are included in ADC operational directives referred to.

j. Reference Paragraph V B 1. Greenwich Time will be used. Times will be 1000Z until 2400Z daily.

k. Reference Paragraph V B 6. This is interpreted to mean that crews will not be redeployed but this should not preclude recovery at an alternate base in the interest of safety.

1. PIO policy and guidance for public information aspects of ANG Air Defense Augmentation will be furnished as soon as received from Office of Information Services, Headquarters Air Defense Command.

3. Additional instructions and information will be forwarded as received.

BY ORDER OF THE COMMANDER:

1 Incl  
n/c

s/t/ JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE

FILE:  
SUBJECT: Air National Guard Alert Pilots

INTEROFFICE ROUTING SLIP

No. 1 - 7 May 54

No.	Date	From	To	No and date of entry-show date of dispatch. Show staff div or office in FROM-TO columns. Sign ea entry legibly-show actual sigger. Draw a line across page under ea entry. Use full width of page for long entries.
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EADEFM EADEFM

Reference telephone conversation, Major Cook, EADEFM, and Major Miller, EADEFM, Personnel Allotment Voucher #50, dated 27 April 1954, from Hq Air Defense Command, indicates augmentation for Air Nat Guard alert pilots as follows:

Effective 1 June 1954

ANG	Group	Major	Captain	Lieutenant
Per-intcp	Asgmt			
Sqs				
101st	574 AD Gp	1	3	5
131st	554 AD Gp	1	2	2
137th	4700 AB Gp	1	2	4
139th	4700 AB Gp		2	2
136th	517 AD Gp	1	2	4
126th	501 AD Gp	1	2	2
166th	502d AD Gp	1	2	2
164th	502 AD Gp	1	2	2
133d	517 AD Gp		2	2
172d	575 AD Gp		2	2
163d	575 AD Gp		2	2
		<u>7</u>	<u>23</u>	<u>27</u>

ANG	Group	Major	Captain	Lieutenant
1st	56th ADG		1	6
137th	4700 AB Gp		4	5
136th	517 AD Gp		4	5
139th	4700 AB Gp	1	4	7
133d	517 AD Gp	1		
172d	575 AD Gp	1		
163d	575 AD Gp	1		
		<u>4</u>	<u>13</u>	<u>23</u>

s/t/ PARSONS

s/t/ KIRKENDALL

161 2

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
H Hancock Field, Eastwood Station 6  
Syracuse, New York

PO&R 337

4 Jan 1954

SUBJECT: Briefing of Augmentation Forces

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. In accordance with EADF Operations Order 2-53 dated 10 March 1953, the Wings are directed to conduct a briefing to indoctrinate the National Guard augmentation crews within your area of responsibility, in current operations plans and orders.
2. To enable standardization of the briefings, a proposed outline covering communications and electronics and operations and training functions are forwarded as inclosure #1 for your guidance.
3. Basic correspondence initiated by this headquarters, with 1st indorsement giving suggested briefing dates, from the Commander 107th Fighter Interceptor Wing is inclosed for scheduling purposes.
4. Wing commanders will notify this headquarters by electrical message each time a briefing of augmentation forces has been completed.

BY ORDER OF THE COMMANDER:

- 2 Incls:
1. Pro Outline of Brief.
  2. Ltr w/1st Ind by 107th FIW, NYANG

FREDERICK E. YORK  
Major, USAF  
Adjutant

162 1

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SECRET

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT

11 May 1954

SUBJECT: Air National Guard Air Defense Augmentation

TO: Commander  
4700th Air Base Group  
Stewart Air Force Base  
Newburgh, New York

1. This headquarters will have a team consisting of a fighter pilot and an ACSW Director at Schenectady, New York on 24 May 1954 to aid the project officer from this headquarters in the indoctrination of personnel and to assist in the establishment of operational procedures for the 139th Fighter Interceptor Squadron.

2. In compliance with paragraph 2e, 1st indorsement, Hq EADF to letter Hq, ADC, subject as above, dated 13 April 1954, request an administrative officer from your headquarters attend subject indoctrination of the Air National Guard squadrons and to remain until released by this headquarters.

FOR THE COMMANDER:

1 Incl:  
ANG Air Def Aug

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

162 2

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SECRET

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT

SUBJECT: Air National Guard Air Defense Augmentation

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Attached correspondence forwarded for your information and necessary action.
2. Each Defense Wing will select a team composed of three (3) officers to be in place on 24 May 1954 with each Air National Squadron. Teams will be as follows:
  - a. To the 101st Fighter-Interceptor Squadron, Boston, Mass:
    - (1) Experienced fighter pilot from the 58th Fighter-Interceptor Squadron
    - (2) Experienced director from the 762nd AC&W Squadron.
    - (3) Administrative officer from the 564th Air Def Gp
  - b. To the 131st Fighter-Interceptor Squadron, Westfield, Massachusetts:
    - (1) Experienced fighter pilot from the 60th Fighter-Interceptor Squadron.
    - (2) Experienced director from the 656th AC&W Squadron.
    - (3) Administrative officer from the 564th Air Defense Group.

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- c. To the 138th Fighter-Interceptor Squadron, Syracuse, New York:
- (1) Experienced fighter pilot from the 27th Fighter-Interceptor Squadron
  - (2) Experienced director from the 655th AC&W Squadron.
  - (3) Administrative officer from the 517th Air Defense Group.
- d. To the 139th Fighter-Interceptor Squadron, Schenectady, NY:
- (1) Experienced fighter pilot from the 60th Fighter-Interceptor Squadron.
  - (2) Experienced director from the 656th AC&W Squadron.
  - (3) None required.
3. The 4707th Defense Wing will select a team of three officers to be in place on 24 August 1954 with the 133d Fighter-Interceptor Squadron, Manchester, N.H. Team will be as follows:
- a. Experienced fighter pilot from the 437th Fighter-Interceptor Squadron.
  - b. Experienced director from the 654th AC&W Squadron.
  - c. Administrative officer will be scheduled from the 517th Defense Group, 4711th Defense Wing.
4. It is desired that the officers selected for these teams be made cognizant of the importance of supporting this plan and exercise tact and diplomacy in the execution of their duties. Teams will remain in place with Air National Guard Squadrons until relieved by this headquarters.
5. This headquarters will provide, to Air National Guard Squadrons, applicable operational directives and regulations that originated at this headquarters. Subordinate unit commanders will provide applicable publications to the Air National Guard Squadrons that originated with their organizations.
6. Necessary action has been initiated by this headquarters to obtain full period talk (SC) circuits and SARPS for airfields to be utilized.

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C O P Y

6. Necessary action has been initiated by this headquarters to obtain full period talk (SC) circuits and SARPS for airfields to be utilized.

7. Lt Colonel William M. Shelton, project officer for this headquarters, will brief the Air National Guard Squadrons in conjunction with wing teams during the week beginning 24 May 1954. The 133d Fighter-Interceptor Squadron will be briefed on 24 August 1954.

8. Names of officers selected for each team will be forwarded to this headquarters, ATTN: OOT, to arrive not later than 18 May 1954.

BY ORDER OF THE COMMANDER:

1 Incl:  
3 cys ANG Air Def Aug

VIRGINIA L. SWEET  
1st Lt., USAF  
Asst Adjutant

3

SECRET

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C O P Y

JEPFB A128  
NBA 124  
YED157X  
JEDEN175  
RR JEPFB  
DE JEDEN 076  
R 201659Z  
FM COMDR ADC ENT AFB COLO  
TO COMDR EADF STEWART AFB NY

ADOOB-E2 16378. Your message EAOOT-TW 15417. Inclosure to my letter,  
Subj: ANG Air Defense Augmentation, 17 May 54, is being forwarded to ANG  
Squadrons by the Hqs. Request this Headquarters be furnished list of ANG  
Squadrons which cannot begin operations on 1 June as scheduled.  
20/1703Z May JEDEN

163 1

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HQ EADF STEWART AFB NEWBURGH NY

UNCLASSIFIED

PRIORITY

x Original Msg

Com 26 Air Div (Def) Roslyn AF Sta  
Roslyn NY  
Com 30 Air Div (Def) Willow Run AF  
Sta Belleville Mich  
Com 32 Air Div (Def) Syracuse AF  
Sta Eastwood Sta 6 Syracuse NY

EAOCT-OW 16152. Reference ltr Hq ADC, subj: ANG Air Def  
Augmentation, 14 Apr 54, and 1st Indorsement by this hq, 29 Apr 54.  
Info avail to this hq indicates some ANG Sqs have not received the  
basic plan. ANG Bureau is fwdg required info to their concerned sqs.  
Desire each adtee furnish this hq with a list of these ANG Sqs re-  
ferred to in ltr and indorsement cited above that cannot begin op-  
erations on 1 Jun. List to be submitted ASAP.

UNCLASSIFIED 1 of 1

t/Capt Looney  
EAOCT-OW 211430 May 54

163 2

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SECRET

JEPNB 04  
Paraphrase not required consult cryptocenter before Declassifying  
Crypte NBR 756  
Priority DTG 261320Z  
Fm Comdr 32D ADIV Syracuse AF St  
To Comdr EADF Stewart AFB Newburgh NY  
//S E C R E T// ACFOOT 5087. Ref your msg EACOT Dash OWS one six  
one five two CMA two one may five four. The folg ANG Sqs can not  
begin operations on one June one nine five four cln one zero one  
FTR INTCP Sq CMA Boston CMA Mass CMA one three one ftr Ftr Intcp Sq  
CMA Westfield CMA Mass CMA one three eight Ftr Intcp Sq CMA Syra-  
cuse CMA NY CMA One Torc: 26/1341z May Pt

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CONFIDENTIAL

HQ EADF STEWART AFB NEWBURGH NY 27 May 54 CONFIDENTIAL

PRIORITY

x Original

COMDR ADC ENT AFB COLO SPRINGS  
COLO

EAOOT-OW C-552. Reference your msg ADOOT-B2 16378. 137th Ftr-Inter-  
ceptor Sq, 126th Ftr-Interceptor Sq, 164th Ftr-Bmr Sq, 166th Ftr-Bmr  
Sq, 101st Ftr-Interceptor Sq, 131st Ftr-Interceptor Sq, 138th & 139th  
Ftr-Interceptor Sq cannot begin operations on 1 Jun as skdd. The  
folg reasons apply: a. Several units have insufficient quald aircrews  
and/or cmb ready acft. b. ANG Sqs have not received implementing  
instructions through NG comd chans.

CONFIDENTIAL 1 of 1

Maj Miller/mab

163 4

EAOOT-OW

492

CONFIDENTIAL

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SECRET

JEPNB 37  
PARAPHRASE NOT REQUIRED CONSULT CRYPTOCENTER BEFORE DECLASSIFYING  
CRYPTO NBR 819  
ROUTINE DTG 271415Z  
Fm Comdr 32 ADIV Syracuse AF Sta NY  
To Comdr EADF Stewart AFB NY

//S E R E T// ACFOOT 5090 Pd Ref your msg EAOOT dash ow one six five  
five wight brief status report pd one pd comm circuits are ready for  
hook dash up three one may five four pd two pd Applicable publications  
have been fwdd to ANG Sq pd three pd WEA mimimums sarp alternat re-  
covery bases are in process of being completed pd four pd Team of three  
officers have been selected as well as sr field grade officer from Div  
pd These can be in place three one may five four pd Five pd all four  
Ang Sq under three two Air Div will be unable to supply this augmentation  
on one June five four pd Therefore CMA the entire action at this hq has  
ceased pending additional info and instrs pd

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3TP  
MM5F1  
PP5F1 NLI Lo3 333  
DE 3TP 006B  
P 281815Z

Fm HQ ADC ENT AFB COLO SPGS COLO  
TO 5F1/Comdr EADF Stewart AFB NY  
NLI/COMDR CADF GRANDVIEW AFB Mo  
LO3/COMDR WADF HAMILTON AFB CALIF

ADGST-7 16h. For DSS. Subj: ANG Air Def Augmentation. 1. Hqs USAF  
MSG BU 5685 from NG AFOTO, 27 May 54 advises proposed Ang Air Def  
Augmentation plan can not be implemented until: A. USAF provides  
guidance on the auth of air tech supp pers for the plan. B. USAF  
provides for reimbursement of the states funding subj supp pers.  
C. USAF Air Staff Corrdinate on proposed plan. D. All state AGS  
concerned coordinate on proposed plan. 2. MSG further states that  
EADF has initiated action for the implementation of the augmentation  
program at several and locs causing considerable confusion. Imple-  
menting action will be held in abeyance until proper instructions are  
received from this or higher headquarters. EADF will nullify instruc-  
tions at once to avoid confusion. 3. The NGB advises they will simi-  
larly notify all states concerned of the contents of this msg.

163 6

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C O P Y

HQ RAIF STEWART AFB NEWBURGH NY

PRIORITY

UNCLASSIFIED

COMDR, ADC ENT AFB COLO SPRINGS  
COLO

EA00T-TW 15417 . Your letter ADOOT-El, 13 Apr 54, Subj: ANG Augmentation Plan, informal information received indicates several ANG units scheduled to participate in plan 1 Jun 54 apparently not furnished with adequate details and/or instructions from the Hqs regarding implementation of the plan. This headquarters is complying fully with instructions contained in your letter referenced above. Request any additional information be furnished this headquarters as soon as possible.

UNCLASSIFIED

1 1

t/ CAPT SIPLE  
EA00T-TW 141330 May 54

s/t/ J. W. FOUNTAIN, JR, Major, USAF  
Asst Adjutant

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SECRET

Status of Air National Guard Air Defense Augmentation Plan

EACDO  
EADVG  
EADCG

EACOT

28 May 1954

1. Reference is letter from ADC, ADOOT-El, Subject: (Unclassified) "Air National Guard Air Defense Augmentation", 13 April 1954. (Attach #1)
2. The letter referenced above was received by this directorate approximately 19 April 1954. After a meeting of directorates involved in the plan, appropriate instructions were sent to the air division (defense) per our 1st Indorsement to the letter, 29 April 1954. (Attach #1)
3. Briefly, eight ANG squadrons were designated by ADC as participating in the plan 1 June 1954. They were as follows:
  - a. 101st FIW (32d Air Div)
  - b. 131st FIW (32d Air Div)
  - c. 138th FIW (32d Air Div)
  - d. 139th FIW (32d Air Div)
  - e. 126th FBS (30th Air Div)
  - f. 164th FBS (30th Air Div)
  - g. 166th FBS (30th Air Div)
  - h. 137th FIW (26th Air Div)
4. Specifically, air divisions (defense) were required, by ADCs' letter and our 1st Indorsement referenced above, to take the following action as soon as possible and prior to 1 June 1954.
  - a. Install communications facilities from the ANG squadron to the ADCC (FPT).
  - b. Send briefing teams to each participating unit to indoctrinate ANG personnel in active air defense and operational control procedures.
  - c. Furnish operational directives, regulations and intelligence information required in the performance of the air defense mission.

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Status of Air National Guard Air  
Defense Augmentation Plan (Contd)

5. Air divisions (defense) began complying with our instructions and the intent of ADC's letter, upon receipt. Plans were made for communications facilities, briefing teams, and other necessary actions relative to air divisions (defense) assuming operational control of alert aircrews and aircraft.

6. Shortly thereafter, briefing team officers appointed by the air divisions (defense) reported that none of the ANG squadrons visited had received official information as to their participation in the plan. Further, each unit involved indicated that it would not participate in the plan for reasons as follows:

- a. Lack of implementing instructions from NG sources, and/or;
- b. Lack of qualified aircrews and/or combat ready aircraft.

When this directorate received the above information, a telephone call was made to Major Guynes at ADC (Project Officer) informing him of the situation. He stated that he had in his possession a copy of a letter that was sent to each ANG squadron by the NGB informing them of the plan and that the letter was not directive, but rather informative in nature and that it was not addressed to ANG squadrons but to the States Adjutants General. (See Inc #2) In addition to the telephone call, a TWX was sent to ADC by this directorate, (See Incl #3). ADC replied by TWX (Incl #4) and ask us what ANG squadrons would be unable to participate in the plan. We sent out a priority TWX to ADC and stated all ANG squadrons scheduled for 1 June 1954 would not participate for the reasons stated in paragraph 6a and b above.

7. In addition to the above, several telephone calls were made to ADC expressing concern over the lack of instructions to the ANG squadrons. ADC (Major Guynes) stated the problem would be brought to the attention of USAF as soon as possible. To this date, further information has not been received.

8. We have reiterated to air divisions (defense) the requirement for effecting all actions stated by ADC. (See Incl #6) However, inasmuch as the ANG units know nothing of the plan other than what our briefing teams have indicated, it is embarrassing, both to this headquarters and the air divisions, to attempt further discussion of the plan with the ANG units

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Status of Air National Guard Air Defense Augmentation Plan (Contd)

concerned when the units have not received appropriate instructions from the HGB or State Adjutants General.

9. A lack of coordination by higher headquarters is apparent in proper planning for ANG participation in active air defense and in planning their training as M-day assignees to ADC. To illustrate, in addition to the above situation, ADC Ops Plan 5-5<sup>4</sup> in which the ANG was listed as a Task Organization was not coordinated with the HGB. Consequently, the HGB has stated to ADC that they will not implement the plan until it is properly coordinated. This places certain limitations upon this headquarters and subordinate commands in planning for and in training of M-day assignees and in planning their eventual utilization in event they are called or ordered to active duty.

10. ADC appraised of this situation. Recommend we sit tight until that Hq gets squared away.

SIPLE  
703

OLDS  
600

5 Incls

1. Ltr fr Hq ADC ADOOT-B1  
Subj: As above, 13 Apr 54  
w/1st Ind this hq
2. Ltr fr Hq ADC ADOOT-B2  
Subj: As above 17 May 54  
w/1st Ind Incls
3. Copy of msg fr EADF to  
Comdr ADC 14 May 54, 15417
4. Msg fr Comdr ADC to Comdr  
EADF ADOOT-B2 16378, 13 Apr 54
5. Msg fr EADF to 3 Air Divs (Def)  
EAOOT-OW 16558, 25 May 54

3  
SECRET

5P1 056  
PP D49A  
DE 5F1 79  
P 031941Z  
Fm Hq EADF Stewart AFB Newburgh, NY  
To HX3/Comdr 26th ADD Roslyn AFS NY  
D49A/Comdr 30th ADD Roslyn AFS Mich  
3EQA/Comdr 32d ADD Syracuse AFS NY  
ZEN/ Comdr 4700th ABG Stewart AFB Newburgh NY  
EACOT-OW 17439. Folg Msg from ADC is quoted FYI and action cln  
"ADCOOT-B2 17645. My class ltr cmm subj cln ang Air Def augm cmm file  
ADCOOT-B1 cmm 13 Apr 54. NGB has infod this hq that the Ang Air Def  
Augm plan cannot be implemented as skedd. Therefore cmm action to im-  
plement subj plan w/b suspd until further notice." This msg cfms tp  
conversation of 1 Jun 54 between Capt Toler cmm this Hq smcln Capt Henck  
CMM 26th Air Div/Def/ Smcln Maj Duff Cmm 20th Air Div/Def/ Smcln and  
Maj Cummings  
03/2027Z Jun 5F1

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-FO

21 Jun 54

SUBJECT: Air National Guard Capability Report (RCS: AF ANG-VI)

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. Transmitted herewith is consolidated Air National Guard Capability Report, as of 15 June 1954.
2. Individual report from 133d Fighter Interceptor Squadron, Manchester, N.H. has not been received. Report for this squadron will be forwarded upon receipt by this headquarters.
3. Upon removal of inclosures this letter may be downgraded to UNCLASSIFIED in accordance with paragraph 25g, AFR 205-1.

FOR THE COMMANDER:

1 Incl  
Rpt RCS: AF-ANG-VI  
Infor Comdr EAWF

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

SECRET

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HEADQUARTERS  
 32D AIR DIVISION (DEFENSE)  
 Syracuse Air Force Station, Eastwood Station 6  
 Syracuse, New York

RCS: AF-ANG-VI

As of 15 Jun 1954

AIR NATIONAL GUARD OPERATIONAL CAPABILITY REPORT

101st FIS	Boston, Mass.	3 F94A 6 F94B	4 F94B 2 F94A	2 F94B 1 F94A	0 23	0	Pilots Undergoing Transition Program at present time
131st FIS	Westfield, Mass.	9 F94A/B	0 F94A/B	4 F94A/B	26	0	2 F94A/B - AOCF 24 Pilots Undergoing Transition at Present
132d FIS	Bangor, Me.	4 F94B 1 F94A	2 F94B	2 F94B	14	4	
133d FIS	Manchester, N.H.	No report received					
134th FIS	Burlington, Vt.	3 F94A 3 F94B	3 F94B	3 F94A	17	7	1 F94A - AOCF
136th FIS	Niagara Falls, N.Y.	8 F94A/B	0 F94A/B	4 F94A/B	13	1	12 Pilots Undergoing transition at present time.
138th FIS	Syracuse, N.Y.	3 F94A 5 F94B	0 F94A 0 F94B	3 F94A 5 F94B	24	0	
139th FIS	Schenectady, N.Y.	18 F51H	6 F51H	12 F51H	23	13	3 F51H - AOCF

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-FO

8 Jul 1954

SUBJECT: Movement of 102d Fighter Interceptor Wing

TO: See Distribution

Following 32d Air Division (Defense) message is quoted  
for your information and necessary action:

"/SECRET/ ACFOOT-FO 7012. DUE TO THE MOVEMENT OF THE ONE"  
ZERO TWO FTR INTCP WG TO THEIR SUMMER ENCAMPMENT AT OTIS AFB ON  
ONE ZERO JUL FIVE FOUR COM A RQST HAS BEEN RECEIVED NOT TO CALL  
UPON THE ONE ZERO TWO FTR INTCP WG FOR ACTIVE PARTICIPATION IN  
QUOTE CHECKPOINT UNQUOTE UNTIL AFTER ONE TWO ZERO ZERO EDST ON  
ONE ZERO JUL FIVE FOUR COM AT WRIGHTTIME THEY WILL BE IN PLACE  
AT OTIS AFB PD IF THE ONE ZERO TWO FTR INTCP WG DESIRES THAT  
THEIR SQS BE SCRAMBLED FROM HOME STAS FOR THE FLT TO OTIS ON  
ONE ZERO JUL COM LOCAL ARRANGEMENTS MAY BE MADE WITH CONTROLLING  
GCI STAS PD"

FOR THE COMMANDER:

Distribution: HENRY R. BROWN  
Major, USAF  
Adjutant  
Comdr, 102d FIW, Mass ANG  
Logan Apt, Boston, Mass (2cys)  
Comdr, 101st FIS, Mass ANG,  
Logan Apt, Boston, Mass (2cys)  
Comdr, 131st FIS, Mass ANG,  
Barnes Apt, Westfield, Mass (2cys)  
The Adjutant General, State of Mass,  
Boston, Mass

54-1812

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SECRET

ADC Project Reports

EAODO

EAOOT

2 Jul 53

1. Reference Headquarters ADC/DCS/O Project Report, 1 May 1953, following is a list of comments based upon project data appearing in the referenced report as it affects this office. Comments are offered upon only those projects of more vital interest to this headquarters.

2. For sake of identification, projects have been referred to by chronological sequence on each individual page.

3. a. Page 1 - Item 4: EADF furnishes aircraft on a request basis from ADC. Information copies on correspondence from SAC and APGC to ADC are received by this headquarters.

b. Page 1 - Item 5: SAC will furnish one squadron (sixteen F-84 type aircraft) to EADF in event of an emergency. APGC, ATRC and TAC have no commitments.

c. Page 1 - Item 6: EADF's recommendations on conduct of the 1954 Gunnery Meet at Yuma have been forwarded to ADC. No reply received to date.

d. Page 1 - Item 7: Conference was conducted at ADC 1 through 10 June 1953 on the standardization of SOPs required by ADC Regulation 55-27. Our recommended SOP was forwarded to ADC prior to the conference. Captain Pfeiffer, F-86 pilot, and Captain Staton, F-89 pilot, were placed on TDY to ADC from EADF for the purpose of screening all recommended SOPs of the three defense forces prior to their acceptance for publication.

e. Page 1 - Item 10: No information on the storage and check-out facilities for the 2.75 inch FFAR Rocket and the Falcon Missile has been received from ADC but is believed that 15-minute resericing requirements cannot be met if check-out facilities are located off-base. Information received from the 4707th Defense Wing indicates that turn-around time for rocket loading takes 30 minutes but time can be cut to 20 minutes using fully qualified rocket men doing the following:

- (1) Clean rocket tubes with pressure air only
- (2) Check circuit continuity

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ADC Projects Reports (Cont'd)

(3) Load rockets

f. Page 1 - Item 12: A letter was received from ADC outlining proposal of the Night Fighters Association to give an award to the top ADC AI fighter-interceptor squadron at their annual convention to be held in Washington, D. C., 22 August 1953. ADC asked for our recommendations as to how to select best squadron. We forwarded our recommendations as to how to select best squadron. We forwarded our recommendations to ADC with a request to delay selection until January because of changes in unit equipment taking place at the present time. No answer has been received to date.

g. Page 1 - Item 16: EADF has not received a revision of ADC Regulation 55-2, "Awarding of Combat Crew SSH's and Determining Combat Readiness of Crews and Aircraft." It is assumed that requirements contained in ADC message ADOOT-F-15336, 25 May 1953, will be in the revised regulation.

h. Page 1 - Item 17: There is no information available on project to determine safety of carrying "Hot" rocket tubes in the F-86D and F-94C on cross-country and training flights. It is believed that requirements should be similar to present requirements for "Hot Guns" in aircraft not equipped with pneumatic gun-charges.

i. Page 2 - Item 21: EADF does not receive any copies of the Combat Readiness Report from ADC. Fighter Operations will check into the possibility of getting distribution to this headquarters.

j. Page 3 - Item 9: Each gunnery range used by EADF has been surveyed to determine its expansion capabilities to 100 by 50 miles and potential for year-round use. Report has been forwarded to ADC.

k. Page 3 - Item 11: A letter was received from ADC stating that the revised Radio Facility Charts and Holders are in the process of publication and would be forwarded as soon as possible to EADF.

l. Page 3 - Item 16: Present requirement of 10 hours per utilization of F-86D flight simulator is in accordance with policy of ADC on increased utilization of training devices. Technical representatives are assigned to units on the basis of 8 hours work each day.

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ADC Project Reports (Contd)

Past experience with Technical Representatives assigned to our units has indicated that they will work side by side with USAF personnel to further military relations with respect to the company whose equipment the Air Force is using or testing. They are usually on an "on call" basis at any time their services are required. No major problems have been encountered within EADF due to nonavailability of Technical Representatives when they have been assigned to our units for purposes of training personnel, performing maintenance, etc.

m. Page 4 - Item 5:

- (1) The Field Order on EXERCISE TAILWIND has not been received from ADC. It was dispatched on 26 June 1953.
- (2) All available in-commission aircraft with combat qualified crews will be utilized except "minimum alert" aircraft and crews. No collision course intercepts will be attempted, day or night, during the exercise. (Colonel Baglestone to Squadron Leader Evans)

n. Page 5 - Item 15: Recommendations have been received from Land Air Incorporated at USAF, AFGC, and ADC for the prototype fitting of SIF equipment in the F-94C and F-86D aircraft. ADC presently awaiting decision from USAF on the final solution to be used. ADC recommended to USAF the deletion of the F-94C part in this program, due to the fact that the only solution presented required the removal of the AN/ARN-6, radio compass, from the aircraft.

o. Page 5 - Item 16: CONELRAD - Continuing

- (1) On 8 June 1953, ADC issued this headquarters with 8 copies each of the FCC (Agency) Basic Outline CONELRAD Plan, and the FCC (Agency) Detailed Operational CONELRAD Plan. These were distributed to air divisions as annexes to the over-all CONELRAD Plan.
- (2) One copy of the CONELRAD, Alert and Operational Manual was received from each division, covering their area of responsibility.

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ADC Projects Reports (Contd)

- (3) ADOOT-C 17643, 22 June 1953, to Department of Commerce, Civil Aeronautics Administration, Washington, D.C., announces a program of installing remote line to 174 unattended navigational aids.

p. Page 6 - Item 1: An inner defense area is a delineated area surrounding a critical target, defended by both aircraft and anti-aircraft weapons. The intent or purpose of the delineated area is that a "guns free" condition will exist within the area during periods of warning red or yellow. The AAA batteries will engage all targets within the area unless otherwise directed by out ACMW units.

q. Page 6 - Item 2: Release of Security Information to FCC, CAA and GDAS. No addition, continuing.

r. Page 6 - Item 4: Utilization of Radar of Other Commands.

- (1) Nothing came back from DOME on this project.
- (2) DMT has made two map overlays of all of the Navy and Army radar sites. Study is being made in this section also as to the possibility of the use of radar of other commands. Continuing

s. Page 6 - Item 5: Operational Functions of ACMW Stations.

- (1) Representatives of EADF attended conferences held at Headquarters ADC on this subject. It is an outgrowth and part of the study made by Colonel Kirkendall and party on the "55 Concept."
- (2) The purpose of the committee is to provide each ACMW facility with the capability of carrying out its assigned mission. This has resulted in reallocating PFI scopes and personnel as the present allocation is based on location, function and number of interceptors to be controlled. PFI scopes for CPS-6B sets are now being reallocated.

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ADC Projects Reports (Contd)

t. Page 6 - Item 9: Procedure to Test SCAT. Queries were sent to the 3 divisions in reference to the advisability of the unclassified section of SCATER originating from Headquarters EADF and classified portions to be distributed on a need-to-know basis. This was accepted by all divisions and is in the progress of being re-written. The O&T Section has on file, O-53-81 (a), procedure to test SCATER, from Chief of Operations Division, Chief, Facilities Division. This is general to all AOD Facilities, Region 1. This test will be by notification of ADC upon the issuance of the appropriate key word. Continuing

u. Page 6 - Item 16: Consolan Equipment. This headquarters is in receipt of 2d Indorsement, basic letter Headquarters AACC, AACS-PP-676.3, 18 May 1953, Subject: Consolan Siting Criteria (Unclassified), stating CAA has agreed to install and maintain two new beacons at Santa Barbara, California, and Atlantic City, New Jersey, on funds transferred from Air Force to CAA. Continuing.

t/ OLES

5

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J 3 0 0

UNCLASSIFIED

HQ EADF STEWART AFB NEWBURGH  
COMDR ADC ENT AFB COLO SPRINGS COLO

ROUTINE

ADPMP-O-AZ	35591	Uncl
"	35615	"
"	34690	"
EAPMP-OZ	43796	"
"	43799	"
"	42061	"

EAPMP-O 1062. This msg in two parts. Part I. A review of the curr plt manning in F-86D sqs, this comd, indicates that they are manned to a greater str than other ftr units. This has resulted fr the high output of F-86D Appl Sch, a low output of the corresponding F-94C and F-89 Schs and os losses of F-94 and F-89 Crews. As a result, the plt manning of our F-86D sqs is increasing out of proportion to that of our F-94C and F-89 Sq. This condition is expected to continue for the next 6 mos. In view of the above, it is considered nec to reallocate newly committed F-86D plts in order to balance the manning of all ftr sqs. Part II. Urmsgs ADPMP-O-AZ 35591, 35615 and 34690 and mymsgs EAPMP-OZ 43796, 43799 and 42061. Req plts committed on your msg cited above be reallocated as fols:

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EAPMP-O 1062 . (Cont'd)

Msg ADPMP-O-AZ 34690

5 to 46th Ftr-Intep Sq

3 to 2d Ftr-Intep Sq

6 to 96th Ftr-Intep Sq

3 to 47th Ftr-Intep Sq

2 to 63d Ftr-Intep Sq

19 TOTAL

Msg ADPMP-O-AZ 35591:

1 to 74th Ftr-Intep Sq

2 to 49th Ftr-Intep Sq

10 TOTAL

Msg ADPMP-O-AZ 35615:

5 to 46th Ftr-Intep Sq

2 to 71st Ftr-Intep Sq

4 to 332 Ftr-Intep Sq

2 to 13th Ftr-Intep Sq

2 to 56th Ftr-Intep Sq

15 TOTAL

Above action will preclude excessive PCS mvs of plts curr asgd ftr-intep sqs this comd. Reg this hq be infod add on your msg to ATRC.

UNCLASSIFIED Page 2 of 2

CAPTAIN ARCHIE S. LOCKEE/mk

EAPMP-O 18/1410 Jan 704

0302

C O P Y

FM HQ ADC Ent AFB Colo

TO: Comdr EADP Stewart AFB New York

/C O N F I D E N T I A L/ ADFMP-O-AZ 0145. Your message EAPDP-O 1062, 20 Jan 54. Your request to reallocate 1124C pilots committed to your command to F-89D and F-94C Squadrons, is not favorably considered. It is anticipated that effective on or about 10 Apr 54, crew ratio for all fighter aircraft will be C to 1.5. On this basis you will have 377 officers, AFSC 1124B, assigned against a total authorization of 407. There is every indication that this shortage of 30 pilots will be furnished to your command provided you place necessary requisition. While it is realized that present circumstances support your request, future programming requires that our tnd 1124C resources not be dissipated. In this connection see AFR 36-75, 12 Jan 54, currently in distribution, which removes 1124B pilots from IRS but retains 1124C.

28 Jan 52

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C O P Y

5F 1 49  
MM 3E0A  
DE 5F 1 40  
M 051650Z ZEL  
FM HQ RAHF STEWART AFB NEWBURGH, NY  
TO COMER 26 ADIV ROSLYN NY  
COMER 30 ADIV WILLOW RUN APRT BELLEVILLE MICH  
COMER 32 ADIV HANCOCK FLD EASTWOOD STA 6 SYRACUSE NY  
/C O N F I D E N T I A L/ EACOT-FO C-1644. The folg ADC msg, Ref Proj  
"Lock-on" Fwdd FYI: "ADOO-C 2311. The folg msg fr Hq USAF to APOC,  
AFDRQ-AS/3 56678, is fwd for ur info: "Re ur msg DCS/ODTr 5015, 6 Oct 53.  
Parts 1 thru 2 under consideration by this Hq. You w/b advised at early  
dt. Ref par 4 this Hq approves ur recommendation for cancellation of  
F-89C Sq test in favor of F-89D Sq test. Req F-89D Sq be selected by  
ADC in collaboration w/APGC and testinitiated at epd to be determined by  
availability of acft, and supporting equip, status of maint tng, and  
qual of operational crews. Test objectives w/b established along similar  
concepts applied to test programs of F-86D and F-94C. Recommend every  
effort be made to establish location of test in ADiv area which will  
(1) provide maximum ADiv test data, (2) provide acceptable tng for SAC.  
Auth Dir Comm w/all info adees for coord of test plan. Req this hq be  
provided cys of test plan as soon as aval." No info as to time and loca-  
tion of F-89D test can be fwdd at this time."  
05/1825Z DEC 5F1

KSW L) PLS

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CONFIDENTIAL

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N.Y.

EAOST-TW

9 March 1954

SUBJECT: Flying Records of Recent Graduates of the Air Training  
Command

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Some commanders of tactical units of this command have indicated that incomplete records have been received concerning pilots recently graduated from Air Training Command Schools and assigned to their organizations for flying duty. In a few of the above instances, an additional search by the commander concerned has brought forth the missing record (s) with the result that an unnecessary query has been made to the Air Training Command, causing considerable embarrassment to this and higher headquarters.

2. To alleviate the above situation and insure that any future complaints are justified, the following information is furnished concerning the training records of graduated pilots of the Air Training Command:

a. A record of progress through all phases of training is contained in the following:

- (1) Student Record - Flying Training, ATRC Form 30A, a copy of which is contained in each graduate's field personal file (201).
- (2) AF Form 5, Individual Flight Record (Pilot). In accordance with AFR 60-25, Air Training Command has designed a Student Time Certificate covering flying time prior to award of an aeronautical rating and initiation of Form 5. The Student Time Certificate will be the first page attached to the right side of the Individual Flight Record File.

EAOOT-TW Subject: Flying Records of Recent Graduates of the Air Training Command (Cont'd)

b. A monthly record of flying time accomplished, by type of aircraft, is contained in the Individual Flight Record File.

c. A breakdown of flying training completed is contained in Individual Flight Record File, the ATRC Form 30A, Student Record, and the Final Statement (Profile Sheet for each student).

d. A brief summary of any accidents incurred during training is included in the Student Time Certificate on Form 5 as applicable.

e. Comments regarding any weaknesses in flying proficiency are furnished as comments only on the "Remarks" section of the Final Statement; however, degrees of proficiency (weaknesses or strengths) are indicated in the Student (Grade) Record and the Final Statement.

3. In those cases where it becomes apparent that all necessary records have not been received, it is requested that this headquarters be notified in order that appropriate action may be taken as soon as possible.

4. Two actions are in progress which should improve the information now being furnished - design of a separate Student Record for Crew Training courses and development of an improved Final Statement (Profile Sheet) for Interceptor Pilot graduates. Since AF Regulation 60-25 requires that the Flight Record File be examined before the graduate is permitted to fly at his station of assignment, provision is being made in the Student Time Certificate for notation of flying time short of that prescribed in the course outline.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

JEPNB 004

PARAPHRASE NOT REQUIRED CONSULT CRYPTO CENTER BEFORE DECLASSIFYING  
CRYPTO NBR 343

ROUTINE DTG 092200Z

FM HQ ADC ENT AFB COLO

TO COMDR EADF STEWART AFB NEWBURGH NY

COMDR WADR HAMILTON AFB CALIF

COMDR EADF KSC MO

COMDR 4750TH TNG WG YUMA ARIZ

/C O N F I D E N T I A L/ ADOOT-C 0221. This msg in two parts. Part I:  
my classd msg ADMCR 2299, 25 Nov 53. Recent grdg of F-86D acft dictates  
consideration of extening present reduced alert commitments beyond 1  
Mar 54. So much of my msg above which reads "Eff 1 Dec 53 until 1 Mar 54"  
is therefore amndd to read "Eff 1 Dec 53 until 1 Apr 54." Every effort  
will be made to use this additional time to advantage thereby insuring  
maximum combat readiness by start of critical period. Other prov of ; my  
msg are also extended accordingly. Part II: For EADF, CADF and WADF.  
My msg ADOOT-C 34506, 3 Dec 53. Combat training status reports 74A and B  
submitted in Apr 54 will include total training accomplished during Dec,  
Jan, Feb and Mar. These reports not required in interim.  
TORC 092315Z Feb 64.

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COPY

HQ MAJ STEWART AFB HERBURNH NY

	PRIORITY		PRIORITY
COMDR 26 ABTV (DET) ROSKIN AF SPA			
ROSKIN NY	x		x
COMDR 30 ABTV (DET) VILLOW RIDG AF SPA			
BELLEVILLE NICH		EA007 G-1628	SECRET
COMDR 32 ABTV (DET) STAGCUSE AF SPA		EA007-FR 41953	UNCLASSIFIED
EASTWOOD SPA 6 STAGCUSE NY			
COMDR 4706 DET WG O'HARE INTL AFBT			
PARK RIDGE ILL			
COMDR 4707 DET WG OZES AFB PALMOUTH MASS			
COMDR 4708DET WG BELMONT AFB NY CLERMONT NICH			
COMDR 4709 DET WG MCCOY AFB TROFTON NJ			
COMDR 4710 DET WG NEW CASBLE GET AFBT WINDBORO DEL			
COMDR 4711 DET WG PRESSQUE ISLE AFB PRESSQUE ISLE NE			

INFO:

COMDR ADC DET AFB COLO SPRINGS COLO

EA007-F G-142. This message in 3 parts. Part 1. My classified message EA007-G-1628. So much of my message above which reads "Pd will cover Dec, Jan and Feb" is amended to read "Pd will cover Dec, Jan, Feb and Mar". Part 2. My message EA007-FR 41953. Combat training status reports 74A and B submitted in Apr 54 will reflect total training accomplished during Dec, Jan, Feb and Mar. These reports not required in interim. Part 3. Every effort v/b made to use this additional time to advantage thereby insuring maximum combat readiness by start of critical period. Date required evaluation report on "Balloon Pump" must arrive this headquarters is extended from 15 Mar 54 to 15 Apr 54 and date v/r reflected accordingly.

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t/ Maj P.A. Rand  
EA007-F 101530 Feb 54t/ JAMES R. WOLTER, Captain, USAF  
Asst Adjutant

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**CONFIDENTIAL**

F-86D FLIGHT SIMULATOR PRIORITY OF ALLOCATION  
AS OF 1 DECEMBER 1953

(This schedule supersedes all previous schedules)

<u>STATION</u>	<u>ACCOUNTABLE UNIT</u>	<u>DATE OF SIMULATOR DELIVERY</u>
Scott AFB	85th Ftr-Intep Sq	23 Nov 53
Selfridge AFB2	575th Air Def Gp	7 Dec 53
Wama County Aprt	4750th Tng Wg (Air Def)	21 Dec 53
Wright-Patterson AFB	97th Ftr-Intep Sq	5 Jan 54
Truax Field	520th Air Def Gp	Jan 54
Larson AFB	323d Ftr-Intep Sq	Jan 54
Davis-Montham AFB	15th Ftr-Intep Sq	Feb 54
Suffolk County AFB	519th Air Def Gp	Feb 54
Geiger Field	530th Air Def Gp	Mar 54
O'Hare (School)	501st Air Def Gp	Mar 54
McGuire AFB	568th Air Def Gp	Apr 54
Kirtland AFB	93d Ftr-Intep Sq	Apr 54
Sioux City Muni Aprt	521st Air Def Gp	Apr 54
Burlington Aprt, Vt	517th Air Def Gp	May 54
Youngstown Muni Aprt	502d Air Def Gp	Jun 54
Faine AFB	529th Air Def Gp	Jun 54
Rapid City AFB	54th Ftr-Intep Sq	Jul 54
McGhee-Tyson	516th Air Def Gp	Jul 54
Travis AFB	325th Ftr-Intep Sq	Jul 54
Niagara Falls Muni Aprt	518th Air Def Gp	Aug 54
Charleston, S.C.	444th Ftr-Intep Sq	Aug 54
Wurtsmith AFB	527th Air Def Gp	Aug 54
Grandview AFB	4676th Air Def Gp	Sep 54
Incl #1		

C-10991

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<u>STATION</u>	<u>ACCOUNTABLE UNIT</u>	<u>DATE OF SIMULATOR DELIVERY</u>
Gtr-Pitt Aprt	500th Air Def Gp	Sep 54
Castle AFB	413th Ftr-Intep Sq	Sep 54
Presque Isle AFB	528th Air Def Gp	Oct 54
Stewart AFB	330th Ftr-Intep Sq	Oct 54
Carswell AFB	335th Ftr-Intep Sq	Oct 54
Walker AFB	334th Ftr-Intep Sq	Oct 54
Hanscom AFB	49th Ftr-Intep Sq	Oct 54
Yuma County Aprt (No. 2)	4750th Tng Wg (Air Def)	
George AFB (No. 2)	456th Ftr-Intep Sq	

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CONFIDENTIAL

F-86D FLIGHT SIMULATOR PRIORITY OF ALLOCATION  
AS OF 1 DECEMBER 1953

(This Schedule supersedes all previous Schedules)

<u>STATION</u>	<u>ACCOUNTABLE UNIT</u>	<u>DATE OF SIMULATOR DELIVERY</u>
Yuma County Aprt	4750th Eng Wg (Air Def)	Aug 54
Minneapolis-St Paul	514th Air Def Gp	Jan 55
Kinross AFB	534th Air Def Gp	Feb 55
Portland AFB	503d Air Def Gp	Mar 55
Otis AFB	564th Air Def Gp	Mar 55
Wurtsmith AFB	527th Air Def Gp	Apr 55
Duluth Muni Aprt	515th Air Def Gp	Apr 55
Oxnard AFB	533d Air Def Gp	May 55
Hamilton AFB	566th Air Def Gp	Jun 55
Griffiss AFB	27th Ftr-Intcp Sq	Oct 55
Paine AFB	529th Air Def Gp	Dec 55

Incl #2

CONFIDENTIAL

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ADC MTD SCHEDULE AS OF 1 DECEMBER 1953

(This Schedule supersedes all previous Schedules)

TYPE	UNIT TO BE TRAINED	STATION	PERIOD OF ASSIGNMENT			TDY TERM DATE
			NO. DAYS	FROM	TO	
F-86-D-6	465, 317 F/ISqs	McChord	280	12 Jun 53	12 Dec 53	25 Mar 54
F-86-D-6	496 F/I Sq	Hamilton	75	15 Dec 53	28 Feb 54	
F-86-D-7	97 F/I Sq	Wright-Patterson	60	26 Nov 53	30 Jan 54	2 Feb 54
F-86-D-7	63 F/I Sq	Wurtsmith	60	1 Feb 54	31 Mar 54	
F-86-D-7	49 F/I Sq	Dow	60	1 Apr 54	1 Jun 54	
F-86-D-7	334 F/I Sq	Presque Isle	60	2 Jun 54	2 Aug 54	
F-86-D-8	85 F/I Sq	Scott	60	2 Dec 53	2 Feb 54	25 Mar 54
F-86-D-8	93 F/I Sq	Kirtland	60	3 Feb 54	5 Apr 54	
F-86-B-12	330 F/ISq	Stewart	60	20 Oct 53	15 Jan 54	15 Mar 54
F-86-14	87 F/I Sq	Sioux City	60	Dec 53	Feb 54	
F-86-14	11 F/I Sq	Duluth	60	Feb 54	Apr 54	
F-86-14	54 F/I Sq	Ellsworth	60	Apr 54	Jun 54	

CONFIDENTIAL

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<u>TYPE</u>	<u>UNIT TO BE TRAINED</u>	<u>STATION</u>	<u>PERIOD OF ASSIGNMENT</u>			<u>TDY TERM DATE</u>
			<u>NO. DAYS</u>	<u>FROM</u>	<u>TO</u>	
F-86-15	83 F/I Sq	Paine	60	Jan 54	Mar 54	
F-86-15	325 F/I Sq	Travis	60	Mar 54	May 54	
F-86-16	469 F/I Sq	McGhee-Tyson	60	Jan 54	Mar 54	
F-86-16	326 F/I Sq	Grandview	60	Apr 54	Jun 54	
F-86-17	15 F/I Sq	Davis-Monthan	60	Feb 54	Apr 54	
F-86-18	460 F/I Sq	Westover	60	Apr 54	Jun 54	
F-86-18	330, 539 F/I Sqs	Stewart	90	Jun 54	Sep 54	
F-89-3	18, 319 F/I Sqs	Mpls-St Paul	90	Dec 53	Feb 54	
F-89-3	438 F/I Sq	Kinross AFB	60	Feb 54	May 54	
F-89-3	497 F/I Sq	Portland	60	Jun 54	Aug 54	
F-94-4	29 F/I Sq	Great Falls	90	2 Dec 53	2 Mar 54	19 May 54
F-94-5	27 F/I Sq	Griffiss	60	16 Sep 53	15 Jan 54	15 Jan 54
F-94-5	48 F/I Sq	Langley	60	16 Jan 54	20 Mar 54	
RC-121-C	4712 AEW&C Sq	Otis AFB	PCS	Unk	Unk	

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-FO

22 Jun 1954

SUBJECT: Assignment of T-33 Aircraft

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. This headquarters has been advised by Eastern Air Defense Force that additional T-33 aircraft (category CS) will be assigned to your wings and groups in the near future.
2. These aircraft will be primarily for attrition purposes to insure that each squadron will be able to possess three (3) T-33s at all times.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

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C O P Y

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON 25, D. C.

AFOOP-OC-FL

Dec 15, 1953

SUBJECT: (U) Use of Runway Temperatures in Computing Takeoff Distances

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. For many years it has been recognized that aircraft performance decreases during hot weather, and that takeoff distances increase as the temperature increases. Jet powered aircraft are especially affected by high outside air temperatures and generally have longer takeoff runs than conventional engine types. In view of this fact, the temperature factor used in computing takeoff distances is extremely important.

2. Under certain conditions the station ambient temperature reading will be considered lower than the temperature on the take-off runway, and a takeoff distance computed by using the ambient temperature will be completely erroneous and hazardous. For example, the Air Weather Service found in a controlled study conducted during the summer of 1951, that 5 to 7 degrees Fahrenheit variances between the two temperatures were common, and differences as large as 11 degrees occurred. As a result, weather station ambient air temperature readings are not considered a valid basis for takeoff distance computations during high temperature conditions.

3. Air Weather service Letter 55-33 provides in part that "Air Weather Service detachment commanders will confer with base commanders to determine the requirement, if any, for a runway temperature observation program." Field contacts by the Inspector General, USAF, have demonstrated that some base commanders are not cognizant of the importance of accurate temperature factors in computing takeoff distances, and have not availed themselves of the runway temperature observations service provided by AWS detachment commanders.

4. In view of the above, request that airbase commanders within your command be advised of the importance and necessity of using runway temperature data for takeoff computations during hot weather, and that they be required to review their requirements for the service available to them in AWS letter 55-33, dated 6 August 1952. Consideration should

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To All Major Commands, Subj: Use of Runway Temperatures in computing  
Takeoff Distances

be given to using runway temperatures exclusively in the computation  
of jet takeoff distances when the base weather station ambient temper-  
ature is 80° Fahrenheit, or above.

BY ORDER OF THE CHIEF STAFF:

L. C. CODDINGTON  
Colonel, USAF  
Executive Officer  
Directorate of Operations, DCS/O

C O P Y

Hq ADC Subject: Use of Runway Temperatures in Computing Takeoff Distances

EAOOT-FO (4 Jan 54) 1st Ind 15 JAN '54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

1. Forwarded for your information and dissemination to defense group and tenant fighter-interceptor squadron commanders.
2. This headquarters will take action through Commander, 12th Weather Squadron, to obtain cooperation from the AWS weather detachments concerned.

BY ORDER OF THE COMMANDER:

1 Incl  
n/c

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT

16 Feb 54

SUBJECT: Violation of Air Force Regulation 60-22

TO: Commander, Headquarters Squadron Section, Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York  
Commander, 4707th Defense Wing, Otis AFB, Falmouth Massachusetts  
Commander, 4711th Defense Wing, Presque Isle AFB, Presque Isle, Me.

1. During the month of December a pilot of this command penetrated an ADIZ without proper clearance, thereby violating Air Force Regulation 60-22, paragraph 7a. The violation report submitted on the pilot from March Flight Service Center, March Air Force Base, California and the 687th AC&W Squadron, Kirtland Air Force Base, Albuquerque, New Mexico was as follows:

a. The pilot of the T-33 aircraft filed a flight plan from Scott Air Force Base, Illinois to Amarillo Municipal Airport, Amarillo, Texas. Soon after take-off the pilot contacted GCI and requested to be monitored by the GEI station for the duration of his flight to Amarillo, Texas. Upon arrival over Amarillo, the pilot noted that due to a decrease in hard winds he had more fuel reserve than he had anticipated for this flight. At this time the pilot decided to change his flight plan and land at Kirtland Air Force Base, Albuquerque, New Mexico instead of Amarillo, Texas. The change in the IFR flight plan was called to and was acknowledged by Amarillo Tower and Flight Service. Also the pilot gave a 15 minute estimate of penetration for the Albuquerque ADIZ. After the conversation with Amarillo Tower the pilot went back to GEI control. The flight was continued without incident to Kirtland Air Force Base. The 687th AC&W Squadron at Kirtland Air Force Base filed a violation against the aircraft for entrance into an ADIZ without proper clearance.

2. It is the desire of this headquarters that all rated personnel assigned your command refamiliarize themselves with Air Force Regulation 60-22, particularly paragraph 7a, whereby a pilot cannot change his flight plan in the air to penetrate the ADIZ. Flight plans for penetration into and ADIZ will be filed prior to take-off either in writing or by telephone with an appropriate aeronautical facility. This information is also contained in the Radio Facility Chart under Procedures for ADIZ flights.

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Hq 32d AD(D) OOT Subject: Violation of Air Force Regulation 60-22  
(Cont'd)

3. It is noted with due consideration that this information seems very minor, however, it has resulted in an investigation which has been costly to the Air Force, both in time and money. Therefore, it is the desire of this headquarters that the spirit and content of this letter be complied with implicitly.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Assistant Adjutant

C O P Y

HEADQUARTERS  
528TH AIR DEFENSE GROUP  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

DO

3 Feb 1954

SUBJECT: Aircraft Clearance for Air Defense Mission Training

TO: Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Under the provisions of paragraph 48 b (1), Air Force Regulation 60-16, as amended, it is requested that the requirement for filing of a DD Form 175 be deleted for scramble and recovery training missions designed to train personnel to recover fighter-interceptor aircraft at this station participating in active air defense missions. These flights would be conducted under VFR and IFR conditions along the identical flight paths outlined in 32d SARP's dated 9 November 1953. The recovery will be accomplished at the base of take-off.

2. This station possesses a clear airspace reservation where interceptor aircraft perform their mission training.

3. In accordance with paragraph 3, first indorsement, file ADOOT-C 353 by Air Defense Command dated 17 October 1953 to letter Headquarters Eastern Air Defense Force file EA00T-FN 353, subject: Utilization of Approved SARP's for Training Missions dated 24 September 1953, the attached procedure was coordinated with the Boston Control Center CAA for Altitude Reservation -- Presque Isle area; outlining actions to be utilized. The inclosed proposed base regulation outlines areas of responsibility and methods of control of local jet air traffic in conjunction with the above agreement.

FOR THE COMMANDER:

2 Incls:  
as stated

ROBERT L. LAGASSEY  
Captain, USAF  
Asst Adjutant

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BASE REGULATION)  
NUMBER 55- )

PROPOSED

HEADQUARTERS  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

OPERATIONS

Control of Local Jet Air Traffic During Periods of  
Cloud Cover Not Constituting Field IFR Conditions

1. PURPOSE: The purpose of this regulation is to prescribe the controls used for local flying during periods of cloud cover not constituting the air base being carried as IFR.
2. SCOPE: The provisions of this regulation will apply only to jet aircraft based at Presque Isle Air Force Base, Presque Isle, Maine.
3. RESPONSIBILITY:
  - a. Commander, Presque Isle Air Force Base, is responsible for control of local jet aircraft during periods described above.
  - b. Squadron Commanders will insure that expected take-off times and approach times are submitted to the Base Operations Officer and are adhered to by individual pilots.
  - c. Base Operations Officer will:
    - (1) Insure that take-off and approach times are relayed to control tower with an assigned altitude for each flight of aircraft.
    - (2) Obtain from Boston Air Route Traffic Control Center a block of altitudes above 20,000 feet when the conditions described above are forecast or exist. (See attachment #1.)
4. CLEARANCE: Clearance will be filed as a local instrument flight on DD Form 175 in the tactical squadron operations.
5. GENERAL:
  - a. Presque Isle tower will be the controlling facility for normal and/or emergency conditions.
  - b. Flights of not more than two (2) aircraft each will take-off at scheduled time upon clearance from control tower. All flights will have a fifteen (15) minute time separation and an assigned altitude separation of 2,000 feet. Flying periods will start on the quarter hour and pilot will ask for descent instructions one hour and five minutes from take-off time. Immediately after take-off of each flight the control tower will request penetration clearance from Boston ARTC. The request will be for a penetration at one hour and five minutes after take-off.

Base Reg 55-  
Page 2 of  
3 pages

Penetrating aircraft will join airways (Amber 7) north of the Presque Isle Range at 5,000 feet or below.

c. The climb out will be made on a bearing of 260° magnetic from the Presque Isle Radio Range station to altitude assigned by tower or 500 feet on top, whichever is the lower. Aircraft will remain VFR until out of Control Area. Upon reaching assigned altitude, a turn will be made to the left, to a heading of 090°, and aircraft will proceed to the EAST quadrants of the Presque Isle Range. The entire flight, except for climb and descent, will be made in the EAST quadrants of the Presque Isle Range at assigned altitude, unless 500 feet on top when all quadrants of the range may be used. The descent will be a standard jet penetration on the Presque Isle Range unless clear quadrant descent is given by GCI controller in the NW quadrant of Presque Isle Range.

d. Immediately after take-off the pilot will turn to Squadron tactical channel and contact GCI controller to monitor climb out. Aircraft will stay in contact with GCI controller until requesting penetration from tower then will turn to GCI contact for monitoring during descent. If GCI controller is able to give GCI descent he will notify Presque Isle tower that he will keep control of aircraft. Should the GCI controller keep the aircraft thru descent, as authorized by tower, he may descent the aircraft to GCA control at a point no lower than 3,5000 feet indicated, 7 miles out on the West course of the Presque Isle Range.

e. When separations, as stated above, are maintained climb out and penetration may be made with or without the aid of GCI, however GCI control is encouraged and should be used if at all possible.

6. EMERGENCY:

a. Pilots encountering emergency situations will announce same to both tower and GCI station. All other aircraft will be held at assigned altitude and stay in the EAST quadrants of Presque Isle Range.

b. GCI will render every assistance to troubled aircraft which will be cleared for immediate penetration by most expeditious method in NW quadrant of Presque Isle Range. Pilot will be instructed to turn parrot to Emergency position.

All Center Personnel, ROS-162

October 22, 1953

Chief, Boston Center - 1

Altitude Reservation - Presque Isle

The following procedure in connection with the handling of Presque Isle tactical training aircraft has been agreed upon between this office and representatives of Presque Isle.

Considerable training must be accomplished at this base and in order to permit as much freedom of action as possible without the necessity of obtaining clearances while operating at high altitudes on instruments Presque Isle operations will contact the Watch Supervisor and transmit the following message:

"APREQ ALTITUDE RESERVATION 22,000', 40,000' WITHIN 100 MILE RADIUS PRESQUE ISLE AFB FROM 1400 - 2000 OCTOBER 20TH. AIR FORCE ASSUMES RESPONSIBILITY FOR SEPARATION WHILE WITHIN THE OPERATIONAL AREA.

Upon receipt of this request, the Watch Supervisor will check the traffic and any proposed mass movement flights into Limestone or Presque Isle, coordinate same with Sector 9 controller, and, if conditions permit, approve the APREQ. If other proposed APREQ's or anticipated traffic will not permit the approval of the altitude reservations, Presque Isle will be advised and they have agreed to accept our decision without question.

In connection with these procedures, it will be noted that the altitude reservation is above 20,000', the initial penetration altitude for jet operations in the Houlton-Presque Isle-Limestone Area, and further the Base Operations Officer has stated that climbs to and descents from the altitude reservation will normally be conducted VFR or outside control areas, thus eliminating completely Center requirement to clear the aircraft.

When the radius of operation indicates that flight will be conducted in the Moncton Area, coordination with Moncton must be effected prior to approval. The Moncton Center has been contacted on this operation and has agreed to the procedures when conditions permit.

When approving these requests for altitude reservations, controllers should use the following phraseology:

!Altitude Reservation (Radius) within control areas Boston-Moncton area 22,000', 40,000' approved for period (time).  
Signed "Boston Center".

Thomas F. Millea

TFM: llea:acl

Hq 528th ADG DO Subject: Aircraft Clearance for Air Defense Mission  
Training

DO (3 Feb 54) 1st Ind

HQ 4711th DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. The basic letter is forwarded for approval with the following  
consideration:

a. At any time the ceiling is 5000 feet or below and/or  
visibility is 5 miles or less, a suitable alternate will be designated  
as specified in AFR 60-16.

b. During the climb out, aircraft will remain clear of  
airways and/or control zones when flying under actual instrument  
conditions.

FOR THE COMMANDER:

2 Incls:  
n/c

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

C O P Y

Hq 528th ADG DO Subject: Aircraft Clearance for Air Defense Mission Training

OOT (3 Feb 54)

2nd Ind

22 Apr 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station Eastwood Station 6, Syracuse, New York

TO: Commander; 4711th Defense Wing, Presque Isle AFB, Maine

1. Proposed Presque Isle Base Regulation 55- is returned for consideration of the listed changes and rewrites.

a. Contents of the first indorsement should be included in the regulation.

b. Paragraph four of the proposed regulation should be changed to place authority for control within the scramble and recovery corridor with the ADDC director. This procedure is in accordance with SARP 32d Air Division for active air defense missions.

c. Phraseology in paragraphs three(3) and seven(7) of the attached agreement should be included in the regulation to provide clear instructions regarding the obtaining of airspace reservation from Boston ARTC.

d. Requests for penetration clearances over one hour in advance appear rather extreme especially since GCI-GCA letdowns will be used in some cases. It is suggested that paragraph 5b be amended to the effect that ADDC request penetration clearance from Boston in the event that a GCI-GCA letdown is not feasible.

2. Request that the revised draft of the proposed regulation be forwarded to this headquarters upon completion.

BY ORDER OF THE COMMANDER:

2 Incls  
n/c

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Hancock Field, Eastwood Station 6  
Syracuse, New York

15 Jan 54

OOT-FO/OPS 8-1

SUBJECT: Cross-Country Navigational Training Flights in Tactical  
Aircraft within the Continental United States

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. The following is submitted in accordance with EADF message  
EAOOT-FO 883, dated 11 January 1954 and referring to message from the  
26th Air Division (Defense), 26ADOOOT 9370, dated 29 December 1953.

a. The policy as expressed in message 26ADOOOT 9370 is con-  
sidered to be of a restrictive nature for the purposes of naviga-  
tional training flights.

b. The prerogative of duties and responsibilities of the  
Aircraft Commander, Base Operation Officer, clearing authority and  
Weather Forecaster is being assigned to the senior officer present  
at a Fighter Interceptor Squadron who may possibly be a junior officer  
and totally unqualified to assume such responsibility in the event  
of any doubt existing as to the feasibility of completion of any  
assigned mission.

2. The present EADF Regulation 60-14, dated 11 December 1953,  
delegating authority to include AirDefense Group Commanders approval  
of extended flights within continental limits of the United States,  
is considered very satisfactory in that it places the authority at  
the proper level to facilitate the efficient and expeditious training  
of tactical pilots of the command on navigational flights.

3. Present policy of this headquarters regarding extended  
navigational training flights is expressed in the inclosed letter  
to subordinate units of this command. It is desirable that authority

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Hq 32D AD(D) OOT-FO Subj: Cross-Country Navigational Training Flights  
in Tactical Aircraft within the Continental United States

for approval of such training flights continue to be available to an  
echelon of command compatible with efficient and expeditious imple-  
mentation of such training.

FOR THE COMMANDER:

1 Incl  
Hq 32d AD(D) ltr  
Subj: as above

FREDERICK E. YORK  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Hancock Field, Eastwood Station 6  
Syracuse, New York

ODO/FS/TWG 5-4

6 Jan 1954

SUBJECT: Night Check-out Requirement for UE Aircraft

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth,  
Massachusetts

Commander, 4711th Defense Wing, Presque Isle Air Force Base,  
Presque Isle, Maine

1. Reference our letter, subject as above, dated 22 November 1953. This letter is rescinded and may be removed from file. The following criteria will be used as a guide in determining initial night check-out prerequisites for trainees in UE aircraft and especially recently graduated and inexperienced jet interceptor pilots:

a. Twenty hours a day in UE aircraft at least two hours of which will be devoted to instruments.

b. Dual night check-out in T-33 to familiarize trainee with local night area and traffic pattern.

2. Squadron commanders may waive any portion of these prerequisites for those pilots possessing extensive jet fighter time and considered qualified in a similar model.

BY ORDER OF THE COMMANDER:

FREDERICK E. YORK  
Major, USAF  
Adjutant

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C O P Y

HQ EADP STEWART AFB NEWBURGH NY

PRIORITY

PRIORITY

COMDR 4706th DEF WG O'HARE INTNL  
AFPT PARK RIDGE ILL

X

X

COMDR 4707th DEF WG OTIS AFB FAL-  
MOUTH MASS

COMDR 4708th DEF WG SELFRIDGE AFB  
MT CLEMENS MICH

COMDR 4709th DEF WG MC GUIRE AFB TRENTON NJ

COMDR 4710th DEF WG NEW CASTLE CO AFPT WILMINGTON DEL

COMDR 4711th DEF WG PRESQUE ISLE AFB PRESQUE ISLE ME

INFO:

COMDR 26th ADIV (DEF) ROSLYN AF STA ROSLYN NY

COMDR 30th ADIV (DEF) WILLOW RUN AF STA BELLEVILLE MICH

COMDR 32d ADIV(DEF) SYRACUSE AF STA EASTWOOD STA 6 SYRACUSE NY

EAOOT-FT C- 180 . Staff visits to units of this comd reveal an apparent lack of emphasis is being placed on training of support units during "Balloon Pump." Combat potential of fighter-interceptor and AC&W Squadrons depend to a large extent on capabilities of support units. Therefore, maximum emphasis must be placed on increasing efficiency of all units during this period. It is directed that the training accomplished in all units be clearly indicated in the report required by letter this headquarters, Subject: "Balloon Pump" Evaluation, 18 Jan 54.

CONFIDENTIAL

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t/ CAPT C K ELLIS  
EAOOT-FT 201000 Feb

t/ JAMES R. WORLINE, Captain, USAF  
Asst Adjutant

CONFIDENTIAL

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOPS

13 Feb 54

SUBJECT: (Uncl) Commander's Estimate of Accident Potential

TO: Commander  
30th Air Division (Defense)  
Willow Run Air Force Station  
Belleville, Michigan

1. This letter is to advise you of staff actions, comments and additional information pertinent to Commander's Estimate of Accident Potential from the 4706th and 4708th Defense Wings for the fourth quarter of calendar year 1953.

2. Operations and Training:

a. The problem of placing relatively inexperienced pilots in all-weather interceptors is recognized. However, it is through necessity and not preference that this situation exists. Operation "Balloon Pump" which was interrupted by the grounding of the F-86D has been extended until 1 April 1954. By extending this training period it is anticipated some of the pilot proficiency lost will be regained before returning to normal operations.

b. The lack of actual weather experience in some units of your command can only be corrected through closely supervised training. Gearing your training to meet the deficiencies in experience should reduce this problem area for you. Valuable weather experience can be gained by scheduling the uninitiated pilots for weather flights when conditions of relatively high ceilings and good visibility predominate. The requirement for an instrument flight plan for cross-country flights should aid in improving pilots' instrument procedures.

c. For your information an added number of T-33 aircraft are scheduled to arrive in this command as follows: January 1954 - 15; February 1954 - 12; March 1954 - 8; April 1954 - 5. Distribution of these aircraft is being made to bring the total assigned T-33s to three per squadron.

3. The shortage of key supervisory personnel is another reason for operation "Balloon Pump". Reduced commitments should make key people more readily available for the training task at hand. Supervisors in turn should gain experience and will be better prepared to handle

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EAOPS Subject: (Uncl) Commander's Estimate of Accident Potential (Cont'd)

responsibilities imposed. In order to hold key people as long as possible a program currently in effect in this command considers the FSSD in unusual cases only. Pilot withdrawals can now be made by the appropriate wing commander rather than "name withdrawals" by this headquarters.

4. Facilities.

a. Preliminary flight check of the UHF/DW facility at O'Hare has been completed and AACS is arranging for a final flight check at the earliest possible date. This headquarters will assist in obtaining a frequency change for either the outer marker (TMR) compass locator, 352 dcs. or McCool radio beacon (MCL), 359 kcs.

b. Deficiencies in facilities at Kinross are recognized. GCA equipment arrive 15 January 1954 and is being installed.

c. The installation and improvement of Nav Aids facilities is a time-consuming process and efforts are being made by this headquarters to expedite these improvements.

5. Maintenance.

a. The shortage of experienced maintenance personnel is recognized and the new OJT outline for three-level crew chiefs to bring them to a five-level should be of value in meeting this deficiency.

b. Certain maintenance personnel who are OJT or possess a critical AFSC are frozen for an indefinite period. This information has been disseminated to units of your command.

c. In spite of the grounding it is felt that an appreciable overall rise in maintenance skill has occurred.

6. Initiative in combating the slush removal problem in the 4708th Defense Wing is commendable. Runway conditions at O'Hare are receiving immediate attention from the Installation Section of this headquarters.

7. The following accident rates have been compiled for your information:

	<u>1952 OVERALL</u>	<u>1952 MAJOR</u>	<u>1953 OVERALL</u>	<u>1953 MAJOR</u>
a. ADC	74	49	74 (Nov)	45 (Nov)
b. EADF	77	52	66	43

EAOPS Subject: (Uncl) Commander's Estimate of Accident Potential (Contd)

c. An attempt is being made to include aircraft accident rates by Air Division in the ADC Accident Summary. In any event this headquarters will maintain the Air Division's rates during the current year.

BY ORDER OF THE COMMANDER:

t/ CARROLL W. MCCOLPIN  
Colonel, USAF  
Deputy for Operations

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

OFFICE OF THE DEPUTY CHIEF OF STAFF, MATERIEL

16 March 1954

Major General Morris R. Nelson  
Commander, Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Nellie:

The inclosed report is a summation of discrepancies found by North American-General Electric teams during the recent grounding of F-86D aircraft and subsequent compliance with T.O. 01F-86D-224. Although the summation is not an official document, it provides excellent information of prior weaknesses of our maintenance inspection procedures and, therefore, should serve to prevent similar deterioration in the future.

I am sure your command was well aware of the situation that accounted for the decision to ground all F-86Ds. The inclosed report indicating the prevalence of various deficiencies more than substantiates the action. In fact, it is highly probable that conditions were even worse than portrayed by this summation. Undoubtedly, during the period between the grounding and arrival of inspection teams, the squadron had time to correct numerous deficiencies. These, therefore, do not appear in the totals represented.

A one time endeavor to correct these errors naturally does not end our problems. Continued alertness must be maintained. The recommendations made regarding the inspection policy are worthy and should be examined thoroughly that more attention is required to assure the adequacy of mechanics' tool kits. With regard to the inspection team's remark that "however the authorized complement of tools is considered inadequate," we are asking North American for more specific information.

Additional copies of this report are being forwarded under separate cover to your Deputy for Materiel for appropriate distribution down to squadron level.

Sincerely,

1 Incl  
Int Summary of F-86D  
Undgrd Team Insps

s/t/ MARSHALL S. ROTH  
Brigadier General, USAF  
Deputy Chief of Staff, Materiel

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John W. Casey

G. P. Hillery  
Ext 2121

Interim Summary of F-86D Ungrounding Team Inspections

NOTE: If final information from the field necessitates a revision of the data contained herein, an addendum to this report will be issued.

Upon completion of the inspection of F-86D airplanes in accordance with T.O. OLF-86D-224 by the N.A.A. furnished inspection teams, the following unsatisfactory conditions and discrepancies listed were common throughout approximately 85% of the squadrons inspected:

(1) Fuel Leaks:

Fuel leaks were found in the afterburner fuel system on 33 aircraft. The leaks for the most part were caused by loose "B" nuts on the various fittings and faulty drain cocks in the fuel filter. The drain cocks have since been replaced by a solid plug which has eliminated the possibility of leaving the draincock open after draining the filter or leaking, due to high fuel pressures, when the afterburner is in operation. The forward engine compartment was found to have a total of 24 leaks in the main fuel system. The principal reason was loose "B" nut fittings, and improper installation of the fuel filter bowl gasket. The outer wing to center wing fuel cell interconnects and drain cock adapters accounted for 51 leaks reported. In all cases the leaks were corrected by retorquing the interconnect and fitting attack bolts. There were 17 cases of twisted fuel lines between the fuel filter and engine reported. These were caused by improper installation procedures.

(2) Hydraulic Leaks:

One hundred and five (105) cases of hydraulic leaks and seepages in the forward engine compartment were reported. The leaks were generally a result of improper tightening of the "B" nut fittings; however, 30% of the total leaks were caused by failed "O" ring seals and seepage from hydraulic hoses at the end connections, while 18 leaks were reported in the wheel wells and at the horizontal stabilizer actuator. Forty five (45) cases of chafing lines in the main gear wheel wells between the tires and the lines in the wheel well area were also recorded.

(3) Electrical Discrepancies:

The fire warning electrical wiring was found to be chafing or improperly

routed in 82 cases. This condition could very well account for the numerous false fire warning lights recently experienced during flight.

NOTE: A revision to the fire warning system will be accomplished by T.O. 1F-86D-246 (ECP F-86D-541). This change will consist of the installation of an improved fire and overheat detector system by strengthening the detector unit mounting brackets and installing protector cages in certain areas. Wiring will be replaced by HT16S shielded type and each Fenwall type detector will have caps and plastic sleeves installed.

Generator leads from the engine terminals to the relays were found to be improperly clamped (many clamps missing) in 194 instances. When clamps are missing or improperly located the leads can be caught and pinched during engine installation. Fifteen (15) leads were found caught between the fuel vent line and the engine. In the engine compartment 49 cases of badly chafed wires and loose terminals were reported. The wires in most cases had been repeatedly damaged during previous engine removal and installation and had not subsequently been repaired. Wire bundles in the bottom of the left and right hand equipment bays were badly worn on the majority of the airplanes. This appeared to have resulted from maintenance personnel using equipment bay as a step while working on the airplane.

Alternator leads were found improperly routed in 7 instances which could possibly account for some of the failures of alternators due to heavy overload. This in turn caused several engines to be changed due to passage of metal fragments from the alternator through the engine.

(4) Oil Leaks:

In eleven (11) instances oil leaks in the engine accessory section and the forward engine compartments were of such magnitude that oil was dripping or running from the loose fittings. In every case the "B" nut fittings were found loose and tightening was all that was required to correct the leak.

(5) Surface Anti-Ice Lines:

Many surface anti-ice clamps in the fuselage were found loose and not safetied together as per T.O. 1F-86D-214 dated 18 November 1953; 13 of these were found so loose and out of proper position that a dangerous condition would have existed had the surface anti-ice been turned on during flight.

During ground run in afterburner, several cases of air leakage were found in the afterburner turbine pump hot air line from the engine to the pump. The leakage was corrected by proper torquing of the

clamps. This hot air blasting onto nearby wire bundles is highly undesirable and is considered a fire hazard.

(6) Electronic Engine Control:

The operating condition and accuracy of the integrated electronic engine control varied greatly between squadrons. This great variance seemed to be almost entirely a function of the length of time which the squadron had had the airplane and the quality of training being given the airmen by the General Electric Representatives.

There were, however, only 3 squadrons reported wherein the controls were so badly out of adjustment that the aircraft were considered unsafe to fly. The adjustment of the electronic engine controls of aircraft assigned to the remaining squadrons were either within tolerance or set so that the controls were not giving optimum power.

Conclusion:

The discrepancies found by the inspection teams were conditions that should be found and corrected during any major inspection.

Recommendation:

It was strongly recommended by the inspection teams that a policy of inspection be established by the organizations involved, whereby the Inspector re-inspects the airplane and buys off all the discrepancies which were written up on his original inspection. This was not being done in most cases and discrepancies were being signed off rather than being worked off by the crews. The airplanes were considered dirty with respect to safety wire and raw stock lying loose in all equipment bays and to accumulations of dirt, hydraulic fluid and oil in the wheel wells and forward engine compartment. Both of the foregoing conditions are considered fire hazards and should have immediate action taken to correct them.

The crew chief's and specialist's tool boxes contained far less than the minimum number of hand tools. Tool boxes with all the authorized tools would be a great improvement; however, even the authorized complement of tools is considered inadequate for proper maintenance of the "D" aircraft. It is believed by everyone concerned that the poor supply of tools available to maintenance personnel was responsible, more than any other single item, for the unsatisfactory maintenance conditions found. The wrong tool and/or unavailability of the correct tool accounted in large part for the many loose and damaged fittings on the oil, fuel and hydraulic lines throughout the airplane. Damage of many other items such as electrical connectors and hydraulic quick disconnects could be prevented if the airmen were supplied with the proper tools and adequately trained in their use.

General Roth's letter concerning Rpt of F-86D  
Ungrounding Team Inspections

EADVC, EADCG

EAMDM

2 April 1954

1. Attached letter acknowledges General Roth's letter and seeks the more precise information we need to gain any real value from the team reports.
2. Certain facts don't support his contention that the grounding and T.O. requirements pointed up a deterioration of maintenance inspection procedures.
  - a. The teams furnished by North American and General Electric were headed by Senior Technical Representatives who were previously assigned to the same units as regular Tech Reps. If they had been on their toes, they should have been aware of the cited discrepancies and made such conditions known at the time discovered instead of collectively reporting them "after-the-fact".
  - b. If past experience is any guide, the grounding of the F-86D and previous restrictions on use of the afterburner probably contributed to and/or caused many of the leaks discovered by the teams.
  - c. There were several differences of opinion between the teams and the military maintenance crews as to whether or not some leaks actually existed. For example, at the 95th FIS at Andrews, areas in and around the wing center section of one aircraft were written up by the factory team as showing evidence of existing fuel and hydraulic leaks. Personnel from the 95th, as well as representatives from this headquarters, inspected areas in question and were of the opinion that the stains and discoloration present were caused by previous leaks which had long before been corrected.
  - d. In some cases, the exact sources of leaks were difficult to locate. At O'Hare the combined efforts of factory teams and military teams were required before fuel leak sources could be found on several aircraft. In these cases, the leaks were determined to be located at the interconnector fittings between fuel tanks and around dual boost pump gaskets.
  - e. All U.R.s concerning airframe fuel leaks received to date list cause of leaks as interconnectors, gaskets and faulty fuel cells. Of the U.R.s submitted concerning the afterburner fuel system, only one has been received which indicated "B" nut leakage.

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f. In reference to the faulty drain cocks in the fuel filter, units of this command had been experiencing this difficulty prior to arrival of the factory teams at our bases. They had all been advised officially of the dangers inherent with leakage at this point and the precautions to be taken.

1 Incl:  
a/s

s/ FORD  
t/ GRAY

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

5 April 1954

Brigadier General Marshall S. Roth  
Deputy Chief of Staff, Materiel  
Air Defense Command  
4th Air Force Base  
Colorado Springs, Colorado

Dear Sir:

This is in reference to your letter of 16 March 54, pertaining to the final report of the contractor inspection teams on the F-86D grounding and compliance with T.O. OLF-86D-224.

After carefully studying this report there is something which we may all have missed and which I want to call to your attention. It is quite apparent that this report in addition to pointing up a requirement for improved maintenance also points out a definite requirement for changes in design of aircraft and equipment aimed at eliminating habitual maintenance troubles. For instance, improperly torqued B nut fittings have been a major problem for a long time and have been the direct cause of many aircraft accidents. It would, therefore, seem to me that with the background of experience and service on this small item that a redesign of the B-nut, or a substitute, would have been in order a long time ago aimed at reducing the frequency of fuel and oil leaks. Further, chafing of electrical wires, lines and leads from causes which have long been recognized could also have been corrected by better engineering before this. In other words we have corrected by "build in" airplane maintenance trouble spots without making an all-American effort to improve basic design. I realize that aircraft manufacturers literally turn out hundreds of engineering T.O. changes but for some reason B-nuts, chafed wires and lines and other commonly known sources of trouble fail to get the attention on a timely basis which they deserve.

The above statements in no way lessen the importance of adequate maintenance. By personal attention we will continue to promote improvement in the units of this command.

Sincerely,

t/ M. S. NELSON  
Major General, USAF  
Commander

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

5 April 1954

Brigadier General Marshall S. Roth  
Deputy Chief of Staff, Materiel  
Air Defense Command  
4th Air Force Base  
Colorado Springs, Colorado

Dear Sir:

This is in reference to your letter of 16 March 54, pertaining to the final report of the contractor inspection teams on the F-86D grounding and compliance with T.O. OLF-86D-22h.

After carefully studying this report there is something which we may all have missed and which I want to call to your attention. It is quite apparent that this report in addition to pointing up a requirement for improved maintenance also points out a definite requirement for changes in design of aircraft and equipment aimed at eliminating habitual maintenance troubles. For instance, improperly torqued B nut fittings have been a major problem for a long time and have been the direct cause of many aircraft accidents. It would, therefore, seem to me that with the background of experience and service on this small item that a redesign of the B-nut, or a substitution, would have been in order a long time ago aimed at reducing the frequency of fuel and oil leaks. Further, chafing of electrical wires, lines and leads from causes which have long been recognized could also have been corrected by better engineering before this. In other words we have continued to "build in" airplane maintenance trouble spots without making an all-American effort to improve basic design. I realize that aircraft manufacturers literally turn out hundreds of engineering T.O. changes but for some reason B-nuts, chafed wires and lines and other commonly known sources of trouble fail to get the attention on a timely basis which they deserve.

The above statements in no way lessen the importance of adequate maintenance. By personal attention we will continue to promote improvement in the units of this command.

Sincerely,

t/ M. R. NELSON  
Major General, USAF  
Commander

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOOT TNG 11

18 Jan 54

SUBJECT: "Balloon Pump" Evaluation

TO: Commander  
26th Air Division (Defense)  
Roslyn Air Force Station  
Roslyn, New York

1. Reference is made to the "Balloon Pump" conference conducted at this headquarters on 10 December 1953, during which the policies and actions of this training period were outlined to personnel of your headquarters. A report of the proceedings of this conference was forwarded to your headquarters 22 December 1953.

2. The primary objective of "Balloon Pump" activities is to provide concentrated, adequately supervised individual training programs in all basic units of EADF. The training will have the objectives of raising the proficiency level and increasing the combat effectiveness of the air defense team by:

- a. Increasing the proficiency of pilots and air crews.
- b. Increasing the proficiency of ACMW directors.
- c. Increasing the proficiency of maintenance, armament system, and other team personnel.

3. It is clear that the formulation of a basis for evaluation of this program is difficult indeed and in all probability would normally require administrative action which is impracticable within the time limits presently prescribed. To provide optimum evaluation, it is desired that the Wing Supervisory Teams give consideration relative to any increase or gain as a result of the training program over the status of the unit prior to the initiation of this program.

4. Supervisory Teams will work with their respective units toward the common goal of improving operating efficiency. Their effectiveness will be reflected by the success of the training program. In observing and evaluating the training being undertaken and accomplished by the units, the teams will consider all facets of the problem and will utilize their leadership ability and collective ingenuity wherever possible. They will follow the general lines of assistance provided by normal staff functions, making the best use of that which is at hand.

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EACOT Subject: "Balloon Pump" Evaluation (Cont'd)

5. In the procurement and/or establishment of performance measurements, the Supervisory Team will place as little burden as possible on the administrative section of the unit. They will concentrate on operationally observed figures rather than previously recorded ones. The difficult task of true measurement of performance places a large responsibility on the team. It would be considered good practice on their first visit to the fighter or AC&W squadron to size up the situation as to present levels of accomplishment (in accordance with established and existing regulations), the units general attitude, feeling of unanimity, aggressiveness, and other attributes which tend to make, or not to make, a working-fighting team. These factors cannot be measured in numbers and figures, but they can be assessed. On their second and/or subsequent visits to the respective units, the above items can be reobserved and evaluated. It is realized that these are subjective evaluations and should be substantiated wherever and whenever possible.

6. To provide maximum assistance to the units and at the same time establish a sound evaluation, the Supervisory Team will give their concentrated attention to the following basic items which comprise, and functionally establish, our tactical and/or combat strength, namely:

- a. Equipment
- b. Personnel
- c. Maintenance

7. Realizing that individual training will be the area of initial concentration, with unit and system training to follow, every attention will be given to personnel training and the measurement of its accomplishment over the period, including:

- a. Number of air crews checked out and proficient in T-33 and UE aircraft.
- b. Number of air crews obtaining instrument card under the provisions of ADC Regulation 51-1.
- c. Number of aircrews accomplishing 60 hours or more flying training during this period.
- d. Number of aircrews becoming alert qualified under the provisions of ADC Regulation 55-2.
- e. Number of aircrews becoming combat ready under the provisions of ADC Regulation 55-2.

- (1) To accomplish this each Supervisory Team will calculate for each of the above items the average number of aircrews qualified per month, based on the period 1 July to 1 Decem-

BAOOT Subject: "Balloon Pump" Evaluation (Cont'd)

ber 1953. These averages will be used as standards for evaluating results of the training period.

- (2) For simplification in reporting on items a through e above, Supervisory Teams will report these standards together with the respective monthly output figures. Each Supervisory Team will judge the necessity for explanation of figures above or below the standard, especially where marked improvement is evident as a result of newly devised techniques or new methods based on individual leadership, ingenuity and invention.

f. Utilization of training devices including MTDs, instrument trainers and flight simulators.

- (1) Supervisory Teams will establish a standard in the same manner as above. Example: For the F-86D flight simulator, base calculations on the average number of hours/pilot/month. Calculations show that the present figure is approximately one hour/pilot/month. Facilities indicate that this capability may be markedly increased. This is of particular importance in view of the F-86D situation presently existing.
- (2) Measurement can be made from the training equipments number of operating hours, thus Supervisory Teams will make record of training aid equipment usage and reliability based on hours/day use over a six-day week, using the following formula:

$$\% = \frac{\text{No Hours Operation Per Day}}{24} \times 100$$

g. Director- interceptor team proficiency.

- (1) The Supervisory Teams will ascertain the extent which use is made of the 15-J-1C target simulators.
- (2) For measurement, Supervisory Teams will arrange with each respective AC&W squadron to have the number of runs/crew/day for each of the three crews recorded in like manner to actual interception.

h. Maintenance, armament system and other ground support personnel.

- (1) Here the measurement of progress will be the percentage of available personnel participating in on-the-job training

EAOOT Subject: "Balloon Pump" Evaluation (Cont'd)

(number trainees/number available for training expressed as %). This will be recorded by month for both the "Balloon Pump" period and the month of November 1953. As more specific indicators become available, the Supervisory Teams will be so informed.

- (2) Measurement of electronic maintenance, such as the E-4 and E-5 fire control system will be reflected in the daily fighter aircraft status. The three figures in the following formula will suffice:

$$\% = \frac{\text{No acft Undergoing Elect Maint or Repair}}{\text{(Tot Possessed Acft) - (Acft Undergoing Mach M\&R)}} \times 100$$

I. Surveillance and identification.

- (1) Measurement of surveillance and identification proficiency of director personnel by means of laborious data gathering and analysis is impractical. Such evaluation creates undesirable distraction and/or excessive workloads for the basic unit training programs. With this in mind, Supervisory Teams will observe surveillance and identification activities and the associated training efforts over a sufficiently long period of time to (1) ascertain the degree of proficiency of personnel, and (2) determine gains and/or losses accruing from the "Balloon Pump" program.

8. Headquarters Air Defense Command has directed that an over-all evaluation of the training program be submitted to that headquarters not later than 1 April 1954. It is desired that the Wing Supervisory Team submit and evaluation of the entire program on a wing-wide basis. However, it is not intended that this report be used as a basis for evaluation of any particular unit but rather to serve as an evaluation of the program on a command-wide basis as to its merit, results obtained, and those objectives which were listed as goals to be achieved. It is further desired that each wing commander and division commander personally review these reports and add any commentary deemed pertinent. The reports must arrive at this headquarters by 15 March 1954.

9. An evaluation of the training program will be made by this headquarters from the basis of those reports submitted by the Wing Supervisory Teams and indorsed by the wing and division commander. An information copy of the EADF evaluation will be forwarded to your headquarters at the same time it is forwarded to Headquarters Air Defense Command.

BY ORDER OF THE COMMANDER:

t/ JOHN L. WARREN  
Colonel, USAF  
Adjutant

C O P Y

HEADQUARTERS  
4707TH DEFENSE WING  
Otis Air Force Base, Falmouth, Mass.

This report is divided into five (5) main sections

Section I, Operations, including Aircrew, Unit Training and AC&W Training.

Section II, Materiel, including Maintenance, Communications, Electronics and Supply.

Section III, Personnel, including OJT.

Section IV, General, including comments and problems encountered.

Section V, Conclusions.

I. Operations

1. Aircrew and Unit Training: In order to develop a basis for evaluating the program, average accomplishments for the preceding five months were compiled for comparison with those during "Balloon Pump". Included are comparative figures for accomplishments and information of general interest not required by Letter, Headquarters, Eastern Air Defense Force, Subject: "Balloon Pump Evaluation, file EAOOT, dated 18 January 1954.

	1 Jul 53 - 1 Dec 53	1 Dec 53 - 31Mar54
Average number of pilots checked out and proficient in T-33 and UE aircraft per squadron per month	T-33 - 27 UE - 25	T-33 - 36 UE - 28
Average number of pilots obtaining instrument cards under the provisions of ADGR 51-1 per month	7.8	8.0
Average number of aircrews per squadron accomplishing 60 hours or more flying training during the period	Plts - 26 RO's - 28	Plts - 20 RO's - 9
Average number of aircrews becoming alert qualified under the provisions of ADGR 55-2, per squadron per month	2.8	1.8

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Average number of aircrews becoming combat ready under the provisions of ADGR 55-2, per squadron per month	3.3	1.2
Utilization of F-86D Simulator, C-11 trainer, C-8 trainer	32.2%	26%
Average number of pilots assigned per squadron per month	25.6	39.2
Average number of new pilots assigned per squadron per month	19.2	8.5
Average number, per month, of hours flown in UE aircraft	2392	2032
Average number, per month, of hours flown in T-33 aircraft	357	336

a. A study of the above information reveals less accomplished during "Balloon Pump" than the preceding five months. This is not a true evaluation however. There are other factors which must be considered; these are:

- (1) Deployment of two squadrons to Yuma. Much valuable training was accomplished by aircrews as well as support personnel. The additional specialized training accomplished more than offset the loss of flying time. One squadron devoted the entire period at Yuma to interception training in preparation for rocket firing, while the other divided the time between transition and interception training.
- (2) Grounding of aircraft interfered with actual flying training. However, ground training was accelerated during this period. (UE aircraft were grounded 14.5% of available aircraft-days).
- (3) Seasonable weather during the four-month period created a problem in transitioning new crews. More experienced crews were able to gain valuable experience in weather operations. When weather interfered with flying training, ground school for aircrews, maintenance and support personnel was conducted.

b. All units entered into the spirit of the program with outstanding aggressiveness and enthusiasm. Development and implementation of the training program was accomplished expeditiously with the full

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cooperation of all units within the wing. The plan to reduce commitments developed enthusiasm. Unfortunately the normal workload within squadrons could not be sufficiently reduced to enable them to devote maximum time to training. The administrative workload was actually increased. Units utilizing simple recording methods realized more benefit than those with complicated ones. It is realized that commitments were reduced where possible, i.e., exclusion of tactical squadrons from several CFX exercises.

c. Air Force Unit Training Standard No. 10-2, AFM 50-7, states that the purpose of unit training is to enable the assigned aircrews to destroy enemy air, sea, and surface forces and primarily airborne targets. This capability was increased, however the exact amount cannot be determined. (Lack of a method of recording radar scope presentations handicapped both training and crew evaluation. Intercept training would have been more realistic if more target aircraft, such as B-29's, had been made available.

d. "Balloon Pump" was instrumental in making all personnel training conscious and it re-emphasized the need for a detailed training outline. It helped to remind all concerned that training is a never ending requirement that must be thorough, complete and well planned. Further, it served to re-emphasize the importance of evaluating both unit and individual training accomplishments.

2. Director Evaluation:

a. The forty-one (41) directors within the wing who participated in the "Balloon Pump" training program were evaluated at the beginning of the program and again at its completion. Each interception, actual and simulated, was graded and recorded on a director's proficiency evaluation sheet. Whenever possible, directors were closely supervised and instructed during each interception. In the evaluation the directors fell into three categories.

Category I. Experienced directors, AFSC 1635. There were twenty-one (21) in this group. The pre-evaluation of these directors averaged 85% and the post-evaluation averaged 95%.

Category II. Semi-experienced directors consisting of the remaining 1635's and the more qualified 1631's. This group consisted of eleven (11). The pre-evaluation was between 75% and 80% and the post-evaluation ranged from 85% to 95%.

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Category III. Inexperienced personnel consisting of newly graduated 1631's and radar observers being trained within the squadrons. This group generally entered the program at 30% and progressed to approximately the 70% level.

b. Interception Training: A total of 4,401 actual interceptions and 12,597 simulated interceptions were accomplished during the period. The monthly breakdown is as follows:

	<u>Actual</u>	<u>Simulated</u>
December 1953	991	2,869
January 1954	919	3,129
February 1954	974	3,429
March 1954	1,517	3,170

(1) The desired number of interceptions was not obtained. However, due to close supervision and evaluation the value of those accomplished was increased. The number of actual interceptions possible were directly related to the capability of the various Fighter-Interceptor Squadrons to provide aircraft and crews. Maintenance difficulties with the 15-J-10 target simulator reduced the number of simulated interceptions.

c. Surveillance and Identification proficiency: Identification personnel benefited from the training, but their improvement cannot be measured in terms of operational proficiency. The introduction of quality control procedures did much to improve surveillance proficiency.

II. Material

1. Maintenance

a. The training of aircraft maintenance personnel was accelerated where possible and individual, as well as unit, proficiency increased. The amount of formal classroom training desired was not accomplished due to unavoidable mandatory commitments such as Technical Order Compliances, transfer inspections and deployment of squadrons to Yuma. It is believed that the actual experience gained on the job more than offset the loss of classroom instruction. The primary problems encountered are as follows:

(1) The transition of one squadron from F-86F to F-86D aircraft presented the greatest maintenance problem. Since the transition was scheduled to take place several months after "Balloon Pump" was implemented, plans for F-86D maintenance training were incorporated

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into the initial program. This provided a detailed plan which permitted an orderly transition from F-86F to F-86D training. In addition, a team of personnel from the North American Aircraft Company conducted an excellent training program for maintenance personnel.

- (2) Deployment to Yuma disrupted formal maintenance training. However, it is felt that the experience gained in preparation for and during actual deployment more than offset the loss of subject training. In the case of one squadron it was necessary to split the maintenance section between Yuma and Otis Air Force Base.

2. Supply

- a. Training of supply personnel throughout the wing contributed to the proficiency of all supply personnel. A review of Unit Supply Inspection Reports, Special Subject Letter Reports, and Reports of Audits, indicates that overall operation of unit supply accounts has improved.

- b. Unit training received at the Otis Air Force Base Supply School during the period January through March 1954 complemented the "Balloon Pump" OJT program.

3. Communications and Electronics

- a. "Balloon Pump" served to stimulate the electronics program already under way. A Wing Electronics School specializing in the E-4 and E-5 Fire Control systems had been established and functioning for some time. This was incorporated into the "Balloon Pump" program along with practical maintenance training. As a result, there was an increase in proficiency.

- b. A similar course of instruction had been established for flight simulator maintenance personnel and it was likewise incorporated into the "Balloon Pump" program. A basic course was established for "three" level and advanced course for "Five" level airmen. Individual proficiency advanced under this program.

III Personnel

1. On the Job Training:

- a. The wing on the job training program was incorporated with "Balloon Pump". As a result 90% to 95% of all eligible personnel received on the job training. A high percentage of personnel were receiving on the job training prior to "Balloon Pump". This was a result of

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special emphasis placed on individual training from the time aircraft equipped with E-4 and E-5 fire control systems were assigned to units of this wing. It was found at that time that OJT in aircraft maintenance and other fields except electronics was well established and that special emphasis had to be placed on radar maintenance.

b. Emphasis had been placed on utilization of technical instructors. Upon combining the wing OJT program and "Balloon Pump" special emphasis was placed on obtaining maximum instruction. The number of individuals per class was increased in order to obtain maximum training. The combination of the two programs increased both unit and individual proficiency.

c. Instability of personnel assignments was probably one of the greatest problems in attempting an accelerated training program. Mandatory transfers of personnel, especially supervisors and instructors, presented a particularly outstanding problem. Although this situation existed prior to "Balloon Pump", it was felt more than ever during that period. Every effort was made within the capabilities of this wing to hold transfers to a minimum.

IV. General

1. The following is a discussion of particularly outstanding problems encountered.

a. The maintenance of records was a common complaint from all units. It was found that, generally speaking, commanders and supervisors attempted to maintain records in such detail that the workload was increased. This applied to all training. As stated previously, it was found that units maintaining only essential records obtained more value from the program.

b. A problem in the maintenance of records that was beyond the control of the units was the fact that two sets had to be maintained for aircrew training; those for accomplishments under provisions of ADC UPD 10-4 and those for "Balloon Pump". The requirements established by UPD 10-4 were waived so far as mandatory training was concerned. However, the waiver stipulated that all training that fulfilled the requirements of that directive would be reported in the ADC V-8 Report at the conclusion of "Balloon Pump". This made it necessary to maintain accurate records of UPD training.

c. Evaluation of the progress of both aircrew and electronics maintenance personnel would have been greatly facilitated by radar scope cameras or some other means of recording scope presentations. It is

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unfortunate that these facilities were not available during "Balloon Pump". However, it appears this problem will be overcome in the near future.

d. Deployment of units to Yuma and the transition of one of these squadrons to a new type aircraft was a problem for all concerned. Although these commitments interfered with certain types of training, they did in themselves create a learning situation and provided worthwhile training.

V. Conclusions

1. There was an increase in both unit and individual proficiency. The degree of increase over and above the training that would have been accomplished without "Balloon Pump" cannot be determined. It is a fact that there was a proficiency increase in some phases and that command attention given the program at all levels was a contributing factor. Command attention was a definite asset in developing enthusiasm and incentive.

2. The ability of all units to obtain maximum benefits from "Balloon Pump" was reduced somewhat by the fact that the original concept calling for reduction of the administrative and operational workloads and the promoting of stability of personnel assignments were not completely realized.

3. Training and evaluation of aircrews and radar maintenance personnel were somewhat limited by the lack of scope cameras to record training intercepts and radar performance. Also aircrew training would have been improved somewhat had more realistic targets, such as B-29 type aircraft, been available for practice interceptions.

4. An outstanding value of "Balloon Pump" was that it reindoctrinated all supervisors with the basic training principles that are required to maintain individual proficiency and unit effectiveness.

C O P Y

Hq 4707th Def Wg DWO Subject: "Balloon Pump" Evaluation Report

CCG (15 Apr 54)

1st Ind

16 April 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern AirDefense Force, Stewart Air Force Base, Newburgh, New York

1. Since the fifteenth of February 1954, I have visited all fighter units of the 4707th Defense Wing. My observations and reports of my staff, who have visited these units, indicate that the benefits realized from "Balloon Pump" are greater than the 4707th realizes.

2. In addition to the stated objectives of the program, a great deal has been accomplished in the managerial field, such as:

- a. The training of commanders and their staffs.
- b. Improved internal squadron organization.
- c. Greatly improved supervision at the junior management level, i.e., by subordinate officers and non-commissioned officers.
- d. Vastly improved squadron esprit.
- e. Improvement of supporting base functions, such as:
  - (1) Technical Supply.
  - (2) Ground handling equipment and servicing equipment.
  - (3) Minor jet engine repair.
- f. Reduction of aircraft accidents in comparison with the anticipated.

3. I believe the 4707th Defense Wing has met the objectives of the 90-day training program. In all, "Balloon Pump" has served to place objectives in a clear focus, and to clarify and invigorate the proper courses of action. My observations indicate a marked improvement in the overall operations and functions of all units.

C O P Y

Hq 32d Air Div (Def) CCG Subject: "Balloon Pump" Evaluation Report

4. There, of course, remains much to be done. A continuing flow of incoming personnel, officer and enlisted, is anticipated, so that "Balloon Pump" will be a continuing process. However, with the experience of the past few months, the organizations should be able to take this in their stride. Greatly increased reliance can be placed on our units to perform their mission as a result of this program.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

C O P Y

HEADQUARTERS  
4711TH DEFENSE WING  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

DO

15 April 1954

SUBJECT: Balloon Pump Evaluation

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. The following report is submitted in compliance with Eastern Air Defense Force letter, Subject: "Balloon Pump Evaluation," dated 18 January 1954.

2. The following statistics are submitted:

a.	<u>1 Jul - 1 Dec 53</u>	<u>Balloon Pump</u>	<u>Total During Balloon Pump</u>
Average number of crews checked out in UE and T-33	23 per month	23.5 per month	94
Average number of crews who obtained or renewed instrument cards. Note: All pilots assigned this Wing have current instrument cards	14.6 per month	11 per month	44
Average number of pilots who completed 60 hours UE time	13 per month	16 per month	66
Average number of crews who have become alert qualified in accordance with ADCR 55-2	13.7 per month	10 per month	40
Average number of crews who become combat ready in accordance with ADCR 55-2	8.4 per month	.25 per month	1

C O P Y

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Subject: Balloon Pump Evaluation (Cont'd)

b. This wing did not possess an F-86D simulator during the reporting or training periods. Therefore, a standard could not be established as suggested in the basic letter. However, due to the cooperation of the 4707th Defense Wing and units of the Training Command, 4711th Wing crews concerned with the E-4 fire control system were able to obtain an approximate average of 1.5 simulator hours per pilot per month, for the period 1 July 1953 to 1 December 1953. During "Balloon Pump" the average per pilot dropped to 1 hour per month as a result of varied circumstances. An F-86D simulator is now set up at Burlington and it is expected that the programmed maximum utilization will considerably increase the pilot average. During the period 1 July 1953 to 1 December 1953, the C-11 trainer was used on an average of 1 hour per day for a formula utilization figure of 4.2%. During "Balloon Pump" the average increased to 2.2 hours per day for a formula utilization of 9.2%. It is to be considered that the formula does not present an accurate picture as even a maximum utilization of 8 hours per day would only provide a figure of 33 1/3%.

- c. (1) On a basis of 3 crews per day, the average number of simulated runs was 2.2 using the 15-J-1C target simulator.
- (2) The average number of runs per crew per day of actual intercepts was .96, which is considerably lower than the figure obtained with the 15-J-1C simulator.

d. Again by use of the recommended formula the following evaluation is made of monthly maintenance training for the period of this report:

- (1) December 84%.
- (2) January 83%.
- (3) February 86%.
- (4) March 81%.
- (5) Measurement of electronics maintenance is reflected as 61%.

e. It is not considered easy to measure the proficiency of surveillance and identification procedures, as is noted in the basic letter. The overall experience level of the personnel of this Wing is not as high as is desired. However, it is believed that every director is earnestly striving to obtain the proficiency which is desired and necessary. In this respect "Balloon Pump" was of assistance in that it

C O P Y

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Subject: Balloon Pump Evaluation (Cont'd)

emphasized and encouraged study and discussion. Use of the target simulator helped considerably; however, there is no substitute for actual airborne intercepts. The reduction of alert commitments, while beneficial to the fighter squadrons, conversely hampered to some degree the training of the AC&W directors. In this respect it is suggested that a program of increased scramble activities, such as prolonged command post exercises, would be of considerable value to the AG&W Squadrons as well as to the air crews.

3. It is the general opinion of this Wing that the basic idea of the "Balloon Pump" program is sound. As regards the 4711th Defense Wing, however, it was instituted at an untimely period for the following reasons:

a. The extensive delay in getting the program started after the "kick-off" date, together with the Christmas holidays, had an effect of dampening the necessary degree of enthusiasm for such a project.

b. The diversified types of equipment with which this Wing is equipped prevented balancing one squadron against another with common ideas, plans and SOPs.

c. The effect of weather in this area during this time of year. In this respect Burlington, Vermont, reported that it had its severest winter in 63 years. Throughout all of the bases of this organization, such as Dow, Presque Isle, Rome and Burlington, as well as the AC&W sites, the precipitation was so extremely varied and the temperature changes so acute that runway conditions were hazardous a great deal of the reporting period.

d. Although it is realized that this factor is shared with the other wings, the loss of experienced supervisory personnel to outside commitments has been severe.

e. Instability of the F-86D pilot program resulted in complete failure to train eleven (11) newly arrived F-86D graduates. These eleven (11) pilots were transferred to Burlington, thence to Presque Isle, and finally to Dow as a result of a change in program.

f. The extensive delay in getting the additional T-33s assigned in order to bring the squadrons up to three each had its effect on the flying program.

g. During this period a series of J-35 engine malfunctions required an extensive inspection program to be accomplished whereby the aircraft with engines having 200 hours or more were all grounded for a period of time.

C O P Y

DO

Subject: Balloon Pump Evaluation (Cont'd)

h. Although it was anticipated that activities such as High Flight, ferrying, TDY, etc., would be curtailed at the beginning of the program, this Wing had five (5) pilots on High Flight, and due to the IRAN project had several pilots away at all times on ferry flights.

i. The F-86Ds were grounded for a large portion of the period. However, this did enable the 37th Fighter-Interceptor Squadron to accomplish an extensive maintenance training program during the grounding period, and as a result a North American-AMC inspection team commended the squadron as being outstanding on maintenance.

j. The 27th Fighter-Interceptor Squadron was in process of transitioning to a new type aircraft during this period. This, however, was not entirely detrimental as a considerable amount of "Balloon Pump" training was worked into the transition period as follows:

- (1) At the beginning of the reporting period, an F-94C M.T.D. was in place and conducting aircrew training. Crews were rotated through the school so that every available aircrew member, fifty-six (56), completed the course of instruction during the reporting period.
- (2) The Commanding Officer, Operations Officer, Maintenance Officer, Armament Officer and all Flight Commanders visited Lockheed Aircraft Corporation factory in Los Angeles where they obtained first hand information on technical questions pertinent to F-94C operation, maintenance and construction.
- (3) A team from Hughes Aircraft Company was obtained to give indoctrination lectures to all aircrew members over a two day period during January 1954. The team repeated their visit during March 1954 to give more advanced lectures and answer the questions of the aircrew members who had completed transition training in the F-94C aircraft during the interim period.
- (4) Mr. Anthony Levier, Chief Test Pilot of Lockheed Aircraft Corporation, was obtained during the latter part of January to present three days of lectures on the operation and flight characteristics of the F-94C aircraft. Mr. Levier concluded his stay with a flight demonstration of the aircraft.
- (5) A Technical Representative was obtained to present lectures on the operation and capability of the Auto Pilot.

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Subject: Balloon Pump Evaluation (Cont'd)

- (6) A representative of the Lear Company presented a lecture on the Attitude Gyro during February 1954.
- (7) A survival training team was obtained from the Air Sea Rescue Detachment at Westover Air Force Base to present a complete survival training course of instruction which included training films, lectures and displays of equipment and survival techniques.
- (8) Aircrew meetings were conducted every workday during the entire reporting period to emphasize and increase the normal unit training program which resulted in a peak of proficiency being attained by aircrew members in technical knowledge. Flying Safety, unit operating procedures, recognition training and aircraft operating instructions were particularly emphasized. Unique items of instruction included the following:
  - (a) Every aircrew member was re-indoctrinated in detection of smoke and fume odors.
  - (b) An F-94C aircraft was specially rigged so that every aircrew member could practice seat ejection procedures in the aircraft.
  - (c) All aircrew members were trained and actually performed the repack and installation of the F-94C drag chute.

k. It is the further opinion of this organization that the IRAN project is not well set up and does not efficiently discharge its mission. Aircraft are lost to the squadron for long periods of time, they do not come out of the project on time, and they have not been in the anticipated condition when they are returned to the Squadron. Many important and time consuming technical order compliances have not been accomplished at IRAN and word has now been received that they will be accomplished in the field.

4. Benefits derived from the "Balloon Pump" program have been attained by the lowering of alert commitments and waiving portions of the ADC UPD. The training as outlined in the "Balloon Pump" directives was quite similar to that which had been initiated within the units. It is felt that the project as such was not required on such a large scale as the units in the field have been and definitely are aware of the necessity for all-out training and have taken every possible step to accomplish it.

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Subject: Balloon Pump Evaluation (Cont'd)

5. To summarize the objectives of "Balloon Pump", the program was designed to increase the proficiency of pilots and air crews, increase the proficiency of AC&W directors, and increase the proficiency of maintenance armament, and other team personnel. It is felt the program accomplished that part of its objective of raising the proficiency of certain pilots and air crew members. The opportunity to concentrate training on those pilots who were in specific need of training was a particularly bright spot in the program; It is difficult to adequately evaluate the increase in director proficiency. There was certainly no regression in director capabilities and it is felt favorable progress was accomplished. A distinct increase in enthusiasm was noted at a number of AC&W sites. Increase in proficiency of maintenance and armament personnel was varied, i.e., certain organizations made substantial advances, others made more moderate progress. The progress made was apparently favorable.

6. In the event a similar training program is contemplated in the future, it is strongly recommended that at least 45 days of "lead time" be allowed before the program is placed in effect. This would accomplish, as a minimum, the following:

a. Enable Wing Staff personnel sufficient time to properly brief Squadron Commanders, Operations Officers, and others who would be vitally interested in the progress of the program.

b. Enable squadrons to formulate suitable framework for their program, prepare necessary progress charts, and instill an enthusiastic spirit in those participating.

c. Enable a reporting system to be established to assist in judging progress and to support in evaluation of the program. It is further suggested that a similar program in the future be scheduled so that no part of it coincides with an extended holiday period.

JAMES O. BECKWITH  
Colonel, USAF  
Commander

C O P Y

Hq 4711th Def Wg DO Subject: Balloon Pump Evaluation

CCG (15 Apr 54) 1st Ind 16 Apr 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern AirDefense Force, Stewart Air Force Base, Newburgh, New York

1. With the possible exception of the 49th Fighter-Interceptor Squadron, I feel that the objectives of the 90-day training program, "Balloon Pump", have been largely met by the 4711th Defense Wing. In addition to the nine stated objectives of the program, a great deal has been accomplished on the managerial aspects of the several organizations, such as:

- a. The training of commanders and their staffs.
- b. Improved internal squadron organization.
- c. Greatly improved supervision at the junior management level, i.e., by subordinate officers and non-commissioned officers.
- d. Vastly improved squadron esprit.
- e. Improvement of supporting base functions, such as:
  - (1) Technical supply.
  - (2) Ground handling equipment and servicing equipment.
  - (3) Minor jet engine repair.
- f. Reduction of aircraft accidents in comparison with the anticipated.

2. In all, "Balloon Pump" has served to place objectives in a clear focus, and to clarify and invigorate the proper courses of action. This headquarters is of the opinion that the squadrons of the 4711th Defense Wing have improved more than they realize. Since 15 February 1954, I have visited all fighter squadrons, and, with the exception of the 49th Fighter-Interceptor Squadron, observed a marked improvement in the overall operations and functions of all units.

C O P Y

Hq 32d Air Div (Def) CCG Subject: Balloon Pump Evaluation

3. In the case of the 49th Fighter-Interceptor Squadron, "Balloon Pump" served to crystallize its problems and even though it has not met its objectives in full, definite progress has been achieved and it should soon be in an equal state of readiness to the other squadrons of this air division.

4. There, of course, remains much to be done. A continuing flow of incoming personnel, officer and enlisted, is anticipated so that "Balloon Pump" will be a continuing process. However, with the experience of the past few months, the organizations should be able to take this in their stride. Greatly increased reliance can be placed on our units to perform their mission as a result of this program.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE

Stewart Air Force Base, Westburgh, N.Y.

EAORF-T TMB 11

29 Apr 54

SUBJECT: (Unclassified) Evaluation of Exercise Balloon Pump

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. On 13 November 1953, this headquarters dispatched classified message EAORF G-1561 to Air Defense Command pointing out serious operational weaknesses. These deficiencies were the result of recent command conversion to new aircraft, material shortages, low skill level of maintenance, armament, communications and electronics personnel in addition to a shortage of squadron level supervisors. The problem was increased by the influx of over 600 newly graduated second lieutenants with 250 more expected by January 1954. This command was faced with the serious problem of developing air defense effectiveness without continuing the unacceptable loss of life, equipment and money evidenced in the preceding 60 days.

2. To help alleviate this condition and improve air defense effectiveness, this command proposed concentration of effort on the training of all basic units. Specific proposals were submitted to Headquarters Air Defense Command, general concurrence was received and exercise Balloon Pump was initiated.

3. The policy of this headquarters throughout the Balloon Pump period was to keep the administrative workload of basic units to a minimum. This policy was effective in assisting unit training efforts but, of course, inhibited the keeping of detailed statistical data on training accomplishments. Accomplishments were reported in the form of evaluations. The same method will be herein utilized supported with pertinent statistics when appropriate.

4. Initially, to get the training program underway, this headquarters directed the following actions:

a. Alert commitments reduced to two aircraft on readiness, four aircraft on backup and the remainder on three hours for each base. New alert commitments were effective 1 December 1953.

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EAOOT-T Subject: (Unclassified) Evaluation of Exercise Balloon Pump  
(Cont'd)

- b. Air Defense Command unit proficiency directive requirements waived for the period of the training program.
  - c. The administrative and logistical workload imposed by staff echelons on interceptor and support units ordered reduced to a minimum.
  - d. All special projects, surveys and inspections discontinued wherever possible.
  - e. Formation of wing training supervisory teams directed. These teams were to:
    - (1) Provide standardized supervision and guidance to unit commanders for conduct of the training effort.
    - (2) Insure dissemination of pertinent training data to similarly equipped units.
    - (3) Aid in solution of training problems.
  - f. Wings were directed to form pools of alert qualified crews to meet the alert commitments of each base. Pools were to consist of wing, group and squadron personnel. Alert commitments were to be considered as a problem separate from training.
5. At the beginning of Balloon Pump, this command had assigned some 600 newly graduated second lieutenants with 250 more expected by January 1954. The flying training program was, then, to be directed primarily towards them. It was decided that each pilot should receive a proficiency check and become proficient in the T-33 prior to checkout in unit equipment, obtain an instrument card under the provisions of Air Defense Command Regulation 51-1 and accomplish 60 hours flying in UE aircraft and as much T-33 time as necessary to qualify him in various phases of the flying program. To insure that maximum benefit would be realized by each trainee, it was directed that no more than four trainees were to be assigned to a single supervisor. Training was to be geared to the capacity of squadron supervisory personnel on the basis of a four to one student/supervisor ratio. In addition, wings were directed to establish standards of performance and to identify individual training needs with these standards. Where appropriate, reclassification or elimination proceedings were to be initiated on substandard air and ground crewmen.
6. The receipt of 32 additional T-33s during the program aided immeasurably in realizing our flying hours goal. During Balloon Pump, 629 check-Outs or rechecks were accomplished in T-33 aircraft, 581

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check-outs or rechecks were accomplished in unit equipment and 503 pilots obtained over 60 hours in UE aircraft. Training was hampered somewhat by generally unfavorable weather conditions and UE groundings. However, the over-all results of the program are considered extremely good and, had it not been for Balloon Pump, this command most assuredly would have slid down hill in its air defense effectiveness. For example, there were available within this command as of 30 November 1953, 544 alert qualified and/or combat ready aircrews. Balloon Pump training resulted in 323 additional aircrews becoming alert qualified and/or combat ready. By 31 March 1954, there were available within this command 739 alert qualified and/or combat ready aircrews. The difference between the number of aircrews qualified during Balloon Pump and those available on 30 November and on 31 March represents losses due to conversion to new UE aircraft, TBY, transfer, etc. Had it not been for Balloon Pump, this command would have, on 31 March 1954, been faced with a loss of 128 rather than a gain of 195 alert qualified and/or combat ready aircrews.

7. Flight simulators were used to the utmost to supplement the flying training program during Balloon Pump. Instruction in them was planned to coincide with other phases of training. During the period, a general increase of 83 per cent was accomplished in simulator utilization. Although this is an unrealistic figure for future utilization planning, it does show what can be done when needed with this equipment. It is felt by all concerned that simulators, when properly utilized, contribute immeasurably to any flying training program.

8. Defense wings were directed by this headquarters to accentuate utilization of 15-J-1C trainers as part of the director training phase of Balloon Pump. It was pointed out by this headquarters that small speed differentials should be simulated between target and interceptor on the 15-J-1C and that, in order to duplicate high altitude conditions, no more than one degree per minute rate of turn should be simulated. ACAN squadron operations officers were directed to meet with adjacent fighter-interceptor squadron operations officers for the purpose of coordinating their respective training programs. Generally, a marked increase in the ability of directors to control lead collision course intercepts under varying conditions of speed and altitude was noted during the progress of Balloon Pump. The long established policy of a mission critique between the pilot and director was of particular value during this period.

9. During the period of Balloon Pump, the normal requirement of 12 actual and 32 simulated intercepts per month per director was increased to 32 actual and 42 simulated intercepts per month per director. In most instances, squadrons met those requirements. The average number of actual and simulated intercepts per director per month for the period was 49 and the average number of actual intercepts per director for the period was 75.

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10. Although our primary efforts were focused on individual training, considerable progress was achieved in unit training. Air Force unit training standards contained in Air Force Manual 50-7 were used as guides in all unit training efforts. Wings instituted realistic exercises to evaluate their unit training status. These were designed to improve their high speed-high altitude intercept tactics and techniques and were, basically, fast freight type exercises. Support units were exercised to the maximum extent in support of the fighter-interceptor squadrons. Practical knowledge gained by individuals on the job exceeded theoretical knowledge that might have been gained by formal study courses.

11. Excellent utilization of training devices was achieved throughout the command. Nine thousand ninety-seven training hours were accomplished by one mobile tracking detachment in support of a wing's ground training program. Factory technical representatives were utilized to a maximum in instructing on all phases of aircraft and fire control system maintenance. Between January and March, a Hughes Aircraft Company team gave indoctrination lectures on fire control systems followed by question and answer sessions which were especially valuable.

12. At the request of this headquarters, F-86D and F-94C flight demonstration teams visited units during Balloon Pump and gave lectures on and demonstrations of the flight characteristics of these aircraft. A survival training team was obtained from the Air Rescue Service Detachment at Westover Air Force Base and utilized to present complete survival training including films, lectures and displays.

13. Selected aircraft control and warning personnel were administered job knowledge and proficiency tests early in the program. The average for these tests was 74.8 per cent. Later retests of the same personnel produced an average of 90.4 per cent or an increase of 15.6 per cent in proficiency at the completion of the training period.

14. *ACAW* squadrons participated in two *CFYZs* during the period. In addition to routine Big Photo and Pairgame missions, four *SAC/ADC* missions, "Cold Sweat", "Blue Flag", "Big Top", and "Beetweave", were conducted with maximum participation by fighter-interceptor squadrons and support elements.

15. Accomplishments of projected flying time for the period of Balloon Pump necessitated emphasis on the use of contract maintenance. This form of maintenance was utilized throughout the command and resulted in a higher in-commission rate than had been generally anticipated. Its use also resulted in more maintenance personnel being available for formal classroom training. At the start of the program, the average in-commission rate for the F-86D was 46.18 per cent and the average utilization rate was 21.55 per cent. These in-commission and utilization rates suffered a reduction

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during the months of January and February due primarily to the grounding of the F-86D. When the grounding was lifted, the in-commission rate increased to 52.76 per cent and the utilization rate to 37.31 per cent for the month of March. A very low AACP and ANFE rate was also realized during this period. As units gained further knowledge of their complex equipment, many items were repaired locally, eliminating the delay involved in returning these items to depots for repair. Special emphasis was also placed on redistribution of certain critical items of ground handling and test equipment. This command's AACP/ANFE rate of 12.5 per cent at the beginning of Balloon Pump had been reduced to ten per cent by 31 March 1954.

16. An intensified program of formal classroom instruction on the E-4 and E-5 fire control systems was conducted during this period. During the months of January and February, while a great percentage of the F-86Ds were grounded, fire control systems personnel were afforded an opportunity to apply their knowledge in the maintenance of these fire control systems. Redistribution of certain critical spare parts for these systems was effected. These efforts increased the average E-4 fire control system in-commission rate from 76 per cent during December to 83 per cent as of 31 March 1954. The E-5 fire control system in-commission rate was increased from 60.8 per cent to 66.7 per cent over the same period.

17. Balloon Pump served to stimulate communications and electronics training command wide. Schools were formed to further knowledge of fire control and fuel control systems. Factory representatives, aided by qualified airmen supervisors, devised intensive on-the-job training programs for other aircraft electronic components. Some formal schooling was accomplished in the 43 mechanics career field but the greater percentage of familiarization and instruction was confined to on-the-job training under the supervision of the factory technical instructors and noncommissioned officers. In addition, some defense wings established formal courses of instruction for flight simulator maintenance personnel which proved highly satisfactory.

18. Specialized training was given supply personnel during the period. A review of unit supply inspection reports, special subject letter reports, and reports of audit indicated that the over-all operation of unit supply accounts improved as a result. During the period, two bases established procedures for maintaining UPREALS and supply accounts and preparing statements of charges and survey.

19. A typical example of support unit training was the establishment of a military management school at one base which provided excellent individual training for a large number of noncommissioned officers. The results of this type training are not apparent at this time but will be revealed in the future.

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20. The following strength figures will illustrate that, generally, this command's individual training program was satisfactory.

AV9C	Asgd		Total Gain
	1 Jul 53	1 Mar 54	
43151H, Actv Mechanic	598	926	328
43171H, Actv Maint Tech	310	405	95
30352, ACGM Radar Repair	257	316	59
30372, ACGM Maint Tech	53	48	-5
64151, Orgnl Sup Specl	366	500	134
64173, Orgnl Sup Supv	<u>149</u>	<u>198</u>	<u>49</u>
TOTALS	1733	2393	660

A total of 377 airmen were upgraded to the senior or 5 skill level and 146 airmen were upgraded to the 7 or technician skill level in the communications and electronics field, armament field and aircraft maintenance field.

21. To further assist commanders in accomplishing their technical and individual training requirements during the Balloon Pump period, this headquarters' Directorate of Individual Training conducted a series of conferences throughout the command. The purpose of these conferences was to outline the anticipated training loads and to re-familiarize all support units with the training tools available. In addition, individual training teams were established consisting of personnel from this headquarters' Directorate of Individual Training and augmented, as required, by personnel from the defense wings and air divisions.

22. The command's primary efforts were focused on individual training; however, unit training achieved was considered satisfactory. Air Force wide training standards contained in Air Force Manual 50-7 were used as a guide in all unit training efforts. Support units such as Air Police Squadrons, Installation Squadrons, Food Service Squadrons, Motor Vehicle Squadrons, Supply Squadrons, etc. participated in Balloon Pump but a detailed training program for these units was not considered necessary due primarily to overmanning in the higher skill levels in some of these units.

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23. Before Balloon Pump, the command-wide training problem was truly staggering with heavy alert commitments to be met, new aircraft, inexperienced aircrews and unqualified maintenance personnel. By reducing our air defense commitments and allowing a concentrated effort on training, problems which would normally have taken many months to overcome were greatly reduced in a relatively short period. Air Force Unit Training Standard Number 10-2 states that the purpose of unit training is to enable the assigned aircrews to destroy enemy air, sea and surface forces and primary airborne targets. In this respect, this command's capability was increased by Balloon Pump. The majority of pilots were brought to the stage of training where they can concentrate on operation of the fire control system without worrying about flying the airplane. It is believed that as a result of the increased flying time and experience gained by young aircrews during Balloon Pump, the future accident rate of this command will be decreased. Considering this alone, Balloon Pump was an unqualified success.

24. The results achieved during Balloon Pump were greater than any like period in the past. All units participating in the program understood its spirit and intent and, as a result, the spirit of this command is higher now than previously. In view of the continuing flow of inexperienced officers and airmen into this command, the momentum and knowledge gained will be of great future value.

25. The combat potential of the aircrew-director-maintenance team has increased as a direct result of Balloon Pump and support forces are now more capable of backing this team during periods of accelerated air defense activity.

26. Special emphasis developed during Balloon Pump will continue to be given to the following:

- a. Preparation of a unit proficiency directive for *AGAW* squadrons.
- b. Increased supervision of newly graduated pilots.
- c. Increased emphasis on the development of air defense tactics and techniques.
- d. Intelligent utilization of flying time. The flying time allotted to units is adequate and needs only to be aggressively utilized in development of combat effectiveness.
- e. Increased training in lead collision course intercepts through use of radar reflector equipped F-33s, SAC penetrations, scope cameras and assessing procedures, etc.
- f. Continuing aircrew-director cross training.
- g. More frequent staff visits by *EWB* staff agencies.

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27. Although this command is entirely satisfied with the results of exercise Balloon Pump, it is felt that action must be taken to weld together into air defense effectiveness the individual and unit combat potential gained. To accomplish this, this headquarters has initiated a series of weapons systems training exercises nicknamed "Think Fast". These exercises will be conducted on a continuing monthly basis. Each exercise will emphasize one or more operational area, such as high speed-high altitude intercept tactics and techniques, low altitude target detection, remote control technique, adequate Nike early warning, etc. These missions will be planned and controlled by this headquarters. Radar reflector equipped T-33s and B-25s of the 4713th Radar Evaluation (ECM) Flight will be used as targets. In support of these exercises, divisions and wings have been instructed to plan system and unit training exercises that will afford each unit the opportunity to participate weekly in some form of realistic air defense scrimmage.

28. This correspondence is classified Confidential in accordance with paragraph 24a(6), Air Force Regulation 205-1.

FOR THE COMMANDER:

JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

CONFIDENTIAL

C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADOOOT-C

14 May 1954

SUBJECT: Instrument Approach Procedures

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Headquarters USAF has advised that it is their policy; that landing minimums established by competent authority, whether domestic or of international origin, exercising jurisdiction over an installation are applicable to Air Force operations at such installation. Commanders operating aircraft to add from each installation will not submit duplicate procedures for publication in the Pilot Handbooks for the sole purpose of raising minimums for Air Force operations.

2. This policy does not prevent the submission of jet penetration approach procedures for installations. When the approach path from a letdown facility to the airport is the same as that already established for conventional aircraft, however, the landing minimums proposed by the Air Force Commander will be the same as established by the controlling authority for conventional aircraft operations.

3. If it is desired that air defense operations should be conducted under higher minimums than provided for by the CAA controlling authority, the proper course of action is to invoke the provisions of paragraph 29, AFR 60-16.

4. The policy stated herein has been incorporated in an amendment of AFR 55-24. It is now in the process of publication and distribution.

BY ORDER OF THE COMMANDER:

JOHN J. HAYES  
CWO, USAF  
Asst Command Adj

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Hq ADC ADOOT-C Subject: Instrument Approach Procedures

EAOOT-SF (14 May 54)

1st Ind

21 May 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Forwarded for your information and necessary action.
2. Desire current jet letdown procedures be screened to assure compliance with basic letter.
3. Requests for changes, if necessary, will be submitted to this headquarters.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
STEWART AIR FORCE BASE, NEWBURGH, NY

RACOT-TW

14 JUN 1954

SUBJECT: Aircrew Indoctrination in Aircraft Navigational Instruments

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. A recent major accident involving a pilot lost on an IFR training flight in an F-86D points up the need for a thorough indoctrination of aircrews in the procedures for the use of all flight and navigational instruments installed in unit equipped aircraft.

2. The report of accident proceedings indicates that the pilot was forced to resort to a use of his ILS indicator for orientation after a malfunction of the radio compass occurred and orientation could not be accomplished by radio or other means. The pilot made two (2) 360° turns to see if the ILS needle would indicate a location of the field. Had the pilot been familiar with the ILS orientation procedures a safe let-down may have been accomplished.

3. It is directed that interceptor squadron commanders review their instrument training programs for adequacy and, further, that action be taken to assure that pilots are familiar with all instruments in unit equipped aircraft and thoroughly understand all procedures pertaining to their use.

BY ORDER OF THE COMMANDER:

JAMES R. WORLINE  
Capt, USAF  
Asst Adjutant

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Hq EADW EACWTF-TW Subj: Aircrew Indoctrination in Aircraft Navigational  
Instruments

OCE-FO (14 JUN 54)

1st Ind

17 Jun 1954

HQ 32D AIR DIVISION(DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Defense Wing, Presque Isle AFB, Presque Isle,  
Maine

1. For information and dissemination to subordinate units of  
your command.
2. Action directed in paragraph 3 of basic letter will also  
include the instrument training programs and pilot familiarization  
with instrumentation and equipment installed in all aircraft assigned  
to Air Defense Groups.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Assistant Adjutant

C O P Y

CONFIDENTIAL  
HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-A

SUBJECT: Emergency Scrambles

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. For some time it has been apparent that an unnecessary calculated risk is being accepted during periods of inclement weather. Along the extremities of our radar search capability, to the north and seaward, unknown aircraft have penetrated our defense without positive identification or countering action. The tracks are passed through operations channels with the familiar phrase "No scramble, weather". This action, or lack of action, by our defense team permits the unknown to proceed unchallenged to vital target areas.

2. Often, scramble could have been ordered from a perimeter base, identification completed and the interceptor recovered inland. The weather along coastal areas frequently precludes scramble from a base, due to established minimums, but permits safe operation inland. By scrambling from an inland base for a coastal area target, excessive intercept time is consumed and also results in the distance being beyond the radius of action.

3. With the restrictions imposed by paragraph 4f, EADFR 55-14, scramble is precluded without declaration of an air defense readiness or warning. This restriction in turn prevents commanders from exercising responsibility for identification by refusing to grant authority to meet this inherent obligation.

4. It is recommended that the term "Emergency Scramble" be deleted from all current directives and permit commanders to govern scramble decisions based on track characteristics and the tactical situation.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

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Hq 32d ADiv (Def) OOT-A Subject: Emergency Scrambles

EAOOT-OW (no date) 1st Ind 24 May 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

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1. Paragraphs 3d and 4b of EAWR 55-14 have been amended to afford air division commanders scramble authority commensurate with that provided by ADCR 55-30.

2. This addendum is Unclassified.

GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

OOT-A (no date) 2nd Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass.  
Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. Forwarded for your information and appropriate action

2. Reference is made to message this headquarters, ACFOOT-FO  
5072 (Unclassified), 19 May 1954 which advised of rescission of  
paragraphs 3d and 4b, EAWR 55-14.

3. Request director and aircrew personnel be advised of change  
of policy and be briefed on proper terminology for issuance of  
scramble orders.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst Adjutant

CONFIDENTIAL

C O P Y

HEADQUARTERS  
528TH AIR DEFENSE GROUP  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

DO

10 JUN 1954

SUBJECT: Deviations from EADFR 60-13

TO: Commander  
4711th Defense Group  
Presque Isle Air Force Base  
Presque Isle, Maine

1. In accordance with paragraph 9e, EADF Regulation 60-13, as amended by your message DO 422-E, the following information is submitted:
2. Paragraph 9c, EADFR Regulation 60-13 requires that take-off power be applied prior to releasing brakes for take-off roll.
3. In the F-89 aircraft this is a desirable procedure to follow insofar as it enables the pilot to give his complete attention to checking afterburner operation and tail outlet temperatures.
4. It is evident, however, that adherence to this procedure has caused the runways at this station to deteriorate and increased the hazard of engine foreign object damage. Experiment has shown that ignition of afterburners during the first 500 feet of roll has reduced damage to the runway without materially reducing the pilots' ability to make a thorough check of his afterburner operation. If the augment system is not operating satisfactorily, the take-off may be aborted with a large safety margin.
5. Deviation from provisions of EADF Regulation 60-13 as outlined above are in effect at this time. All pilots will ignite afterburners prior to releasing brakes during initial checkout flights.

FRANK Q O'CONNOR  
Colonel, USAF  
Commander

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0 3 7 6

Hq 528th ADG DO Subject: Deviations from EADFR 60-13

DO (10 Jun 54) 1st Ind 14 Jun 1954

HQ 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

Forwarded in compliance with message Headquarters, Eastern  
Air Defense Force EA00T-OW 14894.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt, USAF  
Adjutant

Hq 528th ADG DO Subject: Deviations from EADFR 60-13

OOT-FO (10 Jun 54)

2nd Ind

21 Jun 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse AirForce Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

This headquarters concurs with the action taken by the Com-  
mander, 528th Air Defense Group to prevent damage to the runways and  
aircraft at Presque Isle AFB, Presque Isle, Maine.

WILLIAM H. CLARK  
Colonel, USAF  
Deputy Commander

C O P Y

DEPARTMENT OF AIR SCIENCE AND TACTICS  
AF ROTC DETACHMENT NO 520  
Cornell University  
Ithaca, New York

28 April 1954

SUBJECT: Orientation in Jet Type Aircraft

TO: Commandant  
Headquarters AFROTC  
435 Bell Street  
Montgomery, Alabama

1. Request has been made to Griffiss Air Force Base for Jet orientation rides for detachment instructors. The 27th Fighter-Interceptor Squadron at Griffiss has informed me that command directives prohibit them from giving orientation rides in jet aircraft to non-rated personnel.

2. Only three of our rated officers have been able to obtain flights in jet type aircraft. Schedule is being made for all rated officers by the 27th Fighter-Interceptor Squadron.

3. Many non-rated instructors are required to teach subjects pertaining to jet aircraft engines, navigation, tactics and problems. These instructors are at a decided disadvantage and are sometimes embarrassed when teaching students who have had orientation flights in summer encampment.

4. Request that allocations for jet orientation rides for non-rated personnel be requested through the Air Defense Command.

cc  
27th Ftr-Intep Sq

PHILIP D COATES  
Colonel, USAF  
PAST

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0 3 7 9

AFROTC DET # 520, Cornell University, Subject: Orientation in Jet Type Aircraft

ARTO-0 (28 April 1954) 1st Ind 15 May 54

HEADQUARTERS AFROTC, 435 Bell Street, Montgomery, Alabama

TO: Commander, Air University, Maxwell Air Force Base, Alabama

1. This headquarters encourages all detachment personnel to avail themselves of the opportunity to fly in a jet aircraft at the nearest Air Force Base which can provide such an orientation ride. The Professors of Air Science and their staffs would thus be able to dispel many rumors that exist in the minds of some of the cadets in regard to the operations of this type of aircraft.

2. In the interest of cadet motivation and in consonance with developing instructor enthusiasm in aviation and familiarity with the latest type Air Force equipment, it is urged that the AFROTC instructors whether rated or non-rated be given the opportunity to fly in modern jet type aircraft.

3. Favorable consideration is requested in paragraph 4, basic letter.

FOR THE COMMANDER:

HENRY DITSMAN  
Colonel, USAF  
Chief of Staff

0380

B/L fr AFROTC Det #520 Cornell Univ., Subj: "Orientation in Jet Type Aircraft"

AUOO (28 Apr 54)

2d Ind

24 May 1954

HEADQUARTERS AIR UNIVERSITY, Maxwell Air Force Base, Alabama

TO: Commandant, Headquarters AFROTC, 435 Bell St., Montgomery, Alabama

1. Returned without action. This headquarters concurs with the idea of providing jet orientation flights for non rated AFROTC instructors; however, prior to requesting Air Defense Command to provide these flights, the provisions of AFR 50-27 must be complied with.
2. For your information and guidance concerning this, and future requests of this type, the following message from Headquarters USAF is quoted:

"FROM C14 AFOP-OC-FL A1MAJCOM 536/54 SUBJ THIS MSG IS TO OUTLINE PLCY FOR TRANS OF PAX MIL OR CIV IN J ACFT ON FLTS WHICH W/B CONDUCTED IN WHOLE OR IN PART AT ALT ABOVE 10,000 FT. PAX PARTICIPATION IN FLTS IN J ACFT ABOVE INDOC CRSE PRESCRIBED IN AFR 50-27 AND HAS REC FULL PAX BRIEFING REQUIRED BY PAR 22C CMA AFR 60-16. FOR PURPOSES THIS MSG CMA PAX IS DEFINED AS ANY NON-RATED INDV PAREN 1 PAREN NOT ON FLYING STATUS WITH THE ARMED SERVICES OR THE USA PAREN 2 PAREN NOT RECEIVING AUTH COURSE OF INSTRU IN THE ACFT OR PAREN 3 PAREN IS NOT REQUIRED BY NATURE OF EMPLOY BY DD OR CIV CENTER TO DD PARTICIPATE IN AERL FLY IN AF ACFT  
14/1905A AFR JEPHQ"

BY ORDER OF THE COMMANDER:

R. J. PACHL  
Major, USAF  
Asst Adjutant

AFROTC Det #520, Cornell Univ., Subj: Orientation in Jet Type Aircraft

ARTO-0 (28 Apr 54)

3rd Ind

28 May 1954

HEADQUARTERS AFROTC 435 Bell Street, Montgomery, Alabama

TO: Commander, Air University, Maxwell Air Force Base, Alabama

1. Returned for reconsideration. It is realized that it would be impractical for AFROTC instructors to complete the altitude indoctrination course prescribed in AFR 50-27. However, it is felt that short orientation flights could be accomplished at altitudes not exceeding 10,000 feet and still obtain the desired results.
2. The passenger briefing required by paragraph 22c, AFR 60-16, could be accomplished at the time of flight inasmuch as AFROTC instructors have considerable Air Force service and undoubtedly have previous flying experience both as passengers, and in some cases, as former rated personnel.
3. Favorable consideration of request as contained in basic letter would aid AFROTC instructors materially in the knowledge and experience gained by obtaining a jet indoctrination flight.

FOR THE COMMANDER:

HENRY DITTMAN  
Colonel, USAF  
Chief of Staff

Rec 1cr AFMOTC Det #520 Cornell Univ., Subj: Orientation in Jet Type  
Acft

AUDOO (28 Apr 54)

4th Ind

8 Jun 1954

HEADQUARTERS AIR UNIVERSITY, Maxwell Air Force Base, Alabama

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado  
Springs, Colorado

1. The motivation of AFMOTC cadets toward a flying career poses the greatest problem facing our various AFMOTC detachments. The solution to the problem is, of course, very complex and requires the use of all available facilities and particularly the cooperation of nearby flying organizations. In this respect we feel that jet orientation flights serve a particularly valuable purpose in promoting the enthusiasm of our AFMOTC instructor personnel. Enthusiasm communicated to AFMOTC cadets can do much to orient them toward a flying career.
2. Air University is aware of the restrictions on untrained and unqualified personnel riding above 10,000 feet; however, it is felt that the purpose can be adequately served by jet flights conducted below 10,000 feet. It is believed that the value to be gained in instructor enthusiasm alone will more than justify the small effort involved, particularly where non-rated instructors are involved.
3. Request your favorable consideration of conducting jet orientation flights for AFMOTC instructor personnel wherever practicable.

FOR THE COMMANDER:

LADSON G. ESKRIDGE, JR.  
Colonel, USAF  
Chief of Staff

B/L AFROTC Det #520, Cornell Univ, Subj: Orientation in Jet Type  
Aircraft

ADOOOT-C (28 Apr 54) 5th Ind 23 Jun 1954

HEADQUARTERS AIR DEFENSE COMMAND, Ent AFB, Colorado Springs, Colorado

TO: Commander, Eastern AirDefense Force, Stewart Air Force Base,  
Newburgh, New York

Desire that wherever practical orientation flights in jet type  
aircraft, as requested in 3rd Indorsement, be provided ROTC instructors  
within your command.

BY ORDER OF THE COMMANDER:

JOHN J. HAYES  
CWO, USAF  
Asst Command Adj

EAOOOT-SS (28 Apr 54) 6th Ind 8 Jul 54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division(Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

Forwarded for compliance with 5th Indorsement.

BY ORDER OF THE COMMANDER:

BEN D. MOORHEAD  
1st Lt, USAF  
Asst Adjutant

AFROTC Det 520 Subject: Orientation in Jet Type Aircraft

EACOT-SS (28 Apr 54)

7th Ind

14 Jul 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Presque Isle, Me.

Forwarded for compliance with 5th Indorsement.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Assistant Adjutant

C O P Y

OFFICE OF THE BASE OPERATIONS OFFICER  
528TH AIR BASE SQUADRON  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

13 April 1954

**SUBJECT:** Allocation of Flying Time

**TO:** Director of Operations  
528th Air Defense Group  
Presque Isle AFB, Maine

1. Reference paragraph 3, letter, Headquarters, 4711th Defense Wing, File DO, Subject: Allocation of Flying Hours, dated 2 April 1954, fifty nine (59) hours and five minutes unflown allocated hours are returned for the L-20A type aircraft, code CM for the 3rd quarter, fiscal year 1954.

a. Justification for under flying of allocated hours is:

- (1) Severe weather during winter months.
- (2) Wind limitation of the type aircraft.

2. Sixty-nine (69) hours and five (5) minutes of unflown allocated hours are returned on C-47 type aircraft, code CP for the 3d quarter, fiscal year 1954.

a. Justification for under flying of allocated hours is:

- (1) Maintenance difficulty, major inspections, T.O. Compliance.

3. It is requested the above returned unused allocated, 3rd quarter time for C-47 & L-20 type aircraft be carried forward on the 4th quarters, fiscal year 1954.

EARLE V. FLAGG  
Captain, USAF  
Base Operations Officer

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Office of the Base Operations Officer, Ltr., Subject: Allocation of  
Flying Time

DO 1st Ind 15 Apr 1954

HQ 528TH AIR DEFENSE GROUP, Presque Isle AFB, Maine

TO: Commander, 47 11th Defense Wing, Presque Isle AFB, Maine

1. Request that the unused allocated flying time for the 3rd  
quarter fiscal year 1954 be added to the 4th quarter fiscal year  
1954 allocations for the C-47 and L-20 type aircraft assigned to  
this headquarters.

2. This request is in compliance with procedures as outlined  
in the ADC Program book dated 15 February 1954, Section III, page  
22, paragraph 7 and EALF Message EAOOT-SS 6866 dated 5 March 1954.

FOR THE COMMANDER:

ARCHIBALD J. RANTALA  
Major, USAF  
Adjutant

DO (13 Apr 54) 2nd Ind

HQ 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

Recommend approval.

FOR THE COMMANDER:

KENNETH A FULLER  
1st Lt., USAF  
Adjutant

Office of the Base Operations Officer, Ltr., Subject: Allocation of  
Flying Time

OOT-FO (13 Apr 54) 3rd Ind 28 Apr 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. Correspondence returned.
2. Subject flying hours have been requested from EALF as per  
your message DO 356 D.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst Adjutant

COPI

HEADQUARTERS  
32D AIR DIVISION (RESERVE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

00R-PO

15 Jul 1954

SUBJECT: Pre-Flight and Post-Flight Inspection to be Performed by  
Pilots

TO:

Commander  
4707th Defense Wing  
Otis Air Force Base  
Palmouth, Mass  
  
Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. The following is extracted from letter, Hq ~~MAIL~~, Subj: Aircraft Accident Prevention Letter #91-54, dated 2 July 1954: 40% of the accidents involved material failure or maintenance error as primary cause factors. This reveals the necessity for the pilot to consider alternate procedures should in-flight emergencies arise. It also points to the importance of insuring maintenance and inspections are not neglected on flights away from the home base. Commanders are reminded that 10-1 and 10-4 directives required pilots perform servicing and pre-flight and post-flight inspections at least twice each month. These inspections are not a pilot's walk-around check. They are the crew chief pre-flight and post-flight inspections using the appropriate -6 worksheet. Pilot training requirements in maintenance are outlined in Part 3, Ground Training "maintenance", of the appropriate unit proficiency directive 10-1, 10-2 or 10-4. The 10-2 does not indicate the specific accomplishment that the 10-1 and 10-4 do but the procedure is considered sound and a valuable part of the pilots training.

2. Desire commanders insure that pilots comply with the requirements of the above quoted paragraph and will include pilots of organizations operating under ADC UPRNLO-2.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SMERY  
1st Lt, USAF  
Assistant Adjutant

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-FO

17 Jul 1954

SUBJECT: Analysis of Flying Status

TO: Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. The Eastern Air Defense Force Operational Training Data Book for May 1954 reflects a picture of fighter-interceptor squadrons within your command not completing training requirements as of 31 May 1954 as follows:

- a. Navigation (Night): 37th FIS - 63% completed. 49th FIS - 84% completed.
- b. Navigation (Instrument): 37th FIS - 24% completed.
- c. Aerial Gunnery: 49th FIS - 17% completed.
- d. Camera Gunnery: 49th FIS - 86% completed.
- e. Training and Intercepts (Night): 49th FIS - 91% completed.
- f. Simulated Flameout Landings: 49th FIS - 89% completed.

2. Since completion of "Operation Balloon Pump" the emphasis of training has been directed toward systems training program, rather than to continue concentrating on individual pilot proficiency and unit training at the expense of other phases of training.

3. Future accomplishment of all individual and unit training requirements will insure that our training program can effectively progress to a greater scale of employment of Air Defense Capabilities of fighter-interceptor squadrons in systems training.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWNEY  
1st Lt, USAF  
Assistant Adjutant

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-FO

17 Jul 1954

SUBJECT: Analysis of Flying Training

TO: Commandr  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Mass

1. The Eastern Air Defense Force Operational Training Data Book for May 1954 reflects a picture of fighter-interceptor squadrons within your command not completing training requirements as of 31 May 1954 as follows:

- a. Formation: 47th FIS - 84% completed.
- b. Acrobatics: 47th FIS - 64% completed; 437th FIS - 87% completed.
- c. Precision Instrument: 47th FIS - 80% completed.
- d. Navigation (Day): 47th FIS - 82% completed; 437th FIS - 97% completed.
- e. Navigation (Night): 47th FIS - 75% completed.
- f. Navigation (Instrument): 47th FIS - 21% completed; 437th FIS - 84% completed.
- g. Scope Recording Missions: 47th FIS - 0% completed; 58th FIS - 93% completed.
- h. Tracking and Intercepts (Day): 47th FIS - 83% completed.
- i. Tracking and intercepts (Night): 47th FIS - 54% completed.
- j. Tracking and Intercepts (Instrument): 47th FIS - 23% completed; 60th FIS - 87% completed; 437th FIS - 42% completed.

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Hq 32d ABiv, OOT-FO, Subj: Analysis of Flying Status

k. Instrument Low Approach: 47th FIS - 67% completed.

1. Simulated Flameout Landings: 47th FIS - 59% completed;  
58th FIS - 53% completed; 437th FIS - 50% completed.

2. Since completion of "Operation Balloon Pump" the emphasis of training has been directed toward the systems training program, rather than to continue concentrating on individual pilot proficiency and unit training at the expense of other phases of training.

3. Future accomplishment of all individual and unit training requirement will insure that our training program can effectively progress to a greater scale of employment of Air Defense Capabilities of fighter-interceptor squadrons in systems training.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Assistant Adjutant

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
Washington 25, D.C.

Aug 28 1953

General Benjamin W. Chidlaw  
Commander, Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

Dear Ben:

As you know, current trends in military budget review and the stated policy of the administration pointedly demonstrate the necessity for continued, positive improvement in the judicious expenditure of each Air Force dollar. A vigorous materiel management program is vital to maintain maximum combat capability. One tool with which we expected to achieve better management and more austere authorizations was the Unit Allowance List (UAL) System with its associated review for requirements determination at each echelon of command. Two recent developments indicate the inadequacy of the reviews which were accomplished.

First, budget reviews have revealed, in numerous instances, stated requirements for unrealistic quantities of equipment resulting from UAL computations.

Second, a recent report from Major General Hardin, Acting Deputy Inspector General, on the implementation of the UAL system within one of our commands included the following statement: "The underlying and predominant failure in the implementation of the (UAL) system was that officers responsible for preparing UAL's generally did not apply sound judgment in the determination of quantities of property necessary to perform their assigned missions. The failure by Base Commanders to demand and get optimum accuracy from responsible Unit Commanders contributed to the weakness in the system. A few commanders appeared to have lost sight of the fact that deciding equipment requirements is a command responsibility, and not merely an additional supply function."

It is imperative that you take aggressive steps to eliminate such weaknesses as exist within your command. This Headquarters has revised the UAL Regulation (AFR 67-83) to incorporate required changes and has placed even greater responsibility and authority at the lower

echelons. Successful maintenance of the UAL system is dependent upon your insistence that your Commanders select their most competent personnel to review their equipment requirements on the basis that they are the minimum required to accomplish the mission.

Your personal interest is solicited in this matter which is so vital to the Air Force.

Sincerely

s/t/ ORVAL R. COOK  
Lt General, USAF  
Deputy Chief of Staff, Material

AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

Office of the Deputy Chief of Staff, Materiel

12 September 1953

Major General Morris R. Nelson  
Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Nellie:

I am inclosing to this letter a copy of a letter sent to General Chidlaw from General Cook which I know will be of interest to you and yourstaff.

Having been a member of the Budget Advisory Committee for several years and listening to much of the testimony submitted by personnel attempting to justify their requirements, I thoroughly concur in the second paragraph of General Cook's letter. It is quite evident that at times, justifying personnel present unrealistic quantitative requirements and further reveal that such requirements are not necessarily net requirements but gross requirements. Commanders at all levels must assure themselves prior to forwarding requirements that service stocks, as well as those available balances in base supply, have been considered.

I believe this is what General Hardin is referring to when he stated that: "The failure by base commanders to demand and get optimum accuracy from responsible unit commanders contributed to the weakness in the system." Although I have only been here a few weeks it is becoming increasingly apparent to me that considerable blame for poor supply discipline is being placed on base accountable officers, whereas, it is my conviction that energetic supply discipline must be demanded of the unit commanders. If our supply system is to work, unit commanders must be apprised of their responsibilities in connection with supply actions and be held accountable for breakdowns and supply discipline.

Major General Morris R. Nelson  
12 September 1953  
Page Two

General Cook's letter certainly is of special interest.  
Personal interest at all levels is necessary.

Sincerely,

s/v MARSHALL S. BOTT  
Brigadier General, USAF  
Deputy Chief of Staff, Materiel

1 Incl:  
Cy ltr, 28 Aug 53,  
Gen Cook, USAF, to  
Gen Chicklaw, ADC

AIR DEFENSE COMMAND  
Ant Air Force Base  
Colorado Springs, Colorado

Office of the Commanding General

23 Sep 53

Major General Morris A. Nelson  
Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Nellie:

This letter has to do with mal-practices connected with the operation of base supply accounts. The matter of not properly taking care of excesses is paramount. This has been and continues to be a very sore subject.

I know that you have been giving this matter your considered attention and certainly there are numerous reminders sent to the field that should have cleaned up most of our past deficiencies. Let me repeat "should have." All of us recognize that there will be from time to time some excesses on hand that have generated out of the peculiarities of our operation, i.e., conversions to new equipment BOCs, changes of missions, phasing out of older aircraft, etc. But just where we stand at all of our ADC bases on the matter of abnormalities of excess equipment is somewhat hazy. It is true that reports have indicated progress in the declaration and shipment of overages, but the generation of new excesses and other possibly hidden factors are matters of continuing concern.

Only recently, one of our base accounts, not in your command, was found to be in a chaotic condition. And yet, at this station, the deficiencies that existed and proper solutions thereto were known for many months by the base commander, his staff, and intermediate higher headquarters. What happens? — This headquarters gets a request for assistance in the way of providing a more qualified base accountable officer, plus experienced airmen. In numerous other instances in the past, the command has been requested to step in with assistance along similar lines. The frequency of such occurrences leads to conclusions that very likely, in a majority of cases, the solution to straightening out an account, known to be deficient over a period of time, does not always lie at the door of the Base Accountable Officer. Command is seriously involved. With this in mind, one question seems to be left. Have we been tough enough? The burden must be carried by the commanders closely related to the problem. They must be held strictly accountable for this phase of their office equally as in other possibly more interesting or glamorous activities.

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Maj Gen Morris R. Nelson  
21 September 1953  
Page two

Many base commanders have had little experience with internal functions of supply. Because of this lack and/or antipathy, it is felt that there is too much of a tendency by some to delegate these responsibilities to relatively junior officers and thereafter fail to exercise necessary supervision and enforcement of established management procedures. This headquarters has on file numerous inspection reports that indicate corrective measures have been taken and that deficiencies noted will be cleared. And yet, subsequent to the submission of such statements, follow-up reports point to the continuance of exact or similar deficiencies. In such cases, there is evidence that some matters were not corrected or that the base commander had corrected the specific deficiency without determining or eliminating the cause to prevent recurrences.

The commander has just called attention of the staff to a recent TIG brief involved with supply mal-practices and excesses that were found at an Air Force base by the General Accounting Office. Please note TIG Brief, Vol V, No. 18, 12 August 1953. Fortunately this was not an ADC base, but it could well happen to us if our houses are not kept clean.

This headquarters is hesitant to publish and enforce management procedures through further regulations. It seems that we have enough of these now that fully apply, if used. In view of other management enforcement tools fostered upon us by regulation in the way of boards, councils, and review panels, it might be worthy of consideration to set up one more -- a supply management board at base level. Membership could represent both using and supplying agents with the President thereof the base commander. Such a board would consider past difficulties not resolved, current and projected problems, progress toward solutions, etc. Should you desire copies of Board Minutes forwarded to your headquarters, they might serve to provide an additional means of staff surveillance.

Please let me know if you think the above proposal has merit.

Sincerely,

t/ FRANCIS E. SMITH, JR.  
Major General, USAF  
Vice Commander

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

13 October 1953

Major General Frederic H. Smith, Jr.  
Vice Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

Dear Freddie:

This is in reply to your letter of 23 September regarding supply malpractices generally, and excesses in particular.

My Stock Control people, on the basis of their visits, their evaluation of AMA Field Reports, discussions with AMA Representatives, and Base Supply Reports, assure me that about 75% of our bases are doing a good job. The exceptions:

a. Greater Pittsburgh. Excesses have accumulated through faulty review of stock levels. This matter was brought to the attention of the Base Commander during concurrent visits by my Stock Control people and Middletown AMA personnel early in July of this year. As a result, Greater Pitt has been working overtime to get out of the hole. We recently required a team from another wing to visit them to evaluate their progress. The report of this progress visit, which is due in this headquarters on 15 October 1953, will be used as a guide for further action.

b. Presque Isle. Although stock levels have been promptly and adequately reviewed, excesses have not been reported as they became known. This situation was pin-pointed last May during one of our Stock Control visits. Following this visit, revitalization of the excess program was attempted. However, it still lagged in spots because of the competing interests of an extensive rewarehousing program. Last month my Stock Control people and the people from Middletown AMA again visited Presque Isle and we believe provided sufficient impetus to get the excesses program rolling. As in the case of Greater Pitt, we have directed a team to further evaluate the situation, lend advisory assistance, and provide us with an indication of progress.

c. Recently O'hare and Niagara have failed to maintain the acceptable rating they formerly enjoyed in excess disposal. My D/M people do not consider the situation at these bases serious; but nonetheless, have left no doubt in the minds of concerned personnel as to what is expected. Here, too, we will follow up as required.

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Ltr to Maj Gen Frederic H. Smith, Jr. (Contd)

As we feel that the general condition of the command, excess-wide is relatively sound, we have been endeavoring to concentrate our efforts on our soft spots and be as specific as possible with our commanders. We should get concrete results from this type of approach and therefore believe that the appointment of an additional board is neither desirable nor justified. If your people do not agree with this evaluation, I would appreciate any specifics which would indicate the picture as presented to be inaccurate so that we may redirect our efforts accordingly.

Sincerely,

s/ W. B. NELSON  
Major General, USAF  
Commander

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAMDM

SUBJECT: Evaluation of the COSAMO Test, EADF

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs  
Colorado

1. The COSAMO test was established in accordance with the letter from Headquarters Air Defense Command dated 22 July 1953. The purpose of the program was to determine if more effective utilization of existing limited resources could be achieved through pooling of skilled manpower, facilities, and equipment.

2. After due consideration to all other possible locations, it was determined that O'Hare was the best, because it most nearly represented an average of what would be available in case of command-wide adoption after the test.

3. The general structure of the organization was to be similar to that used in 5th Air Forces REMCO. Existing command channels were to be maintained. Personnel realignment was authorized within existing ceilings.

4. The requirement to perform the test for ninety (90) days, beginning 15 October 1953, by the 4706th Defense Wing at O'Hare International Airport was forwarded to the Commander, 30th Air Division, on 7 August 1953. Authority was granted to place necessary personnel on temporary duty for one hundred twenty (120) days and reallocate equipment where required.

5. Upon receipt of direction to implement the test, the 4706th Defense Wing surveyed equipment, personnel and space. Organizational charts were drawn up, approved and personnel were alerted to fill the various functions. All equipment documents within the wing were surveyed and equipment spotted for subsequent shipment. Additional space in which to conduct the test was requested by this headquarters, and approval was received on 12 September 1953.

6. Jet engine minor repair authority and shipping instructions for a Shaw & Estes test stand were received on 4 September 1953. The COSAMO Project Officer issued SOP to supported units prior to commencement date, including delivery and receipt of complete aircraft, aircraft spares and engines. A detailed list of aircraft spares that could be processed at COSAMO was furnished.

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EADF EAMDM Subject: Evaluation of the COSAMO Test, EADF

7. Personnel and equipment were scheduled into COSAMO in a manner to create the least possible loss of efficiency. The first aircraft was delivered on 15 October 1953 and the actual test was underway. All of the docks were filled within the following week.

8. Following are findings based on the operation to date:

a. The COSAMO organization was comprised of 229 airmen, 7 officers and 35 civilians. More than half the airmen were placed on TDY from the four tactical squadrons. Because of the high rate of unscheduled maintenance on the F-86D aircraft, it is essential that skilled maintenance personnel be available in the tactical squadrons to perform between flight trouble shooting. An average of 24% of F-86D hours available have been spent performing unscheduled maintenance. Reference Chart, Inclusion #2.

b. Authorized contractor technical representatives are not sufficient to satisfy technical assistance requirement of COSAMO and the fighter squadrons.

c. The facilities at O'Hare have proven very satisfactory for the COSAMO test. Improvement could be made by installing all shops within Building T-6 instead of T-7 where they are presently located. Completion of the Shaw & Estes test stand installation will also improve efficiency to a small degree. The interim test stand has been satisfactory. Overall, the facilities at O'Hare are far superior to the average available on bases throughout the command. Practically all other EADF bases would require additional facilities in which to conduct a COSAMO.

d. Level of authorized test and ground handling equipment at bases and fighter squadrons is not sufficient to adequately support periodic maintenance at COSAMO as well as unscheduled maintenance at bases.

e. Because of the shortages of test equipment, mock-ups, and skilled technicians, fire control maintenance was continued in the squadrons throughout the test. This resulted in an additional 16 hours per aircraft out-of-commission time after arrival back at the squadron.

f. Operationally, COSAMO has been found to afford an excellent opportunity for training of maintenance personnel.

g. The COSAMO Organization provides the possibility for improved quality control of work performed. Also, technical order compliances, accessory change date, repair of critical items, etc., can be monitored on a larger scale with less effort. Lateral support can be applied more effectively.

h. The problems resulting from a major grounding of aircraft, which occurred twice during the test period, are compounded under a COSAMO operation. Aircraft were grounded at Trux and Wright-Patterson while skilled manpower and equipment were pooled at O'Hare.

EADF EAMDM Subject: Evaluation of the COSAMO Test, EADF

i. COSAMO has been unable to furnish the necessary effort to perform all periodic inspections, technical order compliances, and field maintenance required. Of the sixty four (64) periodic inspections required (based on total flight time of supported aircraft), only thirty six (36) were completed by COSAMO as of 15 January 1954. At present, a backlog of approximately sixty (60) periodic calendar inspections exist as a result of the grounding. Several months would elapse before COSAMO could process this number of aircraft inspections.

j. The average elapsed time per aircraft inspection completed to date is seventeen (17). Seven hundred (700) man hours per aircraft inspection have been expended. These are absolutely prohibitive within current manpower authorizations.

k. The inability to take full advantage of bad weather periods to perform maintenance is a disadvantage under the COSAMO concept.

l. The requirement to gear aircraft operation to the maintenance capability of COSAMO, instead of adjusting maintenance output to meet operational commitments, results in a definite loss of unit efficiency.

9. It is believed that sufficient experience has been gained to prove that the present concept of COSAMO operation cannot achieve the objectives for which it was established. The concept cannot be applied within the current manpower and equipment authorizations to organizations within this command.

10. It is therefore requested that authority be granted to terminate the subject test at the earliest possible moment. Personnel assigned have been on TDY, and an extension of the test will adversely affect their morale.

3 Incls

1. Ltr 4706th DW  
3 Feb 54
2. Chart
3. Chart

C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

AIDDM

27 Feb 1954

SUBJECT: Discontinuance of COSAMO

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. My staff has just completed an evaluation of our Air Defense Command COSAMO test operation. Test reports from Headquarters Eastern Air Defense Force and Headquarters Central Air Defense Force were used in making the COSAMO evaluation. Considering all aspects of our maintenance problems, and our inability to solve them through COSAMO, I have decided to discontinue the test immediately. Under the present conditions, I do not desire to modify the concept and further explore any theoretical benefits it may offer. To continue testing this concept during Project F-86D "Pull Out" could easily jeopardize this all important modification program. We must not hazard tardy arrivals of specifically designated aircraft or components to the "Pull Out" modification centers.

2. It is my desire that personnel and equipments be returned from our COSAMO activities to the permanent home stations concerned. This should be done as quickly as possible.

3. I have written a letter to the Commander, Air Materiel Command, and have advised him of my decision to discontinue the COSAMO tests. If feasible, at a time subsequent to the "Pull Out" program, we may plan for a modified form of COSAMO, based on requirements for facilities, equipments, manpower above and beyond that necessary to perform the active air defense mission.

t/ B.W. CHIDLAW  
General, USAF  
Commander

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ADC ADMEM Subject: Discontinuance of COSAMO

EAMEM (27 Feb 54)

1st Ind

5 Mar 54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N.Y.

TO: Commander, 30th Air Division (Defense), Willow Run Air Force Station, Belleville, Michigan

1. General Chidlaw's instructions will be complied with as expeditiously as possible. However, compliance should be effected in such a manner as to insure minimum disruption of scheduled maintenance and consequent reduction in the availability of combat ready aircraft during the "close-out" period.

2. The minor repair facility was expedited into O'Hare to assist in establishing the COSAMO project. However, that station has previously been included in the EADF Minor Repair Program as a location for a complete minor repair facility. Therefore, the O'Hare facility will continue to function under the provisions of EADF Regulation 65-1, dated 22 January 1954, and support those activities indicated therein. The consolidated engine build-up program was not a part of the minor repair facility's responsibility and therefore that function should also be returned to the proper organizations as directed above.

3. Special attention will be given to insuring that the equipment utilized in COSAMO is returned to affected squadrons in the best condition possible.

t/ GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

SECRET

C O P Y

18 February 1954

SUBJECT: Turn-Around Time for the F-89D (S)

TO: Commander  
Air Defense Command  
Attn: Weapons Section, P&R  
Ent Air Force Base, Colorado

1. Turn-around time for the F-89D has been found to be 20 minutes day or night. This includes fuel, oxygen and 10<sup>4</sup> rockets. Six armament men, three to each pod, two crew chiefs, and a single-point refueling truck operator are used. Refueling takes 5-10 minutes depending on pressure used and amount of fuel remaining in the aircraft. During this time the armament personnel are attaching ground plugs, inspecting tubes and inserting rockets. The remaining time is taken up with latching the rockets and removing the hold back tools from the spring loaded doors on the outer rocket ring. The rocket circuit tester was not used during the turn-arounds because all rockets fired on previous flights. The styrofoam heat seals were not applied to the center cluster because of insufficient stock.

2. The time from throttles off on one night mission to airborne on the second was 35 minutes. No particular effort was made to make a scramble take-off in the second mission.

3. All rockets were fired on the day mission and first night mission. Four in the outer ring of one pod were brought back from the second night mission. This pod was loaded with a make-shift tool and the four rockets were not properly latched.

4. There was no effect on the pilot's vision from the rocket flash at night but the full moon may have had a modifying effect even though the rockets were fired "down moon". Rockets were fired in "two-pass" on the first night flight and "single pass" on the second.

ROBERT T. MERRILL III  
Major, USAF  
F-89D Project Officer

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C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
ENT AIR FORCE BASE  
Colorado Springs, Colorado

ADOOOT-C

31 Mar 1954

SUBJECT: Turn Around Time for F-89D (S)

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Forwarded for your information and necessary action is the information contained in attached letter, subject same as above.

2. The turn around times indicated in the attached letter apparently represents the best that can be attained in the F-89D in its present configuration. This of course, is after ground crews have been trained in the proper procedures. Recent tests, during Project Lock-On revealed that turn around times for F-94Cs and F-86D's were excessive on first attempts but were greatly reduced on subsequent attempts.

3. Commanders operating tactical aircraft in this command will take steps to insure that procedures are in effect and operating whereby aircraft can be turned around in the minimum possible time. This can only be done through proper planning and practice.

BY ORDER OF THE COMMANDER:

1 Incl: LEWIS E. SMITH  
Cy. ltr dtd 18 Feb 54 Captain, USAF  
Subj: Turn-Around Time Asst Command Adj  
for F-89D

54-695

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C O P Y

Hq ADC ADOOT-C Subject: (Secret) Turn-Around Time for F-89D

EAOOT-OW (31 Mar 54) 1st Ind 15 Apr 1954

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, N. Y.

1. Forwarded for your information.
2. Desire continued emphasis on turn-around times as directed in paragraph 3 of basic letter.
3. This Indorsement in Unclassified.

BY ORDER OF THE COMMANDER:

1 Incl:  
n/c

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

SECRET

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C O P Y

HEADQUARTERS  
49TH FIGHTER-INTERCEPTOR SQUADRON  
Dow Air Force Base, Bangor, Maine

DM-Sup 400

13 January 1954

SUBJECT: Refueling Units

TO: Commander  
4711th Defense Wing  
Presque Isle, Air Force Base  
Presque Isle, Maine

1. In accordance with AFR 5-25 dated 21 May 1953 and 4711th Defense Wing Letter, file number DM-Sup 400, Subject: Refueling Units, dated 29 December 1953, the inclosed AF Forms 25 and 25A are submitted as a proposed T/O change for this organization.

2. This organization has been a tenant at Dow Air Force Base, Bangor, Maine, since February 1951. Dow Air Force Base was under the command of the Tactical Air Command until June 1952 and has since been under the command of the Strategic Air Command. Since approximately February 1952, this organization has been supported completely by the Base. Since February 1952, the reserivicing of aircraft belonging to this organization has been a continual problem. At times, reserivicing is accomplished in a normal amount of time, however, on occasions it has taken as much as three hours and thirty minutes to reservice flights.

3. As outlined in Section III, paragraph 16, ABC Manual 55-6, dated 1 July 1953 as amended, this organization is required to reservice alert aircraft in a maximum time of fifteen (15) minutes. In the month of August 1953, records show that this organization did reservice alert aircraft within the required time, however, all SAC fighter aircraft assigned to this Base were on temporary duty from mid July until the end of October and as a result all the Base refueling facilities were available to this organization. The following is extracted from the monthly combat readiness reports and indicate the average required reserivicing time for the month indicated:

MONTH	Average Reserivicing Time (Minutes)
July 1952	22
August 1952	24
September 1952	41
October 1952	27
November 1952	45
December 1952	Unknown
January 1953	38
February 1953	30

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CONFIDENTIAL

Hq 49th Ftr-Intcp Sq., Dow AFB, Bangor, Maine, DM-Sup 400, Subj:  
Refueling Units, 13 Jan 54

March	1953	31
April	1953	49
May	1953	34
June	1953	31
July	1953	22
August	1953	13
September	1953	27
October	1953	24
November	1953	40
December 1	1953	65

4. If the requested T/O change is approved, this organization will have the necessary personnel and equipment to support it's reserivcing requirments and be more capable of meeting the provisions of ADC Manual 55-6.

3 Incls  
1. Ltr, Hq 4711th Def Wg  
2. AF Form 25  
3. AF Form 25a

s/t/ALFRED L. CUMMINGS  
Major, USAF  
Commander

CONFIDENTIAL

Hq, 49th FIS IM-Sup 400 Subject: Refueling Units

IM-Sup (13 Jan 54) 1st Ind

HQ, 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Forwarded in compliance with your letter, MDM 452.1, dated 22 October 1953, Subject: Refueling of Tactical Aircraft.
2. Excessive reserve time is seriously effecting the mission of the 49th Fighter-Interceptor Squadron, as is indicated in basic letter. It is the opinion of this headquarters that the assignment of refueling units and personnel to the 49th Fighter-Interceptor Squadron is the most desirable solution. Therefore, it is recommended that the request in basic letter be approved.

FOR THE COMMANDER:

3 Incls  
n/c

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

146-54

Hq 49th Fighter-Interceptor Sq, IM-Sup 400, Subject: Refueling Units

MEM (13 Jan 54) 2nd Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York 13 Feb 1954

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base, Newburgh  
New York

1. It is vitally important to the operational mission of this division that this organization is able to meet the turn-around time. As you will note, this organization has met the requirement only once in 16 months. This has been obviously due to lack of fuel servicing facilities at Dow Air Force Base, to service both their own aircraft and those of the 49th Fighter-Interceptor Squadron.

2. It is the opinion of this headquarters that the best solution to this problem is to give the squadron its' own refueling equipment and personnel to operate it. This will give the Squadron Commander complete control over the refueling operation and should correct this unsatisfactory condition.

3. Approval is recommended upon the facts outlined above and in the basic communication.

3 Incls:  
n/c

WILLIAM H. CLARK  
Colonel, USAF  
Deputy Commander

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Hq 49th FIS IM-Sup 400 Subj: Refueling Units

EAMMP (13 Jan 54)

3d Ind

1 Mar 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Attention is invited to paragraph 3, EADFR 400-1 and paragraph 3b, c and d, AFR 11-4.
2. What action has been taken to effect resolution of the difficulties in accordance with the above referenced directives?

BY ORDER OF THE COMMANDER:

3 Incls:  
n/c

s/t/ JOHN L. WARREN  
Colonel, USAF  
Adjutant

MIM (13 Jan 54)

4th Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station  
6, Syracuse, New York 13 Mar 1954

TO: Commander, 4711th Defense Wing, Presque Isle Air Force Base, Presque  
Isle, Maine

Forwarded for compliance with the preceding indorsement.

BY ORDER OF THE COMMANDER:

3 Incls/  
n/c

VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

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Hq, 49th FIS IM-Sup 400 Subject: Refueling Units

IM-Maint (13 Jan 54)

5th Ind

26 Mar 1954

HQ 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Conference with Lt. Colonel Harry E. Peterson, Acting Commander,  
506th Air Base Group, SAC, Dow Air Force Base, Bangor, Maine, 24 March  
1954, has resulted in the allocation of required drivers and refueling  
units to the 49th Fighter-Interceptor Squadron.

2. Recommend no further action.

3 Incls/  
n/c

s/t/ KENNETH A. FULLER  
1st Lt, USAF  
Adjutant

MEM (13 Jan 54)

6th Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

3 Incls:  
n/c

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C O P Y

SECRET

Problem Areas

PO&R

MDM

24 Feb 54

The following comments on the problem areas in connection with the revised program data is as follows. Discussion will be limited to those bases wherein problems will be encountered.

a. Griffiss Air Force Base:

- (1) Facilities for the 2nd Fighter Squadron were programmed in the FY-55 Public Works Program. In order that these facilities be available in time the funds and completed projects should be available and bids let at least by the second quarter of FY-55. Based on the previous years, it is doubtful if this will happen. If it should materialize, they will have three (3) squadrons operating out of the 2nd Squadron base from the 4th quarter of 1956 through the 3rd quarter of 1957.

b. 49th's move to Hanscom:

- (1) The facilities at Hanscom were programmed in the FY-55 Public Works Program. These facilities will not be available by the target date as the funds will not be available until the 1st quarter of FY-55 at the best. The facilities will not be a reality for at least a year, based on past experience.

c. Otis Air Force Base:

- (1) The 4712th presents the biggest problem of them all for the following reasons:
  - (a) As of this date USAF has not approved the master plan for Otis AFB.
  - (b) Transfer of existing facilities at Camp Edwards has not been completed at USAF.
  - (c) Availability of funds for rehabilitation of Camp Edwards facilities after they are obtained.
  - (d) The facilities for the 4712th are in the FY-55 Public Works Program and it will be considerable time before they are available. Maintenance of a certainty will be outdoor type next winter.

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Problem Areas (Cont'd)

PO&R

MDM

24 Feb 54

Page 2

- (e) Table II for RC-121 are not available at the present time unless the wing obtain them at the conference in California.
- (f) Table 16's for the airborne equipment are not available.
- (g) Certainly the wing and air base group will have to be augmented in the supply, maintenance and installations and food service squadrons. In order that they may be able to adequately support the 4712th, the wing should be reorganized into a composite type.

DANIELS/162

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
INTEROFFICE ROUTING SLIP

No.	Date	From	To
		EAOCE	EAODO EAOOT EAOPM EAOFS

1. This headquarters was advised by ADC on 31 August 1953 that TACAN facilities are to be installed at the following listed EADF installations between April 1954 and June 1955. These facilities are reflected in USAF Change #0 to BPC 55-1.

Burlington Municipal Airport, Vermont  
Greater Pittsburgh Airport, Pennsylvania  
Greiner Air Force Base, New Hampshire  
Charleston, West Virginia  
Calumet, Michigan  
Kinross Air Force Base, Michigan  
McGuire Air Force Base, New Jersey  
New Castle County Airport, Delaware  
Niagara Falls Municipal Airport, New York  
O'Hare International Airport, Illinois  
Wurtsmith Air Force Base, Michigan  
Selfridge Air Force Base, Michigan  
Otis Air Force Base, Massachusetts  
Stewart Air Force Base, New York  
Suffolk County Air Force Base, New York  
Truax Air Force Base, Wisconsin  
Youngstown, Ohio

2. The list received from ADC did not include the following bases which support EADF fighter units: Andrews AFB, Dover AFB, Dow AFB, Langley AFB, Presque Isle AFB, Westover AFB, Wright-Patterson AFB and Griffiss AFB. A wire was sent to ADC on 10 November requesting information on the installation of TACAN facilities at these bases.

3. This headquarters had very little information on TACAN and even though we were instructed by ADC to formulate operational plans for the subject facilities, an attempt was made by the organizations concerned, to do so using Appendix APP-1, Section VI, To 16-1-292.

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HEADQUARTERS

EASTERN AIR DEFENSE FORCE

INTEROFFICE ROUTING SLIP

No    Date    From    To

4. Attached for your information is an extract which was made from the November C&E Digest covering this facility. Although it is not complete, it does furnish more information than we have had in the past. ADC recently directed cancellation of all VOM facilities within EADF. It can be seen from the attached article their reason for doing so.

1 Incl  
Extract

s/t/ BROOKS

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE

FILE:

SUBJECT: (uncl) USAF Change No. 0 to BPC-55-1

INTEROFFICE ROUTING SLIP

No. 1 - 8 Sep 53

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No. Date From To \*\*\*

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EAOCE-C EA00T  
EA0FS ADC,  
EA0DO  
EA0CG  
EA0CE-C  
(in turn)

1. The attached correspondence from Commander ADC, with reference to programming of TACAN facilities is forwarded for your information. A brief description of the TACAN system is attached as Incl #2.
2. To expedite engineering action by AACS, a message directive has been forwarded to the concerned EADF units requiring submission of the operational plans referenced in paragraph 2, basic correspondence.
3. Review of the Inclosure to basic correspondence will reveal that the majority of these facilities are programmed to become operational during the fourth quarter FY 54, with facilities for Grenier AFB and O'Hare International Airport scheduled for the fourth quarter FY 55.
4. Since it is the prerogative of this headquarters to establish installation priorities within the limits of the fiscal year phasing, request this Directorate be furnished the desired priority listing by Director O&F at the earliest possible date in order that this information may be registered with the engineering agency.
5. No information as to the programming of airborne equipment (AN/ARN-21), to be utilized in conjunction with these ground facilities, is available at this time. Commander ADC has been requested to furnish this data at the earliest possible date.

t/ OAKLEY

t/ BROOKS

2 Incls

1. Ltr ADOCE-A 319.1,

Hq ADC, 31 Aug 53,

Subj, as above w/1 Incl

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SECRET

2. Description of TACAN System

C O P Y

**CONFIDENTIAL**  
TACTICAL AIR NAVIGATION SYSTEM

(Preliminary Operational Plan for Utilization of TACAN Outlined)

The Tactical Air Navigation System (TACAN) is to be used primarily as a terminal navigation system when sited off base. It is, however, when sited on or near an operational base, to be integrated with the instrument approach system for primary use as a letdown facility. The ground installation is either the AN/URN-3 or TRN-6. These two equipments are identical, except that the TRN-6 is mobile and the URN-3 is a fixed installation. The equipment programmed for ADC bases is the TRN-6, which is housed in a TRC-32 shelter, a modified version of the HO-17 shelter. Airborne equipment is the AN/ARN-21.

The TACAN system of navigation will give the pilot the same information as VOR plus DME (distance and vector from the ground installation). This information, as in VOR, will appear to the pilot on veeder counters. However, the principles of operation of the VOR and TACAN systems are entirely different, since the VOR system uses tone signals in the 100 mc band for vector information and pulse signals in the 1000 mc band for information, while the TACAN system uses a multiple pulse system in the 1000 mc band for both vector and distance information. The TACAN system operates somewhat on the transponder (IFF) principle, with the difference that the aircraft triggers the ground unit rather than the ground unit triggering the aircraft unit. In function, the system can be compared with the RACON system, with the exception that the information appears on veeder counters rather than as pips on a radar scope, as in RACON. The expected range of any ground installation will be slightly over line-of-sight.

Supporting construction requirements for the ground system are: power cable, a hardstand for the shelter, tower foundation for the antenna, and interconnection cables from the tower to the shelter.

When located on or near an operational base, the system will be integrated with the instrument approach system for use as a letdown facility. TACAN sites, when near air bases, should be located with the above in mind. The following siting details should be followed in order of preference:

- a. In line with the instrument runway, upwind, and not more than five miles from end of runway.
- b. In location most clear of obstruction in the instrument approach direction.
- c. On highest clear ground affording best low altitude horizon in all directions.

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Ground TACAN installations are programmed for 21 air bases, a number of ADC ACAN sites, and for most overseas air bases. Ultimately, this system will support most military overland air routes.

This system of navigation will replace both MF/DF and VOR in fighter aircraft when the entire program is implemented in FY 1955. All other forms of navigational aids, with the exception of ILS, will be removed from ACC fighters when the program is completed. Some aircraft will be equipped with a RACON attachment to E-4, E-5 fire control systems.

TACAN, therefore, will be used for recovery of ADC fighters, terminal approaches, instrument letdown assists, and en route navigation. Under a new ILS development, the localizer ground installation will be improved, and will have what in effect may be termed a beacon attachment. This will allow the aircraft to pick it up in any vector and circle until the correct landing vector is received, at which time the localizer will lock on. With TACAN, improved ILS, UHF/DF at air bases, RACON in most aircraft equipped with E-4, E-5 systems, and GCA at all bases, no trouble is foreseen in navigating, recovery, and letdown when the AN/ARN-6 and VOR are removed from fighter aircraft.

Very early siting information was included in Rome Air Development Center Technical Report 52-26, dated December 1952. Copies of this report were distributed to Air Defense Forces.

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, N.Y.

GENERAL ORDERS }  
NUMBER 22 )

8 April 1954

ANNOUNCEMENT OF ASSIGNMENT OF UNITS

1. Announcement is made of the assignment of the following units, effective 1 May 1954, as indicated:

<u>Unit</u>	<u>Assignment</u>
Crash-Rescue Boat Flight	Air Defense Group
11	527
27	564
29	519
32	575
34	518
49	534

2. The pertinent provisions of AFM 171-6 are applicable.

3. An acknowledgment report of this action will be submitted by means of the Air Force Organization Status Change Report (Reports Control Symbol AF-01) which will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hrs the first calendar day following the "as of" date.

4. Authority: Department of the Air Force Letter AFOMO 102j, Subject: Assignment of the 11th and Certain Other Crash-Rescue Boat Flights, 18 March 1954, with 1st Indorsement thereto from Headquarters Air Defense Command.

BY ORDER OF THE COMMANDER:

OFFICIAL:

GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

s/t/ JOHN L. WARREN  
Colonel, USAF  
Adjutant

DISTRIBUTION:

A plus  
30 - AAG, Hq USAF, Attn: Pub Div  
12 - Comdr ADC, Attn: M&O (Unit Con Br)  
5 - AF Ln Off, Kansas City, Mo  
6 - EAOPM  
4 - EACST

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C O P Y

HEADQUARTERS  
518TH AIR DEFENSE GROUP (ADC)  
Niagara Falls Municipal Airport  
Niagara Falls, New York

FIS

23 Jun 1954

SUBJECT: Requirements for Development of Survival Equipment

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. B-1 Survival Kits:

a. To date the B-1 survival kit has not been made adaptable to both land and water survival. Actually a pilot in fighter type aircraft has to decide before he takes off where he is apt to be forced to bail out since both the B-1 survival kit and the C-2A one man life raft are not adaptable for use together. This imposes a particular problem in regions such as the Great Lakes and East and West Coast where as much flying is performed over water as over land.

b. It is suggested that some manner be devised where the kit and the life raft can be incorporated in the same casing to preclude the possibility of a pilot being forced to bail out over terrain he is not prepared to cope with. No corrective action has been devised at this level of command as of this date.

2. C-2A One Man Life Rafts:

a. Pilots of this organization have been complaining that the snaps on the life raft have been gouging them in the region of the hip and upper leg causing sore spots where the snap comes into continual contact with the body during flight.

b. As of the writing of this report Unsatisfactory Reports are being prepared to remedy this situation. Until such time as corrective action may be taken, the raft is being raised so the snaps will be above the level of the arm rests so when the pilot sits on the raft the snaps can move outboard. This is accomplished by placing the raft on the red covered seat with which the aircraft was originally equipped. This in turn leaves a space between the raft and the back of the ejection seat causing the personal back type parachute to hang on the pilots shoulders, rather than rest on the seat allowing the pilot to sit erect in the parachute harness.

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Ltr fr 518th AD Gp, to Comdr 4707th Def Wg, Subj: Rqmt for Dev of  
Surv'l Equip

This space is being filled with light weight packing material with nominal compressibility that will not cause undue wear on equipment or cause a sore spot at the base of the pilots spine should he sit in the cockpit in such a position that would cause him to ride on the edge of the pad.

c. This whole problem could be solved by rotating the head of the snap 90° so as to cause the flat side of the snap to lie parallel to the pilots leg rather than perpendicular to it.

3. C-2A One Man Life Rafts.

a. Personnel have complained that in hooking the raft directly to the parachute by use of snap on the raft and D-Ring on the parachute sling, it pulls the should straps down on the parachute preventing the pilot from assuming a comfortable, erect position in the cockpit. This also restricts freedom of movement to a point that a pilot may not be able to properly clear himself while maneuvering his aircraft.

b. Locally this is being corrected by the use of a snap with a D-Ring connected to it by a swivel. These snaps may also be used should the snap on the raft be rotated as suggested in paragraph 2c and 3b, be purchased locally.

4. MK. IV Exposure Suits.

a. The exposure suit now in current use for cold weather operation over water is adequate for survival in the water, but hardly conducive to safe or comfortable flying. The bulk of the suit restricts movement in the cockpit not only to the point of keeping the pilot from adequately clearing himself, but it actually prevents the pilot from reaching switches and circuit breakers which may mean the life or death of the pilot in an emergency situation. Due to the fact that it is water tight, it is therefore air tight and does not allow ventilation of perspiration and body odors. The tight fitting wristlets and neckpiece causes chafing and soreness of the skin. Due again to the bulkiness of the suit it is not only to be torn on entering and leaving the cockpit on the ground, but is even more apt to rip or split on ejection at high altitudes or high speeds. A suit with a rip or tear in it suddenly becomes a liability rather than an asset.

b. No corrective actim has been devised at this level of command.

FOR THE COMMANDER:

W.F. QUIGLEY  
Major, USAF  
Adjutant

C O P Y

Hq 518th AD Gp, FIS, Subj: Requirements for Development of Survival Equipment

DWOOT (23 Jun 54) 1st Ind 23 Jun 1954

HEADQUARTERS 4707TH DEFENSE WING, Otis Air Force Base, Falmouth, Massachusetts

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

Forwarded in compliance with 1st Indorsement to Eastern Air Defense Force letter, EAODR, Subj: "Requirement for Development of Survival Equipment", dated 28 April 1954.

FOR THE COMMANDER:

GEORGE N. LEITNER  
Capt, USAF  
Adjutant

OPR (23 Jun 54) 2nd Ind 1 Jul 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

Forwarded in compliance with 1st Indorsement to Eastern Air Defense Force letter, EAODR, Subj: "Requirement for Development of Survival Equipment", dated 28 April 1954.

FOR THE COMMANDER:

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

PO&R

23 Mar 54

SUBJECT: (Unclassified) Emergency Airfield for Fighter-Interceptor Squadrons

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. In accordance with ADOOT-B, 1st Indorsement of letter, Headquarters ADC, Subject: (Unclassified) Emergency Airfields for Fighter Interceptor Squadrons, the following information is submitted:

- a. 27th Fighter-Interceptor Squadron, Griffiss AFB, New York.
- (1) Syracuse Air Force Station, Syracuse, New York.
  - (2) There will be no operational changes due to the location of the emergency airport.
  - (3) Facilities required for emergency operations are adequate with the exception of communications. Two hotline circuits would have to be installed between Syracuse Air Force Station and P-49: (one status line and one scramble line.)
  - (4) Logistics:
    - (a) Unit TO&E equipment would be sufficient for emergency operations.
    - (b) Refueling to be accomplished by the 108th Air National Guard Squadron or by commercial contract.
    - (c) Logistic support would be furnished by parent base.
- b. 60th Fighter-Interceptor Squadron, Westover AFB, Massachusetts.

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- (1) Hanscom AFB, Bedford, Massachusetts.
  - (2) There will be no operational changes due to the location of the emergency airport.
  - (3) Facilities required for emergency operations are adequate with the exception of communications. Two hot line circuits would have to be installed between Hanscom AFB and P-10 (one status line and one scramble line).
  - (4) Logistics:
    - (a) Unit TO&E equipment would be sufficient for emergency operations.
    - (b) Refueling would be accomplished by Air Research & Development Command.
    - (c) Logistic support would be furnished by parent base.
- c. 37th Fighter-Interceptor Squadron, Ethan Allen AFB, Vt.
- (1) St. Hubert, Canada.
  - (2) There will be no operational changes due to the location of the emergency airport.
  - (3) Facilities required for emergency operations are adequate with the exception of communications. One hot line circuit would have to be installed between St. Hubert and P-14 (one hot line has been installed to date).
  - (4) Logistics:
    - (a) Unit TO&E equipment would be sufficient for emergency operations.
    - (b) Refueling would be accomplished by the RCAF in accordance with present agreements.
    - (c) Logistic support would be furnished by parent base.

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- d. 49th Fighter-Interceptor Squadron, Dow AFB, Maine.
- (1) Brunswick Naval Air Station, Brunswick, Maine.
  - (2) There will be no operational changes due to the location of the emergency airport.
  - (3) Facilities required for emergency operations are adequate with the exception of communications. Two hot line circuits would have to be installed between P-13 and Brunswick Naval Air Station, (one status line and one scramble line).
  - (4) Logistics:
    - (a) Unit TO&E equipment would be sufficient for emergency operations.
    - (b) Refueling to be accomplished by Brunswick Naval Air Station.
    - (c) Logistic support would be furnished by parent base.
- e. 47th Fighter Interceptor Squadrop, Niagara Falls, NY.
- (1) Buffalo Municipal Airport, Buffalo, New York.
  - (2) Due to location of emergency airport in reference to Niagara Falls airport there would be no change in operations procedures.
  - (3) Facilities required for emergency operations are adequate with the exception of communications. Two hot line circuits would have to be installed between Buffalo Municipal Airport and P-21 (one status line and one scramble line).
  - (4) Logistics:
    - (a) Unit TO&E equipment would be sufficient for emergency operations.
    - (b) Refueling would be accomplished by civilian contract.
    - (c) Logistic support would be furnished by parent bases.

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f. All ACW Squadrons would use the redeployment airfield for 15 day operations.

2. This organization will have completed a survey of all airfields within its area of responsibility by 1 April. At that time a more complete study of emergency airfields can be submitted.

FOR THE COMMANDER:

FREDERICK E. YORK  
Major, USAF  
Adjutant

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DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON 25, D. C.

AFOAC-E/N

4 June 1954

SUBJECT: SCS-51 ILAS Program

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. This letter superseded letter, dated 7 January 1954, subject as above.
2. The following is the list of seventeen (17) locations which have high priority requirements for SCS-51 ILAS equipment:

a. Travis	j. Rapid City
b. McChord	k. Bergstrom
c. MacDill	*l. Tyndall
d. Limestone	m. Westover
e. Presque Isle	*n. Otis
*f. Oxnard	o. Selfridge
*g. Fairchild	p. Wurtsmith
h. Castle	q. Eglin Main
i. Barksdale	

Proposed SCS-51 for Wright-Patterson APB has been canceled.

NOTE: \*Denotes interim SCS-51 installation. Equipment will eventually be replaced by MRN-7/MRN-8 ILAS.

3. SCS-51 equipments listed in paragraph 5 will be redistributed by the Air Materiel Command to meet the high priority requirements. In addition, it may be necessary to transfer some equipment from the lower priority installations listed in paragraph 4.

4. The lower priority SCS-51 locations are as follows:

<u>ZI</u>	<u>OS</u>
Great Falls	LaJes
Mt Home	Keflavik
Sedalia	Eielson
Craig	Misawa
Vance	Komaki
Carswell	*Itazuke
Palm Beach	
Eglin Duke	

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AFOAC-E/N, subj: SCS-51 IAS Program

b Proposed SCS-51 for Patrick AFB and Ernest Harmon AFB has been canceled.

NOTE: \*Interim SCS-51 facility to be replaced by MRN-7/  
MRN-8.

5. Proposed SCS-51 facilities at the following locations will be canceled. Limited equipment, supply, or construction delays will preclude installation of the system prior to availability of MRN-7/MRN-8 equipments.

ZI

Griffiss  
Campbell  
Pinecastle  
Hamilton  
Paine

OS

Chitose'  
Kadena  
Johnson  
Niigata  
Yokota  
Naha

6. The Airways and Air Communications Service will be the Engineering, Installation, and Maintenance Agency for all USAF IAS Systems.

7. Air Force major commands and base commanders will honor shipping instructions from Rome Air Force Depot relative to the redistribution of SCS-51 equipments. It is expected that arrangements will be made by AMC for airlifting certain SCS-51 components to the seventeen (17) priority locations where the AACS Installing Agency considers such action necessary.

8. Information relative to the MRN-7/MRN-8 program will be forwarded by 1 July 54.

9. FC document changes brought about by this plan will be made by this headquarters.

BY ORDER OF THE CHIEF OF STAFF:

cc: Comdr AACS  
Comdr RAFD

WILLIAM J. RETZBACH  
Lt. Colonel, USAF  
Executive, Elect Sys Div  
D/Communications, DCS/O

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

PO&R

1 Mar 1954

SUBJECT: Hurricane Evacuation

TO: Commander  
Headquarters Flight Service  
3800 Newark Street Northwest  
Washington 25, D.C.

1. In accordance with letter FSODC Headquarters Flight Service, subject: "Hurricane Evacuation", the following information is submitted:

a. Otis Air Force Base, Falmouth, Massachusetts

(1) Very heavy bomber	-0
(2) Four engine	-30
(3) Two engine	-60
(4) Single engine	-120
(5) Jet fighter	
(a) Single engine	-120
(b) Two engine	-60
(6) Jet Bomber	-30

b. Ethan Allen Air Force Base, Winooski, Vermont

(1) Very heavy bombers	-0
(2) Four engine	-30
(3) Twin engine	-80
(4) Single engine	-200
(5) Jet fighter	-80

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Hq 32d ADiv (Def) PO&R Subject: Hurricane Evacuation (Cont'd)

(6) Jet Bomber -20

c. Presque Isle Air Force Base, Presque Isle, Maine

(1) Very heavy bomber -4

(2) Four engine -8

(3) Twin engine -16

(4) Single engine -36

(5) Jet fighter -24

(6) Jet bomberq -10

2. In the event different type aircraft are to utilize facilities at the above bases, available parking would be reduced at the rate of four (4) single engine or jet fighters for every four (4) engine or jet bomber, and two (2) single engine or jet fighters for every twin engine aircraft.

FOR THE COMMANDER:

FREDERICK E. YORK  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Hancock Field, Eastwood Station 6  
Syracuse, New York

OOT/COM-2

5 Jan 1954

SUBJECT: UHF Pilot to Forecaster Service

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass.  
Commander, 4711th Defense Wing, Presque Isle AFB, Presque  
Isle, Maine

1. In order to determine feasibility of an in-flight pilot to  
ADCC forecaster link, request a survey be made at the subordinate  
AC&W units of your wing to show the following:

a. Extent of equipment modification necessary to patch  
UHF communication on tactical frequency with command/intelligence  
and weather ground line telephone (hot line) from the AC&W unit  
to the Air Defense Control Center.

b. Request same as above patched to the base weather  
station supporting the AC&W unit on the status and weather circuit.

c. Equipment necessary to accomplish installation if not  
available locally.

d. Estimated costs.

e. Comments on practicability of such forecaster-to-pilot  
service from:

(1) AC&W Squadrons

(2) Fighter Squadrons

(3) Wing

2. Request above information be forwarded as soon as practicable.

BY ORDER OF THE COMMANDER:

FREDERICK E. YORK  
Major, USAF  
Adjutant

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N.Y.

EAMIS

24 March 1954

SUBJECT: (Uncl) FY-1956 Public Works Program (Call for Estimates)  
RCS: AF-039

TO: Commander  
32d Air Division (Def)  
Syracuse AF Station  
Eastwood Station #6  
Syracuse, New York

1. Reference:

- a. ADCR 86-1, subject: Review of Air Force Public Works Program Items, 3 February 1953.
- b. Document ADHVP, Hq ADC, subject: (Uncl) ADC Program, 15 February 1954.
- c. ADCR 88-1A, subject: Programming, Siting, and Accomplishment of Construction of Facilities Authorized by Public Legislation, 24 March 1953.
- d. Extract of AR 415-107, subject: Basic Housing and Space Allocations at Permanent Installations, 24 September 1953.
- e. AFR 86-5A, subject: Installation Planning and Development, 6 August 1953.

2. Copy of document, Inclosure #1, issued by Headquarters USAF, subject: Instructions for Preparation of FY-56 Public Works Program Estimates, 3 March 1954, with 16 Inclosures together with supporting data, is attached for your information, guidance, and necessary action, for use in the preparation of the FY-56 Public Works Program.

3. Reference paragraph 3c(1), Inclosure #1. The following action will be taken to assure development of uniform facility requirements throughout ADC for Fighter-Interceptor bases:

- a. Detailed facility requirements, except for taxiways,

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Ltr to ADiv's BANIS Subj: (Uncl) FY-56 PWP (Call for Est) RCS: AF-C39  
24 Mar 54 (Contd)

parking aprons, and utilities, are attached for each Fighter-Interceptor Base under your command and Fighter-Interceptor Squadrons tenanted on bases of other commands. The quantities shown will be entered in Column "D" of the AF Form 800 and will be used in determining requirements for the FY-56 Public Works Program. Any changes which can be substantiated by local conditions may be made but must be completely justified in writing with the submission of new projects scheduled under paragraph 14, Inclosure #1.

b. Total bulk storage requirements for GAR-1 (Falcon) missiles have been shown for each base; however, the FY-56 Program will only include items for such facilities at bases scheduled for Falcon carrying aircraft (F-89D and F-102) by end of FY-1957. Previous storage requirements were four igloos for one-squadron and six igloos for two-squadrons regardless of the type aircraft assigned a base. The new Storage, Bulk, GAR-1 facility (5846 s/f for one-squadron and 11,317 s/f for two-squadrons) is intended to replace two of the four igloos for a one-squadron base and three of the six igloos for a two-squadron base. However, if the required total number of igloos is already constructed or in an approved PWP, the Storage, Bulk, GAR-1 facility will not be programmed. This facility is not to be confused with the Ready Rocket Storage Building.

c. No attempt has been made to list requirements for utility items since quantities will depend on local conditions. The requirement for each utility item to be shown in Column "D", AF Form 800, will be the total foreseeable quantity through the FY-56 Public Works Program.

d. Requirements for taxiways and parking aprons will depend on local conditions including length and orientation of runways, configuration of existing aprons, and other related features. To clearly substantiate the total requirement figures that will be entered in Column "D" of the AF Form 800, for each of the subject items, an airfield pavement layout, prepared in duplicate, showing the requirements for each taxiway and parking apron item, will be submitted with the list of new projects required by paragraph 14, Inclosure #1. The airfield pavement layout will include a parking plan clearly showing

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Ltr to ADiv's BAMIS, Subj: (Uncl) FY-56 PWP (Call for Est) RCS: AF-C39  
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the parking location of each aircraft. The operational parking apron will provide parking for twenty combat aircraft, per F/I Squadron, of the type scheduled for assignment, as of the end of FY-1957, plus three T-33 aircraft per F/I Squadron. Apron access taxiway, as shown in AFR 86-5A, will be listed as a taxiway item and will not be included in the quantity shown for operational parking apron. The aircraft parking plan for T&B Flight will show all authorized administrative type aircraft and quantity will be determined per AFR 86-5A.

4. Reference paragraph 3d, Inclosure #1. It is desired that requirements for ADC units tenant on bases of other commands be furnished to the base commander by representative from your headquarters or Defense Wing Headquarters, in conjunction with the local ADC unit commander. It will be your responsibility to assure that all possible assistance, including complete justification for each ADC line item, is furnished the base commander for our tenant units. If, for any reason, the base program, when prepared, does not include the essential facilities required for our tenant unit, advise this headquarters immediately. Lists of new projects for our tenant units must be furnished in time to meet the submission schedule of other commands listed in paragraph 16a, Inclosure #1. Since Bunker Hill is presently inactive ADC requirements for this particular installation will be coordinated with Commander, Ninth Air Force by the 30th Air Division and/or designated Wing representative. Also, the 30th Air Division will be responsible for furnishing the ADC requirements (1 squadron tenant) to Commander, Lockbourne AFB, and programming additional facilities for proposed ADC base at K. I. Sawyer Airport, Michigan.

5. Reference paragraph 4, Inclosure #1. The FY-1956 Public Works Estimates will be based on requirements at end of FY-1957 using the following documents as guidance:

a. Base utilization will be in accordance with ADC Program referenced in paragraph 1b above.

b. Organization and personnel will be based on ADC program referenced in paragraph 1b, as amended by revised personnel strength figures attached.

c. Communications and Electronics requirements not shown in attached facility requirements, will be furnished when PC-55-3

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Ltr to AD's, EAMIS, Subj: (Unc1) FY-56 PWP (CI for Est) RCS: AF-039  
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documents are received.

d. POL facility requirements are shown in part in the attached Facility Requirements. Aviation fuel requirements by bases are presently being developed at Hq ADC and will be furnished by separate correspondence. Narrative justifications for aviation fuel items to be included in the FY-56 Program will also be furnished when the requirements are distributed.

e. A new revised Installations Facilities Program Summary (AF Form 800) will be submitted with the list of projects required by paragraph 14, Inclosure #1. This revised AF Form 800, will be based on the attached new facility requirements. The present AF Form 800 will be modified as follows for this submission only; Column "K" will be divided into two columns headed "K" and "L". In the "K" Columns will be entered FY-55 Public Works items including carry over. In Column "L" will be shown "other construction FY-51 through FY-55". The former Column "L" will be redesignated Column "M" to reflect deficiency after FY-55. A sample format is attached. Columns "E" or "F" of the form will show all facilities existing on an installation 30 June 1950, except facilities owned and exclusively used by interests other than the Air Force. Requirements for AFRTC or ANG where such units are located on ADC bases are not attached. Quantities for these activities will not be shown in Column "D" of the AF Form 800, except where replacement items are required. Facilities for these units which were existing 30 June 1950 will be shown in Column "F" as unusable with proper explanation. On civil airports, facilities jointly used by the Air Force, such as runways, taxiways, control towers, IIS, etc., will be shown. Entries in other columns not mentioned will be in accordance with RCS AF-218, however, certification of this report will be by base commander only.

f. Items in the FY-1955 Public Works Program as approved by Office, Secretary of Defense and "Carry-over" projects, deferred for inclusion in the FY-56 Public Works Program are attached. Subsequent revisions to the FY-55 Program will be distributed as received from Hq ADC.

g. Hq ADC has informally advised that the document "USAF Construction Program Revised Fiscal Year 1954 and Prior 1 March 1954" will be available shortly. Distribution will be expedited when received by this headquarters. Items authorized under prior years

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programs, but omitted from this document and not included either in the FY-55 Program or the deferral list for inclusion in FY-56 Program, must be considered as new projects if still required.

6. Reference paragraph 5b(2), Inclosure #1. It is requested that the FY-1955 "Carry-over" projects, be reviewed as soon as possible to determine reductions in scope and deletions which can be made. In order to eliminate undue expenditure of planning funds, reductions and deletions will be reported to this headquarters individually as determined but all changes must be reported not later than 9 April 1954.

7. Reference paragraph 5b(4) Inclosure #1. Costing of the new projects will be made by your headquarters or by the individual bases as you desire. Costs should be based on local average prices for similar type construction and should include approximately 9% for design and supervision of construction.

8. Reference paragraph 6, Inclosure #1. All new projects, within the limits of the Facility Requirements, as outlined in paragraph 3, and considered essential to your mission through FY-1957, may be submitted without regard to the monetary ceiling established for ADC. Any adjustments to the overall ADC Program will be made during command review at Headquarters ADC.

9. General Guidelines

a. Information contained in this letter and inclosures supersedes any conflicting information contained in Section 1 of ADC Document ADHVP, 15 Feb 54.

b. Reference paragraph 7b, Inclosure #1. It is emphasized that maximum possible utilization must be made of all existing facilities. For example, if dormitories are available in excess of end position mission requirements, the excess structures will be used, where possible, to satisfy other essential facility requirements. In such a case, only those dormitories required to meet the requirement will be entered in Column "E" of the AF Form 800 as dormitories. The remaining dormitory structures, or parts thereof, will be entered in Column "E" opposite the items for which they will be used, with suitable explanation under "Remarks".

c. Reference paragraph 7j, Inclosure #1. This headquarters will accomplish all facilities programming for M-Sites, including real estate.

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Ltr to AD's, EAMIS, Subj: (Uncl) FY-56 PWP (Call for Est) RCS: AF-C39  
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d. Reference paragraph 7t(2). It is desired that all minor new construction costing in excess of \$2,000 be included in the FY-56 Public Works Program, where construction lead time will permit. Since sufficient qualified personnel are not available at most ADC bases for design and supervision of new construction projects, only those new facilities which must be provided earlier than possible under Public Works construction, will be included in the M&O Program.

e. Reference paragraph 7t(4), Inclosure #1. Referenced paragraph is hereby amended to provide for inclusion of foreseeable conversion, alteration or improvement projects, costing in excess of \$25,000, in the FY-56 Public Works Program. This limitation is in accordance with current instructions which limit the cost of M&O projects for such construction to \$25,000.

f. Reference paragraph 7w(3), Inclosure #1. In addition to the permanent Air Force bases listed, it is desired that a project for new permanent dental clinic at Selfridge AFB be included in the FY-56 Program.

g. The requirements for medical facilities shown in attached Facility Requirements, should be carefully reviewed to assure that all essential projects are included in the FY-56 Program. As previously stated, these requirements may be adjusted where necessary but written justification for such changes must be submitted with your new projects.

h. Community facilities will be programmed in accordance with Hq USAF letter, 14 Nov 52, copy attached. Attached is Army Regulation #415-107, which may be used as a guide in programming community facilities.

10. Reference paragraph 8e, Inclosure #1. Requirements for AC&W installations, including those located on an Air Force base, or adjacent thereto, when base facilities and services are jointly used, will be included in the program of the base in the same manner as other tenant units. Separate programs will continue to be required for AC&W stations which are separate and complete installations.

11. Reference paragraph 9, Inclosure #1. Facility requirements

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Ltr to AD's, SAMIS, Subj: (Uncl) FY-56 PWP (Call for Est) RCS: AF-C39  
24 Mar 54 (contd)

for ADC bases will be established as outlined in paragraph 3 above. The factors listed in paragraph 9, Inclosure #1, will be considered in adjusting the facility requirements to local conditions. Studies are presently being conducted by Hq ADC to determine if any new facilities will be required or existing facilities modified as a result of "Lock-On" exercises and the scheduled assignment of F-102 aircraft. All such changes in facilities requirements will be furnished as soon as determined.

12. Reference paragraph 11a, Inclosure #1.

a. Site plans showing the desired location of approved projects and extent of existing utilities will be furnished to this headquarters.

b. Recommended Air Force definitive drawings, where applicable, will also be furnished this headquarters. Where definitive drawings are not available for new facilities, Hq ADC, will furnish functional layouts to the Air Defense Force for issuance to appropriate AFIRs. For projects involving additions or modifications to existing structures, special definitive drawings will be prepared and submitted to this headquarters.

c. Land requirements and any necessary sketches or supporting data considered necessary to assist the construction agency in preparation of project planning reports will be furnished to this headquarters in accordance with paragraph 14 below.

13. Reference paragraph 11d, Inclosure #1. Hq ADC will request Hq USAF to instruct the construction agency to furnish six copies of "Project Planning Reports" to the AFIR for ADC installations to permit one copy to be retained by the Air Defense Forces.

14. Real Estate ..

a. Reference is made to paragraph 12, Inclosure #1. Paragraph 12b(2)(a) is not applicable to this command at the present time and should not be considered in the FY-56 program preparation. Paragraph 12b(2)(b) and paragraph 12b(2)(c) must be considered simultaneously in applying USAF policy on the purchase of leased land. Accordingly, the following is provided in implementation thereof to permit

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Ltr to AD's EAMIS, Subj: (Uncl) FY-56 PWP (Call for Est) RCS: AF-C39  
24 Mar 54 (Contd)

intelligent review of leased property by your headquarters for inclusion in the FY-56 Program for purchase:

- (1) With the exception of land and/or improvements leased from States, Countries, or Municipalities, program for items for the purchase of land and improvements under long term lease for which the total annual rental at the end of the term would exceed the purchase price.
- (2) This policy is not intended to conflict with that previously established whereby action must be taken to program for the purchase of land on which permanent or semi-permanent construction is to be erected, provided the land so leased is privately owned.

b. In connection with paragraphs 14a(1) and 14a(2) above land acquisition will be programmed by this headquarters for M-Sites.

c. With respect to paragraph 12c, all requests for preparation of required Real Estate Planning Reports in support of FY-56 Public Works Program items, will be prepared and submitted in accordance with ADCR 88-1A and handcarried to this headquarters not later than 31 March 1954. Two reproducible Tab F-1s will be used for this submission. Your headquarters will be furnished three copies of the completed Real Estate Planning Reports which are to accompany the submission of the complete program to this headquarters. It is emphasized that no real estate item will be placed in the Public Works Program unless a completed Real Estate Planning Report accompanies such item.

15. Submittal of New Projects. Reference paragraph 14a, Inclosure #1. The following data will be submitted to this headquarters for new projects to be included in the FY-56 Public Works Program:

a. Four (4) copies of the "Basic Installations Data" as outlined in paragraph 14a(1), Inclosure #1.

b. Five (5) copies of "Line Item Listings" as outlined in paragraph 14a(2), Inclosure #1. Consecutive Air Division priorities will be established by your headquarters and entered in pencil on one copy of the listing. One copy of the Line Item Listing, corrected to

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Ltr to ADiv's EAMIS, Subj: (Uncl) FY-56 PWP (Call for Est) RCS: AF-039  
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show changes made during review in this headquarters, will be furnished your representative for return to your headquarters.

c. Four (4) copies of "Narrative Justifications", prepared in accordance with the new format as outlined in Inclosure 8, 9, and 11 through 14 to Inclosure #1, will be submitted for all new projects. One copy of these justifications, corrected to show changes made in this headquarters, will be furnished your representative.

d. Four (4) copies of the "Facilities Development Plan", prepared as outlined in paragraph 14a(4), Inclosure #1, will be submitted. One copy of the plan, reflecting changes made in this headquarters will be furnished your representative.

e. Four (4) copies of the "Real Estate Development Plan", prepared as outlined in paragraph 14a(5), Inclosure #1, will be submitted. One copy of the plan showing any changes made in this headquarters will be furnished your representative.

f. Four (4) copies of new revised AF Form 800 will be required for each installation under your command for which new projects are being requested. One copy of the form showing any corrections made in this headquarters will be furnished your representative.

16. The FY-56 Public Works Program (Complete Program). The following data will be submitted to this headquarters with the completed program, assembled but not bound, by base in the following order:

a. Seven (7) copies of "Basic Installations Data" prepared in form, type, and size, as shown in Inclosure 4 to Inclosure #1.

b. Four (4) copies of typed "Line Item Listings" as shown in Inclosure 7 to Inclosure #1, with consecutive Air Division priorities shown in pencil on one copy. Command priority column on remaining three copies will be left blank.

c. Seven (7) copies of "Narrative Justifications" prepared per instructions contained in Inclosures 8 and 9 to Inclosure #1. One copy of the justifications reflecting any changes made in this headquarters will be furnished your representative for return to your headquarters.

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d. **Nine (9)** copies of the "Real Estate Development Plan" prepared per instructions contained in Inclosure 10 to Inclosure #1. One copy of the justifications reflecting any changes made in this headquarters will be furnished your representative.

e. **Nine (9)** copies of "Facilities Development Plan" prepared per instructions contained in Inclosure 16 to Inclosure #1. One copy of the plans showing any changes made in this headquarters will be furnished your representative.

f. **Four (4)** copies of "Project Planning Reports" as received from the construction agency.

g. **Three (3)** copies of "Real Estate Planning Reports" will accompany the program.

h. **Four (4)** copies of "Aerial Photos Delineating Land Requirements" prepared per inclosure 10 to Inclosure #1. Photos as submitted to this headquarters will be prepared with soft pencil rather than India ink, to permit changes to be made. Inking of the photos will be accomplished in Hq ADC before they are forwarded to Hq USAF.

i. Attached is a summary of remarks made by the Chief of Staff, Hq ADC, in presenting the FY-1955 Public Works Program to the ADHoc Committee, Hq USAF. Since a similar presentation will be made for the FY-56 Program, it is desired that your headquarters obtain, with your completed program, any photographs which will substantiate and emphasize the remarks contained in this summary. Include any additional photographs which you consider of value in defense of specific items in the FY-56 Program or the Program in general.

17. Requirements for ADC Tenant Units. Line item listings and narrative justifications for ADC items at bases of other commands where ADC units are assigned, or scheduled to be assigned as tenants, will be submitted, in triplicate, with both the "Submittal of New Projects" and the completed FY-1956 Program.

18. Program Reviews. Both the "Submittal of New Projects" and the "FY-56 Public Works Program (Complete Program)" will be reviewed by the review panel of your headquarters in accordance with provisions of ADCR 86-1, 3 February 1953. Your responsibility

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will be identical to that indicated in paragraph 2a of aforementioned regulation. Record of review panel actions will be required only for the completed program; however, your representatives who present the submittal of new projects to this headquarters must be prepared to defend each project and to furnish information on the relative importance of all projects. Program reviews will include ADC items for tenant bases.

19. Program Submittal Schedule: The FY-1956 Public Works Program Estimates will be hand-carried to this headquarters by representatives of your headquarters thoroughly familiar with all phases of the program and qualified to defend each item before the EADF AdHoc Committee and the EADF Installations Review Panel. The Program will reach this headquarters in accordance with the following schedule:

a. Submission of new projects:

26th Air Division (Def) 0815 hrs 26 April 1954

32nd Air Division (Def) 0815 hrs 27 April 1954

30th Air Division (Def) 0815 hrs 28 April 1954

b. Final submittal of Complete FY-1956 Public Works Program Estimates, will be on or about 6 August 1954. Information as to exact submittal dates will be furnished later.

20. Summary: Preparation of a sound, realistic accurate program is of the utmost importance to the mission of this command. In order to assure the development of a program which can be successfully defended before reviewing committees in USAF, OSD, BOB, and Congress, all data must be accurate and complete in every detail. The program must be limited to projects essential to scheduled mission, maximum utilization must be made of all available facilities and each requested item must be completely justified. The procedure which has been developed for preparation of the FY-1956 Program is a complex one requiring close coordination between commands, AFIRs, and District Engineers. All necessary actions must be initiated as soon as possible and each phase of the program must be closely monitored to assure completion by required dates. The Air Divisions are responsible for the proper implementation and submittal of this program for all bases and stations

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under their command.

21. It is desired that you and each of your commanders give the closest possible attention to the preparation and review of this program.

22. The contents of this letter are classified secret.

BY ORDER OF THE COMMANDER:

- 16 Incl: s/t/ LEON W. GRAY  
Colonel, USAF  
Deputy for Materiel
1. USAF Instrs FY-56 PWP(conf)
  2. AJOAI ltr 14 Nov 52 (Uncl)
  3. APMFC-PA400, 23 Sep 52 (Uncl)
  4. AFMSS-PC 400.242, 5 Oct 53 (Uncl)
  5. Extract of Sec III, AR 415-107  
24 Sep 53 (Uncl)
  6. Brief Speech by ADC C/S in Def FY-55 PWP (secret)
  7. Sample Format, AF Form 800 (Uncl)
  8. Instl Fac Rqmts for Ethan Allen AFB (Uncl)
  9. Instl Fac Rqmts for Niagara Falls Mun Aprt (Uncl)
  10. Instl Fac Rqmts for Otis AFB (Uncl)
  11. Instl Fac Rqmts for Presque Isle AFB (Uncl)
  12. Instl Fac Rqmts for 2 F/I Ten F-102 (Uncl)
  13. Instl Fac Rqmts for 2 F/I Ten F-86D (Uncl)
  14. Instl Fac Rqmts for 1 F/I Ten F-86D (Uncl)
  15. Rev Personnel Strengths (New Castle, O'Hare, Otis & F-102  
F/I Sqds) (secret)
  16. FY-55 PWP & Carry-over Projs, pgs 3, 4, 7, 8, 13 (dup)  
pgs, 22,23,25,26,30,31,33,34,35,38 (conf)

Info cy to:

- Comdr 4707th Def Wg, w/incls, 1,2,3,4,5,6,8,9,10,13,(dup)  
14 (dup), 15,16 pgs 22 & 23 (dup), pgs 25,26,33(dup),  
34(dup) (conf)
- Comdr 4711th Def Wg w/incls 1,2,3,4,5,6,7,8,11,12(dup),  
15(F-102 FIS), 16 pgs 3(dup)4(dup), 7,8,30,31,35  
(dup), 38(dup)

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DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON 25, D. C.

MAR 3 1954

INSTRUCTIONS FOR  
PREPARATION OF FY-1956 PUBLIC WORKS  
PROGRAM ESTIMATES

1. References:

- a. AFR 86-7, 12 December 1952.
- b. Department of Air Force letter, Office, Chief of Staff, subject, "Revised Policy for Programming of Personnel Facilities," 14 November 1952, signed by General Twining.
- c. Letter, Headquarters USAF, dated 29 May 1953, subject: "(Unclassified) The Air Force Global Communications System", and inclosure thereto, as revised by Change No. 1, dated 31 July 1953, and Change No. 2, dated 16 December 1953.

2. Purpose: The purpose of this letter is:

- a. To establish responsibilities for the development, review, and submittal of FY-1956 budget estimates for Public Works.
- b. To furnish necessary guidelines, assumptions, and instructions for assembly of data and compilation of material making up the Public Works Program for FY-1956.
- c. To establish budgetary ceilings for each major command within which construction requirements may be submitted. The items included in this program by the commands will consist of top priority deficiencies not now scheduled for construction, without regard to whether or not the item has been previously authorized. (For scheduled construction, see paragraph 4 l below.)
- d. To provide a schedule for submittal of the FY 1956 Public Works Program to Headquarters, USAF.

3. Responsibilities:

- a. Attention is directed to reference 1a above which establishes responsibilities and review procedures for public works programs and emphasizes the necessity for personal attention of principal commanders to insure soundness of requirements and accuracy of justification provided for public works budgets submitted to the Congress.

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FY-1956 Public Works Program (Call for Estimates)

b. Commanders of major commands are responsible for

- (1) Dissemination of necessary command criteria and instructions to Installation Commanders for preparation of the FY-1956 public works program.
- (2) Establishment and reporting of accurate installation real property data.
- (3) Verification and approval of installation requirements based upon the end 137 Wing utilization of each installation.
- (4) Review and submission of the FY-1956 program to this headquarters in accordance with procedures and schedules hereinafter prescribed.

c. Installation Commanders are responsible for:

- (1) Development of facility requirements to accommodate the 137 Wing mission assigned to their bases.
- (2) Making the most economical and efficient utilization of all facilities existing or scheduled for construction on their bases.
- (3) Accurate reporting of inventory and scheduled construction data to include every facility on the base regardless of whether or not the facility is planned for use against one of the standard criteria requirements.
- (4) Provision of facilities or space required by tenant missions from existing facility assets and inclusion in public works budget estimates those tenant activity requirements which cannot be provided by existing facilities.
- (5) Development, justification and submission of FY-1956 public works estimates for requirements deficiencies within budgetary ceilings established.

d. Commanders of tenant activities are responsible for:

- (1) Determination of facility requirements needed to support their assigned mission.
- (2) Furnishing a complete listing and justification of their requirements to the commander of the installation on which the tenant activity is located or to be located.

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FY-56 Public Works Program (Call for Estimates)

- (3) Providing assistance to the parent installation commander in development of the public works estimates for the tenant activities including the furnishing of any data necessary to fully substantiate the requirement to higher review authorities.

e. Air Force Installations Representatives are responsible, as pertains to each installation in their area of jurisdiction, for:

- (1) Furnishing data on all projects constructed or scheduled for construction from public works appropriations to the Installation Commander.
- (2) Coordination with installation commanders and District Engineers to insure that required data pertaining to projects included in the FY-1956 Public Works program is provided DE's as needed for expeditious and effective advance planning of the projects.
- (3) Obtaining from DE's and providing to installation commanders the planning data developed including supporting project requirements and cost estimates, (See paragraph 11 below for detail planning and cost estimation procedures).

4. Air Force Program and Public Works Publications: The basic program guidance provided herein will be used only for the development of the specific public works program prepared in accordance with these instructions. All other budgetary and operating programs will be based upon the guidance provided for those programs. The FY-1956 public works estimates will be computed to provide the minimum requirements for sustained operations of the 137 Wing Air Force and will be based upon data contained in the documents listed below.

a. Program Guidance, IG-55-3, January 1954, as amended by Outline Data to be published in March 1954.

b. Base Utilization and Major Deployment, PD-55-3-I and PD-55-3-II, January 1954. Facility requirements, as revised, except for changes brought about by modernization and introduction of new weapons such as pilotless aircraft, B-52 requirements, etc. An indication of the major changes to be effected to PD-55-3 is being furnished under separate cover. An addendum revision to PD-55-3 as of 1 March 1954 is in the process of preparation and will be distributed in the near future.

c. Organization and Personnel, PT-55-3-I, scheduled for publication on 15 March 1954 and PT-55-3-II, published as of 23 February 1954. Requirements for new projects (Par 5b (4) below) will be based upon population totals shown in these documents as adjusted to changed base utilizations.

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FY-1956 Public Works Program (Call for Estimates)

If the documents are not received by Commands in time to be used for computation of requirements for new projects, base population estimates, based upon scheduled utilizations, will be made by Commands. These population estimates and new project requirements dependent upon base population will be adjusted later to coincide with base population totals shown in PT-55-3 as adjusted. Instructions for making adjustments to base population totals shown in PT-55-3 will be furnished at a later date. The complete FY-1956 program estimates submitted in August will be based upon the population totals of PT-55-3 adjusted in accordance with instructions referenced above.

d. Communications - Electronics PC-55-3-I, PC-55-3-II, and PC-55-3-III, scheduled for publication in the latter part of March 1954. Facility requirements to house and support COM equipment will be based upon the equipment scheduled in these documents. Changes to PC-55-3 necessitated by base utilization adjustments will be furnished as such adjustments are made. GLOBEHOOP system requirements will be programmed in accordance with reference 1c above. Narrative justifications will include as a basis of requirement the facility code number of the communications - electronics facility as listed in PC-55-3 for which public works support is being requested.

e. Civilian Personnel Strengths. The latest available civilian personnel allocation as distributed to each installation will be the strengths used in computation of public works requirements.

f. COL Facilities: Criteria for computation of COL Facility requirements including storage and refueling hydrants will be issued in the near future.

g. Installations Authorized Permanent Construction. A list of installations at which permanent facilities are to be programmed is attached as Inclosure No. 1.

h. USAF Installations Facilities and Structure Catalog. All facilities contained in the FY-1956 Public Works Program will be identified by the item code and nomenclature shown in this catalog.

i. Installation Facilities Program Summary. The requirement for each facility included in the FY-1956 Public Works Program must be substantiated by the data contained in the summary report which is submitted under RCS; AF-218.

j. USAF Installation Facilities Requirements. A revised document indicating normal or standard requirements for repetitive-type real property facilities required to support all major Air Force activities will be distributed approximately 1 July 1954 and will be used as a guide for compilation of scope or quantity requirements of installation facilities. Pending receipt of this document, requirements computations will be based upon data contained

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FY-1956 Public Works Program (Call for Estimates)

in "USAF Installations Facilities Requirements, 3rd Revision, February 1954" as amended, and supplementary letters and decisions previously furnished from this headquarters. Prior to submittal of the complete program, quantities requested will be adjusted to conform to latest criteria.

k. FY-1955 Public Works Program. Copies of the FY-1955 Public Works program which is forwarded to the Congress for consideration will be furnished to major commands as soon as approval by the Secretary of Defense has been received. Subsequent revisions to the FY-1955 Program will be forwarded you as they are made through successive review actions. Under separate cover is being furnished a listing of the projects presently contained in the FY-1955 program which, if not approved in FY-1955, will be deferred for inclusion in the FY-1956 Program.

l. Construction Scheduled from Public Works Appropriations is indicated in "USAF Construction Program, Revised Fiscal Year 1954 and prior, 1 March 1954," which will be distributed to all Commands in the near future.

m. The nature, content and volume of some of the publications listed above preclude their distribution intact below major command or subordinate air command level. It is, therefore, mandatory upon recipients of these documents to extract therefrom, reproduce and distribute specific information pertinent to subordinate activities.

5. FY-1956 Public Works Program Plan:

a. Objectives.

- (1) Inclusion of only those projects most urgently required to the attainment of the 137 Wing Air Force.
- (2) The need for adequate time in which to prepare a public works budget has been recognized; therefore, this call for estimates is being issued at an early date to permit comprehensive and accurate development of facilities requirements and program items and back-up detail.
- (3) To assist in the specific determination of what is required, size and/or amount required, and cost of each item, it is planned to accomplish advance planning of public works program (or budget) items. This advance planning will include siting and preparation of preliminary plans and refined cost estimates of the projects contained in the estimates or requirements rather than awaiting final congressional approval before initiation of design and expenditure of planning funds. Advance planning funds (\$310) are being allocated for this purpose. This advance planning will materially expedite completion of approved

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construction projects as estimates will be more accurate and, on most projects, planning will be advanced to the point where advertising for bids can be accomplished immediately upon receipt of congressional approval.

- (4) Standardization and simplification of program documents are deemed necessary for consistency in statements of requirements and to allow the major emphasis by commands and other programming agencies to be placed upon accuracy of requirements. This headquarters is in the process of developing, for most repetitive-type real-property facilities required by the Air Force, standard requirements which will be adequate for the defense of such an item when the Installations Facilities Program Summary indicates a deficiency. Copies of these requirements will be distributed in the near future. This will eliminate the necessity for each installation to prepare separate narrative justification data except for items which exceed the normal requirement or for which there is no standard or guide. Specific instructions regarding justification data required as back-up to the FY-1956 Public Works program is contained in paragraph 14 below.
- (5) To preclude excessive expenditure of time, effort, and planning funds on projects which will not be accepted, prior approval will be obtained from this headquarters for inclusion of a project in the FY-1956 Public Works Program before the program is assembled in final form and submitted to this headquarters.

b. Phased Development of the FY-1956 Public Works Program.

Preparation and review of the FY-1956 Public Works Program will be phased in accordance with the schedule attached as Inclosure No. 2, the major elements of which are as follows:

- (1) Issuance of List of FY-1955 Carry-Over Projects. The FY-1955 Carry-Over projects are those which have already received Air Staff approval during the review of the FY-1955 Public Works Program but which are not included in the FY-1955 program due to budgetary limitations or temporary deferral as a matter of policy. An initial list of the projects which have been carried over is being furnished under separate cover. Lists of additional projects deferred from the FY-1955 Public Works Program due to budgetary limitations and which have received Air Staff approval for inclusion in the FY-1956 Public Works Program will be furnished when such deferrals are effected. Any

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FY-1956 Public Works Program (Call for Estimates)

or all of these items which are determined by major commands to be continued valid requirements to support the 137-Wing Force may be included in Command program estimates for FY-1956.

- (2) Command Review of FY-1955 Carry-Over Projects. The Carry-Over Projects will be reviewed immediately by commands to insure that each project is still a firm requirement in accordance with programmed missions and guidance contained herein. This headquarters (Attention: AFOAI-1) and AFIP's will be notified immediately of any of the projects which are no longer firm requirements so that planning of the items may be suspended.
- (3) Advance Planning of FY-1955 Carry-Over Projects. By separate action, advance planning funds are being issued to construction agencies for project planning of all projects in the FY-1956 program. This advance planning will be initiated immediately toward the end of refining quantity estimates, identifying all project elements required to support each major requirement item, and developing complete and accurate estimates of cost. Detailed procedures for accomplishment of this advance planning are provided in paragraph 11 below.
- (4) Development of New Projects. After reviewing the projects carried over from FY-1955 and reanalyzing facility requirements, each command will develop, within its budgetary ceiling and relative project priorities, a list of those requirements not previously provided nor carried over from FY-1955 which must be funded in FY-1956 to provide minimum requirements for sustained operations of the 137-Wing Air Force. This list and necessary back-up data will be prepared in abbreviated format in accordance with instructions contained in paragraph 14 below. New projects submitted for approval for inclusion in the FY-1956 Public Works Program will include only major requirement items. Utility extensions required to support or provide a complete usable increment of a major requirement item will not be listed by detail but will be consolidated into a single lump sum estimate. Specific program requirements for utilities extension items will be determined after approval of the major projects has been granted and will be computed as part of the advance planning of the major projects which they support. The supporting detailed utilities items will, however, be included in the final submittal of the complete

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FY-1956 Public Works Program. Costing of the New Projects will be accomplished by Major Commands based upon best estimates possible within the time available. These costs will be refined and adjusted prior to submittal of the complete FY-1956 Program by means of the advance planning accomplished after Air Staff approval of the projects has been received.

- (5) Approval of New Projects for Inclusion in FY-1956 Public Works Program. The list of New Projects, together with supporting data, will be hand-carried to this headquarters in accordance with the schedule set out in paragraph 16a below. These projects will be reviewed by the Air Staff and a list of the projects approved for inclusion in the FY-1956 Program will be furnished command representatives prior to their departure from this headquarters.
- (6) Advance Planning of Approved New Projects. Approval has been granted for the New Projects, advance planning of the New Projects will be accomplished in the same manner as for the Carry-Over projects.
- (7) Submittal of the FY-1956 Public Works Program. The complete FY-1956 Public Works Program, consisting of the Carry-Over Projects, approved New Projects, and supporting utilities extensions required as a result of design computations and site adaptation, together with necessary back-up data, will be prepared in the format and in accordance with the instructions contained in paragraph 14b below. The complete FY-1956 Program will be hand-carried to this headquarters in accordance with the schedule set out in paragraph 16b below.
- (8) Final Review of the FY-1956 Program will be conducted by the Air Staff immediately following the receipt of each command program. Command representatives will present and justify the command requirements to the various Air Staff review agencies.

6. Public Works Budgetary Ceilings. A monetary ceiling has been placed upon the total Air Force Budget for FY-1956. Requirements which cannot be satisfied within the FY-1956 budgetary ceilings must be deferred for submittal in FY-1957. Command programs submitted for FY-1956 will be limited to: (a) All valid projects carried over from FY-1955 (reference paragraph 5b(1) above) and (b) New Projects (reference paragraph 5b(5) above) within a monetary ceiling. The dollar amounts listed below represent the maximum total value of the New Projects which may be submitted by each Major Command. Requirements of tenant commands will be provided within these ceilings by the

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commands having programming responsibilities in the same relative priority as the programming command requirements. Sub-allocation of budgetary ceilings to installation and/or other activities may be made by Major Commanders as desired. Such sub-allocations will be based upon a consideration of the unobligated public works funds balance at each installation and capability of the construction agency to obligate the total amount proposed in FY-1956. New projects in excess of those which can be included within the monetary ceiling established herein may be submitted by deleting or deferring projects in a like value from the lists of FY-1955 Carry-Over items furnished by this headquarters.

Command Budgetary Ceilings for New Projects in FY-1956 (Ceiling is not applicable to FY-1955 Carry-Over items) are as follows:

Continental United States

ATC	5,000,000
MATS (Z/I)	3,000,000
COMAC (Regular)	5,000,000
COMAC (Reserve)	5,000,000
ARDC	10,000,000
AFG	3,000,000
AU	30,000,000
Hq CMD	0
SAC (Z/I)	78,000,000
ADC (Incl AC&F)	65,000,000
TAC	18,000,000
ANC	<u>13,000,000</u>

Sub-Total - Z/I 235,000,000

Overseas

CAIAC	0
SAC	10,000,000
MEMC	3,000,000
PEAF	3,000,000
USAFB (Including O/S)	60,000,000
M-TS (O/S)	2,000,000
SAC (O/S - Ramey)	<u>0</u>

Sub - Total O/S 78,000,000

Total New Projects 313,000,000

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FY-1956 Public Works Program (Call for Estimates)

7. General Guidelines:

a. The FY-1956 Public Works Program will provide, to the extent possible within budgetary limitations, the minimum requirements for sustained operations of the 157-Wing Air Force. A project will be neither requested nor approved unless it is actually required for and can be justified by the end position mission.

b. Maximum possible utilization will be made of existing facilities including those of a temporary construction other than permanent. On permanent installations, additions to existing T/O or mobilization type structures will not be constructed. When additional space is required for an activity presently housed in T/O or mobilization-type structures, a separate structure of permanent construction will be requested to provide the additional space. Such new permanent structures should be of modular design to permit expansion at the time it becomes necessary to replace the existing temporary facility.

c. Requirements for permanent construction must be on permanent installations and calculated against peace-time strengths.

d. Non-permanent type construction will be limited to non-permanent installations and at permanent installations to activities which are of a temporary nature.

e. Replacement of theater of operations or mobilization-type construction at permanent installations will be considered for inclusion in this estimate where further retention would result in hazard to health or life, and in those instances where annual maintenance would exceed one-fifth (1/5) of the new construction replacement cost of the item.

f. Replacement of existing facilities not in critically unsatisfactory condition nor grossly inadequate for end position mission requirements must be conclusively justified on both an engineering and economic basis. Requests for replacement of unusable facilities must be fully supported by data showing why the facility is unusable for its primary purpose and also why it cannot be used for any other authorized purpose. Where a new facility is requested for a presently housed activity, the narrative justification must clearly justify the future utilization of the existing facility. This will include justification of the additional space requirement for the activity which will occupy the existing facility.

g. New facilities to house or consolidate existing and presently housed activities solely for the purpose of convenience or increasing efficiency will not be included. Wherever new facilities are requested for presently housed activities, justifications must specifically state intended use of vacated facility which use must in turn be completely justified in the same manner as for a new facility.

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h. Fire protection projects for installation of fire protection systems in existing facilities may be included where such installation is considered essential to afford the degree of protection required for safeguarding life and property.

i. Utility connection charges will be included in the FY-1956 Public Works Program only when the connection is to be made at the time of construction and the connection is incident to the construction, and in accordance with letter, this Headquarters, dated 22 July 1954, subject "Utility Contracts Involving Connection Charges for Air Force Bases."

j. Family housing may be requested to provide total housing not in excess of the following criteria:

- (1) Area of the Interior: At AC&I stations, 9 units for key personnel may be provided. At extremely isolated AC&I stations, total requirements based upon 85% of officer personnel and 20% of airmen personnel may be provided. At Air Defense Fighter-Interceptor installations, the number of units required for on-base ready crew housing may be provided. At each other installation, not in excess of 5 units may be provided.
- (2) Overseas: No appropriated funds family housing will be provided in UK, Spain, Nato bases, France (other than Nato), North Africa, and Germany. In other overseas areas, family housing will be provided up to 85% of permanent part officer strength and 20% of permanent party airmen strength but not to exceed actual requirements based upon experience factor for each area.
- (3) In computing family housing requirements, full consideration will be given to all housing available in the locality on either a private or government contractual rental or purchase basis.

k. In UK, Spain, Nato bases, France (other than Nato), North Africa, and Germany, dormitories and BOs will be provided as necessary to satisfy total housing requirements less the family housing units available on and/or off base. In other overseas areas, dormitories and BOs will be provided for 15% of permanent part officer strength, 100% of rotational officer strength, 80% of permanent party airmen strength, and 100% of rotational airmen strength.

l. In overseas areas, exclusive of U. S. Territories and possessions, dependent schools will be provided on the basis of family housing available and programmed, including off-base private family housing occupied by Air Force personnel. In Continental U. S., schools are provided by the

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Commissioner of Education, Department of Health and Welfare. (Applications for schools will be submitted by the Base Commander through State Education Office to Commissioner of Education - copy of application to Headquarters United States Air Force).

m. Commercial and industrial type facilities may be requested only when the items meet the criteria established by DOD Directives 1000.8 and 1145.3 distributed with Headquarters USAF letter, file AFM C-7a 40, 23 September 1953, subject, "Military Supply System Requirements" and file AFM C-7c 400.242, 5 October 1953, subject, "Storage and Warehousing Requirements." In addition, the narrative justifications will contain a certification that these criteria have been met with respect to the construction items in the program just are covered by the directives.

n. Within Continental United States, commissary stores will be provided only when it can be shown that items normally procured from commissary stores are not otherwise available at a reasonable distance and a reasonable price in satisfactory quality and quantity to the military and civilian employees of the Department of Defense, and upon specific approval of the Secretary of Defense in accordance with criteria prescribed by this office. A report, "Basis for Establishment, Continuance, or Disestablishment of Commissaries and Commissary Stores," will be prepared in accordance with AFR 145-5 and will be submitted in justification of each commissary store construction project. Completed reports will be submitted as part of the justification back-up both for the FY-1955 Carry-Over Projects and the New Projects.

o. Requests for construction of clothing sales store facilities will include the following data in the narrative justifications:

- (1) Proximity of nearest clothing sales store including availability of transportation.
- (2) Number of military personnel which the base supports.
- (3) Class of store required (See Vol X, AFM 60-1).
- (4) Statement as to whether or not the clothing sales store is presently utilizing an existing facility.
- (5) If answer to "(4)" is affirmative, reason for inadequacy of facility or necessity of moving clothing sales store from the existing facility.

p. Paragraph 2a, AFR 148-1 contains the basis for justifying the establishment of laundries and dry cleaning plants. Paragraph 2b(5), AFR 148-1 states that surveys to determine the necessity for the establishment of such facilities will be conducted by Headquarters, Air Materiel Command. In support of a budget estimate for the construction of a laundry or dry cleaning a reference to the original request to Air Materiel Command to conduct a field survey will be included in the justification.

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q. Projects for construction of bread bakeries, whether FY-1955 Carry-Over projects or New Projects must be fully substantiated and include the following specific data for each such project in the narrative justification:

- (1) Daily bread requirements in pounds for troop consumption.
- (2) Estimated daily bread requirements, in pounds, for sale to authorized patrons and organizations.
- (3) Prevailing local wholesale delivered price of bread per pound for:
  - (a) White bread
  - (b) Whole wheat bread
  - (c) Raisin bread
  - (d) Rye bread
- (4) Capability of local commercial facilities to furnish bread requirements for issue and resale.
- (5) Distance, in miles, to the nearest Army, Navy, or Air Force installation operating a Bread Bakery and;
  - (a) Maximum daily production of the bakery in pounds.
  - (b) Number of pounds of bread presently provided daily.

r. Public Works facilities which house long lead time items of equipment will be included in the FY-1956 Public Works program where required to insure that facilities will be in place when equipment becomes available from production. For example, flight simulators may require construction of new facilities; government owned machine tools being temporarily retired because of industrial cut-back may require new storage space; or maintenance of new weapons may require facilities peculiar to the weapons.

s. Reserve Component Facilities.

- (1) Major Commands, other than CONAC-Reserve, will include facilities for Reserve components of the Armed Forces in the program only at those bases on which the Air Force is required to provide a suitable replacement for a Reserve Component facility being retained for use by the Regular Air Force.
- (2) CONAC will submit a separate program for all other requirements of the Air Reserve Forces in the same format as other Command programs and in accordance with general instructions contained herein.

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t. Non-recurring M&O type work which will be included in the FY-1956 Public Works Program are:

- (1) Rehabilitation of inactive installations, but not to include rehabilitation of inactive facilities at active installations.
- (2) All minor construction estimated to cost in excess of \$50,000, as well as such items costing less than \$50,000, when they are related to, associated with, or are part of a "package of other items being included in the Public Works estimates. All construction of family quarters, regardless of cost, will be included in Public Works estimates. When the use of prefabricated buildings is contemplated, the estimated cost will include the cost of the prefabricated building, unless the buildings are on hand or available from surplus, and need not be replaced in stock. (Other individual minor construction projects may be budgeted for under M&O provided the total cost of a complete, usable facility does not exceed \$50,000. For example, a usable facility may consist of a building, supporting utilities, access roads, and a parking area.)
- (3) Replacement of facilities completely destroyed by fire, storm and other acts of God, when replacement of the facility was deferred for inclusion in Public Works Authorizations and Appropriations.
- (4) Foreseeable conversion, alteration, or improvement projects, when such projects exceed the estimated cost of \$50,000, will, as a general rule, be included in the Public Works estimates. However, in those instances where the proposed work does not increase the floor area or capacity, or involve an extension of a facility, such projects may be included in either the Public Works (amount unlimited) or M&O estimates up to a cost of \$200,000. Conversion of existing facilities to family quarters, when the total cost of such work will exceed \$50,000 at any one installation in a given fiscal year, will be included in the Public Works estimates. Conversion alteration and improvement projects costing less than \$50,000 may be included in the Public Works estimates when related to other Public Works items.

u. Costs for hangars, nose/wing, requested in the FY-1956 Public Works Program will include procurement cost of the hangar, erection costs, foundations, and connecting utilities.

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v. Hospitals.

- (1) A ratio of two bed spaces per each 100 military population served will be used to determine the size of the new hospital to be included in the estimates. Any adjustments required by revisions in troop strengths, specialized treatment centers and area hospitalization factors will be made in this Headquarters by Surgeon General personnel. In accordance with the Bureau of the Budget policy on uniform basic plans for permanent hospitals, estimates will provide for 100% future expansion. The following size units will be used wherever possible to permit standardization of design:

<u>Initial Unit</u>	<u>Clinic &amp; Other Facilities</u>		<u>Sq. Ft.</u>
	<u>Designed to</u>	<u>Permit Expansion to:</u>	
50 beds	100 beds		47,145
75 beds	150 beds		65,363
100 beds	200 beds		92,100
150 beds	300 beds		128,000
250 beds	500 beds		194,600
500 beds	1000 beds		322,650

- (2) Existing medical treatment facilities of theater of operations or mobilization types of construction at permanent stations are considered unusable for permanent retention as hospitals because they represent serious fire risks to the protection of the sick and helpless, have outlived their intended usefulness, have become obsolete in design and functional arrangement and are grossly inadequate to meet the medical mission. The Air Force will replace all temporary hospitals on permanent bases as rapidly as possible. The following is a list of those hospitals eligible for inclusion as replacements in the FY-1956 Public Works program:

Bergstrom	Hill	Reese
Brookley	Holloman	Robins
Castle	Hunter	Sampson
Conally	Larson	Selfridge
Davis-Monahan	Lockbourne	Sewart
Donaldson	Luke	Shaw
Edlin	Mather	Sheppard
Ellington	Mt. Home	Snook Hill
Forbes	Pellis	Tinker
George	Otis	Turner
Goodfellow	Patrick	Vance
Griffiss	Terrin	Walker

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In all cases where permanent hospitals are scheduled for construction as replacement items, consideration will be given to scheduling construction of a new dental clinic as a separate item.

2. Dental Treatment Facilities.

- (1) A ratio of three dental operating rooms per each 1,000 military population served, will be used to determine the size of the new dental facility to be included in the estimates. Any adjustments required by revisions in troop strengths or to meet particular requirements will be made in this Headquarters by Surgeon General personnel.
- (2) Existing dental treatment facilities of theater of operations or mobilization types of construction at permanent stations are considered unusable for permanent retention as dental clinics. They have outlived their intended usefulness, have become obsolete in design and functional arrangement, provide for less than minimum accepted space requirements, and are grossly inadequate for the economical and effective utilization of dental personnel in meeting the dental mission. The Air Force will replace all temporary dental facilities on permanent bases as rapidly as possible.
- (3) The following is a list of those dental facilities eligible for consideration for inclusion as replacements in the FY-1956 Public Works Program:

	<u>2/1</u>		
Andrews	F. E. Warren	Lowry	Robins
Bergstrom	Forbes	Luke	Sampson
Biggs	George	Mather	Sheppard
Brookley	Griffiss	Maxwell	Smoky Hill
Carswell	Gunter	McClellan	Stewart
Castle	Hamilton	McChord	Tinker
Connally	Holloman	St. Home	Turner
Craig	Homestead	Hellis	Tyndall
Davis-Monahan	Langley	Otis	Vance
Donaldson	Larson	Ferrin	Walker
Eglin	Lawson	Reese	Wright-Ratterson
Ellington	Lockbourne		

OVERSEAS

Bielson	Ernest Harmon
Blumendorf	Ramey

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x. Wherever possible and practical, small individual facility requirements should be combined and a larger single structure requested to house the several activities under a single roof. Modular design and construction will be utilized where possible.

y. In arriving at a requirement for a particular item or group of items, the following general criteria must be met in all cases:

- (1) The project must be funded in FY-1956 to provide minimum requirements for sustained operations of the 137-Wing Air Force.
- (2) Requirement, qualitatively and quantitatively, reflects maximum economy and no facility exists which could be used to satisfy that requirement.

8. Special Mission, Units, and Facilities:

a. War Bases.

- (1) Operating Bases (War only). The only facilities to be provided at a base whose sole mission is operation of an Air Force unit in time of war are: necessary runways, sufficient apron or hardstands to park and maintain the aircraft of the unit; warm-up-holding pads when required; connection taxiways for all pavements; taxiways and approach lighting; bulk fuel storage facilities and hydrant refueling facilities with necessary pipelines computed in accordance with paragraph 4f above; facilities to house communications equipment scheduled in accordance with paragraph 4d above; nose-wing multi-purpose hangar or portable maintenance dock depending on climate in amount of 10% of war mission aircraft;

minimum amount of aircraft maintenance shops and warehousing facilities for war mission; bomb storage and igloo storage in sufficient quantities to accommodate war mission; housing, administrative and community, medical, storage, shops, and personnel facilities, for holding party personnel only when such personnel are authorized, on same basis as for personnel on a peacetime operating base; and utilities for support of holding party personnel, when authorized, plus connection to structures provided for war mission and a water source capable of supporting the war mission

- (2) Peacetime mission plus operating war mission. At bases having a war mission in addition to a peacetime mission

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utilization, facilities will be provided for the war mission on the same basis as in paragraph 2a(1) above; or, as required for the peacetime utilization, whichever is the greater requirement.

- (3) Pre-strike, Post-strike Basis (War only). At bases whose sole mission is pre-strike or post-strike staging, facilities will be provided as follows: necessary runway; sufficient apron or hardstands to park the maximum number of aircraft scheduled to stage through the base at any one time; warm-up-holding pads when required; connecting taxiways for the runway and parking areas; bulk fuel

storage facilities and hydrant refueling facilities with necessary pipelines computed in accordance with paragraph 4f above;

and other facilities, for holding part personnel only, when authorized, on the same basis as for personnel on a peacetime operating base.

- (4) Logistic Support Bases for War Mission. At bases having a mission to provide logistic support of operations in war time, no additional facilities will be provided solely for the support of such operations except those facilities required for strategic storage of material in accordance with approved strategic storage directives.

b. Rotational Units: At installations having mission of supporting a rotational unit facilities will be provided for the rotational unit on the same basis as for permanent party units with the exception of housing facilities. No family housing will be provided for rotational units at the installation to which they rotate. Airmen dormitory and EOQ spaces will be provided for 100% of the rotational personnel. Mess facilities and personnel facilities will be provided for 100% of rotational personnel on the same basis as for permanent party units.

c. Maneuver Units. No facilities will be constructed on installations at which units conduct maneuvers solely to meet the requirements of the maneuvering unit.

d. Miscellaneous & Tenant Activities. (Special weapons units, FCS units, Globecom stations, Communications sites, A-CAT, Tenant Commands, etc.)

- (1) Separate Installations. Where a separate installation is being developed for a miscellaneous activity in the Zone of Interior, required facilities will be programmed by the Major Command having operational jurisdiction of the activity. When a separate installation is being developed in

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an overseas area, required facilities for the activity will be programmed by the Major Overseas Command having jurisdiction of the area.

- (2) Tenant on a Major Installation: If the miscellaneous activity is located on or near a major installation, facilities for the activity will be programmed by the major installation as part of that installation's program. Maximum use will be made of existing facilities. Separate common-use facilities will not be provided for the miscellaneous activity. Housing and support facilities will be located on the major installation and personnel strength of the miscellaneous activity will be included in base strength total when the overall installation requirement for such facilities are computed. Operational facilities for the miscellaneous activity will be programmed by the parent installation at on-base or off-base location as required. In all cases where special mission or unit requirements of one command are to be included in the program of an installation under jurisdiction of another Command, such Tenant Command requirements must be furnished by the Tenant Commander to the Commander of the installation concerned.

e. Communications-Electronic Facilities: Major Commands will include construction requirements for such projects as Globecom, Navids, AC&N, etc., in the program of the installation at which the facilities are to be located. Construction requirements for communications-electronics facilities will be submitted only for those facilities approved and authorized in accordance with paragraph 4d above. Commands will also submit construction requirements for supporting structures for antenna systems, hardstands, etc. For wire facilities which are an integral part of the base wire and telephone system, commands will include only the construction requirements relating to supporting structures such as poles, anchors, guys, reinforcing stubs and arms, underground ducts, manholes, and conduit. Command submissions will not include items pertaining to central office equipment, wire, cable, terminal strips, instruments, and ancillary items which in accordance with AFR 23-2A and AFR 100-46 will be included in other budget programs. Items programmed for above-ground telephone lines will show the estimated cost of poles, anchors, guys, reinforcing stubs and arms, etc., based on the length of wire systems to be installed above-ground. Items programmed for underground telephone lines will show the estimated cost of underground ducts, manholes, conduits, etc., based on total length of wire systems to be installed below the ground surface.

f. Globecom Facilities:

- (1) Each individual installation will dictate the requirement for providing quarters in the receiver and transmitter

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buildings. During site surveys installation commanders should indicate availability of on-base quarters consistent with transportation and accessibility of the receiver and transmitter site to the base.

- (2) Past experience has shown that security fences around GLOBECON installations cost as much as \$25,000. In some cases this fence serves no other purpose than to keep out game animals. On-base installations should require no fence. Requirements for security fence and types, should be determined by local security forces during site surveys. A realistic view as to the usefulness of the security fence could possibly mean a savings in GLOBECON construction funds.
- (3) The requirement for circular roads and parking lots at receiver, transmitter, and relay centers should be reduced to absolute minimum. Graded gravel roads and parking lots should be adequate at all locations. If dust is a problem the gravel roads should be treated to stabilize the surface.
- (4) Power Buildings used for GLOBECON installations should be combined with the equipment of operating buildings when power units of 100KW or less are used. Units larger than 100KW should be in separate buildings and located no more than fifty feet from the equipment buildings. When power units are housed in the same buildings as the operating equipment adequate isolation should be engineered to reduce vibration and noise to a minimum.
- (5) At military installations where temporary base construction is planned, prefabricated or semi-permanent type buildings will be acceptable for GLOBECON facilities. However, where permanent type buildings can be constructed for the same cost or a fraction more than prefabricated or semi-permanent, permanent types should be planned. Prefabricated buildings should be used only where a substantial saving can be realized. At permanent military installations permanent building should be planned for GLOBECON facilities unless otherwise directed.

g. Research and Development Facilities: A sample justification of Research and Development item is attached as Inclosure No. 15. Justification for all Research and Development items will be prepared in the identical form of this sample.

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h. Construction Camps: At an installation on which it is planned to construct facilities with Aviation Engineer units not regularly assigned at that installation, the program for the installation will include, in addition to the materials required for the construction, those minimum facilities required to house and support the Aviation Engineer units during the construction period. The type of construction used for such camps must be consistent with the time the camps will be occupied, and will consist of pre-fab or equal structures and minimum utilities consistent with health and job requirements. Projects required for the camps will be listed separately in the program and submitted in the same manner as other items required for the installation mission.

9. Determination of Facility Requirements. Quantity requirements for each common-use facility will be determined for each installation by application of the facility requirements in the USAF Installations Facilities Requirements Book based upon the installation utilization, troop strengths, and civilian strengths computed in accordance with paragraph 4 above. It is emphasized that the USAF Installations Facilities Requirements Book is to be used as a guide only in determination of the requirements for a particular installation. Only those additional facilities actually required for accomplishment of the installation mission will be included in the FY-1956 Public Works Program. A small addition to an existing facility will not be requested solely because the Requirements Book indicates the requirement to be greater than the quantity existing when, in fact, the existing facility is adequate for the function at that particular installation. Likewise, due to local physical or climatic conditions or operating procedures, a complete facility authorized by the Requirement Book may not be an actual requirement at a particular installation. An analysis of actual requirements for each facility should be made prior to its inclusion in the program. For example: An installation in an area of abundant rainfall with limited paved streets or roads will require paved surfaces for parking vehicles while in an area with relatively light rainfall and stable ground surfaces paved parking areas are not a minimum essential requirement. Also, at certain overseas installations where an undependable commercial source is used for primary electric power, an emergency or back-up plant of relatively large capacity is required while at a normal Z/I installation the only emergency power required is that necessary for the operation of airfield lighting, communications room of operations building, control tower, medical facilities, and communications systems. An isolated installation will require the maximum allowance for personnel facilities while an installation in a warm climate immediately adjacent to a large metropolitan area requires something less than the maximum allowance of personnel facilities on-base. A base in an area with high precipitation will require more covered storage facilities than a base in a dry climate.

Conversely, due to climatic conditions, physical characteristics or topography of a base, or other circumstances, an installation may actually require a greater facility quantity than the standard requirement established

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by the Facilities Requirements Book. In such cases, the quantity actually required should be requested and the justification should state the reasons for the actual requirement being greater than standard criteria.

Requirements for facilities which are not common-use or are non-standard and not listed in the Facilities Requirements Book will be determined by the using activity. The narrative justifications for these facilities must provide a detailed description of the proposed facility and its functions including, but not limited to, physical characteristics of the facility to be constructed, type of activity to be performed in or by the facility, number of personnel to use or work in the facility, and types of equipment to be installed in or used in conjunction with the facility.

It is pointed out that a definitive structure listed as a requirement in the Facilities Requirements Book is the structure which should be constructed only when there is no existing space available for the function. Where a portion of the requirement exists, a structure, or an addition to the present structure, whose size more nearly equals the actual space deficiency will be requested in lieu of the standard listed.

10. Use of Definitive Designs. The USF Installations Facilities and Structures Catalog includes for each Air Force function, a listing of standard Air Force definitives which can be used for construction of a facility to satisfy the space deficiency of a single function or of several functions. Whenever standard definitives are available, the item included in the FY-1956 program to meet a requirement deficiency will be the standard definitive facility whose area or capacity most nearly equals the space deficiency. An exception to this is in overseas areas where commands may use either standard drawings or, using standard drawings as a guide, design their own facilities to utilize local materials and methods of construction.

11. Advance Planning & Cost Estimation Procedure: Arrangements have been made with OCE and BUJocks for field pricing the projects in the FY-1956 Public Works Program based upon site adaptation of definitive drawings and study of on-site conditions. The procedure established provides for the development of a "Project Planning Report" which will summarize results of the planning studies and engineering analysis and provide cost estimates for all projects in the program. Advance planning funds are being furnished in bulk to construction agencies to provide for costs of this project planning. Procedures for accomplishment of this advance planning and development of cost estimates are as follows:

a. This headquarters will distribute copies of the Air Staff approved projects to (1) Major Commands, (2) AFIR's, and (3) Construction Agencies (OCE, BUJOCKS, and JCA). For those approved projects, major commands will immediately furnish the following information to the appropriate AFIR Offices:

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- (1) A site plan upon which will be shown the desired location of the proposed facilities and extent of existing utilities.
- (2) Recommended Air Force definitive drawings where applicable. Where definitive drawings are not available, commands will furnish a comprehensive description (including sketches, etc.) of the facility proposed.
- (3) A statement of land requirement where applicable.
- (4) Any sketches, studies or other supporting data which would aid the construction agency to provide the required planning data.

b. AFIR's will promptly review the Material submitted by the Commands and forward it, together with pertinent engineering instructions, to the construction agency at District level with the request for preparation of a "Project Planning Report." AFIR's will arrange for siting conferences and the submittal of additional information required during the development of the Report.

c. The Construction agency will prepare a "Project Planning Report" for each major requirement item in the program which will consist of the following minimum elements:

- (1) Single line drawings showing use and square foot areas of rooms, controlling dimension of buildings, and gross square foot areas.
- (2) Outline statements of scope and standards of construction.
- (3) Finite real estate requirements, including preparation of Real Estate Planning Reports.
- (4) Support utility requirements and other support facility items needed to make complete usable increments.
- (5) Site adaptation of each project.
- (6) Cost estimates for each project based upon engineering analysis above. Estimates will include design, government costs and contingencies.

d. Construction agency will furnish copies of each completed "Project Planning Report" as follows:

- (1) 5 copies to AFIR who will retain 1 copy for his file and send 4 copies to Installation concerned.
- (2) 1 copy to OCE or FuDocks as applicable for validation of cost estimates.

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e. Installation Commanders will retain 1 copy of each "Project Planning Report" for their file and transmit 3 copies forward as part of justification back-up for the FY-1956 Public Works Estimates.

f. Major Commands will retain 1 copy of the report for file and forward 2 copies to this Headquarters with the FY-1956 Program.

g. Costs will be based on actual on-site engineering estimates except for the following projects in Continent 1 United States where maximum allowable costs are as indicated. Estimates above these amounts must be substantiated by a report of special circumstances.

- (1) \$20.00 per square foot for cold storage warehousing. This price excludes railroad sidings, roads and outside utilities.
- (2) \$6.00 per square foot for regular warehousing. This price excludes railroad sidings, roads and outside utilities.
- (3) \$1700000 per man for permanent dormitories with mess.
- (4) \$1400.00 per man for semi-permanent life dormitories with mess.
- (5) \$5000.00 per man for bachelor officer quarters without mess.

h. Where the Major Command is the designated construction agency, "Project Planning Reports" will be developed by the Major Command in the same manner as outlined above for other construction agencies. In such instances, participation by AFIR's is not required nor will copies of the "Project Planning Reports" be furnished to OCE or BuDocks for validation of cost estimates. Two copies of each "Report" will be forwarded to this Headquarters with the FY-1956 Program.

i. It is emphasized that consideration will not be given by this headquarters to any project which is not supported by a "Project Planning Report." It is, therefore, incumbent upon the Major Commands and AFIR's to furnish all required data to construction agencies as expeditiously as possible. Commands will establish such coordination as is necessary to insure that the Reports are made available when needed for Command finalization of the Program and submittal to the headquarters.

12. Real Estate Acquisition.

a. In order to enable Headquarters United States Air Force to fully justify the Air Force real estate portion of the budget before the Assistant Secretary of Defense for Properties and Installations, Bureau of the Budget, and the Senate and House Armed Services and Appropriations Committees, it is imperative to present an accurate determination of major command requirements and their costs. These reviewing authorities scrutinize very closely each real estate requirement for amounts of real estate and costs therefor.

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b. Real estate requirements will be programmed for base expansion and off-base supporting facilities. In addition, consideration will be given to the following requirements for land:

- (1) Aviation Easements. Easements for runway approaches will be programmed for each new runway or extension of an existing runway. In connection with existing runways, if an analysis of the growth of communities surrounding the base indicates that the approach and lateral clearances of runways are in jeopardy because of possible industrial, commercial, or residential encroachments, aviation easements will be programmed which will include the cost of removal of obstructions such as improvements and natural vegetative growth. A discussion of the potential hazard will be included in the justification. The criteria for this land requirement will be based upon current regulations and guidance issued by Headquarters USAF.
- (2) Replacement of Leased Facilities. The major commands will:
  - (a) Program for items to replace long term leased facilities for which the annual rental is more than \$25,000 per year, when it is determined to be more economical to acquire in fee by one of the following methods: construction of the required facility on Government-owned land; acquisition by purchase of an existing facility and land; or acquisition of land and new construction.
  - (b) Program for items for the purchase of land which has been under lease for a long period of time and for which a continuing requirement exists. This does not apply to bases or portions of bases which are under lease from a State, County, or municipality.
  - (c) Program for items for the purchase of land and improvements under long term lease for which the total annual rental at the end of the term would exceed the purchase price.
  - (d) Program for purchase of all leasehold condemnations regardless of rental if a continuing requirement exists.

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- (3) Access Roads and Road Relocations. An estimate of land and construction costs together with detailed justification will be submitted separately in a letter form for Federal, State, or County roads required as a result of the development of a new base or expansion of an existing installation. Roads required as a result of prior expansion under FY 51, 52, 53, 54 and 55 Public Works programs, which have not been programmed, authorized, or funded, also will be submitted in letter form. This amount will not be included in major command total for the Public Works program. Headquarters USAF will determine at a later date whether these items should be included in the AF Public Works program. These projects will be supported by documents outlined in instructions referred to in paragraph 14b below.

c. It is imperative that real estate requirements be determined and requests submitted to the AFIR for a real estate planning report not later than 15 April 1954. No real property item will be placed in the FY-1956 Public Works program unless accompanied by a real estate planning report prepared by the Chief of Engineers. The Assistant Secretary of Defense for Properties and Installations will not review land items in the FY-1956 Public Works Program unless supported by real estate planning reports.

d. Attached as Inclosure No. 10 are detailed instructions for preparation of justification data for real estate items.

13. Program and Project Priorities.

a. In view of the limitations being imposed upon Public Works programs, it is essential that construction requested be for only those projects which are of the greatest operational urgency.

b. Command priorities will be established to follow the principle of bringing important operating and support bases to minimum sustained operational standards rather than spreading construction thinly among all bases and having few or no bases brought to the required operational standard.

c. To provide a ready means by which command estimates may be adjusted in the event of a further enforced reduction prior to submittal of the program to the Congress, each Major Command will assign a command priority number to each specific project or group of related projects required to provide a single usable facility. A consecutive numbering system will be used with the most needed item or related group of items in the command being assigned priority No. 1. Priority numbers will be placed on the line item listing as shown on Inclosure No. 7. Priorities will be assigned only to the complete FY-1956 Program submitted in August.

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14. FY-1956 Public Works Program Estimate Format: A summary showing form types and sizes, method of assembly and required number of copies for submittal of New Projects for approval for inclusion in the FY-1956 Public Works Program is attached as Inclosure No. 3. A similar summary for final submittal of the complete FY-1956 Public Works Program estimates is attached as Inclosure No. 4.

a. Submittal of New Projects for approval for inclusion in the FY-1956 Public Works program will include the following:

- (1) Basic Installation Data. This completed form provides basic installation data including land status, elevation, temperature, type construction planned, utilization, aircraft and personnel strengths and will be submitted for each installation included in the program estimates. On those installations with war missions, only peacetime utilization (mission) and personnel strengths will be shown. This form will be prepared in the format shown on the sample completed form attached as Inclosure No. 5.
- (2) Line Item Listing. This is a listing, by installation, of new projects requested in the program showing for each project the tenant command for whom the project is required where applicable, number of identical structures or units included in each line item, definitive drawing number, unit of measure, quantity requested, and cost as estimated by the Major Command. This listing will be printed or typed in the format shown on Inclosure No. 6.
- (3) Narrative Justification. Except for the detailed justifications required by paragraphs 7m through 7q above, Justifications for these new projects will include only the information required by command representatives as a reference in their presentation and defense of the projects before Air Staff Review Agencies.
- (4) Development Plan - Facilities. Included in the submittal of new projects will be one (1) copy of the approved master plan which was used to support the FY-1955 program with an indication of each new facility requested. If an approved master plan does not exist, then the latest overall plan of the installation will be used. The requested facilities will be shown in dense color. Color will be orange. Use Dixon Thinex Colored Pencil No. 372.
- (5) Development Plan - Real Estate. Included in the submittal of new land items will be one (1) site plan which was used to support the FY-1955 program with an indication

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of each new parcel of real estate requested. If an approved master plan does not exist, then the latest overall plan of the installation will be used. The requested real estate will be shown in solid dense color. Color will be orange. Use Dixon T inex Colored Pencil No. 372.

- (6) While not required as part of the New Project submittal, it is reiterated that the requirement for all projects requested must be substantiated by the latest AF Form 800 submitted.

b. The FY-1956 Public Works Program (Complete program).

- (1) Basic Installations Data. Same as paragraph 14a(1) above.
- (2) Line Item Listing. This is an integrated listing by installation, of FY-1956 Carry-Over projects and approved New Projects requested in the program showing for each project the tenant command for whom the project is required where applicable, number of identical structures or units included in each line item, definitive drawing number, unit of measure and quantity requested, unit price and total cost of the item, and priority number of the item. The listing will be prepared by Statistical Services on machine listings set up in the format shown on Inclosure No. 7. Technical instructions for machine procedures are being furnished by separate letter.
- (3) Priority Listings.
  - (a) Command Priority Listing. This is a listing of all projects in the command program listed consecutively in order of command priority. This listing will be prepared by Statistical Services. Technical instructions for machine procedures are being furnished by separate letter.
  - (b) Installation Priority Listing. This is a listing by installation, of all projects in the installation program listed consecutively in order of command priority. This listing will be prepared by Statistical Services. Technical instructions for machine procedures are being furnished by separate letter.

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- (4) Category Breakout by Command. This is a listing, by category, of items requested in the program by Major Commands. This listing will be prepared by Statistical Services. Technical instructions for machine procedures are being furnished by separate letter.
- (5) Narrative Justifications. Detailed instructions for preparation of justifications are attached as Inclosures No. 8 and 9. Sample justifications are attached as Inclosures No. 11 through 15.
- (6) Development Plan - Real Estate. Detailed instructions for preparation of this portion of the program are attached as Inclosure No. 10.
- (7) Development Plan - Facilities. Detailed instructions for preparation of this portion of the program are attached as Inclosure No. 16.

15. Program Reviews. Programs submitted will be reviewed by each Major Command Review Panel in accordance with the provisions of paragraph 3, AFR 26-7. The record of the Major Command Review Panel Actions will be attached as an inclosure to the letter of transmittal forwarding the program from the Major Command to this Headquarters.

16. Program Submittal Schedule. The FY-1956 Public Works Program Estimates will be hand-carried to this headquarters by personnel who are authorized to make adjustments (involving all operational, technical, logistical, and engineering aspects) to the Command public works estimates if necessary as a result of Air Force program revisions and/or revised budgetary guidance. Programs will be submitted in accordance with the following schedules:

a. New Projects:

AU	5 April 1954	NMC	20 April 1954
HQ.C.D	5 April 1954	IATS	26 April 1954
COMAC	5 April 1954	AIC	27 April 1954
CALC	5 April 1954	S.C	3 May 1954
ATC	12 April 1954	FEAF	3 May 1954
AAC	13 April 1954	UNLFE	11 May 1954
AFG	19 April 1954	ADC	12 May 1954
AROC	19 April 1954	TAC	24 May 1954

b. Final Submittal of Complete FY-1956 Public Works Programs Estimate.

AU	3 August 1954	COMAC	4 August 1954
HQ.C.D	3 August 1954	ATC	4 August 1954
C.I.C	3 August 1954	AAC	4 August 1954

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FY-1956 Public Works Program (Call for Estimates)

NDAC	5 August 1954	TAC	19 August 1954
AFG	10 August 1954	ADC	24 August 1954
ARDC	11 August 1954	FEAF	25 August 1954
MATS	16 August 1954	SAC	31 August 1954
AAC	17 August 1954	USAFE	31 August 1954

17. Security Classification. Each program document submitted will be assigned the lowest security classification consistent with the type of information contained therein; however, no pertinent information should be left out of the documents solely for the purpose of lowering their security classification.

18. Summary. The objectives and importance of developing sound construction programs cannot be overemphasized. The most critical element in the Air Force today is its base structure. It is essential, therefore, that sufficient priority and planning be given to base structure requirements to insure that our facility requirements can be expeditiously cleared and approved by review agencies and the Congress and that we may initiate construction of our urgent deficiencies at the earliest possible date.

Prior programs developed have, during their implementation, been subjected to numerous modifications, in some cases due to mission changes, but in the great majority of cases, due to a lack of foresight in the preparation of the program, unrealistic changes in command thinking and those generated by the varied opinions of personnel responsible at all echelons of command. The net result of this situation has been to undermine the faith of higher review agencies in the ability of the Air Force to plan and administer a construction program which, in turn, placed a tremendous burden on the limited personnel available, delayed the provision of urgently required facilities and jeopardized the approval of succeeding programs submitted. All aspects of the Air Force construction program must be sufficiently stabilized to plan and implement construction without change, except as dictated by actual change in basic concepts. For this reason, the FY-1956 program will be prepared on the premise that once approved, no changes will be permitted other than those demonstrated as required by change in mission, personnel strengths or type of weapon employed.

Inlosures:

No. 1 thru 16 as listed on next sheet

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## NEW PROJECT FORMAT

INCREMENT	FORM TYPE & SIZE	METHOD OF ASSEMBLY	NO. OF COPIES
Basic Installation Data	Printed or Typed 8" x 13"	A bound volume composed of one copy of data sheet for each installation, assembled alphabetically by installation.	2 Volumes
Line Item Listing	Printed or Typed 8" x 13"	A bound volume composed of one copy of the program for each installation, assembled alphabetically by installation.	2 Volumes
Narrative Justifications	As required by command representatives to defend requirements during Air Staff Reviews		
Development Plan - Facilities	Opaque Prints in Color- 15 $\frac{1}{2}$ " x 22" or any reasonable substitute	A bound volume composed of one copy of plan for each installation assembled alphabetically by installation	3 Volumes
Development Plan - Real Estate	Same as Development Plan - Facilities		3 Volumes

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		<u>SAMPLE</u>		<u>BASIC INSTALLATION DATA</u>							
STATION:	BULLIT AFB	LEASED ACRES:	2								
LOCATION:	4.2 MI. SE COWPENS			<u>PROPOSED PERSONNEL</u>							
COUNTY, STATE:	RANGE, TEXAS	OWNED ACRES:	6,631								
COMMAND:	SAC	DATE OCCUPIED:	1941	OTHER ACRES:		OFFICER BASE	TRANS/ROT	AIRMEN BASE	TRANS/ROT	TOTAL MILITARY	CIVILIAN NATIVE DAF
						1,010		53		6,523	364
PRESSURE ALTITUDE:	2626	AVG MAX TEMP:	99	TOTAL ACRES:	6,633			<u>PRESENT PERSONNEL</u>			
TYPE CONSTRUCTION:		25 YEAR TENANT COMMAND		423	2	2,500	10	2,935		220	
<u>PRINCIPAL MISSION</u>						<u>AIRCRAFT</u>					
HQ. AIR DIVISION				TYPE	NUMBER						
MEDIUM BOMB WING				F-47	90						
MEDIUM BOMB WING AVIATION SQ.				KC-97	40						
FIGHTER INTERCEPTOR SQ.	ADC			F-86	25						
AIRWAYS AIR COMM. SQ.	MAT			C-47	2						
WEATHER SQ.	MAT			C-45	3						
				T-6	2						

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LINE ITEM LISTING NEW PROJECTS

INSTALLATION: BALBO AFB, N. Y.

COMMAND: P&D

<u>Item No.</u>	<u>Nomenclature</u>	<u>Tenant Command</u>	<u>DEF Dwg No.</u>	<u>Quantity</u>	<u>Unit</u>	<u>Cost Estimate (000)</u>
A 412-842	Pad, A/C, Warm-up, New, Hv			13,000	SY	130
D 453-311	Ops, Base, Bldg., #1A		30-07-02	20,900	SF	251
J 000-000	Utilities			LS	LS	25

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SAMPLE

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INSTRUCTIONS FOR PREPARATION OF NARRATIVE JUSTIFICATION  
FOR  
REPETITIVE TYPE REQUIREMENTS

STATION:

LOCATION:

SUMMARY INVENTORY INFORMATION:

<u>-A-</u>	<u>-B-</u>	<u>-C-</u>	<u>-D-</u>	<u>-E-</u>	<u>-F-</u>	<u>-G-</u>
<u>Item Code</u>	<u>Item Facility Description</u>	<u>Inventory Unit of Meas.</u>	<u>Total Quantity Requirement</u>	<u>Total Quantity Deficiency After FY55 PWP</u>	<u>FY-56 PWP Request</u>	<u>Remaining Deficiency</u>

Inventory information listed in Columns A, B, C, D, and E may be extracted directly from your most recent submission of AF Form 800 (Revised). Column F is the total quantity of item or items (if more than 1 item is contained in this type justification, the number of items will be indicated in brackets following the quantity in Column F) being requested under single justification.

Item Description (Or Descriptions - more than one item may be listed under a single item of Summary Inventory Information). Each item will include the Item No. and Nomenclature as indicated in the Line Item Listing. In addition the description should be so comprehensive that a complete picture of the proposed item is conveyed to any Review Committee without the use of additional data. The following questions will be answered in the narrative description, where applicable, together with any other pertinent data.

1. What is being requested?
2. Is the facility to be constructed in accordance with a USAF Definitive or Standard? If not, what standard will be used? Why was USAF Standard not used?
3. Will the type of construction compare to that already existing? That is permanent, frame, concrete, etc.
4. What are physical characteristics of the facility? Size, number of people or units it will accommodate, number of rooms and stories, type of construction and length, width and load bearing capacity for pavements will be shown.
5. Is air conditioning or sprinkler system for fire protection included?
6. How is structure to be heated?
7. Where is it located in respect to base layout? Is it sited in accordance with Master Plan?
8. Will additional land be required?

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Basis of Requirement: Following questions are to be answered where applicable.

1. Why is this facility being requested?
2. What facility is being used for this requirement now?
3. What is the proposed use of vacated facility?
4. When is this facility required?

NOTE: This abbreviated justification will not be used for the following type items

1. All airfield pavement strengthening.
2. Air conditioning of existing facilities.
3. Conversion of existing facilities.
4. Evaporative cooling projects.
5. Modifying projects.
6. Rehabilitation projects.
7. Soundproofing projects.
8. All utility items (J Category).
9. All Real Estate items (K Category).
10. All Research, Development and Test items (L Category).
11. All Harbor facilities (T Category).
12. All Depot maintenance and depot storage facilities.
13. Other unusual or non-standard type items.
14. Projects requiring certification in accordance with DOD Directives 4000.8 and 4145.3.

Inclosure No. 9 provides format and instructions to be followed in preparing justification for above type items.

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INSTRUCTIONS FOR PREPARATION  
OF NARRATIVE JUSTIFICATIONS  
FOR OTHER THAN  
REPETITIVE TYPE REQUIREMENTS

STATION:

LOCATION:

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Project Description:

The Project Description should adequately describe the item which is being requested. This description should be so comprehensive that a complete picture of the proposed project and why it is required will be conveyed to any Review Committee without the use of additional data. The following questions and guidelines are a summary of the problems that have arisen in prior programs concerning justifications for line items. These questions will be answered in the narrative description, where applicable, together with any other pertinent data.

1. What is being requested?
2. Is the facility to be constructed in accordance with a USAF Definitive Drawing or Standard? If not, what standard will be used? Why was USAF Standard not used?
3. What are the physical characteristics of the facility? Size, number of people or units it will accommodate, number of rooms or stories, type of construction, and length, width and load bearing capacity for pavements will be shown.
4. Does the line item price include any equipment such as air conditioning or sprinkler system for fire protection?
5. How is structure to be heated?
6. Is the proposed construction to be new-rehabilitation of existing structure - addition, etc.?
7. Where is it located in respect to base layout? Is it sited in accordance with the Base Master Plan?
8. Will additional land be required? If so, how will it be provided?
9. Will the type of construction compare to that already existing? That is, permanent, temporary, wood, concrete, etc.
10. The justification for land items will contain all information listed in Inclosure No. 10.

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Basis of Requirement:

The Basis of Requirement should clearly define the operational requirement for the requested facility under the planned mission of the Base. Information contained in this Basis of Requirement section will be prepared principally by the intended user of the facility or the staff agency which has the responsibility for operational or technical supervision of the using activity. This is essential to insure that all data which will explain and support the requirement for the facility, including operational, technical, and logistical aspects as well as engineering aspects, are included in the narrative justification submitted. The following questions will serve as an aid in establishing the requirement for the line item requested.

1. Why is this facility necessary? In what way will it aid in the accomplishment of the base mission? Who will use it?
2. Are any similar facilities now existing on the base? In case of pavement items, give total quantities existing, and in the case of runways and taxiways, give length and width.
3. Are there any existing facilities which can be used? If existing facilities are unusable, why?
4. If the requested items provide a facility that will allow an existing facility to be vacated, what use will be made of the existing facility?
5. Has a study been made of the proposed project to determine whether it is feasible both from an economic as well as an engineering viewpoint?
6. Is the size of the requested facility in conformance with the USAF Installations Facility Requirements criteria? If not, why not?
7. Will the approval of the requested item complete the Base requirements or will additional quantities be required in some future Program? If so, how much more?
8. What is the planned or required completion date of this item? Approximately how much lead time is required for its construction?
9. Have prior funds been authorized or appropriated for any portion of the requested item? If so, how much?
10. Are any other related items, such as utilities or land being requested elsewhere in this Program?
11. Have Base rights been obtained? If not, what is the current estimated time Base rights will be obtained?
12. Is DOD Directive 4000.8 certification attached?

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See 9 B  
See 11

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Cost of Project:

1. This paragraph will be added only for utilities which are listed as a lump sum in the line item listing. The quantity, unit price, and total cost will be shown for the following type utility items:

Electric Distribution Lines  
Telephone Lines  
Water Distribution System  
Sewage Collecting System  
Heating Distribution Lines  
Heating Return Lines  
Distribution Lines, Gas.

2. Each of the above type utility items will be broken down to indicate the portion of each required by a related parent item in this program or some prior program. (See utility sample).

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INSTRUCTIONS FOR PREPARATION OF REAL ESTATE  
PORTION OF FY 1956 PUBLIC WORKS PROGRAM

1. It is not possible to acquire real estate unless the item is specifically contained in the Public Works Program as a line item with cost included and covered by complete justification. Delays in real estate acquisition result from the fact that no line item has been contained in the program or the line item contained therein is inadequate to cover the amount of land required and the cost of acquisition.

2. It is imperative that an accurate determination be made as to the amount and cost of real estate. When real estate requirements are determined the Air Force Installations Representatives will be requested to secure real estate planning reports from the appropriate Division Engineer which will include the following information:

- a. Amount of acreage.
- b. Type of interest to be acquired (if more than one interest, so indicate).
- c. Mineral rights and value thereof.
- d. Cost per acre and total cost.
- e. Terrain description.
- f. Present and potential use.
- g. Severance damage.
- h. Resettlement costs of owners and tenants.
- i. Purchase of crops.
- j. Relocation of utilities, roads, buildings, etc., if any, and costs thereof.
- k. Is land required for new construction? If so, specifically indicate purpose.
- l. Can land to be required be outleased (i.e., grazing or agricultural) (to be furnished by major command)?
- m. OCE overhead costs and contingencies.
- n. Remarks.

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INSTRUCTIONS FOR PREPARATION OF REAL ESTATE  
PORTION OF FY 1956 PUBLIC WORKS PROGRAM

Land required for relocation of utilities, roads, improvements, aviation easements and replacement of leases, will be included in the total land requirements for a base and indicated in line item under Category K.

3. When the real estate planning report for a real estate item is completed by the Division Engineers the Air Force Installations Representative will furnish the major command concerned three copies of the report. Two copies of the real estate planning report will accompany the budget submitted with other data as hereinafter indicated. (Note: Advance copies of planning reports for the FY-56 Program will not be submitted to Hq USAF prior to the budget submittal).

4. The justification to be submitted to Hq USAF for each real estate line item will include information outlined in paragraph 2a through 2n above which will be found in real estate planning report covering the land item.

5. In addition to the real estate planning report and justification for each land item, there will be submitted for each installation included in the military Public Works Program six opaque paper copies of a master plan in color, showing:

- a. Land presently owned in fee (indicated by "Fee" within appropriate area).
- b. Land to which Air Force has a right by virtue of lease or an agreement, e.g., easement, right-of-way permit, etc., (indicate type of agreement within appropriate area).
- c. Land presently being acquired or authorized for acquisition showing which fiscal year program authorizing the acquisition. (Indicate by "Under Acquisition").
- d. Land proposed for acquisition by FY 1955 funds. (Indicate proposed use, for example, "family housing, runway extension, etc.").
- e. Land proposed for acquisition by FY 1956 funds (indicate family housing, runway extension, aviation easement, road relocation, etc.)
- f. Any additional land required to implement the approved master and/or development plan.

6. These plans will be submitted on 15 $\frac{1}{2}$ " x 22" or 31" x 44" (as provided) commercially printed sheets, reproducible copies of which have been provided by this headquarters. For those installations where those commercially printed reproducibles are not available, the major commands will be

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responsible for production of the approved master plans on 15½" x 22" sheets, and similar in presentation to the commercially printed plans. 31" x 44" size sheets may not be used except by prior consent of this headquarters. The six copies submitted will be produced by black line ozalid process.

7. Real estate acquisition items, paragraph 3 above, for the various fiscal years, will be shown in solid dense colors as follows:

FY 1951 - Blue	Dixon Thinex Colored Pencil No. 376
FY 1952 - Dark Chrome	Dixon Thinex Colored Pencil No. 412
FY 1953 - Brown	Dixon Thinex Colored Pencil No. 378
FY 1954 - Green	Dixon Thinex Colored Pencil No. 375
FY 1955 - Red	Dixon Thinex Colored Pencil No. 370
FY 1956 - Orange	Dixon Thinex Colored Pencil No. 372

Land required to implement the approved master plan over and above that programmed through FY 1956 will be colored in lavender - Dixon Thinex Colored Pencil No. 424. A color key will be provided on each sheet above the title block. Land acquired prior to 30 June 1950 will not be colored.

8. In addition to the real estate planning reports, justification and opaque paper copies of the master plan, there will be submitted two vertical aerial photographs (in accordance with AFR 95-17) identifying by India ink delineation of the land to be acquired in relationship to the installation and surrounding area.

9. Immediate attention should be given the real estate portion of the FY 1956 budget so that sufficient time will be allowed the Division and District Engineers to prepare accurate and complete real estate planning reports to be used as a guide in estimating costs. Despite timely warning on submission of real estate items on the 1955 budget call, many commands failed to submit data on real estate requirements and costs therefor, which in many cases, resulted in deletion of land items from the program. Headquarters, United States Air Force will not include real estate line items in the 1956 Public Works Program unless supported by (a) two real estate planning reports (b) detailed justification, (c) six opaque paper copies of master plan and, (d) two aerial photographs of real estate to be acquired.

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SAMPLE NARRATIVE JUSTIFICATION  
FOR OTHER THAN REPETITIVE TYPE REQUIREMENTS

DEPARTMENT OF THE AIR FORCE  
TY-56 PUBLIC WORKS ESTIMATE OF REQUIREMENTS

STATION:

LOCATION:

J 000-000 UTILITIES

Project Description:

1. This project provides for the procurement and installation of the utility items listed below.
2. These utilities will be an extension of the present utility system and will provide utilities for the structure being requested in this program.
3. All construction will be in accordance with USAF Standards. Location will be as indicated on the Base Preliminary Master Plan.
4. No additional land is required.

Basis of Requirement:

1. These utilities are required to provide service to the parent items referenced in Cost of Project, par. 2 below and are necessary to connect existing exterior utilities to items requested in this program. The quantities requested represent the minimum amounts necessary to provide adequate utilities to these new facilities.
2. The completion date for the installation of these utility items will be phased in accordance with the completion of the related pavement items.

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Cost of Project:

1.	J 156-330	Drain, Storm, Main, Col.	10,500 ft.	13.00	\$ 136,500.00
	J 174-288	Ele. Distr. Prim. Line, UG	3,000 ft.	12.50	37,500.00
	J 663-412	Sewage Dispsl. Main, Col.	1,500 ft.	12.00	18,000.00

2.			<u>Feet</u>		<u>Total Quantity</u>
	<u>J 156-330</u>	<u>Drain, Storm, Main, Col.</u>			10,500
	A 612-822	R/W, Prim. Ext, Hv.	5200		
	N 892-3001	Whse, Dep, Bulk Sup Std	1000		
	N 892-300	Whse, Dep Bulk Std.	3500		
	D 743-3002	Tech Lab, Base, Bldg, Std	800		
	<u>J 174-288</u>	<u>Ele. Distr. Prim. Line, UG</u>			3,000
	A 612-822	R/W Prim, Ext, Hv	2400		
	N 892-300	Whse, Dep Bulk, Std	600		3,000
	<u>J 663-412</u>	<u>Sewage Disp, Main, Col</u>			1,500
	N 892-300	Whse, Dep Bulk Std	1200		
	D 743-3002	Tech Lab, Base, Bldg, Std	300		

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SAMPLE NARRATIVE JUSTIFICATION  
FOR OTHER THAN REPETITIVE TYPE REQUIREMENTS

DEPARTMENT OF THE AIR FORCE  
FY-56 PUBLIC WORKS ESTIMATE OF REQUIREMENTS

STATION:

LOCATION:

N-852-311 WHSE, BASE, ELK SUP, #1A

PROJECT DESCRIPTION:

1. This project provides for the construction of a new base bulk supply warehouse of 44,800 sq. ft. AF Definitive No. 33-02-22 will be used.
2. Suitable ramps and unloading docks are to be provided for use with box cars and trucks.
3. The building will be 200 ft. square and will contain two (2) floors of office space across the entire front. The building will be cooled by evaporative coolers, forced air ventilation and exhaust system. A sprinkler system will provide fire protection. Heat will be provided from the base central heating plant.
4. The building will be located in the warehouse area in the SE corner of the base. Construction will be of concrete block to conform to the other construction on the base. Location is in accordance with the Base Master Plan.
5. No additional land is required.

BASIS OF REQUIREMENT:

1. This facility is necessary in order to provide adequate storage space for the 45-day stock level of A/C and troop supply items kept on hand by the base supply section in support of the base mission.
2. The total requirement of the base is 220,000 sq. ft. of warehousing of which 115,200 sq. ft. are either existing or under construction. A deficiency of 60,000 sq. ft. will remain after approval of this project.

SAMPLE

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BASIS OF REQUIREMENT: (Cont'd)

3. At present the supplies, which cannot be stored in the permanent type warehouses, are stored in non-permanent type buildings constructed during World War II. These structures are in a deteriorated condition and are no longer economically repairable. They will be destroyed upon completion of this project.
4. No existing facilities are available which can be converted to warehousing.
5. The planned completion date of this project is the second quarter FY-56. Approximately nine (9) months lead time is required for construction of this item.
6. Related utility items are included in the justification breakout of supporting utility items.
7. DOD Directive 4000.8 certification is attached.

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INSTRUCTIONS FOR PREPARATION OF  
DEVELOPMENT PLAN-FACILITIES  
FY-1956 PUBLIC WORKS PROGRAM

1. In order to fully justify the Air Force budget to the reviewing authorities in the Office of the Secretary of Defense, Bureau of the Budget and Congressional Committees, it is necessary to present accurate, neatly drawn and standardized colored master plans showing existing facilities, facilities programmed in previous years, and proposed construction for the current year. These plans must be prepared for each installation included in the Public Works Program.

2. For ease in reading and standardization in presentation, these plans will be prepared from 15 $\frac{1}{2}$ " x 22" or 31" x 44" (as provided) commercially printed sheets, reproducible copies of which have been provided by this headquarters. For those installations where these commercially printed reproducible are not available the major commands will be responsible for the production of the approved master plans on 15 $\frac{1}{2}$ " x 22" sheets, and similar in presentation to the commercially printed plans. Thirty-one inches by forty-four inches sized sheets may not be used except by prior consent of this headquarters. The six copies will be produced by black line ozalid process.

3. For each installation included in the Military Public Works Program, there will be submitted six opaque paper copies of the approved master plan with the following shown in dense color as specified below:

a. Facilities in existence prior to 30 June 1950 - Blue - Dixon Thinex Colored Pencil No. 376.

b. Facilities built and/or funded from 1 July 1950 up to and including the approved Public Works Program for FY 1955 - Dark Chrome - Dixon Thinex Colored Pencil No. 412.

c. Facilities requested for inclusion in FY 1956 Public Works Program - Red - Dixon Thinex Colored Pencil No. 370.

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HISTORICAL REPORT  
of the  
32d AIR DIVISION (DEFENSE)

HISTORICAL OFFICE  
ARCHIVE BRANCH  
7-11-54  
K-311-33-11  
11-55-10-7



THE AIR DEFENSE OF A SECTOR  
JANUARY thru JUNE 1954

SUPPORTING DOCUMENTS V

HISTORICAL OFFICE  
SYRACUSE AIR FORCE STATION, NEW YORK

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HISTORICAL REPORT  
OF THE 32D AIR DIVISION (DEFENSE)

Number Sixteen

THE AIR DEFENSE OF A SECTOR

January thru June 1954

RCS: 1-AF-D2

SUPPORTING DOCUMENTS  
VOLUME V (Documents 198/1 thru 215/3)

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HEADQUARTERS EADF STEWART AFB  
NEWBURGH NY

OPNL IMMED

COMDR ADC ENT AFB COLO SPRINGS COLO

EACOT-SF 381 . Ref msg ADOOT-A 11610. The folg info was received fr sq, base, gp, wg and air div level and reflects informa-tion fr all EADF units. Where possible, consolidation was effected by this hq. Although many items are submitted which may not be of the nature desired, they were included to insure comprehensive coverage: \*\*\*\*\*

\*\*\*\*\*Syracuse AF Sta (Hancock Fld.) Negative report submitted. Burlington Muni Aprt. Negative report submitted. Otis AFB. Community relations are not a problem except during months of summer when complaints relative to operations are confined to the tourists. Further, during the Cape Cod summer season civ traffic at Hyanis Aprt, Marthas' Vineyard and Coonamessett Aprt is exceptionally heavy, resulting in airspace congestion. Action Taken: Problem of tourists complaints can be handled by continued attention to local relations. Recommended Action: Recommend Air Base Comdr, Otis AFB be designated as a controlling agency for all reas which impose air traffic control problems and are located within close proximity of the air base. This can be effectively handled through the Radar Approach Control Facility being installed at that station. Problem: Controlled airspace to the north, east and south restrict tng of aircrews during IFR conditions. Danger area D-14 and the establishment of VOR airway between Boston and Nantucket limits the tng potential during IFR conditions. Action taken: Tng is continued as is feasible after giving consideration to danger areas and established airways. Recommended Action: The Otis control zone be increased to include the area that is within a radius of ten statute mis of the center of Otis and that the Otis Radar Approach Control Center be responsible for controlling all acft operating under IFR in the area commencing at 41 21' North 70 45' West, 41 59' North 70 45' West thence clockwise along an arc having a radius of 25 statute mis centered on Otis to 41 21' North 70 45' West. It is further recommend-ed that the control area have a Radial (corridor), ten statute mis wide, longitudinally centered on a line drawn from the center of the approach end of runway 23 through the proposed site for the 500 watt beacon at North Truro, Mass extending a total of 40 statute miles out from the center of Otis AFB. Presque Isle AFB. Negative report submitted. Community relations are excellent. Weekly briefings and tours of air base for various civic groups are in progress to insure that high level of relations will continue. Griffiss AFB. Negative report submitted. Niagara Falls Muni Aprt. Problem. Radio tower 951' high directly west of runway 27R (only jet runway aval) is a hazard to all wea fly. Action Taken: Plans have been established to move the tower to a new location. The status of this project unknown at this time. Problem: Plans call for the construction of a TV antenna 941' high south

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of this airfield on Grand Island. Action Taken: Base has offered no objection except those listed in AF Reg 86-3. NY Subcommittee of the Air Coordinating Committee at meeting #83, 17 November 1953 stated in the minutes of the meeting that they were much concerned with the recent altitude of the AF regarding the Grand Island TV tower and similar cases involving proposed towers construction. The minutes also stated that this interpretation of AF Regs will increase the difficulty of handling such cases and unnecessarily increase the work load of the committee. Station WGR in Buffalo is the applicant and is very influential in this vicinity. A new jet letdown is being revised to minimize interference with proposed TV tower. Due to local influence of radio station WGR and desirability of maintaining good working relations with them and all agencies concerned 518th Air Defense Group is withdrawing the local objection to the proposed construction and recommends waiver of AFR 86-3 to allow construction to proceed. In support of this action is the existence of another TV tower in the same vicinity of the proposed site. A serious potential hazard exists to the location of the alert hangars which directly face the Bell Acft Corp Plant now engaged in classified highly explosive experiments and other construction. Several thousand employees will be concentrated in the direct line of fire of the acft rockets when the alert acft are in the hangars, starting up and taxiing straight ahead to the scramble runway. Even though all precautionary measures known are taken the possibility of rockets firing accidentally must inevitably be realized by the Bell Corp and will eventually have some effect on the morale and efficiency of their organization. Corrective action taken: Local studies being made, all personnel being indoctrinated in this situation, rocket pods are to be restricted at all times when aircraft is pointed toward a hazardous or populated area and studies will be made upon return of the 47th Ftr Intop Sq fr Yuma on the possibility of angle parking in hangars to avoid pointing fr intop acft at the Bell factory. Recommended action: Study be continued to determine if relocation of hangars or construction of blast fence between Bell acft factory and alert hangars is warranted. Problem: Present jet inst letdown for Niagara is unsatisfactory due to complicated procedure to avoid maze of civ airways directly over and surrounding this base and Buffalo radio fix. Corrective Action: Jet inst letdown being revised with the concurrence of CAA and other interested agencies to insure satisfactory letdown agreeable to all concerned. Dow AFB. No local problem with community relations; however, a possible problem exists in airspace due to considerable jet operations from this base involving three SAC sqs, one ADC sq and a National Guard Wing. Action Taken: SAC operates an effective info sv program which has been most successful in community relations. ADC unit is programmed for a move to Hanscom AFB. Recommended action: If heavy traffic congestion presents a problem the establishment of a RACON center at Dow should alleviate same. Westover AFB. Negative report submitted. Local civic leaders are presently invited to tour base and attend luncheons where problems are discussed and recommendations

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given. Tours include visit to jet sq where mission of unit is explained with regard to overall defense of the country and more specifically defense of the area. Afterburners are used only when necessary and periodic releases from PIO are helpful. Suffolk County AFB. 519th Air Def Gp. Negative report submitted. Langley AFB. Negative report submitted. This hq recognizes a further problem common to all of its bases. It is recommended that a policy be established preferably in one document that would spell out the responsibility of the ADC units, CAA units and AACS units with regard to the air traffic control problem, thereby eliminating the necessity for the current minimum of 3 approved control procedures (IFR-VFR-SARP). Further consideration should be given to accident potential resulting from intep acft conducting penetrations at high rates of climb and air speed with the possibility of other acft operating at a minimum of 500 ft on top or 500 ft below the cloud level. It is understood the Canadian regulation governing IFR flt requires 1000 ft on top. However, a 1000 ft reqmt is also questioned in view of the blind spots on transport acft and the high rate of closure of current intep type act.

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HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

OFFICE OF THE COMMANDER

11 Jun 54

Major General Morris R. Nelson  
Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Nellie,

The attached monthly report of the second meeting of the Air Force Committee to Review Present and Long Range Air Base Problems will bring you up to date on the committee work. I am the ADC representative on this committee.

In line with paragraph 3k of the attached report, a working committee has been appointed in this Headquarters. This committee is composed of representatives from DM (Plans and AIO), DP, Flying Safety, P&R, ADES, C&E, O&T, Programming, ISO (PIO), and Air Surgeon, and has been charged with developing command recommendations on this important subject.

I feel that a similar committee at your Headquarters level will greatly facilitate the accomplishment of our objective. Your committee should make a detailed study of each of your bases and be prepared to present findings and recommendations to this Headquarters. A list of your bases, in order of priority for elimination from the Air Force structure, should be prepared by this committee.

A preliminary investigation at this level indicates that several of our bases are not acceptable for jet operation. This is especially true when we look at the 1960 picture: fighters with two and three times the thrust of our present fighters; also weapons with many times the destructive power of present weapons. These new fighters and new weapons increase the noise and hazard factors. We may eventually have to move out of our most critical installations to newly-constructed bases located strategically in relation to particular target complexes. Even if we take this course of action, the construction time for a completely new base would be at least two and one-half years; therefore we must live with the problem for some time. In this regard the Information Services Officer, this Headquarters, has been directed to prepare

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a booklet for the guidance of base commanders of this Command in fostering sound community relations between our air bases and the adjacent communities.

I am sending a similar letter to Del and Wee. You will receive additional correspondence in the form of directives and/or letters from this Headquarters covering various facets of this very important subject. Significant developments of future meetings will be passed on to you and to your air base committee.

With best personal regards, I am

Sincerely

1 Incl  
Monthly Rept

t/FREDERIC H. SMITH  
Major General USAF  
Vice Commander

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HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

21 May 1954

Brigadier General George F. Smith  
Vice Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Poo:

Much general discussion has taken place between members of our staff and yours concerning the concept and implementation of Project "Arrow". Progress already shown indicates that enthusiasm and interest at all levels of the command are sufficient to promote the success of this project as originally conceived.

The ultimate desired effect of this program unfortunately is dependent to a large extent upon the provision of physical facilities which, by virtue of past experience, imply inherent delays to our people in the field. This implication could seriously jeopardize the enthusiasm and impetus thus far gained and result in a static reaction to other equally important aspects of the Project "Arrow" program. It is believed that if diligent effort at all levels is exerted to provide these physical facilities with a minimum of the normal inherent delays, interest will not only be maintained but further development of the concept will be encouraged.

High morals, personal prestige, mental fitness and alertness of all our personnel are the goals of all commanders and the basis of Project "Arrow". Physical fitness is considered the prerequisite to all of these mental attitudes. Facilities suitable and available to all of our military personnel, particularly our combat crews, are considered essential to attain and maintain this physical fitness.

This headquarters has inserted an item in the FY-55 Major Repair and Minor Construction program to provide a physical conditioning facility at each of the bases within your command. Without full knowledge of existing buildings suitably located and/or available for modification at your bases, the items were inserted primarily for the purpose of obtaining approval in principle for these facilities in our authorized Major Repair and Minor Construction Program. It is realized that existing buildings to house these facilities will not be available at some of your bases and minor construction may be required. The inclosed drawing shows the minimum facilities considered

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a requirement for the physical conditioning program. This functional layout will require adjustment to fit available facilities, population strength and local conditions. It is recommended that these facilities be located outside of restricted areas for accessibility to all military personnel but close enough to readiness facilities to be readily accessible to our fighters pilots and crews.

This command has assigned a high priority to these items as submitted in the FY-55 Major Repair and Minor Construction Program. It is not expected that Headquarters USAF will take exception to this part of our program. It is therefore requested that action be taken to prepare these projects for accomplishment early in FY55 to preclude delays which might affect the fine spirit and support currently behind Project "Arrow".

Sincerely,

1 Incl  
Print Physical Con-  
ditioning Building

s/ Jimmy  
t/JARRED V. CRABB  
Major General, USAF  
Chief of Staff

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

4 June 1954

Major General Jarred V. Crabb  
Chief of Staff  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

Dear Jim:

With reference to your personal letter to me 21 May 1954 on the subject of Physical Fitness Facilities to be inserted as an item of the FY 55 Major Repair and Minor Construction Program, the units of this command have been directed to prepare projects for the utilization by modification of existing facilities or for new construction, where required. These projects are to be submitted to this headquarters not later than 9 July 54.

I am personally pleased to learn that such facilities are being made an important part of Project Arrow. We will do everything we can to expeditiously prepare these projects and submit them to your headquarters.

Sincerely,

t/ GEORGE F. SMITH  
Brigadier General USAF  
Vice Commander

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OFFICE MEMORANDUM

UNITED STATES GOVERNMENT

TO: Capt Roy O. Esmark, AA Staff Rep, 32d Air Div (Def)

Date: 27 April 1954

FROM: Lt Col Carl Lentz II, Chief, P&O Div, G3

SUBJECT: Antiaircraft (ADCC-ADDC) Liaison Circuits in the Wire Communications Network

1. References:

- a. (CONFIDENTIAL) Letter, your office, 4 April 1953, subject: Monthly Activity Report (March 1953).
- b. Standard Operating Procedure 55-28, Headquarters, Eastern Air Defense Force, 17 December 1952.
- c. (CONFIDENTIAL) Letter, OAAA 311, Headquarters, 32d Air Division (Defense), 28 December 1952, subject: Request for Inclusion of Antiaircraft (ADCC-ADDC) Liaison Engineered Circuits in the EAST Wire Communications Network with 1st Indorsement, EMOOT-A 311, Headquarters, Eastern Air Defense Force, 20 March 1953.
2. This headquarters does not concur in your comment in paragraph 9, reference 1a, above, which considers the request for an antiaircraft liaison circuit between the ADCC and appropriate ADCOC's as an essential requirement. The comments of Eastern Air Defense Force contained in the 1st Indorsement to reference 1c, above, are concurred in by this headquarters.
3. The requirement, established by Eastern Air Defense Force for reporting antiaircraft status, is of equal importance to the fighter of Air Force radar status reports. Separation of these status reports was not envisioned when the requirement was established by Eastern Air Defense Force. This point is substantiated in reference 1b, above, which places the responsibility for submission of these antiaircraft status reports on the Air Division Commander.
4. If antiaircraft status reports are not being transmitted because of other traffic on the line, it would appear that priority is being given to reports other than antiaircraft and the antiaircraft information which is desired by the Commanding General, Eastern Air Defense Force, is not being furnished in accordance with published Eastern Air Defense Force Standard Operating Procedures. This is an Air Force internal problem which in accordance with the 1st Indorsement to reference 1a, above, should be resolved by the Commanding General, 32d Air Division (Defense).
5. It must be realized that your position at the 32d Air Division (Defense) is one of a staff adviser and not an operator.

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personnel are not authorized, nor was it envisioned that they be for 24 hour-a-day operation at the ADCC. The aircraft "operating personnel on a 24-hour-a-day basis are on duty at the ADCC's to furnish antiaircraft status information to the Air Force. Once this information has been made available by the Antiaircraft Controller, it becomes an Air Force responsibility to forward the information desired by their higher commanders. Air Force personnel at each echelon should be briefed on antiaircraft organization and operations in order that they may handle the antiaircraft information as intelligently and expeditiously as they do Air Force information.

6. This headquarters will take no action on requesting additional communications between the ADCC and ADCC's since this is an Air Force problem.

s/t/ CARL LEWIS II, Lt Col, GS  
Chief, P&O Div, G3

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HEADQUARTERS  
EASTERN ARMY ANTI-AIRCRAFT COMMAND  
Stewart Air Force Base, Newburgh, N.Y.  
12 October 1953

Operation Order (Training) 4-53

Operations Code Name: "Lock-On"

Maps: As contained in AA-OP-ERUS

Task Organization: As contained in AA-OP-ERUS

1. **GENERAL SITUATION.** USAF has directed the Commander of APOC to conduct operational suitability tests of the F-86D, F-94C and F-89C aircraft (Lock-on). These tests will be conducted with the support of ADC, SAC, ARDC and AMC. Project will begin 1 November 1953 and end about 22 March 1954.

a. The objectives of these tests will include:

- (1) The suitability of the aircraft to perform the ADC mission.
- (2) Recommended tactics and techniques for the employment of the integral weapon system.
- (3) Skills required to operate and maintain the above aircraft and recommended training criteria.
- (4) The logistic support required to maintain one F-94C, F-86D and F-89C squadron at maximum sustainable operational capability under simulated combat conditions.

2. **MISSION.** Eastern Army Antiaircraft Command will provide antiaircraft defense during exercise period for those vital areas designated in AA-OP-ERUS currently operational as acting antiaircraft defense.

3. **TASKS FOR SUBORDINATE UNITS.**

A. As contained in subparagraphs 3 a, b, c, d, and x, AA-OP-ERUS.

- x. (1) Exercise will be conducted and action required as contained in Training AA-OP-ERUS, this headquarters, 1 May 1953.
- (2) The Army Antiaircraft Command teletype network will not repeat not be activated for any period of this exercise which is outside the normal activity period of this network.
- (3) During the period of the test all messages relating to the subject will bear the prefix and suffix "Project Lock-on."

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(Over)

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- (4) It is desired that pertinent antiaircraft defense commanders contact associated Naval headquarters to coordinate Naval participation.
- (5) Senior brigades will submit reports of activity over the Army Antiaircraft Command teletype network each evening that "Project Lock-On" is active. Other reports, i.e., ~~REPORTS~~, ~~SAPORTS~~ when units attained battle stations, etc, are not required.

4. ADMINISTRATIVE AND LOGISTICAL MATTERS. As contained in paragraph 4, AA-OP-ERUS.

5. COMMAND AND SIGNAL MATTERS.

A. Command: As contained in paragraph 5, AA-OP-ERUS.

b. Signal:

(1) As contained in paragraph 5, AA-OP-ERUS.

(2) Command Post: As contained in paragraph 5, AA-OP-ERUS.

s/t/ HAYDEN  
Brig Gen

DISTRIBUTION: (DL 2-53)  
B; D 2, 3, 4; E 1; F 4

OFFICIAL:

s/ Smith

G3

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C O P Y

OFFICE OF THE AA REPRESENTATIVE  
HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

2 February 1954

SUBJECT: Monthly Activities Report (January 1954)

TO: Commanding General  
Eastern Army Anti aircraft Command  
Stewart Air Force Base  
Newburgh, New York  
Attn: G3

1. During the period of this report, the following organizations and units were visited:

Eastern Army AA Command. . . . .	Stewart AFB
15th AAA Group . . . . .	Ft Banks, Mass
763rd AC&W Squadron & AA Detachment. . . . .	N. Truro, Mass
515th AA Opns Detachment . . . . .	Ft Banks, Mass
Cambridge Research & Development . . . . .	N. Truro, Mass
U. S. Naval Base Headquarters. . . . .	Newport, R.I.
Naval Fleet Training Center & CIC. . . . .	Newport, R.I.
505th Communications Recon Group. . . . .	Army Base, Boston, Mass
333d CIG Detachment. . . . .	" " " "
240th CIG Detachment . . . . .	" " " "
130th Military Intell Service Gp . . . . .	" " " "

2. I attended the ECM Staff Officers indoctrination Course at Kessler AFB, Biloxi, Mississippi, 11-15 January.

3. Report of antiaircraft operations during exercise "Duck Blind" on 15 January was written for division report.

4. Nike briefing was presented on 26 January at the Boston Army Base to units listed. After all briefings, multilithed copies of public information release on Nike are distributed.

5. Informal request for briefing on Nike was received from Major Bright, the AA member of the Joint Airborne Board. I suggested that he initiate a formal request to your headquarters as I did not deem this within my jurisdiction, board location being Fort Bragg, N. C.

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C O P Y

Office of the AA Rep. 32d AD(D) Subject: Monthly Activities Rept  
(January 1954)

6. Communication facilities at N. Truro have been arranged so that plots from AN/TPS-1D sites are told directly behind the vertical board, with AA detachment monitoring. Plots received from AA radars have been accurate and timely. AO/347 (EW kit) equipment has been installed but operation and acceptance is pending, awaiting new type of magnetron.

7. Arrangements having been made by Lt Col Deems, I visited the Fleet Training Center at Newport, R.I. on 28 and 29 January. Navy personnel expressed their appreciation and there was a mutual feeling that this contact was very beneficial. I discussed problems of Navy-Air Force-AAA coordination with the following personnel:

Commander E. H. McDowell, CO of Fleet Training Center  
Commander P. C. Brown, Exec O of Fleet Training Center  
Commander R. C. Ruston, Opns O for Naval Base & Narragansett Bay  
Lt Comdr B. F. Hammet, Tng O, Fleet Training Center  
Lt Comdr S. M. Blakely, OIC, Combat Intell Center School  
Lt J. C. McKee, Senior Air Control Instructor, CIC School  
Mr. F. W. King, Ass't to Opns for Naval Base

Attention is invited to attached report and letter from Headquarters, Commander Eastern Sea Frontier, sent to Lt Col Deems.

8. It is not contemplated that antiaircraft in this division area will be affected by operation 'Big Top' but AA detachments have been advised as to nature of the exercise.

9. I am writing antiaircraft phases for the division history presently being compiled for 1953. Material includes Sector Control, Nike and Skysweeper units, Canadian integration, AA Radars in air defense, the Niagara Story and Naval AA participation and coordination.

10. Upon completion of orientation period with Lt Col Lewis and pending receipt of orders, I will complete Nike briefings at remaining units of this division. This plan is with the concurrence of the Division Commander, Colonel Smith and Lt Col Pidgeon.

2 Incls:  
as

ROY O ENEMARK  
Captain, GS  
AA Representative

C O P Y

OFFICE OF THE AA REPRESENTATIVE  
HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

3 March 1954

SUBJECT: Monthly Activities Report (February 1954)

TO: Commanding General  
Eastern Army Antiaircraft Command  
Stewart Air Force Base  
Newburgh, New York  
Attn: G3

1. During the period of this report, the following organizations and units were visited:

15th AA Group . . . . . Ft Banks, Mass  
515th AAA Operations Detachment . . . Ft Banks, Mass  
Battery C, 16th AA Gun Battalion . . . Medford, Mass  
763d ACSW Squadron & AA Detachment. . . N. Truro, Mass  
18th AAA Group . . . . . Broughton, Pa  
517th AA Operations Detachment. . . Broughton, Pa  
701st AA Gun Battalion. . . . . Broughton, Pa  
Battery C, 701st AA Gun Battalion . . Broughton, Pa  
Battery A, 509th AA Gun Battalion . . Broughton, Pa

2. The following exercises, missions and projects were available for participation or actually utilized by AA units:

Various Dates . . . . . Big Photo & Fairgame  
6 February. . . . . Big Top  
8 February. . . . . Big Blow  
10 February. . . . . Heat Wave  
11 February. . . . . Brass Ring  
18 February. . . . . Soft Step  
17-20 February . . . . . Blue Flag

3. On 16 February I participated in an orientation for the Knights of Columbus and presented a briefing on AA in air defense and public release items on guided missiles.

4. I was a member of the inspection team with Lt Col Fountain and Major Nemeth in the Pittsburgh area on 23-24 February 1954.

5. All AA items for the division history, referred to in paragraph 9 of last month's report, have now been completed.

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Office of the AA Rep. 32d AD(D) Subject: Monthly Activities Report

6. A seventeen (17) pair cable under the Air Force communications augmentation program has been installed recently for Caswell and Limestone. Allowance has been made for AA, by allocation of necessary lines, for the combined AAOC-ARTY Controller Detachment.

7. Effective in April, coordinated ECM missions will be flown during the third week of each month. These missions will be for both AA and AI fighters.

8. Constant change of officer personnel in ARTY Controller Detachments causes embarrassment and misunderstanding of common procedures and necessary reports. Confusion in such rudimentary reports as "convey", and misunderstanding to the extent that interceptor aircraft are reported, indicate that officer personnel are not cognizant of their responsibilities in the direction center. Corrective action has been taken.

9. Lt Col Lewis has been introduced to personnel of this division and oriented in activities of the control center and the functions of a direction center and the AA personnel thereat. A visit has been made to Boston defences and North Truro, but expected exercise "Blue Ice" has delayed visits to Ft. Niagara, Lockport and Ft. Totten until 8 March 1954. Transfer of all classified documents has been completed and appropriate destruction certificates effected.

10. Attention is invited to paragraph 2 of attached special order. I plan to depart from this headquarters on 10 March, and thereby complete briefings at all sites by 10 April. In compliance with existing orders, I will be on TDY at the Pentagon, reporting thereat on 12 April, for three (3) days and then await air transportation to India. No leave prior to departing for overseas is contemplated.

Attachment  
a/s

ROY C. KENMARK  
Captain, GS  
AA Representative

C O P Y

OFFICE OF THE AA REPRESENTATIVE  
HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

7 April 1954

SUBJECT: Monthly Activities Report (March)

TO: Commanding General  
Eastern Army Antiaircraft Command  
Stewart Air Force Base  
Newburgh, New York  
Attn: G-3

1. During the period of this report, the following units were visited:

Hq 56th AAA Brigade . . . . . Ft. Totten, NY  
763d AC&W Squadron & AA Detachment. . . Shawnee, NY  
Hq 2d AAA Group . . . . . Ft Niagara, NY  
56th AA Operations Detachment . . . . Ft Niagara, NY

2. Visits to units were chiefly for introductions and orientation purposes.

3. Operation "Blue Ice" took place on 4 March. Marked improvement was noted in reporting by AA Controller Detachment, particularly the one located in Shawnee, New York. A report was submitted to the Deputy for Operations, 32d Air Division (Defense), regarding the AA phase.

4. The Commander of this division stated at a staff conference that there would be an Air Force display at the Intercollegiate Regatta in June on Lake Onondaga. He requested information as to whether the AAA could also provide a display. This request was turned over to your headquarters.

5. Received request from S-3, 2d AAA Group, regarding tracking missions for month of April. It is the desire of the Division Commander that AAA and AF units concerned coordinate these missions directly with each other. Request was forwarded to appropriate Wing and S-3, 2d AAA Group, was notified of Division Commander's wishes in this matter.

6. Received request from S-3, 2d AAA Group, for copy of maintenance schedule of 762d AC&W Squadron, North Truro, Massachusetts, in order that AAA surveillance radar schedule may be set up. Arranged to have division authorize AC&W Squadron concerned to provide time schedule each month.

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C O P Y

Office of the AA Rep, 32d AD(D) Subject: Monthly Activities Rept  
(March) 7 April 1954

It was discovered subsequently, however, that copies of this schedule can be issued only by Headquarters, EADP. Advised S-3, 2d AAA Group, to submit letter through channels requesting a copy of this schedule. This division will recommend that copies be sent to both AAA units concerned.

7. Received a request for moving a teller line within the alternate AAOC, Quincy, Massachusetts. Necessary information was given division wire officer for authorization of work.

8. Captain Enemark departed 14 March to complete NIKK briefings throughout the division area. He is expected to return here on 5 April, and will report to your headquarters on 7 April.

9. Received copy of Operations Order 15-54, Headquarters EADP (Secret) and arranged to have one copy distributed to each AA Controller for information.

10. ECM training was conducted for the 2d and 15th AA Groups by AF ECM instructor personnel.

JAMES N. LEWIS  
Lt Col, GS  
AA Representative

C O P Y

HEADQUARTERS  
32D AER DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

3 May 1954

SUBJECT: Monthly Activities Report (April)

TO: Commanding General  
Eastern Army Antiaircraft Command  
Stewart Air Force Base  
Newburgh, New York  
Attn: G-3

1. During the period of this report, the following units were visited:

Hq 56th AAA Brigade . . . . . Ft Totten, NY  
Hq 15th AAA Group . . . . . Ft Banks, Mass  
Hq 2d AAA Group, Ft Niagara . . . . . Niagara Falls, NY  
762d AC&W Squadron & AA Detachment. . No Truro, Mass  
763d AC&W Squadron & AA Detachment. . Shawnee, NY

2. Weekly ARAACOM CPX's showed some confusion and misunderstanding by AAA and Air Force. ADDC controller at Shawnee, New York believed all tracks were simulated during exercise and failed to coordinate with AA officer. AA controller at ADDC, Shawnee, New York was reporting action by individual batteries. As a result, it became necessary to brief the Chief Controller at ADDC before each exercise and he, in turn, briefed the ADDC's. I feel the situation has been straightened out and should show real improvement in the future.

3. Visited EASTARAACON on 14 April accompanied by Captain Smith, USAF, Operations and Training, this headquarters, to attend a conference on "Tracking Missions". Conference concerned mostly difficulties encountered by AAA in 26th Air Division (Defense).

a. The problem in this division is mostly conventional type aircraft. The 2d and 15th Groups state it is very difficult to track the fighter planes on radar.

b. In connection with the above, I am endeavoring to have the 4713th Radar Evaluation Flight, Griffiss Air Force Base, fly missions on Friday and Saturday of each week for our AAA units. These missions will be flown by B-29's and will be over each area for approximately four hours.

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Office of the AA Rep, 32d AD(D), Subject: Monthly Activities Report  
(April) 3 May 1954

c. I have asked the S-3 of each Group to submit overlays of mission routes they desire. Upon receipt of the overlays, I shall go to Griffiss Air Force Base and coordinate the matter with Captain Skurkas, USAF, in charge of these operations.

4. Headquarters EADF approved change in location of telephone circuit within alternate AAOC at Quincy, Massachusetts and issued order of authorization. The Commanding Officer, 15th AAA Group, was notified by 1st Indorsement from this headquarters.

5. This headquarters is now publishing monthly schedules for "ECM Training Missions". I am forwarding copies to each Group and AAController at AC&W Squadrons.

6. Request by this headquarters for issuance of maintenance schedules of AC&W Squadrons to AA units for information was disapproved by Headquarters EADF. Letter stated that each squadron should give this information to the AA controller. This headquarters is directing squadrons accordingly.

7. Copy of Tactical Doctrine (Secret), Headquarters 32d Air Division (Defense), has been forwarded to your headquarters.

JAMES N. LEWIS  
Lt Col, GS  
AA Representative

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

2 June 1954

SUBJECT: Monthly Activities Report (May)

TO: Commanding General  
Eastern Army Antiaircraft Command  
Stewart Air Force Base  
Newburgh, New York  
Attn: G-3

1. During the period of this report, the following units were visited:

Hq Eastern Army Antiaircraft Command . . . . Stewart AFB, NY  
Hq 56th AAA Brigade . . . . . Ft Totten, NY  
Hq 53d AAA Brigade . . . . . Swarthmore, Pa  
4713th Radar Evaluation (ECM) Flight . . . . Griffiss AFB, NY  
Hq 2d AAA Group . . . . . Ft Niagara, NY  
763d AC&W Sq & AAA Detachment . . . . . Shawnee, NY  
Battery D, 44th AAA Gun Battalion . . . . . Lewiston, NY

2. AAA activities in Exercise "Brown Trout" were limited to two tracks, and only one came close enough so that guns could be brought on target. I was, however, able to determine that status reports were being passed to the ADCC efficiently.

3. The subject of tracking missions for AAA units has been studied during this month. It is apparent that present type of aircraft available is not very satisfactory. Accordingly, I have taken up the situation with Air Division personnel concerned. As of this date, it appears we shall have at least five (5) hours tracking each week over each AAA area by B-29's, starting about the middle of June. These missions will be supplied by the 4713th Radar Evaluation (ECM) Flight at Griffiss AFB, Rome, New York. In addition, the Office of the Deputy for Operations, 32d Air Division (Defense), is making plans to ensure that a sufficient number of planes fly over AAA units in the future in order to meet the minimum requirements of six (6) hours weekly for AAA units. This method should eventually eliminate the need for tracking requests and present unsatisfactory type of aircraft now in use.

4. Arrangements were made with the Commanding Officer, 2d AAA Group, Fort Niagara, New York, to permit a Turkish Air Force officer stationed at this headquarters to visit a gun site. The officer, Major Ismail Guralp, is studying at General Electric in Syracuse on orders issued by Joint United States Military Advisory Group in Turkey. He is cleared for CONFIDENTIAL by Headquarters 32d Air Division (Def).

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C O P Y

Office of the AA Rep, 32d AD(D) Subject: Monthly Activities Report  
(May) 2 June 1954

He was accompanied by me during this visit, which took place on 27 May. In addition, he also visited Air Force facilities at the 763rd AC&W Squadron, Shawnee, New York. Major Guralp was well pleased with his visit, and was particularly impressed by the discipline shown by our officers and enlisted men.

5. My visit to Headquarters, 53d AAA Brigade, was for purpose of introduction and orientation.

JAMES W. LEWIS  
Lt. Col, GS  
AA Representative

C O P Y

OFFICE OF THE AA REPRESENTATIVE  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

30 June 1954

SUBJECT: Monthly Activities Report (June)

TO: Commanding General  
Eastern Army Antiaircraft Command  
Stewart Air Force Base  
Newburgh, New York  
Attn: G-3

1. During the period of this report, the following units were visited:

Lincoln Project . . . . . Cambridge, Mass.  
Limestone AFB . . . . . Limestone, Maine  
Hq 15th AAA Group . . . . . Ft. Banks, Mass.  
515th AAOD . . . . . Ft. Banks, Mass.  
762nd AC&W Squadron & AA Detachment . . North Truro, Mass.

2. Tracking missions of AAA units in this area are now being supplied by the 4713th Radar Evaluation (ECM) Flight from Griffiss AFB, Rome, New York. These missions utilize a B-29 aircraft, and fly at an altitude of approximately 15,000 feet. Reports from units indicate they are getting excellent training from these flights. During June, there were three (3) missions of approximately four hours time over each AAA area.

3. I attended a briefing on the "Cape Cod System" at Cambridge, Massachusetts on 10 June in company with two officers from this division.

4. A visit was made to Limestone AFB on 23 June. I was shown the area set aside for AAA.

5. During this month, there were quite a few exercises in the division area. Those which came within range of AA units were utilized fully.

6. During my visit to the AA Controller Detachment at North Truro, I noticed there is still only one officer assigned. I have

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Office of the AA Rep, 32d AD(D) Subject: Monthly Activities Rept  
(June) 30 June 1954

been informed, however, that two officers will be assigned there on  
TDY for a short period in the near future.

JAMES H. LEWIS  
Lt Col, GS  
AA Representative

C O P Y

DSPO FORM

Visit to Naval Base & Fleet Tng Center,  
Newport, RI

TO:  
Lt Colonel Deems

FROM:  
Captain Enemark

1 February 1954

1. As I said on the phone today, it will be difficult to cover everything that was discussed ~~add~~ the ramifications thereof. I can give you further information on my next trip to 56th, some items which may be classified.

2. The Navy personnel all agree that closer liaison is necessary between Air Force-Navy-AAA. There is no question that a more coordinated relationship with regard to air defense specifically, would be mutually beneficial.

3. There are three (3) circuits presently authorized for Navy:

<u>Circuit No.</u>	<u>Type</u>	<u>Purpose</u>	<u>Status-</u>
2082	FPT-Telling Cape Cod ADCC to FTC	EW	Non existant
2084	FPT-Telling	EW	Operational
688	FPT-Controller Cape-Cod ADCC to Naval Radar facility, Beavertail and Newport	GCI	Operational

Line 2082 - Hq, Eastern Sea Frontier is presently investigating possibility of 2082 being installed. Even though Newport is physically located within the geographical confines of 26th AD, it is felt that the most important EW will of necessity be from 32d AD facilities. If this line does become operational, it is considered that it could terminate at the AA controller position, thereby guaranteeing simultaneous warning, plots, and air defense conditions when passed to AAOC. The current status of available AA on board ships could also be reported on this line. The Navy could then actively participate in ADE's, CPX's and Communications Tests (when using AN/TPS-1D plots)

Line 2084 - This circuit can very easily be relocated as desired because there is only a short distance involved. Navy could do it themselves but permission probably could not be granted. I invited attention to the fact that Par 2 of letter apparently was in error and that request should be made to EADF or 26th. That of course is a small matter and letter will get to the right place. In that COMEASTERN directed it, request will come here.

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Visit to Naval Base, Newport, RI (Contd)

Line 688 - I will discuss this situation with you later as it is undoubtedly classified and no action or improvement is needed. You know about this anyway, I am sure.

4. A copy of letter dated 24 Nov/53 initiated by COFleTraGen, was not readily available and left me at a slight disadvantage with reference to remarks in Par 4 of attached letter. It was stated, however, that problems were resolved in the course of the discussion.

5. Interim clearance for use of present controller circuit 688 for telling purposes when not needed or essential for control, is highly desirable. The most valuable gain would be allowance for Naval participation during many ADX's and CPX's even some that we may not be involved in or affected by.

6. It was gratifying to see the Navy's reaction to my visit and the problems that were discussed. They all appreciated your efforts and those of Lt Shea in coordinating the arrangements.

1 Incl:  
a/s

st/ ROY O. ENEMARK  
Captain, GS

C O P Y

HEADQUARTERS  
EASTERN ARMY ANTI-AIRCRAFT COMMAND  
Stewart Air Force Base  
Newburgh, New York

7 April 1954

**SUBJECT:** Special Activities Report on Guided Missile Briefings  
(14 Mar 54 - 5 Apr 54)

**TO:** Commander, 32d Air Division, Syracuse Air Force Station,  
Syracuse, New York  
Commanding General, Eastern Army Antiaircraft Command,  
Stewart Air Force Base, Newburgh, New York

1. During the period 14 March to 4 April 1954, guided missile briefings on NIKE were presented to personnel of the following units and organizations:

WINGS

102nd Fighter Interceptor Wing  
506th Strategic Fighter Wing (SAC)  
1600th Air Base Wing (MATS)  
4707th Defense Wing  
6520th Test Support Wing (ARDC)

GROUPS

2d AAA Group	532d AC&W Group (Mob)
102d Fighter Interceptor Group (ANG)	564th Air Defense Group
506th Air Base Group (SAC)	6520th Test Support Group (ARDC)
	6520th Air Base Group (ARDC)

SQUADRONS

15th Air Transport Squadron (MATS)	58th Fighter Interceptor Sq
20th Air Transport Squadron (MATS)	60th Fighter Interceptor Sq
27th Fighter Interceptor Squadron	101st Fighter Interceptor Sq (ANG)
29th Air Transport Squadron (MATS)	437th Fighter Interceptor Sq
30th Air Transport Squadron (MATS)	457th Strategic Fighter Sq (SAC)
31st Air Transport Squadron (MATS)	458th Strategic Fighter Sq (SAC)
37th Fighter Interceptor Squadron	462d Strategic Fighter Sq (SAC)
46th Air Rescue Squadron (MATS)	1917th AACS (MATS)
49th Fighter Interceptor Squadron	6520th Experimental Squadron (ARDC)
6520th Flight Test Squadron (ARDC)	

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C O P Y

SUBJECT: Special Activities Report on Guided Missile Briefings  
7 April 1954 (14 March 1954- 5 April 1954)

<u>AC&amp;W</u>	
617th AC&W Squadron (TAC)	655th AC&W Squadron
622nd AC&W Squadron (TAC)	656th AC&W Squadron
630th AC&W Squadron (TAC)	673d AC&W Squadron (TAC)
643d AC&W Squadron (TAC)	762d AC&W Squadron
654th AC&W Squadron (TAC)	763d AC&W Squadron
	765th AC&W Squadron

MISCELLANEOUS

Air Wing Staff 85 (Navy)	Cape Cod Group (MIT)
VP 10, 23, 26	IBM XDE Project Group (MIT)
FASRON	AF 6520th Sec C (MIT)
	NAS, Brunswick

2. Following are the bases and installations visited:

Griffiss AFB, NY	Bedford AFB, Mass
Shawnee, NY	Logan Field, Mass
Ft Niagara, NY	Westover AFB, Mass
Watertown, NY	Mass Institute of Technology, Mass.
Saratoga Springs, NY	Dow AFB, Maine
Otis AFB, Mass	Charleston, Maine
No Truro, Mass	Brunswick NAS, Maine

3. All briefings were received with interest and enthusiasm. In many cases, lectures were presented two or three times at the same installation or unit in order that maximum number of personnel might be present. Consensus seems to be that NIKE briefings are an important part of the cross-training program. Each briefing averaged two (2) hours and over 3000 key officers and airmen of ADC, SAC, MATS, TAC, ARDC, in addition to several Navy and civilian personnel involved in Air Force projects, were in attendance at briefings.

4. Because of cancellation of military aircraft flight on 29 March and request that I be at Headquarters, EASTARAACOM on 7 April 1954, time did not allow visit to Presque Isle, Caswell and Limestone, Maine. A trip with Lt Colonel Lewis is planned on or about 10 April in order that he may become acquainted with personnel at Caswell and Limestone in connection with skysweeper project. At that time I will complete NIKE briefings. All visits to 32d Air Division units will then have been completed.

ROY O. ENEMARK  
Captain, GS  
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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

MEMO TO: EAODO

19 March 1954

SUBJECT: Visit to 35th Antiaircraft Brigade

1. Together with a group of officers I visited the 35th Antiaircraft Brigade, Battalion, and Special Weapons Battery at Fort George Meade, Maryland on Tuesday, 16 March. Our group was given a very brief introduction and orientation talk, shown an oft seen color motion picture of the destruction of the same two B-17s, and permitted to ask questions. Questions asked by our group proved in some instances to be slightly embarrassing to the 35th. They were extremely reluctant to provide any information on missile or booster rejection rate, critical nature of missile storage requirements, missile handling and, tying the foregoing together, predicted missile effectiveness. In brief, answers provided tended to gloss over the more detailed problems encountered in progression toward an operational missile battery.

2. The group then proceeded to the launching site and to the computer site. The talks given there and the equipment viewed, while extremely interesting, were not thought to be sufficiently illuminating to warrant visits by personnel in this headquarters other than at the Indian level. Identification of target still remains one of the more basic problems. Another is the necessity for early warning dictated by the time element necessary to bring a battery up to a status of "ready to fire" from a normal operating status or status under condition of warning White.

3. It was interesting to note one of the safety factors provided at the launching site. No battery can fire until each of the four launcher chiefs has individually inserted his personal key into an appropriate slot in the control panel which is located in a dugout in the middle of the launching area. Insertion of the key is accomplished when all prelaunch checks have been completed on the missile to be launched. The launch chief then counts noses in the dugout, and satisfied that all his men are present, inserts his key. Heaven help the air defense of their area if the launch chief loses his key.

4. Battery personnel indicated no special problem attendant to the booster fall out area. They advised that boosters would invariably fall in any predetermined or selected area. This area is roughly 7/10 of a mile in diameter. Regardless of the ultimate direction of the flight of the missile, the initial launch angle and azimuth are entirely dependent upon the original siting of the battery. It should be added that battery personnel presuppose no malfunction. I couldn't help wondering why the battery dugout was so deep if this were true. I was thinking in reference to the problems attendant to installation of a NIKE organization upon Selfridge Air Force Base.

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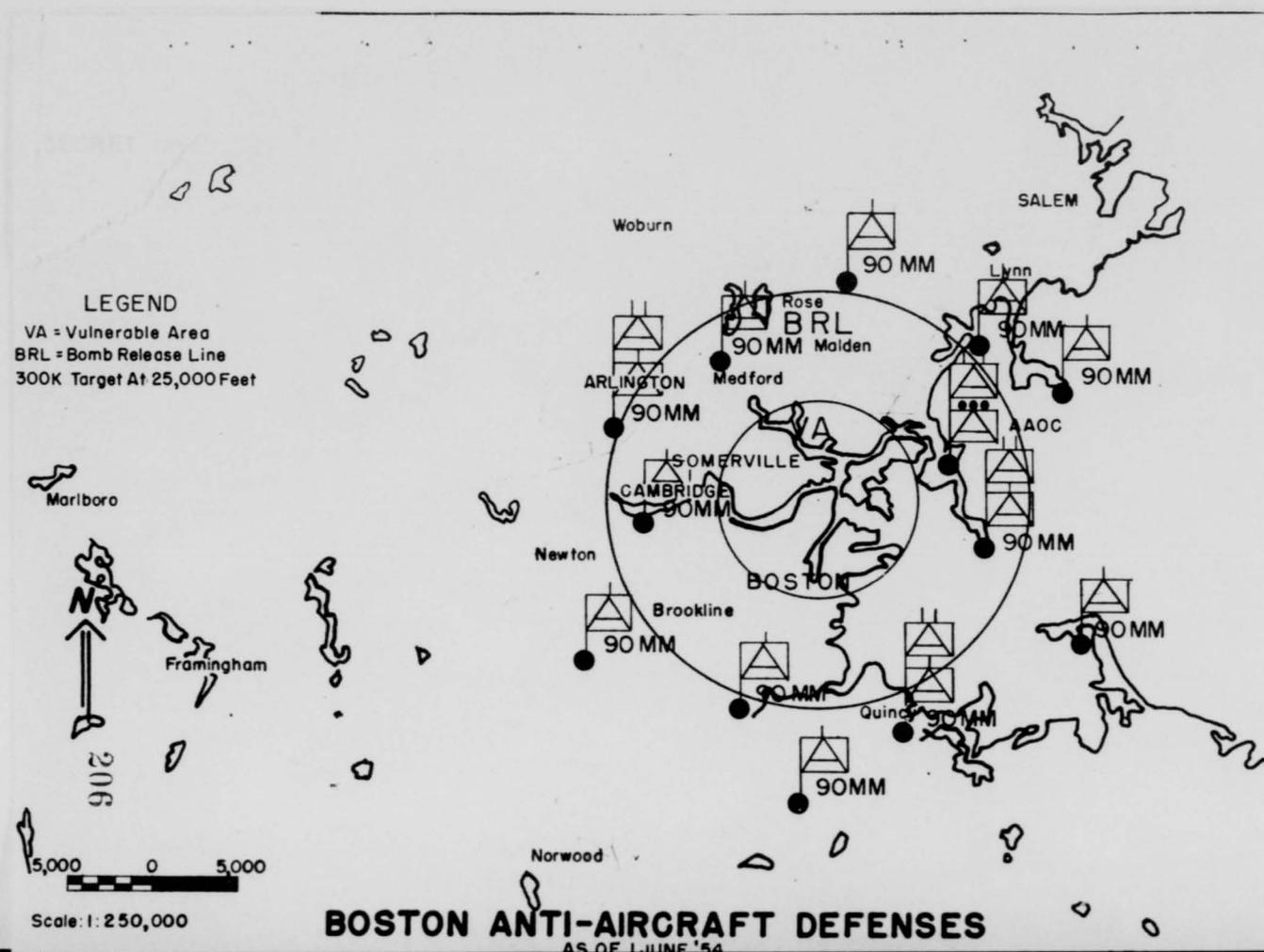
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5. General Statton, the 35th Brigade Commander, and his officers were very hospitable and went out of their way to make our visit both productive and pleasant. A thank you letter is being drafted.

s/t/OLDS

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Hancock Field, Eastwood Station 6,  
Syracuse, New York

OOT-A OPS/5-2

4 January 1954

SUBJECT: Transmittal of Controller Procedure Standardization Conference

TO: Commanders, Defense Wings & AC&W Squadrons

1. Forwarded for your information is a brief resume of a recent ADC conference held in Colorado Springs for the purpose of standardizing AC&W and Control procedures.

2. When inclosure #1 is withdrawn or not attached, the classification of SECRET on this correspondence will be cancelled.

BY ORDER OF THE COMMANDER:

1 Incl:  
Minutes of Meeting

s/t/ FREDERICK E. YORK  
Major, USAF  
Adjutant

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CONTROLLER PROCEDURE STANDARDIZATION CONFERENCE  
 EFT AIR FORCE BASE  
 Colorado Springs, Colorado  
 7-11 December 1953

HEADQUARTERS ADC

Lt Col C. H. Price	O&T, AC&W Branch Chief
Lt Col C. R. Schindler	O&T, OIC Systems Training (RAND)
Maj W. H. Baldrige	IG, Tactical Inspector
Maj P. W. Brownfield	O&T, AC&W Plans Officer
Maj I. C. Taylor	O&T, AC&W Operations Officer
Maj O. F. Duker	3d Wea Gp O&T
Maj E. C. Tobin	IG, AC&W Inspector of C&E
Capt J. W. Schafer	O&T, AC&W Operations Officer
Mr. F. C. Helfrich (Civ)	OA, Operations Analyst
Capt R. J. Swain	O&T, Member Systems Eng Rand Project

WESTERN AIR DEFENSE FORCE

Capt. B. T. Popovich, Hq WADF	Asst Chief, AC&W Div
Capt F. S. Wills (25th Air Div)	Operations & Training
Capt A. W. Peter (27th Air Div)	Director
(751 AC&W)	
Capt W. T. Shelton (28th Air Div)	Operations & Training

CENTRAL AIR DEFENSE FORCE

Capt M. A. Oaks Hq CAWF	Plans, Programs and Rqmts Br
Capt R. W. Mainzer (29th AD)	Combat Ops - AC&W Branch
Lt Col R. F. Zachmann (31st AD)	Dir Combat Oprs
Maj W. J. Collins (33d AD)	Asst DO
Capt P. L. Pugliese (34th AD)	Ops Analysis Off
Maj J. E. Ciccolella (35th AD)	AC&W Officer

EASTERN AIR DEFENSE FORCE

Lt Col R. H. Emmert Hq EADF	Asst Dir O&T
Capt J. T. Truesdell Hq EADF	AC&W Ops and Tng
Capt D. R. Thomas (30th AD)	AC&W Ops and Tng
Maj J. Yaworski (26th AD)	AC&W Officer
Capt W. J. Faucher (32d AD)	AC&W Officer

YUME

Maj S. M. Chesler (4750th Tng Wg) OIC, Controllers Proficiency School

Incl #1

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MINUTES OF MEETING HELD AT HQ ADC  
7-13 December 1953

PURPOSE: Standardization of Control Procedure and AC&W Operations.

The following is a summary breakdown of all speakers:

1. Colonel J. C. MYERS. Greeted all members of the conference and indicated the importance for standardization of control procedure with respect to the requirements of positive control for guiding the F-86D, F-94C and F-89C and D on a 90 degree beam approach.

2. Lt Colonel C. H. PRICE. AC&W Branch Chief.

a. Requested that all committees rewriting the ADC Regulations 55-30, 55-26 and a new identification regulation incorporate all letters, directives, etc. into one appropriate regulation.

b. Discussed the near collision of an F-36 and an American Airline aircraft in our area.

c. Stated that the Air Defense Command is striving to elevate the standards and prestige of the Controller. The Command is writing a new magazine which will openly discuss the pertinent factors of air defense and the responsibilities of the controllers and pilots.

d. He requested that the Squadron Commanders closely monitor the Director-Controller at work. Frequently many incidents occur which warrant the award of a commendation to the director for exceptional initiative or assistance to aircraft in distress. The award of commendation for incidents such as this would in turn elevate the director's prestige.

3. Major W. H. BALDRIDGE. IG Tactical Inspector.

a. Stated that most of his visits are for the special type inspections (AFR 123-1).

b. The items of interest are as follows:

(1) Request that the division assist in elevating the 1631 entry level to 1635. Approximately 30 to 35% of the controller strength is at the 1631 level.

(2) Distribute the wealth of 1635's evenly within the divisions. The Defense Wings should be monitored very closely by the division.

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Minutes of Meeting Held at HQ ADC - 7-13 December 1953

- (3) Very little interest and follow-up action is taken on the 1631 OJT program. The division should advise the units to have an organized training and the chief controller or chief director should be the direct supervisor.
- (4) Controller examinations are not being taken in accordance with ADC Reg 90-12. Proper records are not being maintained on completed examinations.
- (5) The telling, cross-telling, and passing of fighter responsibility should be delegated to the appropriate personnel. This action should be indicated on the vertical plotting board in order that the supervisors can see at a glance which tracks are being cross-told to the adjacent stations.
- (6) Fighter recovery. - There is a weakness in the program and ADC is taking necessary action. The units should check their ascent and recovery procedures. Many of the tactics are in conflict with safety procedure set forth by CAA. In many cases the fighters must fly a holding pattern before vectoring out to the target under IFR conditions; the same for the return. All plans should be reviewed. Also, the units should practice the ascents and recoveries for their stations in order to establish confidence and ability. The controllers should have a quota for number of ascents and descents. Records should be kept and monitored by the chief director.

4. Major CHESLER. OIC Controller Proficiency School, Yuma, Ariz.

a. The purpose of the school is to familiarize all directors with the control of aircraft employing the 90 degree beam approach.

b. The school will include the academics of controlling, orientation, observation and familiarization with the E4, E5, and E6 fire control systems. Each controller or director will be given a briefing on the operational capabilities of the interceptors. He will be given an opportunity to display his proficiency in controlling an interceptor on a 90 degree beam approach as part of the orientation. The school will consist of three phases:

Phase 1. Normal intercepts using F-51 and F-33 aircraft at 25,000 feet.

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Phase II. Include dry runs by F-86D and F-94C aircraft using 90 degree beam approach on a target towed by a B-45.

Phase III. Include the actual firing of rockets by the F-86D and F-94C using the 90 degree beam approach on a target towed by a B-45.

c. Each controller will control approximately forty-eight intercepts, during which there will be actual rocket firing. The school will last approximately two weeks.

5. Lt Colonel SHINDLER. OIG Systems Training (RAND)

Purpose of the RAND system is to present saturation traffic problems in which the radar stations would handle large movements of tracks (synthetic) in order that personnel may be trained for a "flap". The computer can furnish approximately two hundred tracks at each site. Various problems such as jamming, high altitude, high speed and the many other variations can be inserted. EADF will begin to receive these computers in May 1955.

6. Major Taylor. AC&W Operations Officer.

a. ADC Reg 50-12 pertaining to controllers examination is being changed and it will now establish definitions involving air defense terms.

b. The controller examinations will be changed into a manual which will state minimum requirements for each director-controller. This manual will be published in January 1954.

c. A few of the minimums are:

- (1) The examination will consist of 150 questions; -75 by ADC, 25 by EADF, 25 by Air Division and 25 by AC&W Squadron.
- (2) For a director with 1631 AFSC - 240 actual intercepts, 480 synthetic intercepts.
- (3) For a director with 1635 AFSC - 120 actual intercepts, 240 synthetic intercepts.
- (4) 60 actual and 120 synthetic ascents and recoveries.

d. The prescribed requirements will be monitored by the AC&W Squadron Commander.

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e. The AC&W Handbook, designed as a guide for training and for a ready reference manual, will be published in April 1954.

f. ADC is publishing a new form (similar to the AF Form 5) which will follow the controller-director with his form 66. This form will list the experience that the officer has had as controller, director, AC&W Unit Commander or operations officer.

7. Mr. Anderson. Recorders.

Mr. Anderson gave a brief description of the recorder-reproducer Press Wireless. ADC has purchased 540 of these recorders and they will be distributed to all units in the near future. The recorder is very versatile and some of its features are: Capability of recording for a 24-hour period; automatic or manual operation by a foot control; has frequency response; automatic volume control; voice actuated pick-up; play back; eraser; and it is tamper-proof. The weight of the recorder is 150 pounds.

8. Major S. WHITE. COC Chief.

a. Major White discussed track designators and all problems associated with these designators. It was resolved by all that track numbers will be reserved as follows:

1 - 199	ADC Radar
300 - 399	AAA Radar
400 - 499	GOC

b. All divisions within ADC will adopt the vertical plotting board within the next ten months.

c. He suggested that the division make provisions for the weather forecaster to tie in with the communications at the ADDC in order that he may talk directly with the fighter pilot.

9. Major CHRISTOPHER. Deputy for Personnel.

He stated that the controller situation is very critical. Ten percent of the total officers lost under the RIF last summer were controllers and as of 1 November 1953, ADC had only 67 percent of its authorized strength. ADC insisted that USAF take prompt action to increase the number of controllers. USAF placed new emphasis in sending officers to the controller's school at Tyndall AFB. Also, USAF could not promise complete stability of controller personnel within ADC. However, they will very closely monitor the overseas shipment of controllers.

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10. Major BROWNFIELD. AC&W Plans Officer.

a. Major Brownfield presented the double perimeter concept of air defense. EADP will be enlarged to absorb all of the major targets in the eastern part of the United States. The adoption of the double perimeter in ADC is as follows:

(1) Site surveys -

1st Phase - 4 quarter 1954  
2nd phase - 3 quarter 1954  
3rd Phase - 3 quarter 1954  
Texas Towers - 2nd quarters 1954

(2) Operational -

1st Phase - 2nd quarter 1956  
2nd Phase - 2nd quarter 1956  
3rd Phase - 2nd quarter 1957  
Automatic gap fillers - 4 quarter 1957  
Texas Towers - 1st quarter 1957

b. The Ragazini Project (Columbia Project GPA-23) has been adopted by ADC. The installation of the GPA 23 is programmed for the 32d Air Division. More information will be sent to the division soon.

11. COMMITTEES AND REGULATIONS.

(a) The members of the conference were separated into various committees for the purpose of re-writing ADC regulations concerning control-logs and identification. In all committees, each Force had a representative to acquaint other members of any Force requirement.

(b) In reference to ADC Regulation 55-30, subject: Control and Fighter Procedures, the entire regulation was re-written to fit the needs of the present and anticipated future procedures.

(c) In reference to ADC Regulation 55-6, subject: Recording of AC&W Operational Data. This regulation was re-written in part for statistical study of AC&W operations. The form 86 which is used for recording flight plan logs and identification logs will be replaced by using flight strips. The strips are similar to those being used in the CAA and MFS centers. ADC has also proposed an identification desk in which a map of 1:1,000,000 scale would outline the station's area of responsibility and all airways and necessary corridors. ADC is also furnishing a correlation ruler which will help the units correlate flight plans within the minimums expressed by existing regulations.

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d. ADC is publishing a new identification regulation. This regulation will be very similar to the proposed EADF regulation, which was written at EADF last October.

e. ADC will forward copies of all proposed regulations in draft form, to all divisions. At that time this division will hold a meeting of the AC&W squadron operations officers for the purpose of discussing in detail all pertinent matters listed in the proposed regulations.

1 Incl:  
Instr book for Press  
Wireless

s/t/ WILLIAM J. FAUCHER  
Captain, USAF  
AC&W Officer

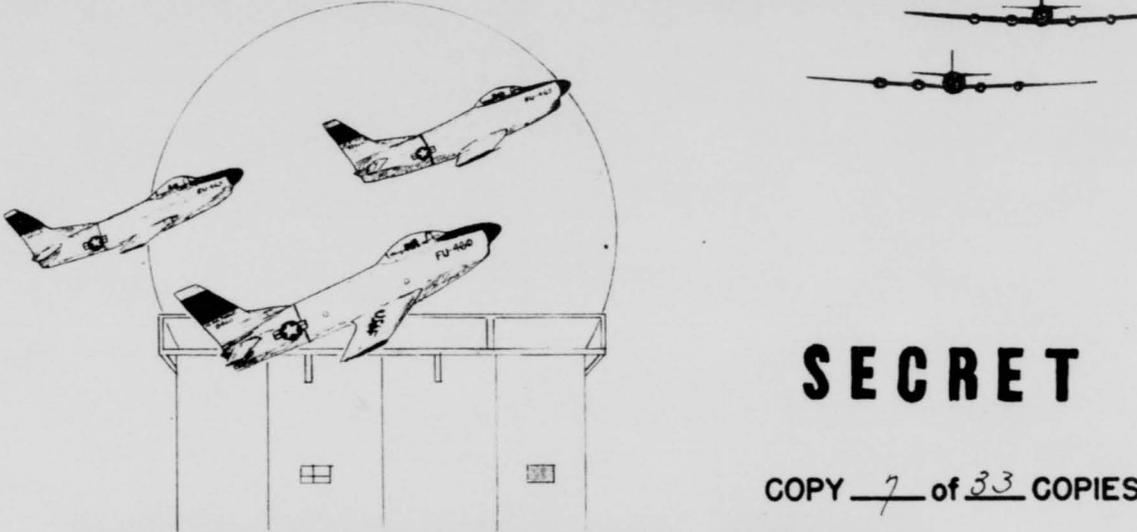
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**32d AIR DIV**

**OPERATIONS** *Jan 1954*



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**SUMMARY**

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PREPARED BY

OFFICE OF THE COMPTROLLER

FOR DEPUTY FOR OPERATIONS

32D AIR DIVISION (DEFENSE)

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GENERAL SUMMARY OF OPERATIONS FOR 1-31 Jan 1954

1. Decrease in total workload for all units continues with the seasonal trend.
2. Relative to the sharp increase in the number of occurrences in which no scramble was made against unknown tracks, several factors must be considered. In November 1953, weather prevented only 13 scrambles against 103 tracks; in December 1953, it prevented 4 scrambles against 96 tracks; but in January 1954, 22 failures to scramble against 91 unknown tracks were due to weather. Another factor to consider is the grounding of the F86D which is reflected in scrambles due to conservation of aircraft. It is desired to point out that these factors are beyond control of the system and make no derogatory reflection on the unit concerned.
3. The high percentage of tracks identified either without scramble action or prior to intercept indicates the requirement for an acceptable means of reporting a tactically delayed scramble or extension of time limit from detection time to scramble order. It is apparent that considerable savings would result without increase in calculated risk in regard to air defense.

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32d AIR DIVISION (DEF)

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SUMMARY OF AIR DEFENSE OPERATIONS FOR 1-31 Jan 1954

	P - 10	P - 13	P - 14	P - 21	P - 49	P - 50	P - 65	P - 80	32 A
1. PENETRATION TRACKS:	178	459	608	322	173	4	1113	523	338
2. WORKLOAD TRACKS:	1115	909	165	73	101	624	592	1362	494
3. GOC TRACKS:									
a. TRACKS RECEIVED	846	589	373	48	56	363	1192	N/A	346
b. TRACKS CORRELATED	813	559	321	20	29	259	1021	N/A	302
4. NUMBER OF UNKNOWN TRACKS:	36	3	15	4	7	5	11	10	5
5. SCR ACTION INITIATED:	24	1	0	1	4	1	8	7	4
6. NO SCR ACTION INITIATED:	12	2	15	3	3	4	3	3	1
7. NUMBER OF INTERCEPT:	14	0	0	0	3	0	7	4	2
8. NUMBER OF MISSED INTERCEPT:	1	0	0	0	0	0	0	0	0
9. IDENT PRIOR TO INTERCEPT:	9	1	0	1	1	1	1	3	1
10. IDENT AFTER MISSED INTERCEPT:	0	0	0	0	0	0	0	0	0
11. IDENT W/OUT SCR INITIATED:	12	2	9	2	2	4	3	3	1
12. REMAINED UNKNOWN:	1	0	6	1	1	0	0	0	0
13. INTERCEPT EFFECT %:	58	0	0	0	75	0	88	57	1
14. IDENT EFFECT %:	97	100	60	75	86	100	100	100	1
15. *TRUE INTERCEPT EFFECT %:	93	0	0	0	100	0	100	100	1
16. FLT PLANS RECEIVED:	175	1313	766	443	282	N/A	1136	521	46
17. FLT PLANS CORRELATED:	175	1274	720	400	246	N/A	1106	511	44
18. CORRELATION %:	100	97	94	90	87	N/A	97	98	1

REMARKS:

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32d AIR DIVISION (DEF)

## SUMMARY OF AIR DEFENSE OPERATIONS FOR 1-31 Jan 1954

18.	REASON FOR NO SCRAMBLE ACTION	P-10	P-13	P-14	P-21	P-49	P-50	P-85	P-80
a.	WEATHER (WX)	10	2	0	2	2	2	1	3
b.	OUT OF INTERCEPT RANGE (OR)	1							
c.	NO AI EQUIPPED FTR IN SUITABLE LOCATION (NAIF)				1				
d.	CONSERVATION OF AIRCRAFT (CA)	1		*15		1	2	2	
e.	NO FIGHTER IN SUITABLE LOCATION (NFSL)								
19.	REASON FOR MISSED INTERCEPTS								
a.	WEATHER (WX)								
b.	LATE SCRAMBLE (LS)								
c.	AIRBORNE EQUIPMENT FAILURE (A&F)								
d.	DARKNESS (DK)								
e.	ELECTRONICS COUNTERMEASURES (ECM)								
f.	ABORT (ABT)								
g.	CONTROLLER ERROR (CE)								
h.	GROUND EQUIPMENT FAILURE (GEF)								
i.	AIRCRAFT PERFORMANCE (ACP)								
j.	FADE PRIOR TO INTERCEPT (FPI)	1							

REMARKS: \*Due to grounding of F86D pending T/O compliance

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32d AIR DIVISION FLIGHT PLAN CORRELATION

Date: From 1 Jan to 31 Jan 54

	P - 10	P - 13	P - 14	P - 21	P - 49	P - 50	P - 65	P - 80	32
FLIGHT PLANS RECEIVED:	175	1313 <sup>k</sup>	766	443	282	N/A	1136	521	463
FLIGHT PLANS CORRELATED:	175	1274	720	400	246	N/A	1106	511	443
FLIGHT PLANS NOT CORRELATED:	0	39	46	43	36	N/A	30	10	20
REASONS FOR NON CORRELATION (Mechanical Limitations)									
1. SCHEDULED MAINTENANCE:	0	9	7	30	15	0	10	2	7
2. EMERGENCY MAINTENANCE:	0	3	6	6	0	0	0	0	1
3. OUT OF CALIBRTN LIMITS:	0	14	9	0	5	0	16	0	4
5. GRUND CLUTTER	0	2	1	1	0	0	0	0	
9. OTHER*	0	1	15	3	9	0	1	0	2
TOTAL	N/A	29	38	40	29	N/A	27	2	16
(Other than Mechanical Limitations)									
4. WEATHER:	0	2	0	3	5	0	1	0	1
6. LATE FLIGHT PLAN:	0	0	1	0	0	0	0	4	
7. DEVIATED FLIGHT PLAN:	0	8	2	0	1	0	0	4	
8. PERSONNEL ERROR:	0	0	5	0	1	0	2	0	
TOTAL	N/A	10	8	3	7	N/A	3	8	
GRAND TOTAL	N/A	39	46	43	36	N/A	30	10	2

\*Most Common reason for No. 9:

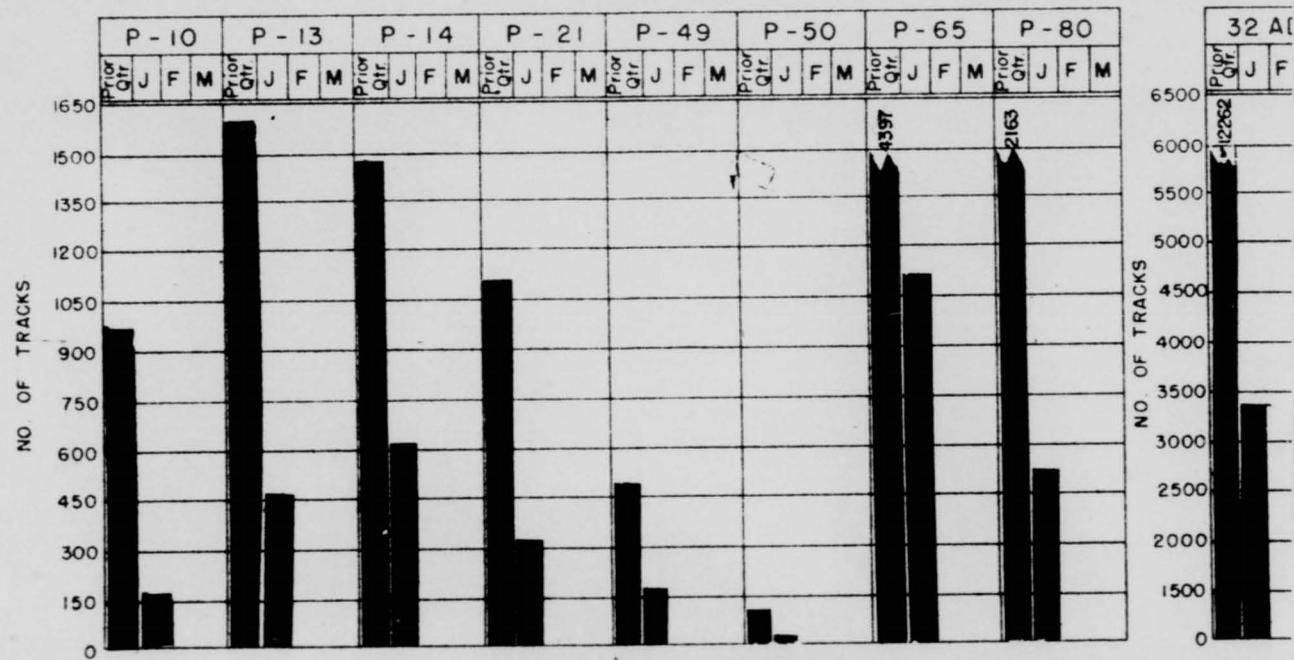
Small Reflecting Surface  
(SECRET) (when filled in)

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32d AIR DIVISION (DEF)

TOTAL TRACKS REQUIRING IDENTIFICATION

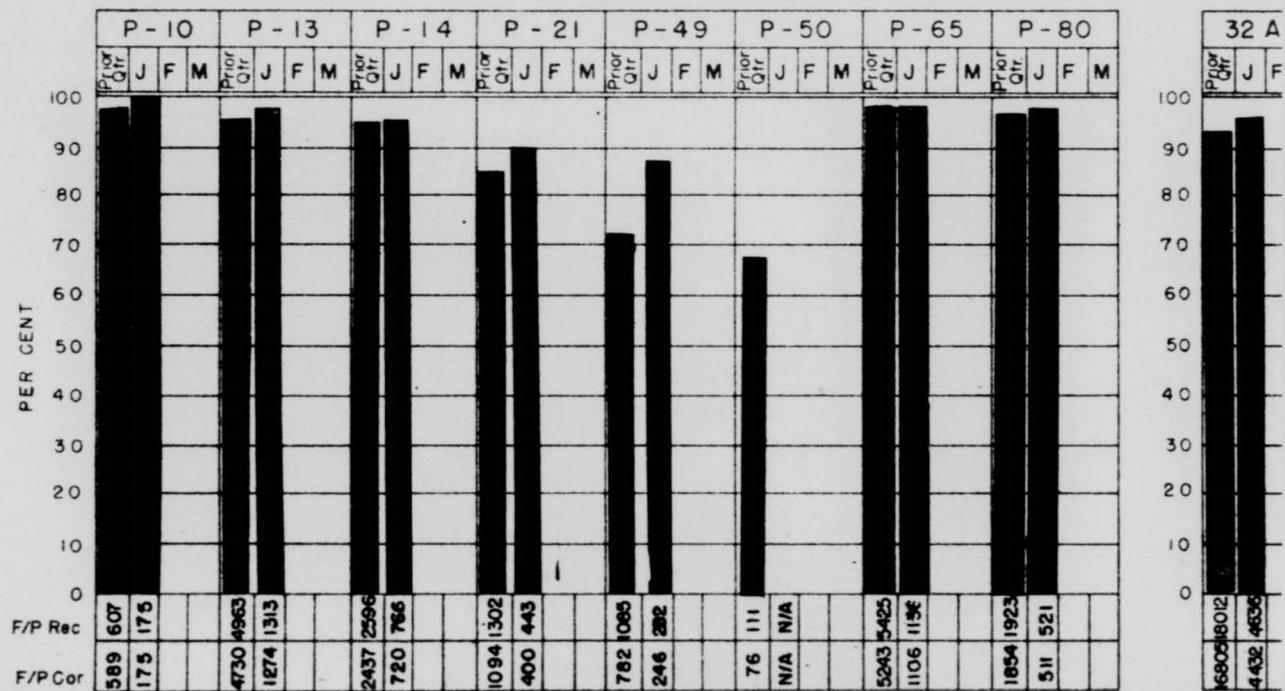


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32d AIR DIVISION (DEF)

FLIGHT PLAN CORRELATION



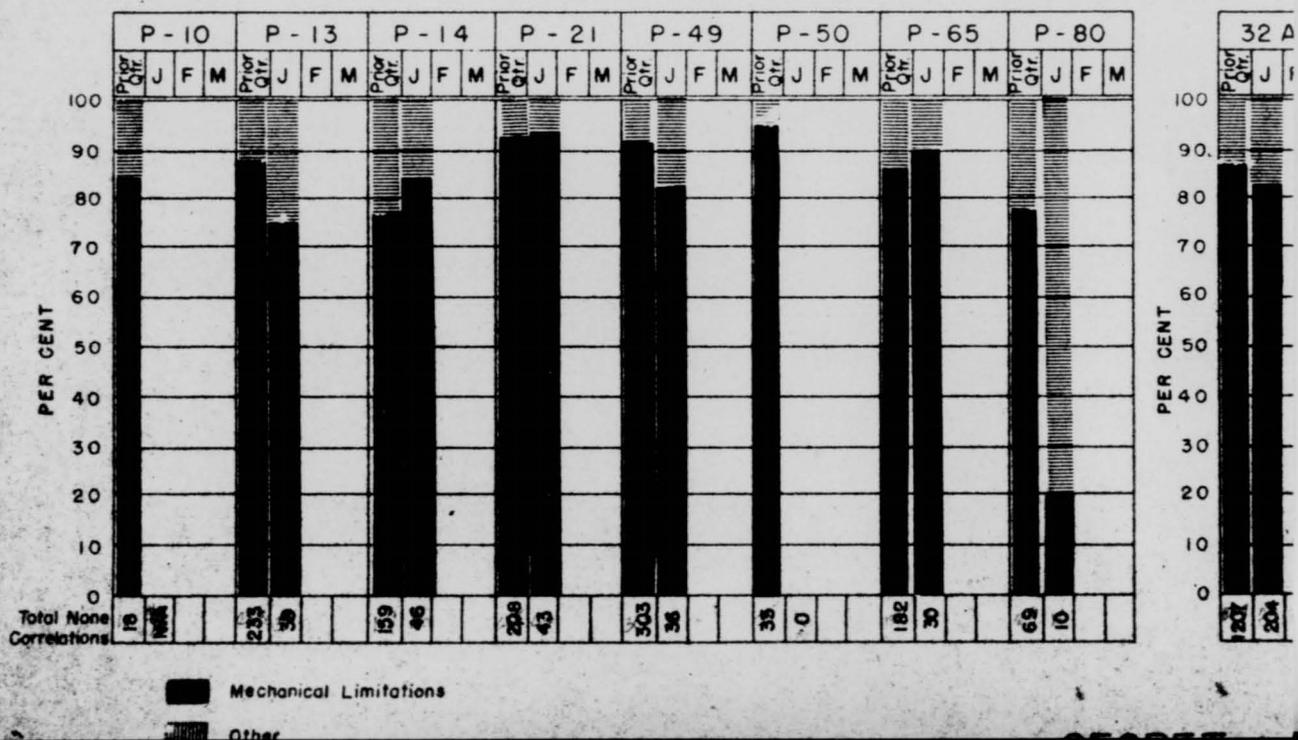
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32d AIR DIVISION (DEF)

NON - CORRELATIONS



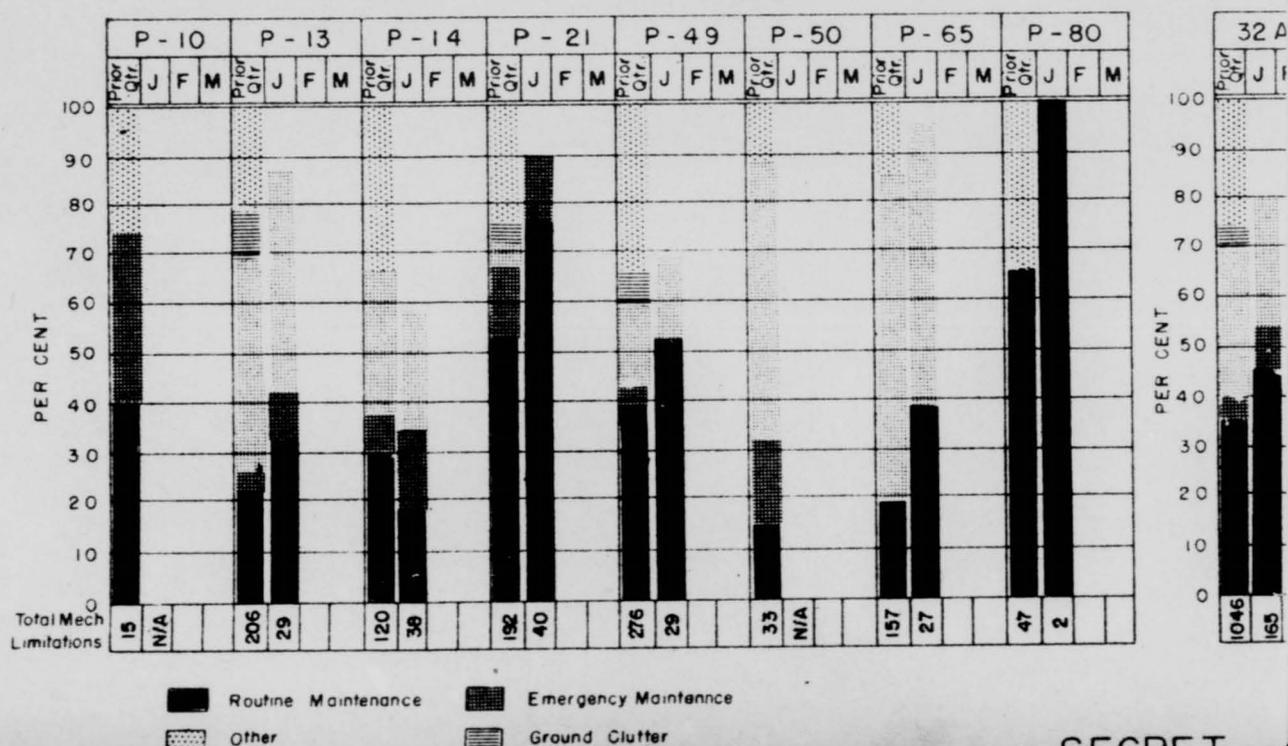
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32d AIR DIVISION (DEF)

NON-CORRELATIONS

(Mechanical limitations)



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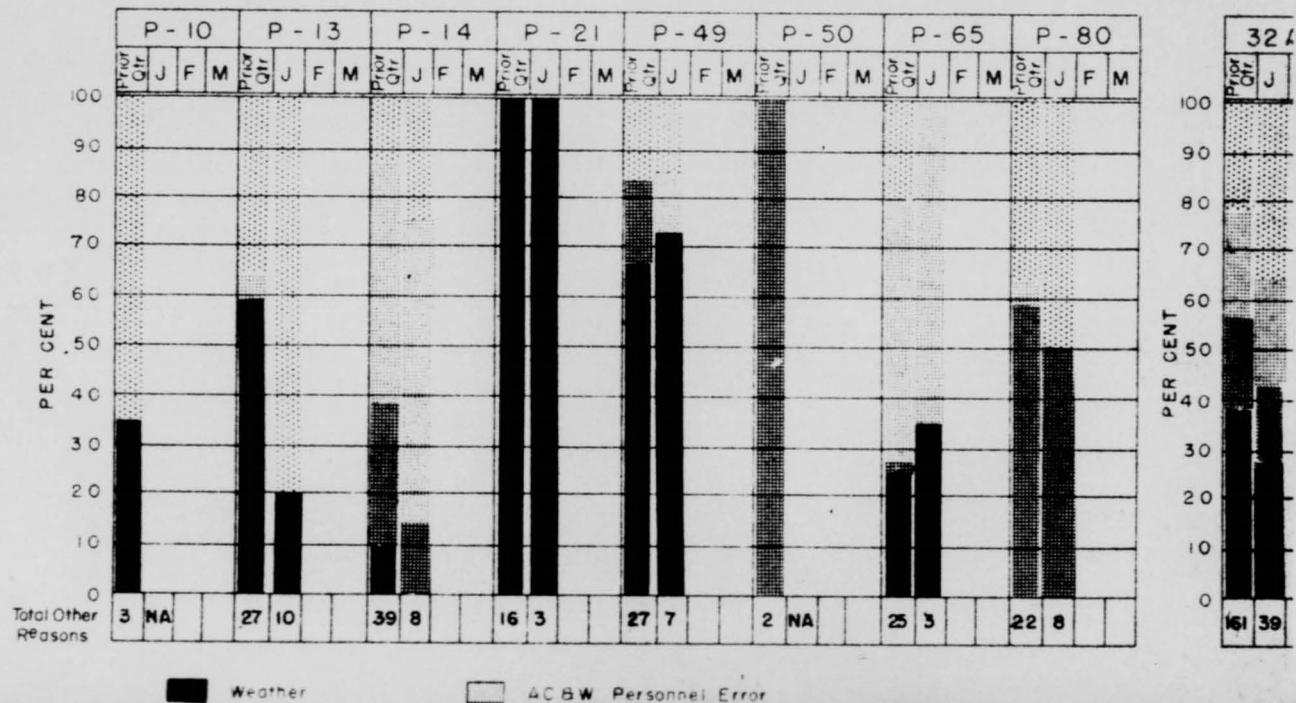


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32d AIR DIVISION (DEF)

NON-CORRELATIONS

(Other Reasons)

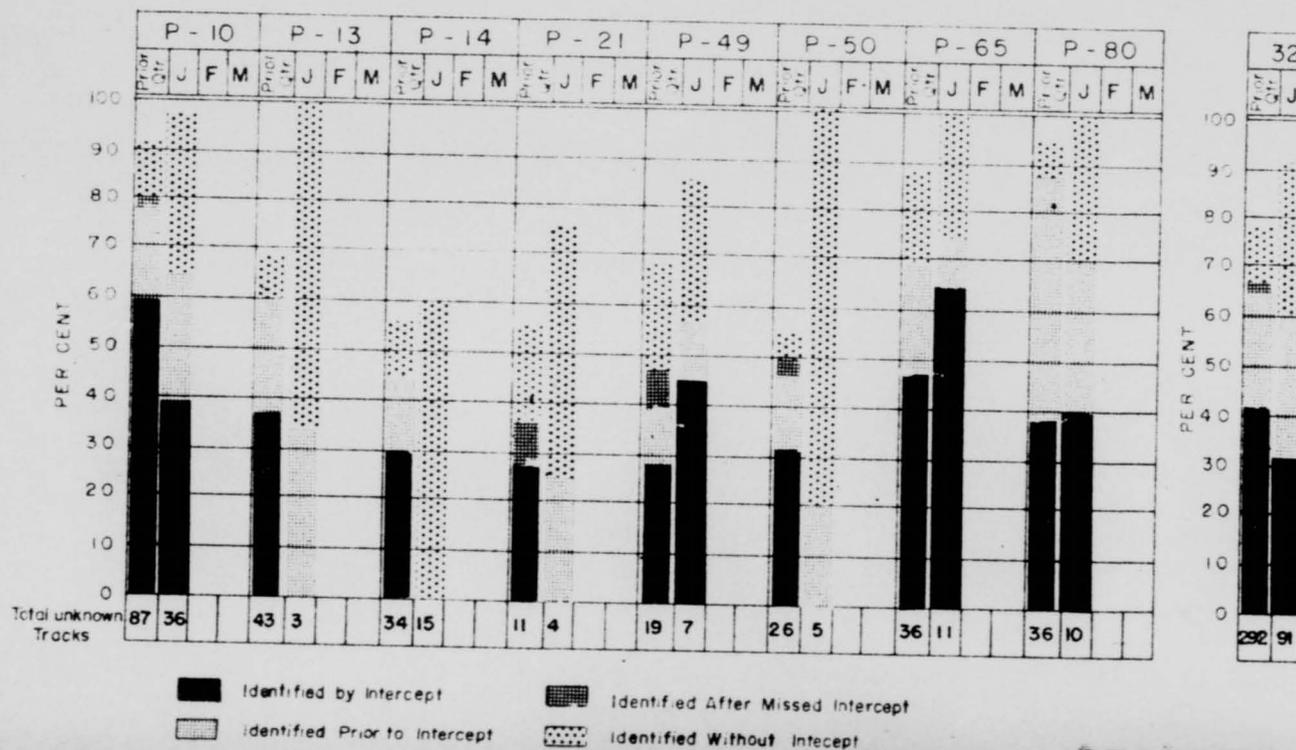


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128 AIR DIVISION (DEF)

IDENTIFICATION EFFECTIVENESS



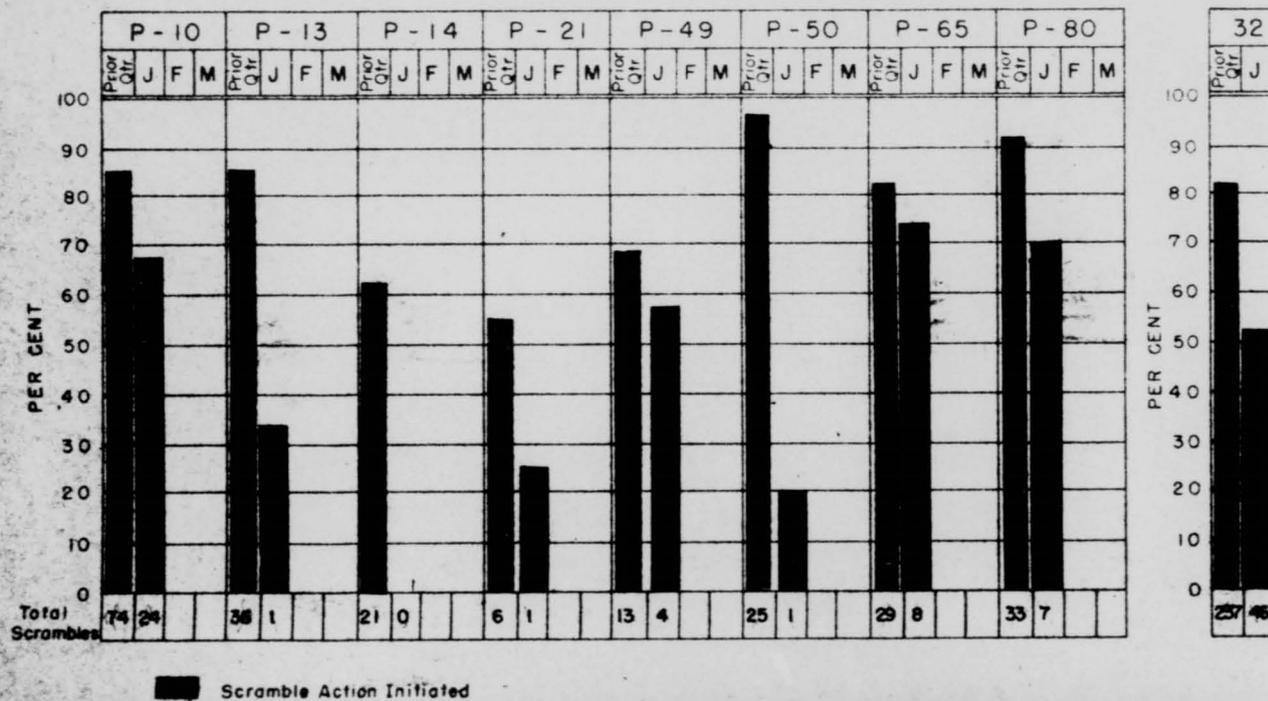
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32d AIR DIVISION (DEF)

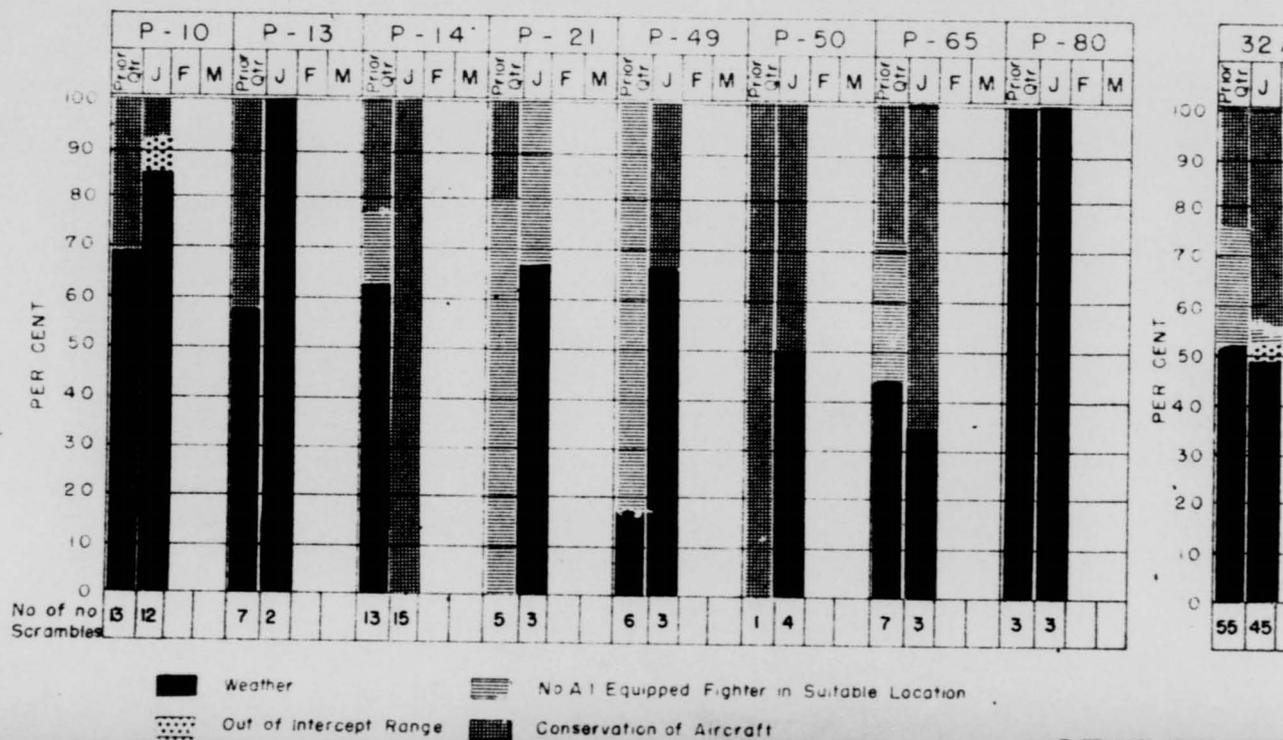
SCRAMBLE ACTION



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320 AIR DIVISION (DEF)

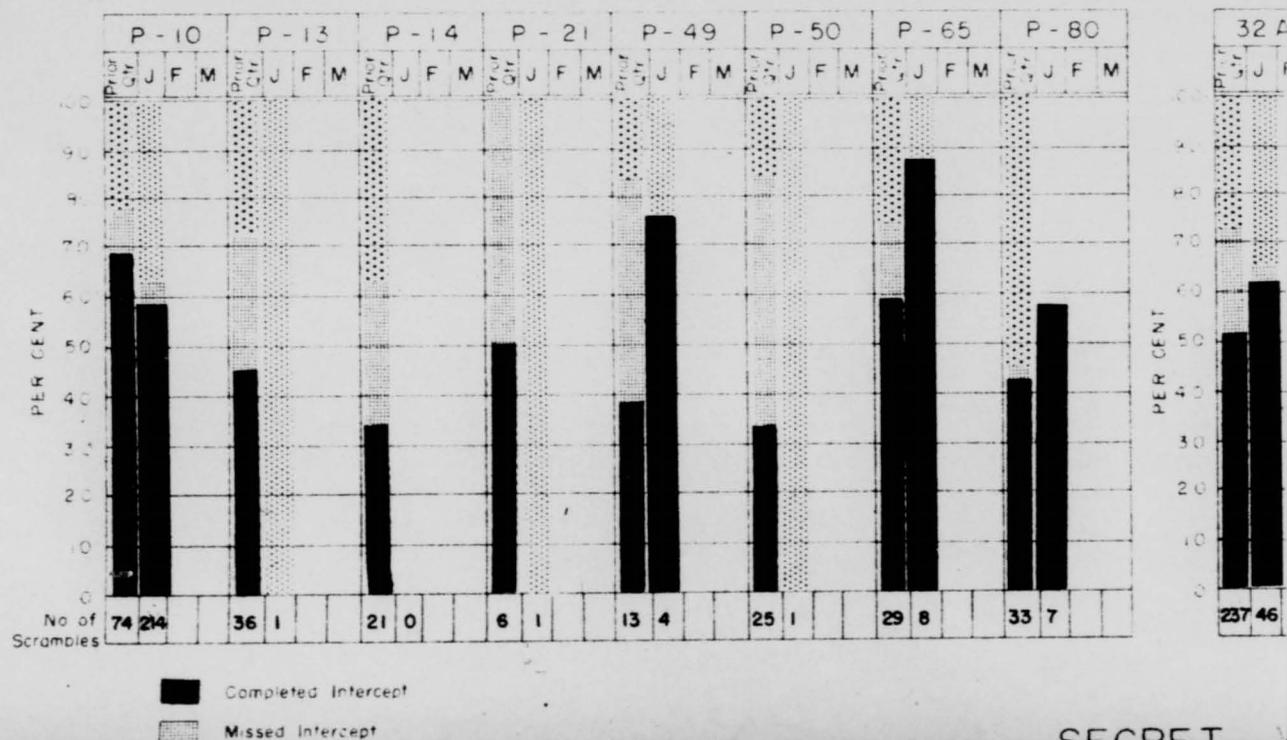
REASONS FOR NO SCRAMBLE



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120 AIR DIVISION REF  
INTERCEPT EFFICIENCY

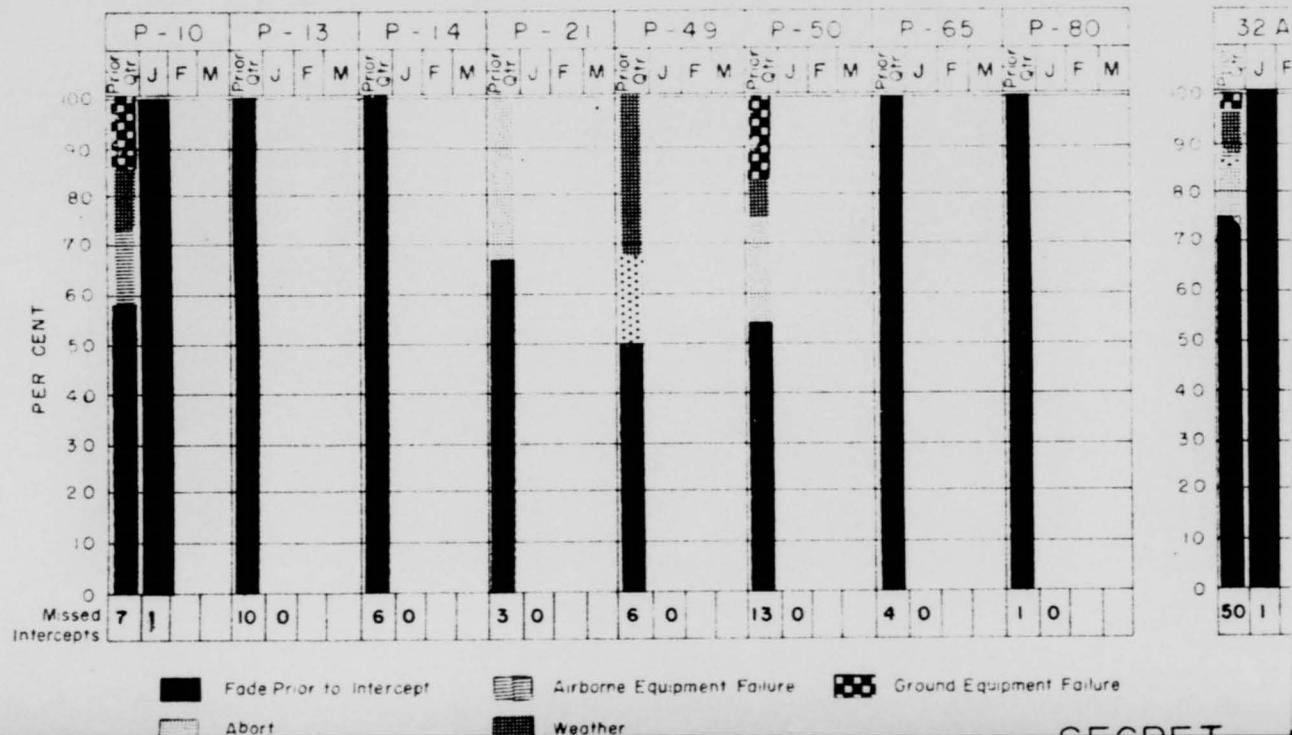


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REASONS FOR MISSED INTERCEPTS



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CO 654th AC&W Sq	1
CO 655th AC&W Sq	1
CO 656th AC&W Sq	1
CO 762nd AC&W Sq	1
CO 763d AC&W Sq	1
CO 764th AC&W Sq	1
CO 765th AC&W Sq	1
CO 766th AC&W Sq	1
CO 27th FIS	1
CO 37th FIS	1
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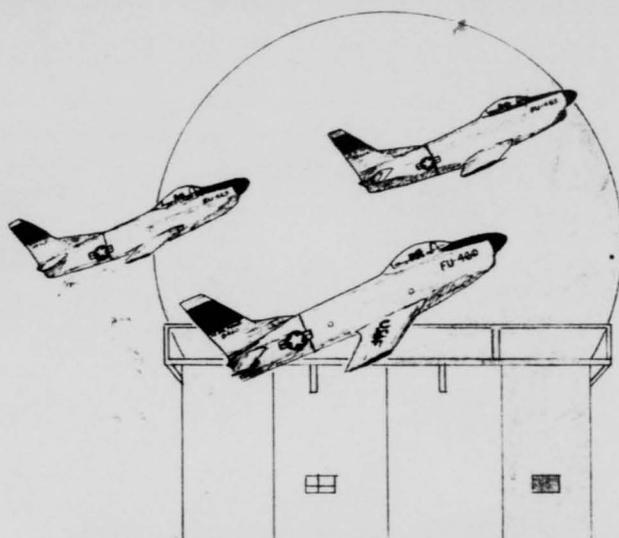
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# OPERATIONS



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# SUMMARY

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PREPARED BY

OFFICE OF THE COMPTROLLER

FOR DEPUTY FOR OPERATIONS

32D AIR DIVISION (DEFENSE)

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SUMMARY OF AIR DEFENSE OPERATIONS FOR 1-28 Feb 1954

	P - 10	P - 13	P - 14	P - 21	P - 49	P - 50	P - 65	P - 80	32
1. PENETRATION TRACKS:	188	357	780	427	126	7	1161	548	355
2. WORKLOAD TRACKS:	1076	996	226	49	148	755	552	1533	533
3. GOC TRACKS:									
a. TRACKS RECEIVED	1145	1068	349	382	247	386	2170	N/A	571
b. TRACKS CORRELATED	905	977	286	142	82	259	1825	N/A	447
4. NUMBER OF UNKNOWN TRACKS:	39	12	18	3	1	7	8	9	5
5. SCR ACTION INITIATED:	32	9	9	3	1	5	5	7	5
6. NO SCR ACTION INITIATED:	7	3	9	0	0	2	3	2	5
7. NUMBER OF INTERCEPT:	25	3	0	1	0	2	3	3	5
8. NUMBER OF MISSED INTERCEPT:	2	1	2	1	1	1	1	0	5
9. IDENT PRIOR TO INTERCEPT:	5	5	7	1	0	2	1	4	5
10. IDENT AFTER MISSED INTERCEPT:	0	0	0	0	0	0	0	0	5
11. IDENT W/OUT SCR INITIATED:	7	3	6	0	0	2	3	2	5
12. REMAINED UNKNOWN:	2	1	5	1	1	1	1	0	5
13. INTRCPT EFFECT %:	78	33	0	33	0	40	60	43	5
14. IDENT EFFECT %:	95	92	72	67	0	86	88	100	5
15. *TRUE INTRCPT EFFECT %:	93	75	0	50	0	67	75	100	5
16. FLT PLANS RECEIVED:	190	1334	814	427	291	N/A	1162	556	477
17. FLT PLANS CORRELATED:	187	1299	763	387	256	N/A	1143	549	458
18. CORRELATION %:	98	97	94	91	88	N/A	98	99	5

REMARKS: Intercept figure within the body of the report is figures according to RADF Regulations: Completed intercepts divided by scrambles.

\* Intercept figure preceded by asterisk is determined by intercepts divided by total of scrambles less identifications prior to intercept.

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32d AIR DIVISION (DEF)

SUMMARY OF AIR DEFENSE OPERATIONS FOR 1- 28 Feb 1954

18.	REASON FOR NO SCRAMBLE ACTION	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80
a.	WEATHER (WX)	5	2	2	0	0	2	1	2
b.	OUT OF INTERCEPT RANGE (OR)								
c.	NO AI EQUIPPED FTR IN SUITABLE LOCATION (NAIF)								
d.	CONSERVATION OF AIRCRAFT (CA)	2	1	7				2	
e.	NO FIGHTER IN SUITABLE LOCATION (NFSL)								
19.	REASON FOR MISSED INTERCEPTS								
a.	WEATHER (WX)	1							
b.	LATE SCRAMBLE (LS)								
c.	AIRBORNE EQUIPMENT FAILURE (A&F)								
d.	DARKNESS (DK)								
e.	ELECTRONICS COUNTERMEASURES (ECM)								
f.	ABORT (ABT)								
g.	CONTROLLER ERROR (CE)							1	
h.	GROUND EQUIPMENT FAILURE (GEF)								
i.	AIRCRAFT PERFORMANCE (ACP)								
j.	FADE PRIOR TO INTERCEPT (FPI)	1	1	2	0	1	0	0	0
k.	FORWARDED TO ADJACENT DIVISION (Missed Intercept)				1				

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## 32d AIR DIVISION FLIGHT PLAN CORRELATION

Date: From 1st to 28 Feb 54

	P - 10	P - 13	P - 14	P - 21	P - 49	P - 50	P - 65	P - 80	32
FLIGHT PLANS RECEIVED:	190	1334	814	427	291	N/A	1162	556	1
FLIGHT PLANS CORRELATED:	187	1299	763	387	256	N/A	1143	549	1
FLIGHT PLANS NOT CORRELATED:	3	35	51	40	35	N/A	19	7	
REASONS FOR NON CORRELATION (Mechanical Limitations)									
1. SCHEDULED MAINTENANCE:	2	17	12	19	27	0	4	2	
2. EMERGENCY MAINTENANCE:	0	1	1	4	0	0	0	2	
3. OUT OF CALIBRN LIMITS:	1	9	17	2	3	0	6	0	
5. GROUND CLUTTER	0	2	1	0	0	0	0	0	
9. OTHER*	0	2	15	9	3	0	3	2	
TOTAL	3	31	46	34	33	N/A	13	6	
(Other than Mechanical Limitations)									
6. WEATHER:	0	1	1	6	2	0	0	0	
6. LATE FLIGHT PLAN:	0	0	2	0	0	0	1	0	
7. DEVIATED FLIGHT PLAN:	0	3	1	0	0	0	1	1	
8. PERSONNEL ERROR:	0	0	1	0	0	0	4	0	
TOTAL	0	4	5	6	2	N/A	6	1	
GRAND TOTAL	3	35	51	40	35	N/A	19	7	

\*Most Common reason for No. 9:

*Small Restricted Surface*  
(SECRET) (when filled in)

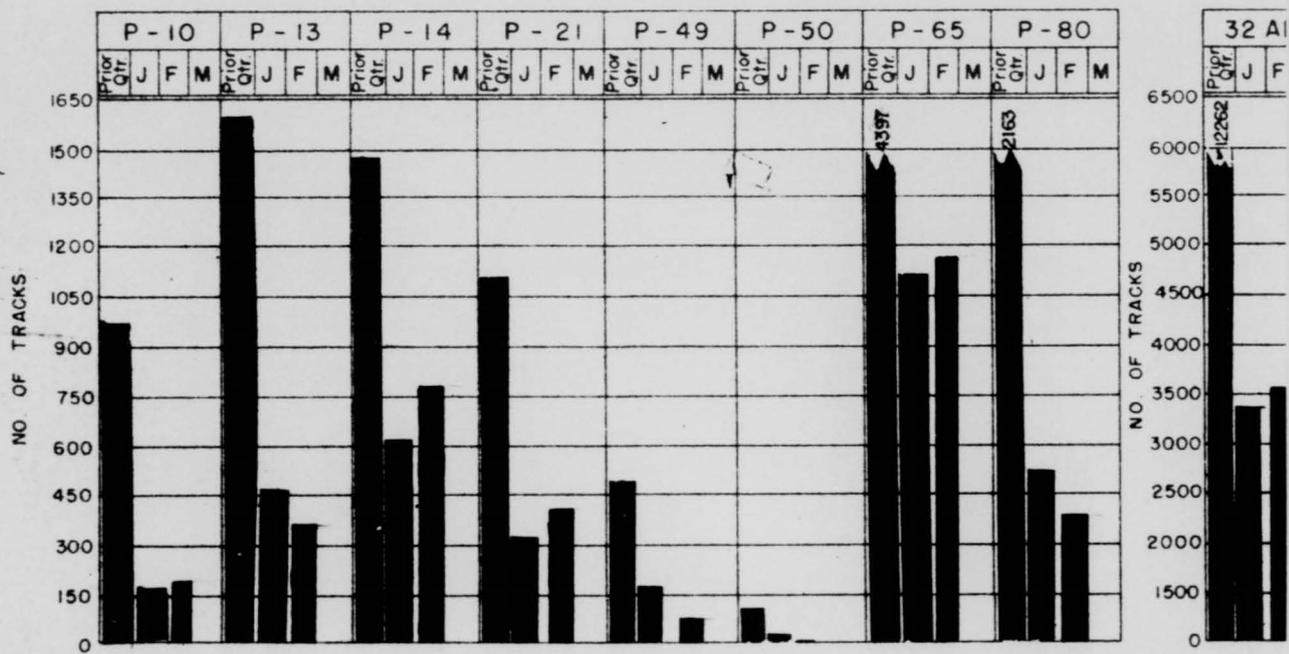
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32d AIR DIVISION (DEF)

TOTAL TRACKS REQUIRING IDENTIFICATION



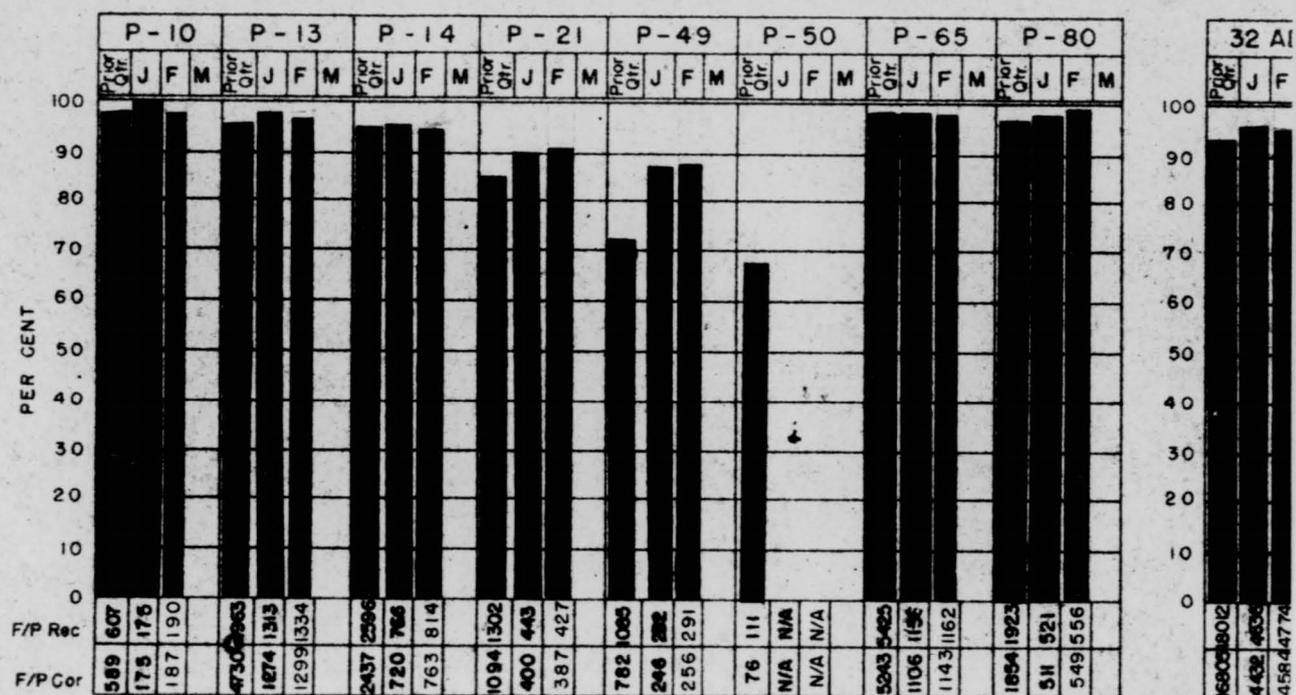
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324 AIR DIVISION (DEF)

## FLIGHT PLAN CORRELATION



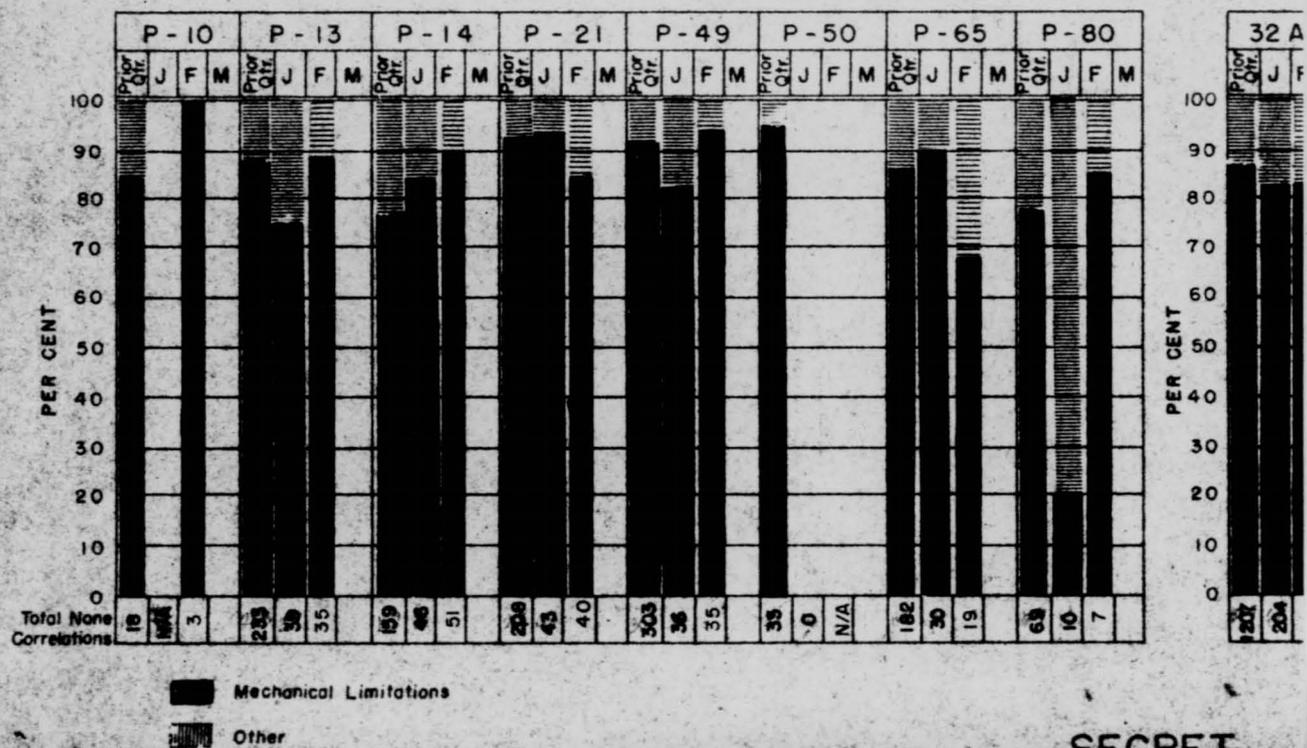
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32d AIR DIVISION (DEF)

NON - CORRELATIONS



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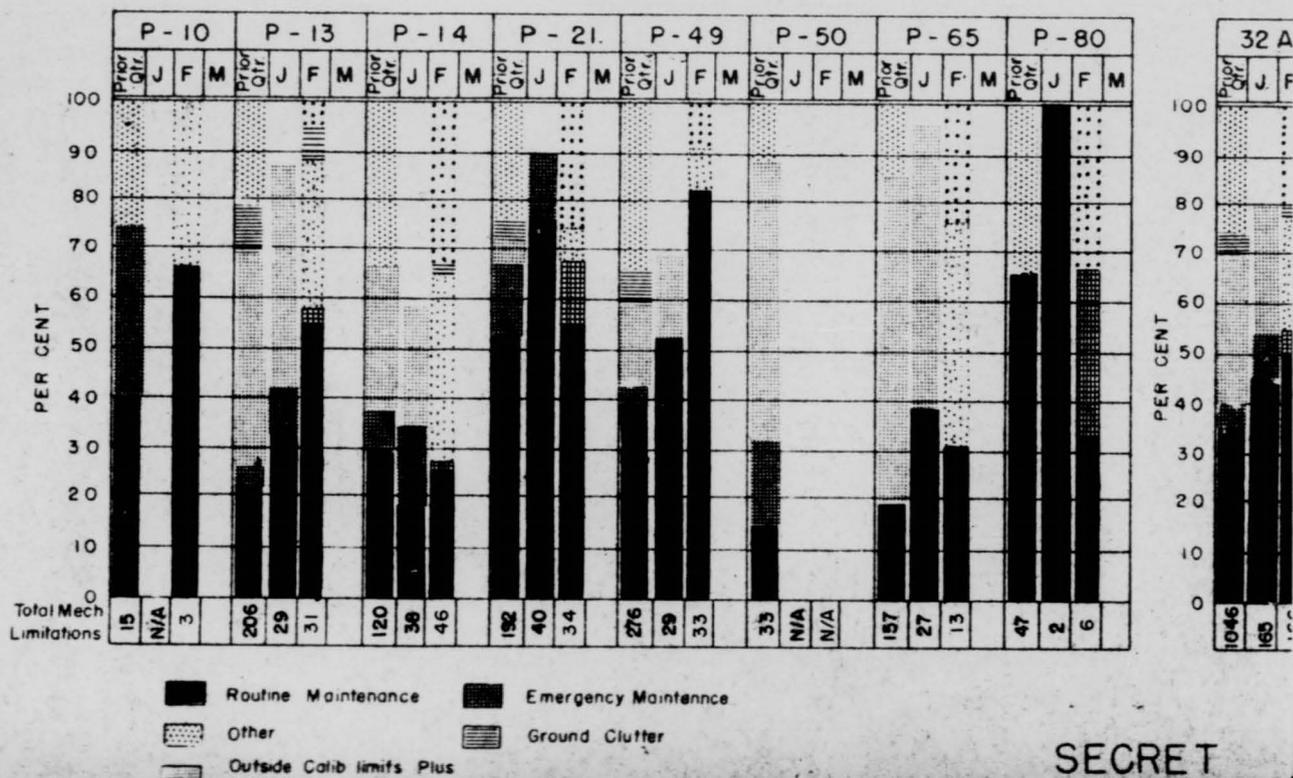
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32d AIR DIVISION (DEF)

NON-CORRELATIONS

(Mechanical limitations)



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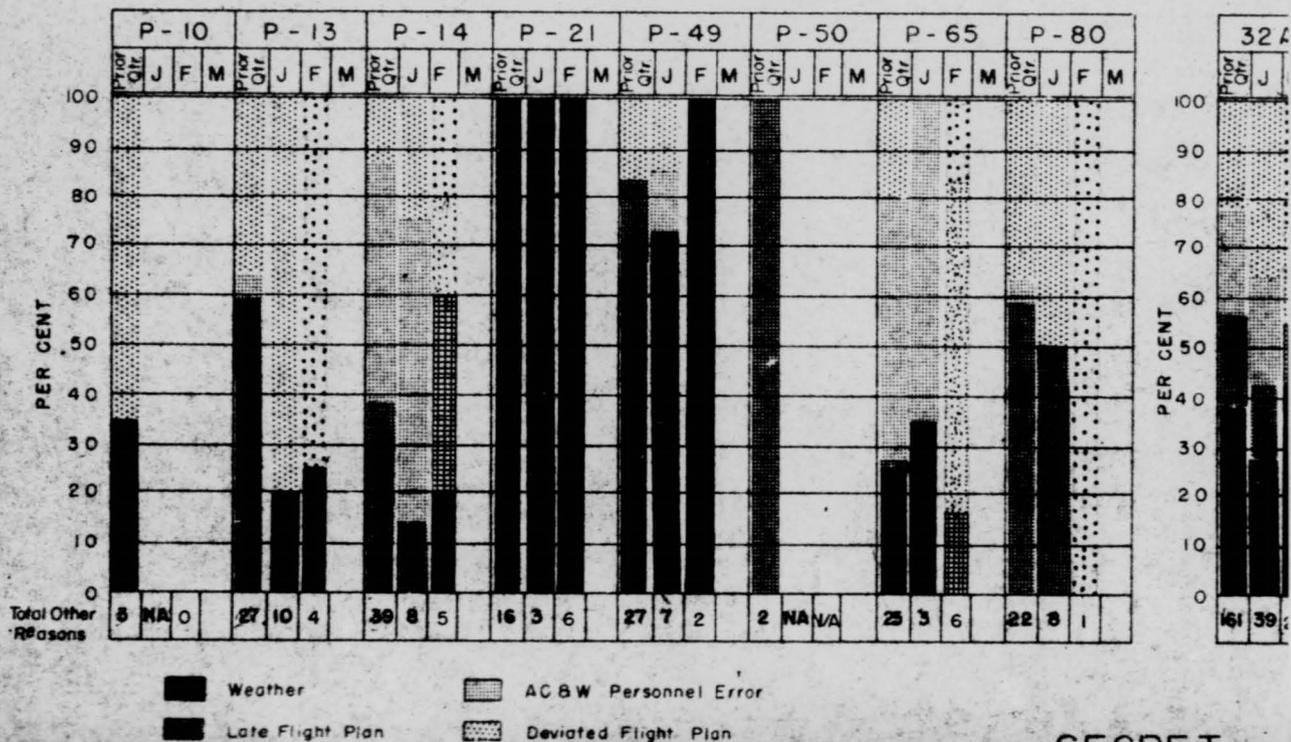
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32d AIR DIVISION (DEF)

NON-CORRELATIONS

(Other Reasons)



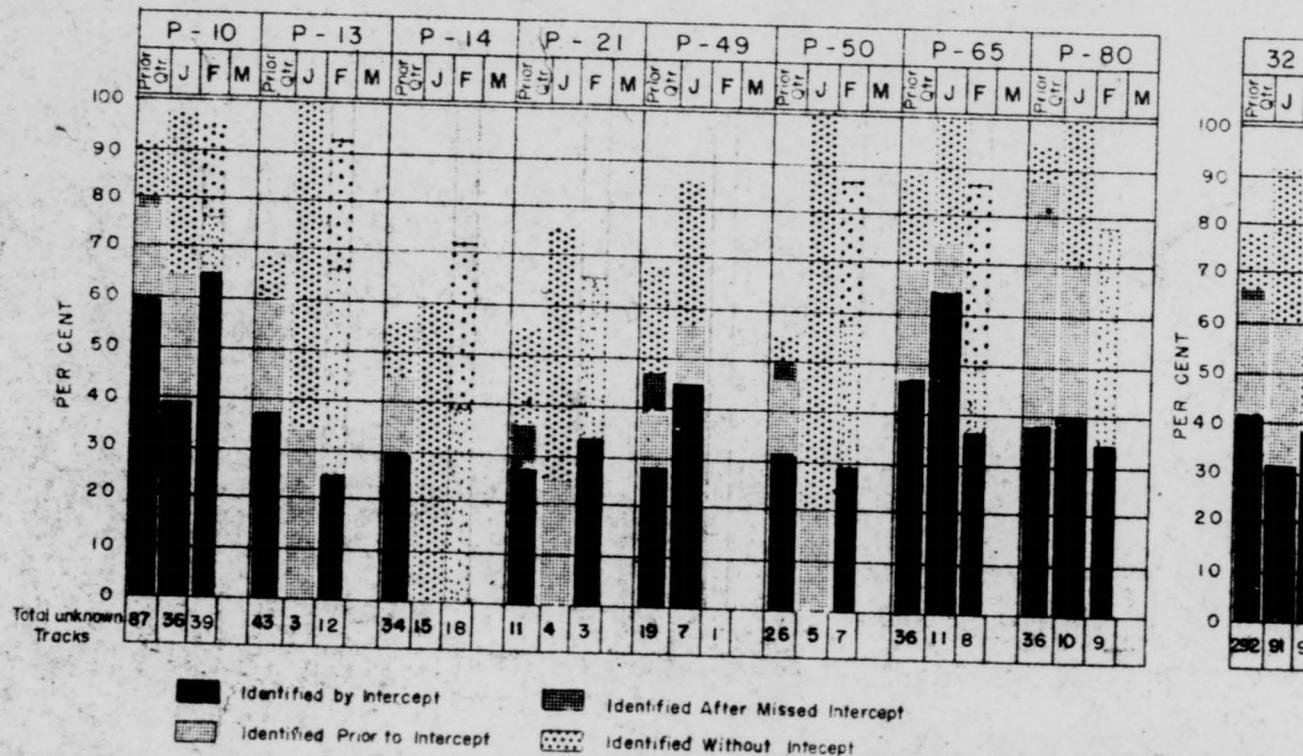
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32d AIR DIVISION (DEF)

IDENTIFICATION EFFECTIVENESS



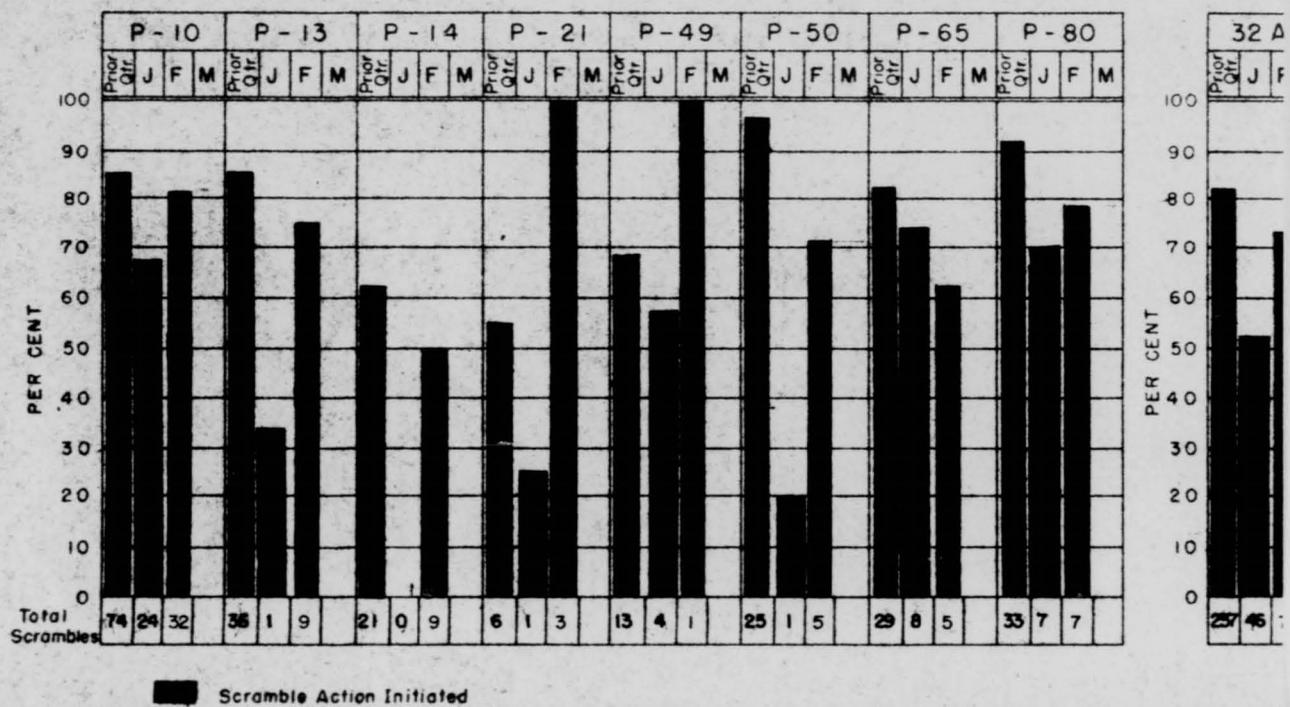
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32d AIR DIVISION (DEF)

SCRAMBLE ACTION



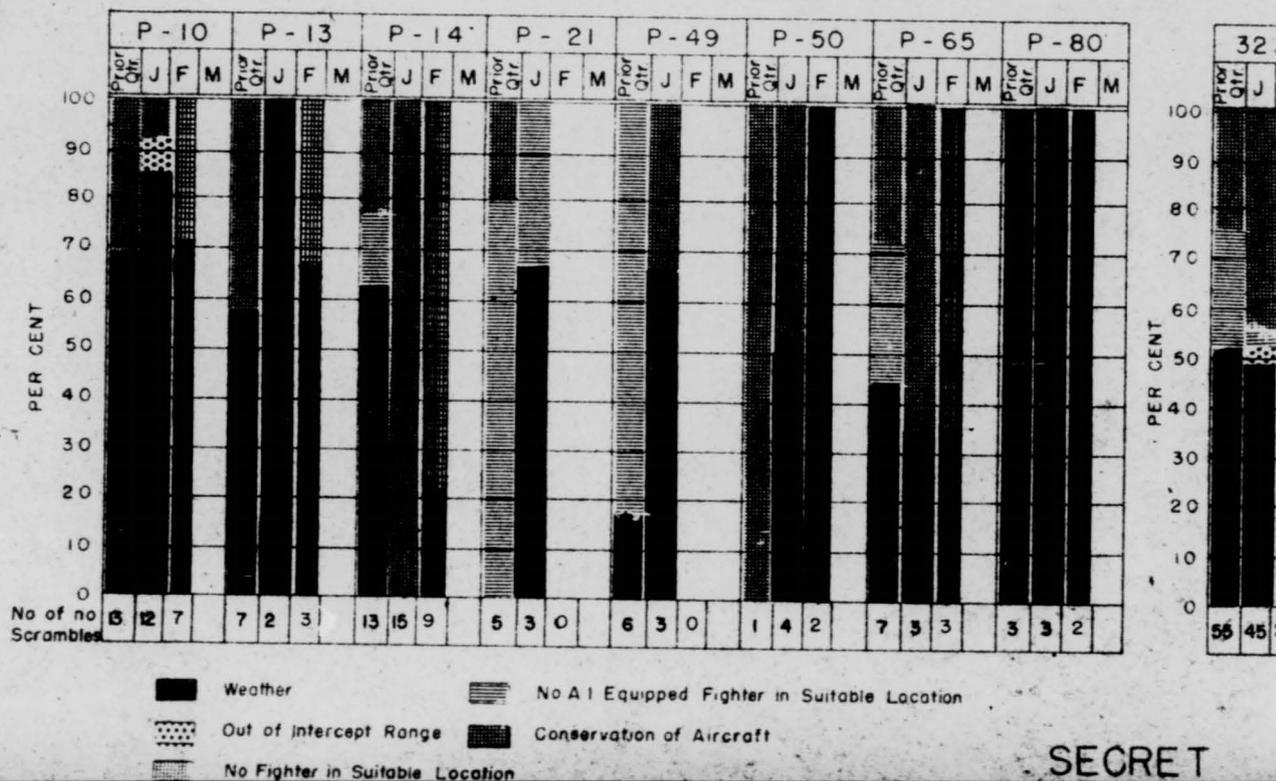
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32d AIR DIVISION (DEF)

REASONS FOR NO SCRAMBLE

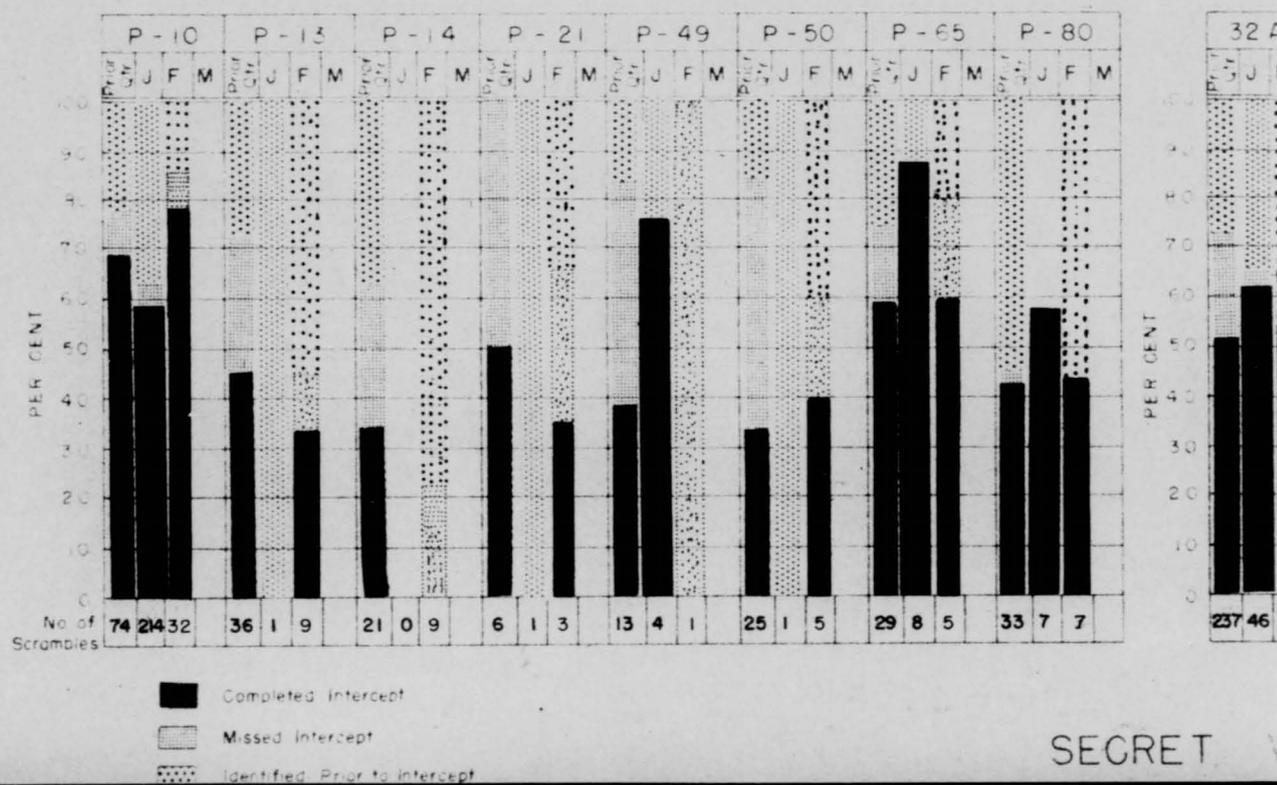


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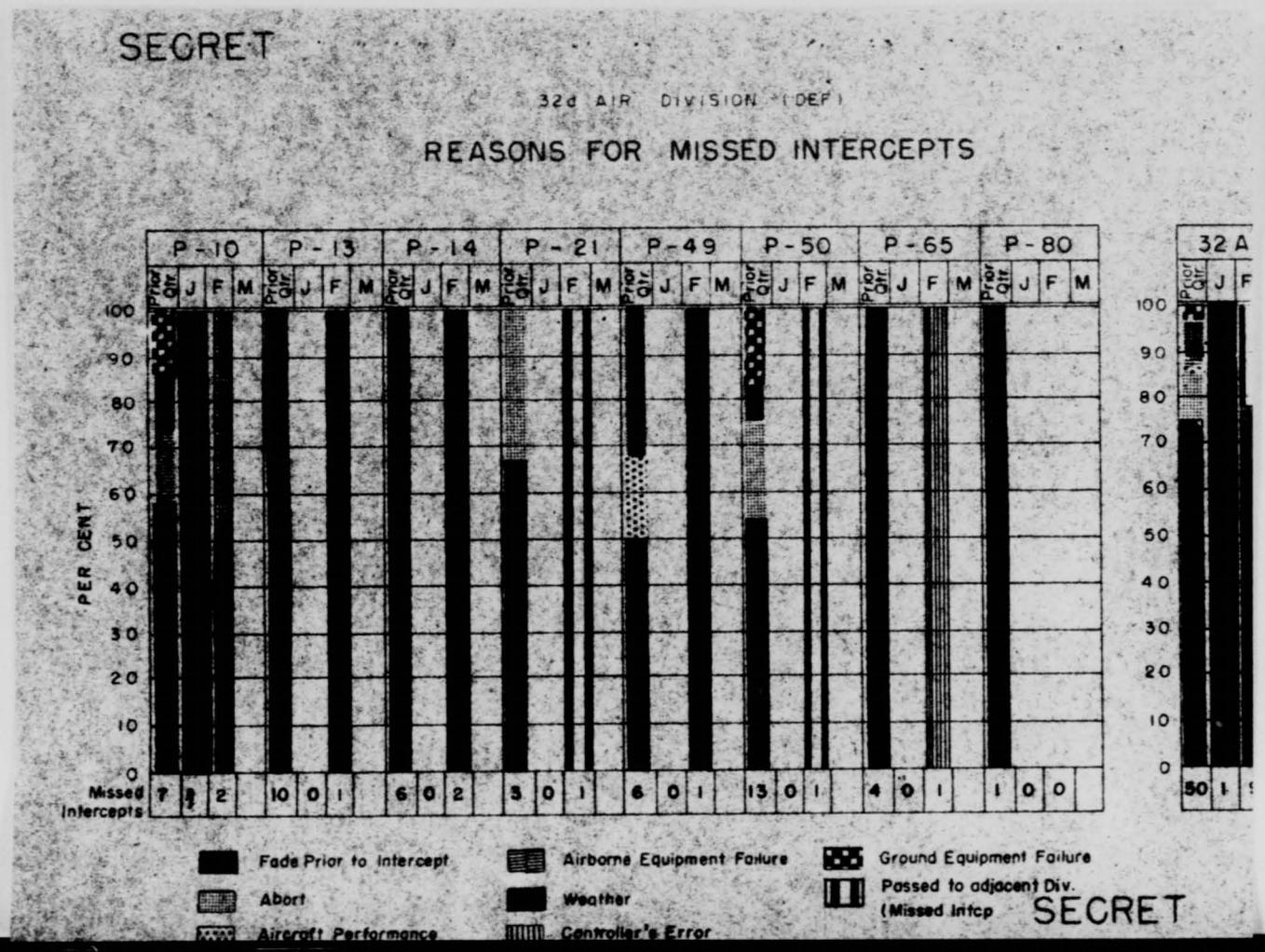
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INTERCEPT EFFICIENCY



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SUMMARY OF AIR DEFENSE OPERATIONS FOR 1 TO 31 Mar 1954

	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80	32
1. PENETRATION TRACKS:	227	369	854	419	191	14	1396	787	425
2. WORKLOAD TRACKS:	1294	1333	228	139	211	907	718	2191	702
3. GOC TRACKS:									
a. TRACKS RECEIVED:	962	1039	486	662	193	481	2582	N/A	640
b. TRACKS CORRELATED:	859	793	427	205	68	325	2348	N/A	502
4. NUMBER OF UNKNOWN TRACKS:	60	4	10	1	1	4	16	12	10
5. SCR ACTION INITIATED:	53	3	7	1	1	3	16	11	9
6. NO SCR ACTION INITIATED:	7	1	3	0	0	1	0	1	1
7. NUMBER OF INTERCEPT:	33	0	1	0	0	2	5	6	4
8. NUMBER OF MISSED INTERCEPT:	2	2	1	1	0	0	3	0	9
9. IDENT PRIOR TO INTERCEPT:	18	1	5	0	1	1	8	5	3
10. IDENT AFTER MISSED INTERCEPT:	0	0	0	0	0	0	0	0	0
11. IDENT W/OUT SCR INITIATED:	7	1	2	0	0	1	0	1	1
12. REMAINED UNKNOWN:	2	2	2	1	0	0	3	0	1
13. INTERCEPT EFFECT %:	62	0	14	0	0	67	31	55	4
14. IDENT EFFECT %:	97	50	80	0	100	100	81	100	9
15. #TRUE INTERCEPT EFFECT %:	94	0	50	0	N/A	100	63	100	8
16. FLT PLANS RECEIVED:	220	1704	957	419	402	N/A	1409	762	587
17. FLT PLANS CORRELATED:	213	1624	857	378	343	N/A	1380	740	553
18. CORRELATION %:	97	95	90	90	85	N/A	98	97	94

REMARKS:

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32d AIR DIVISION (DEF)

SUMMARY OF AIR DEFENSE OPERATIONS FOR 1-31 Mar 1954

18.	REASON FOR NO SCRAMBLE ACTION	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80
a.	WEATHER (WX)	7	1	1					1
b.	OUT OF INTERCEPT RANGE (OR)								
c.	NO AI EQUIPPED FTR IN SUITABLE LOCATION (NAIF)								
d.	CONSERVATION OF AIRCRAFT (CA)			2			1		
e.	NO FIGHTER IN SUITABLE LOCATION (NFSL)								
19.	REASON FOR MISSED INTERCEPTS								
a.	WEATHER (WX)							2	
b.	LATE SCRAMBLE (LS)								
c.	AIRBORNE EQUIPMENT FAILURE (A&F)								
d.	DARKNESS (DK)								
e.	ELECTRONICS COUNTERMEASURES (ECM)								
f.	ABORT (ABT)								
g.	CONTROLLER ERROR (CE)				1				
h.	GROUND EQUIPMENT FAILURE (GEF)								
i.	AIRCRAFT PERFORMANCE (ACP)	1							
j.	FADE PRIOR TO INTERCEPT (FPI)	1	2	1				1	

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## 32d AIR DIVISION FLIGHT PLAN CORRELATION

	P - 10	P - 13	P - 14	P - 21	P - 49	P - 50	P - 65	P - 80	32
FLIGHT PLANS RECEIVED:	220	1704	957	419	402	N/A	1409	762	587
FLIGHT PLANS CORRELATED:	213	1624	857	378	343	N/A	1380	740	553
FLIGHT PLANS NOT CORRELATED:	7	80	100	41	59	N/A	29	22	33
REASONS FOR NON CORRELATION (Mechanical Limitations)									
1. SCHEDULED MAINTENANCE:	6	29	11	12	29	0	6	7	10
2. EMERGENCY MAINTENANCE:	0	2	9	1	1	0	3	0	1
3. OUT OF CALIBER LIMITS:	0	14	23	5	10	0	8	5	6
5. GROUND CLUTTER	1	0	2	0	5	0	2	0	1
9. OTHER*	0	25	38	8	2	0	8	4	8
TOTAL	7	70	83	26	47	N/A	27	16	27
(Other than Mechanical Limitations)									
4. WEATHER:	0	5	0	8	9	0	0	0	22
6. LATE FLIGHT PLAN:	0	0	4	0	1	0	0	4	9
7. DEVIATED FLIGHT PLAN:	0	4	1	0	2	0	0	2	9
8. PERSONNEL ERROR:	0	1	12	7	0	0	2	0	22
TOTAL	0	10	17	15	12	0	2	6	62
GRAND TOTAL	7	80	100	41	59	N/A	29	22	33

\*Most Common reason for No. 9:

Small Reflecting Surface

(SECRET) (when filled in)

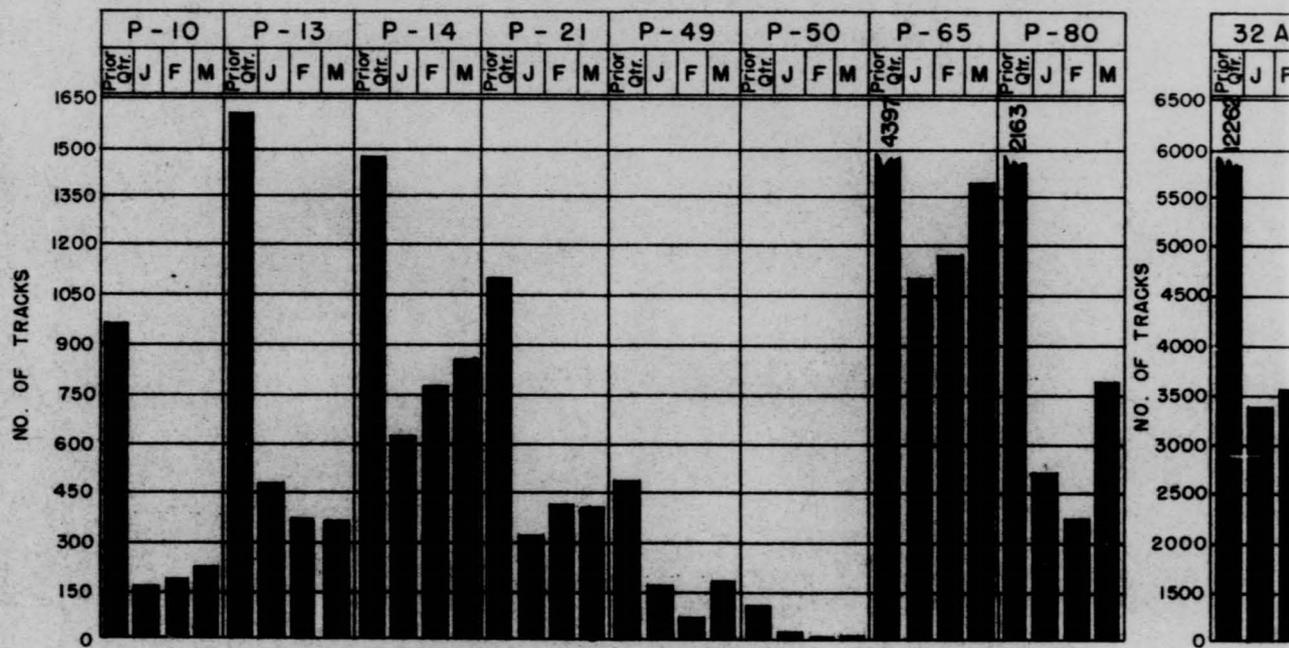
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32d AIR DIVISION (DEF)

TOTAL TRACKS REQUIRING IDENTIFICATION



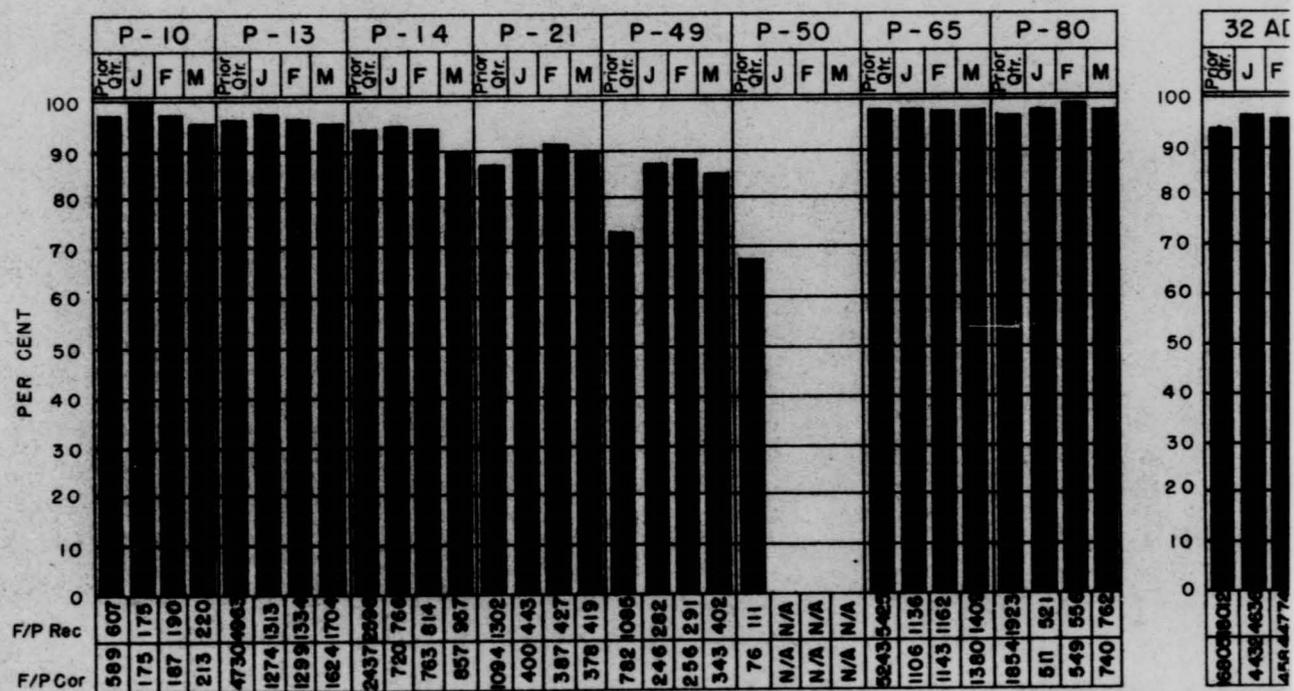
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32d AIR DIVISION (DEF)

FLIGHT PLAN CORRELATION



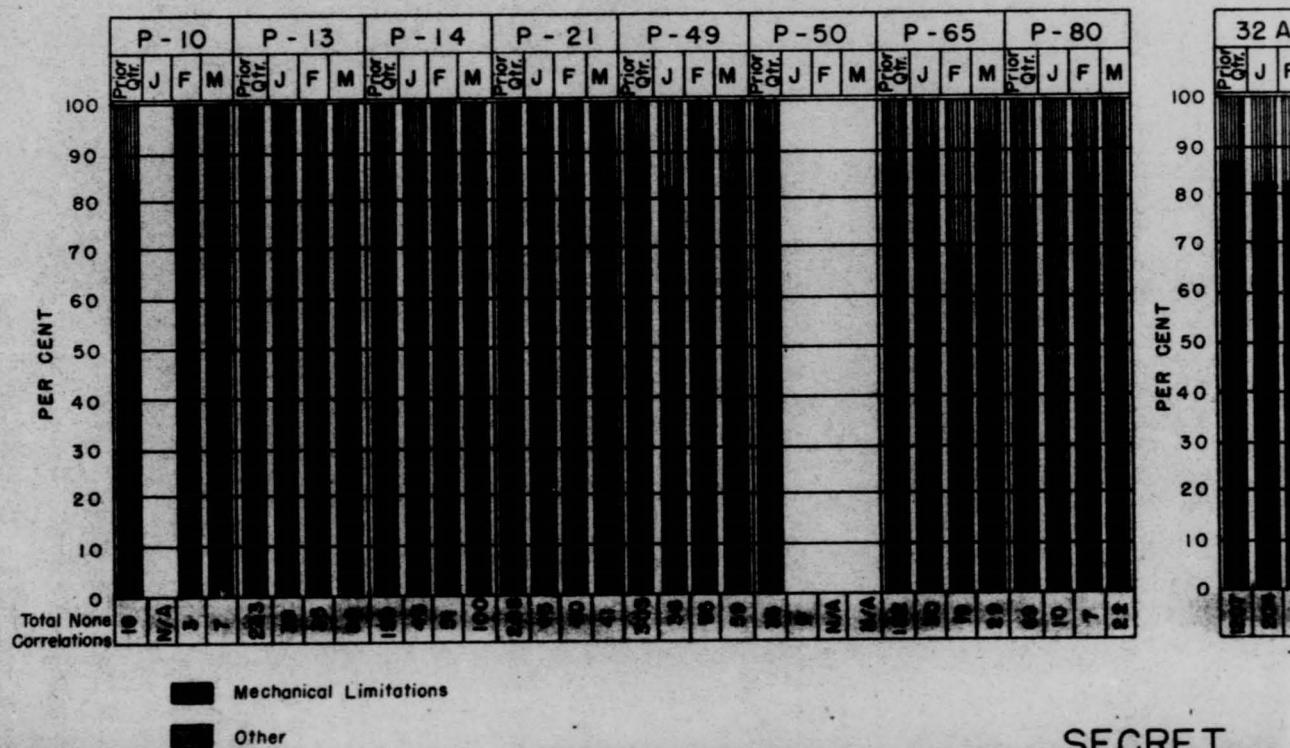
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32d AIR DIVISION (DEF)

NON-CORRELATIONS



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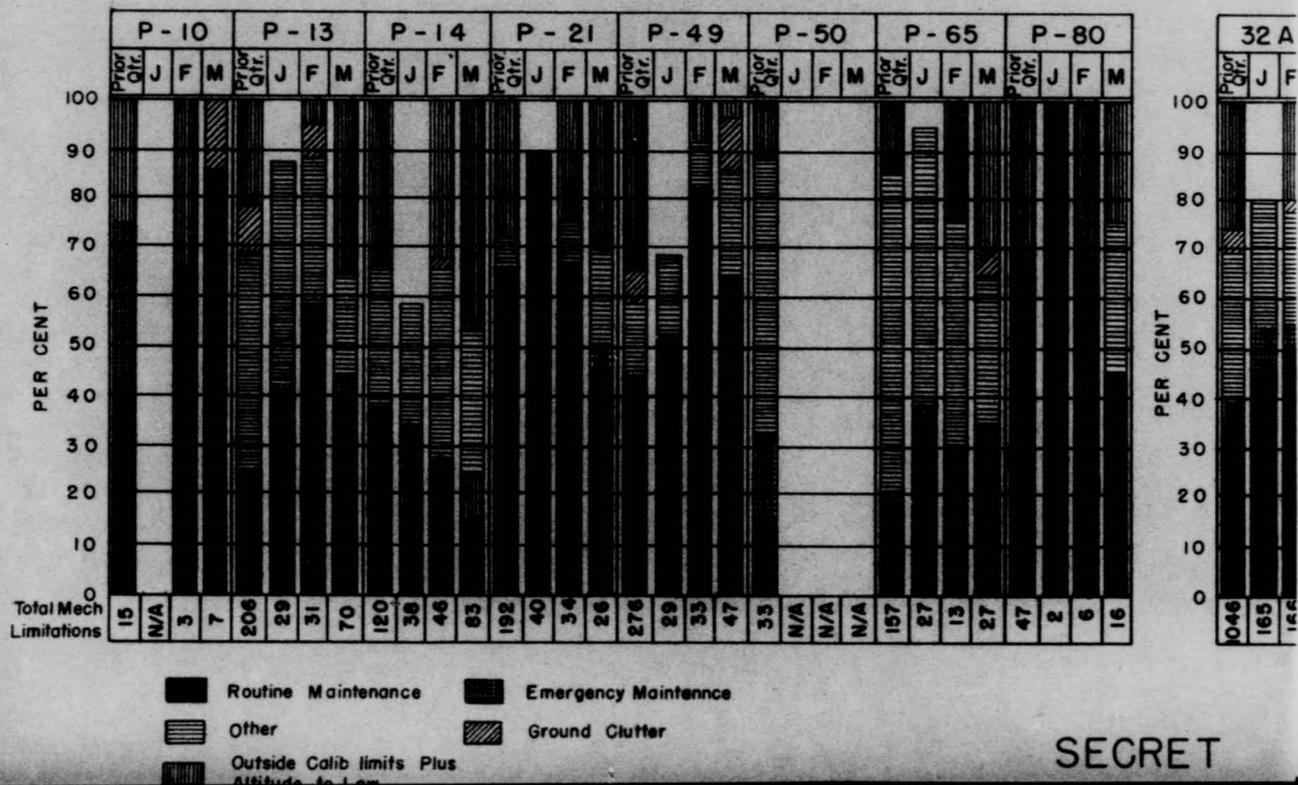
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32d AIR DIVISION (DEF)

NON-CORRELATIONS

(Mechanical limitations)



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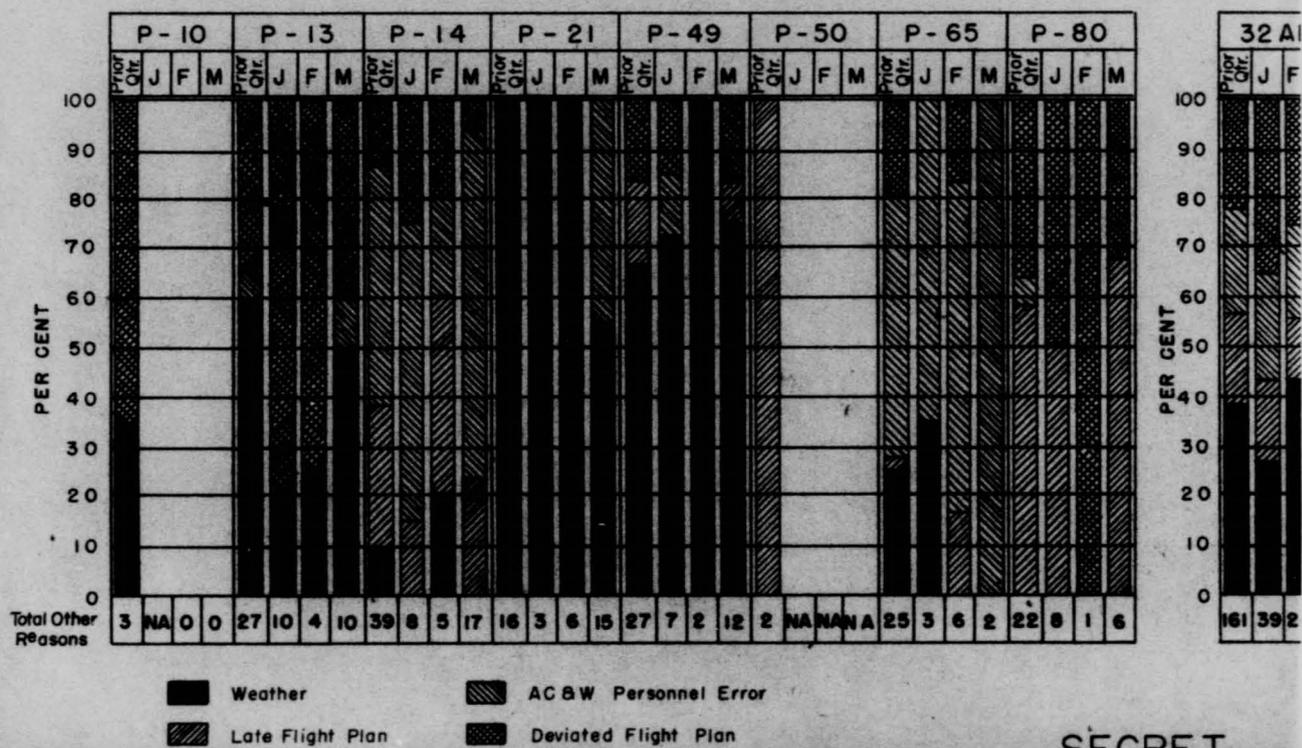
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32d AIR DIVISION (DEF)

NON - CORRELATIONS

( Other Reasons )



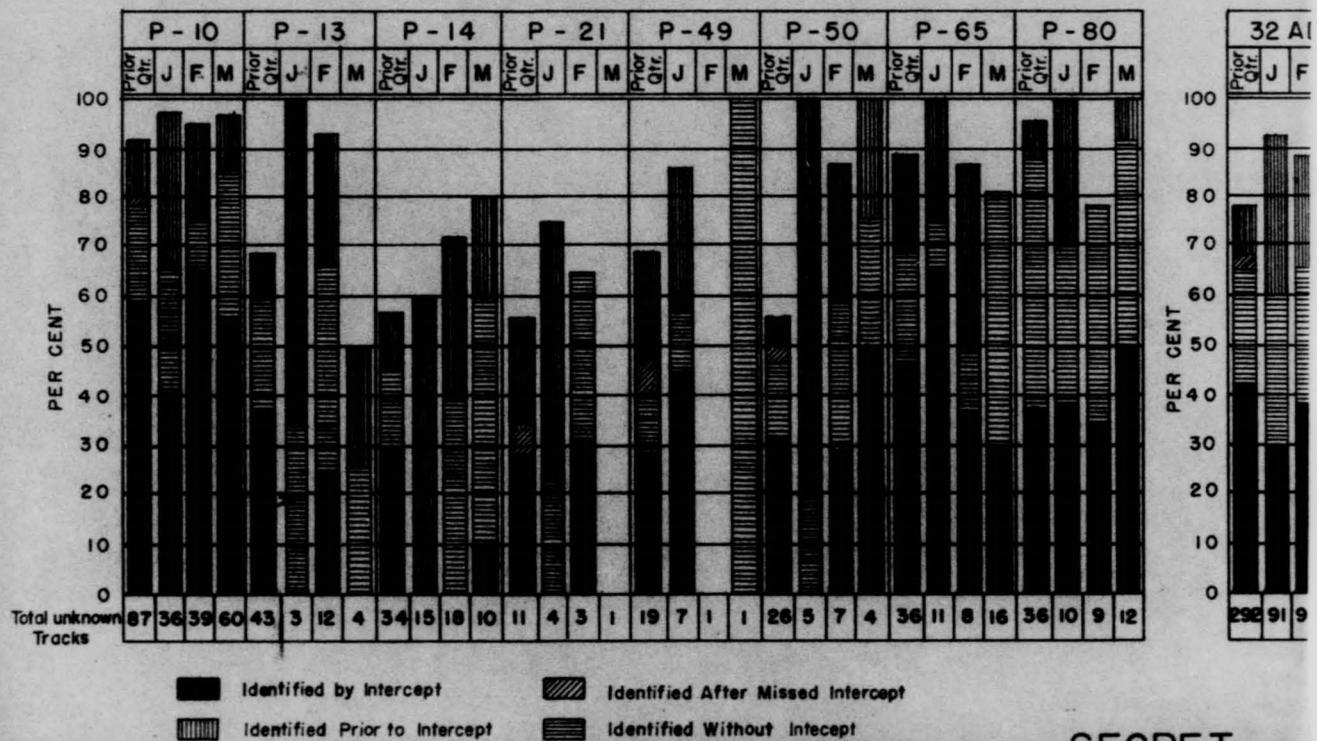
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32d AIR DIVISION (DEF)

IDENTIFICATION EFFECTIVENESS



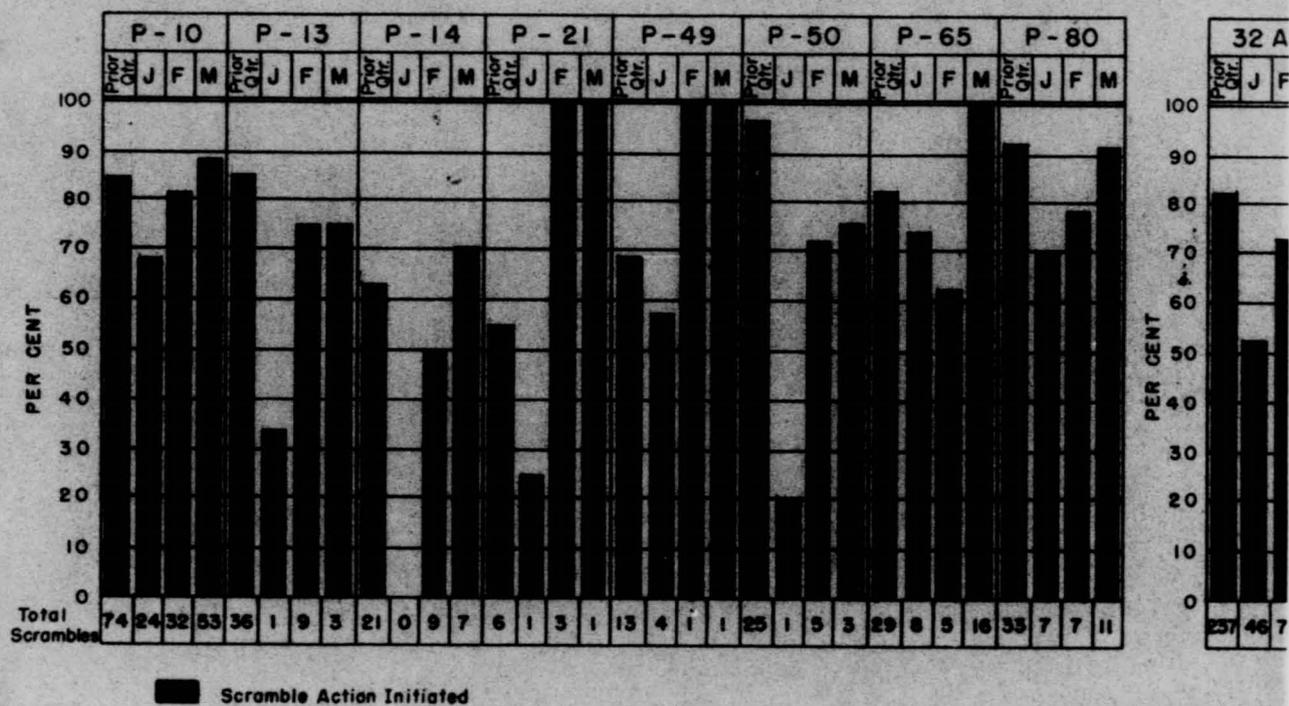
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32d AIR DIVISION (DEF)

SCRAMBLE ACTION



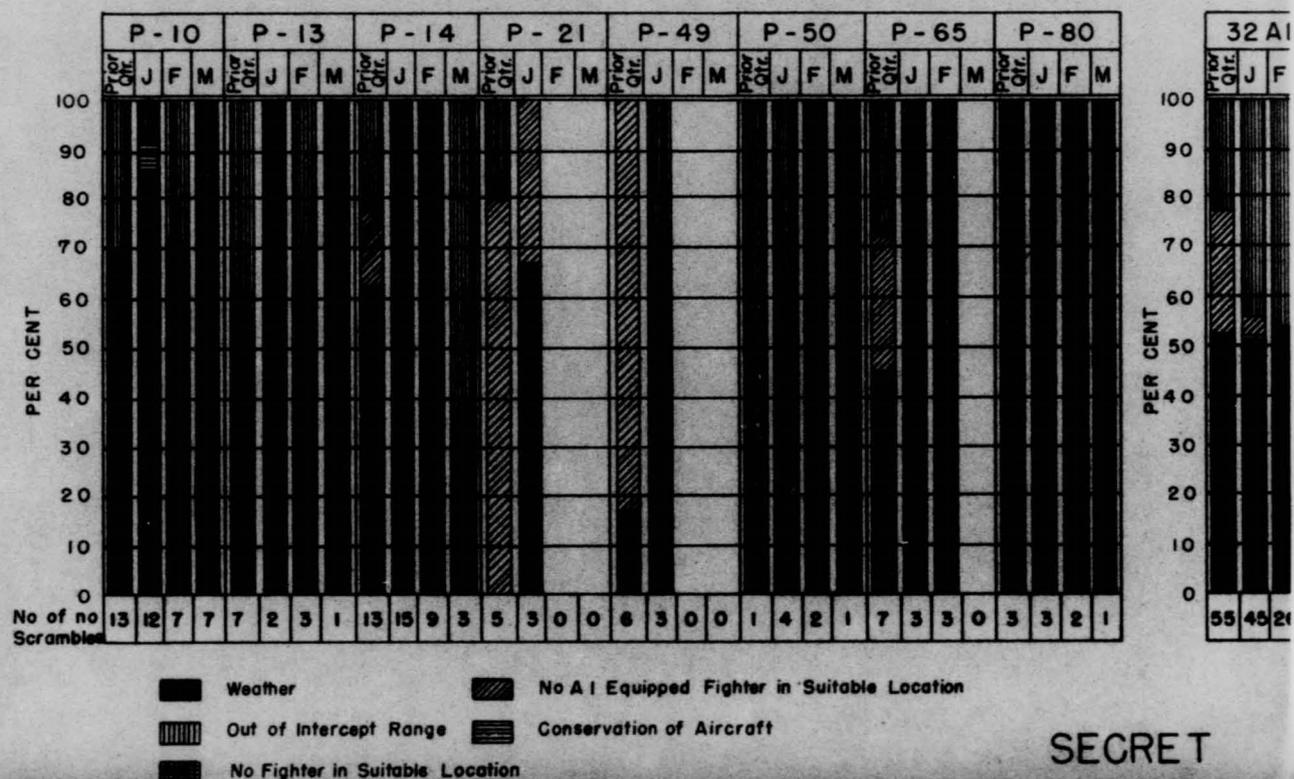
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32d AIR DIVISION (DEF)

REASONS FOR NO SCRAMBLE



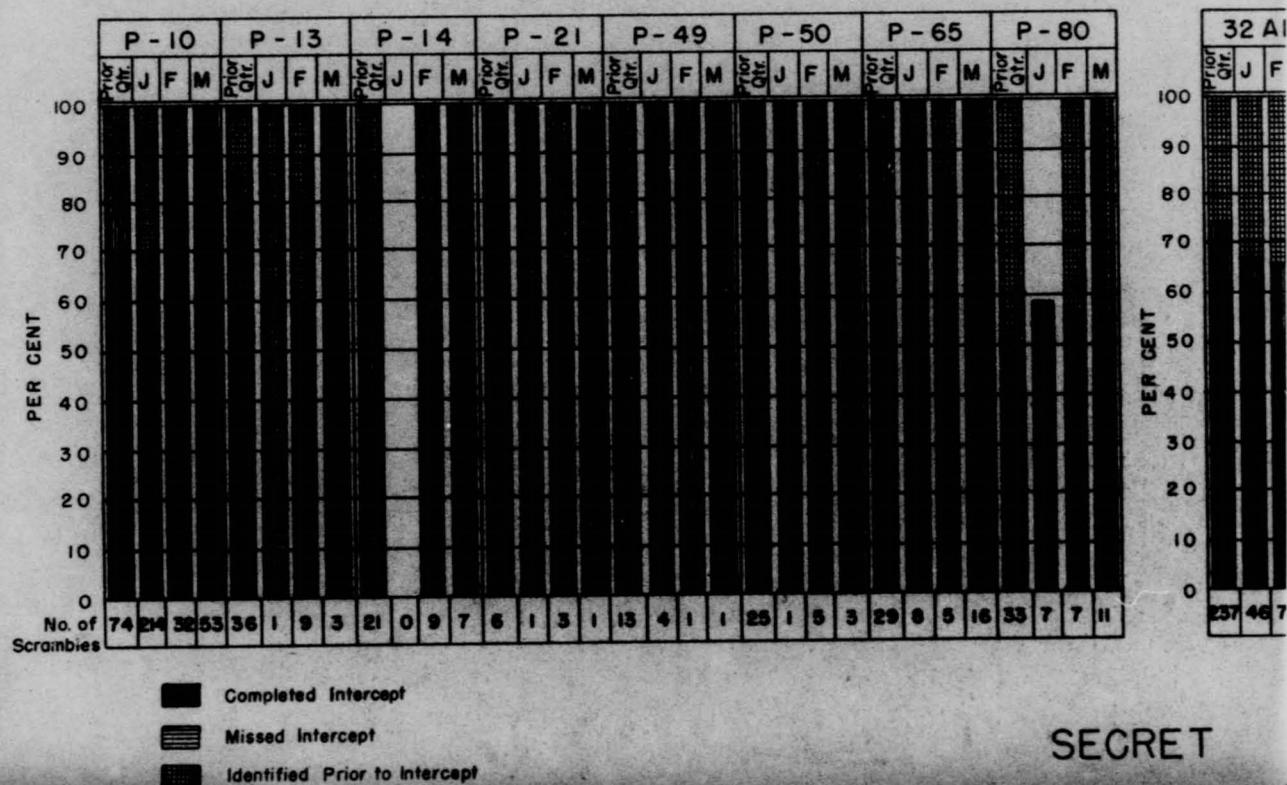
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32d AIR DIVISION (DEF)

INTERCEPT EFFICIENCY



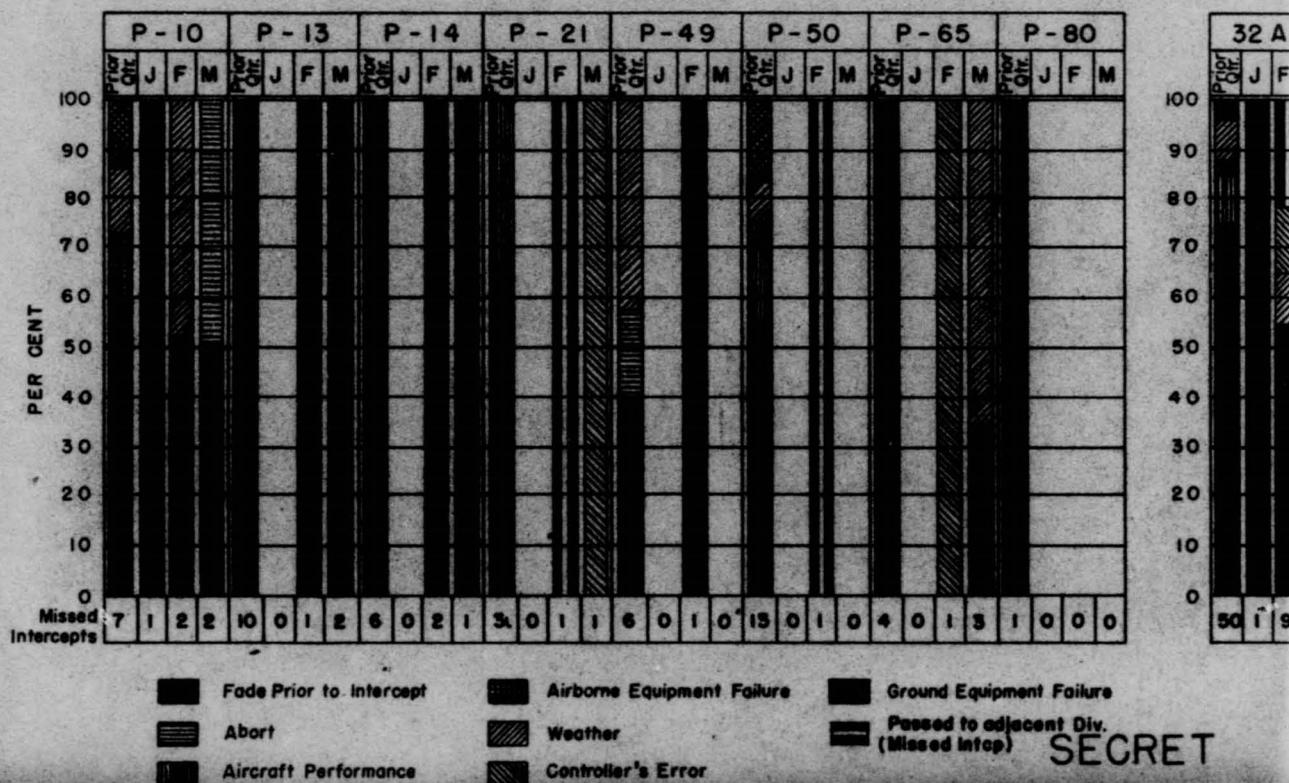
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32d AIR DIVISION (DEF)

REASONS FOR MISSED INTERCEPTS



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CG 528th Air Def Op	1
CG 564th Air Def Gp	1
CG 654th ABW Sq	1
CG 564th ABW Sq	1
CG 655th ACW Sq	1
CG 656th ACW Sq	1
CG 762nd ACW Sq	1
CG 763rd ACW Sq	1
CG 764th ACW Sq	1
CG 765th ACW Sq	1
CG 766th ACW Sq	1
CG 37th FIS	1
CG 37th FIS	1
CG 47th FIS	1
CG 49th FIS	1
CG 57th FIS	1
CG 58th FIS	1
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CG 74th FIS	1
CG 437th FIS	1
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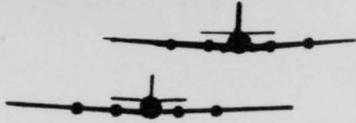
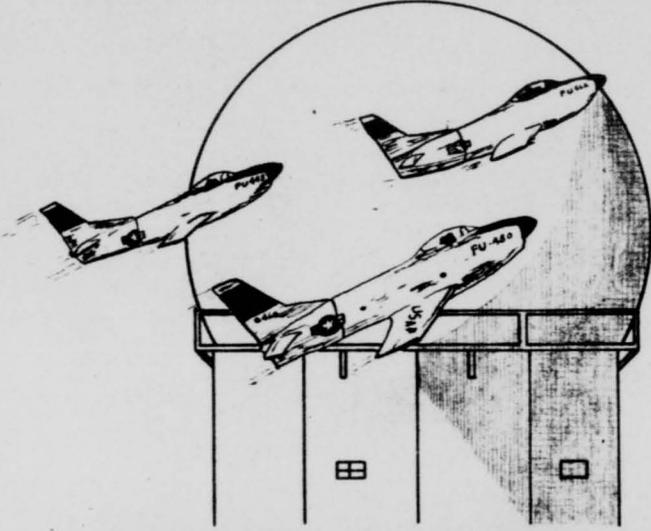
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# OPERATIONS



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# SUMMARY

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PREPARED BY  
OFFICE OF THE COMPTROLLER  
FOR DEPUTY OF OPERATIONS  
32D AIR DIVISION (DEFENSE)

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0594

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## SUMMARY OF AIR DEFENSE OPERATIONS FOR 1 Apr.-30 Apr., 1954

	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80	32d.
1. PENETRATION TRACKS	232	616	950	563	177	19	1584	702	484
2. WORKLOAD TRACKS	1445	1289	252	169	222	918	649	1702	664
3. GOC TRACKS									
a. TRACKS RECEIVED	1144	1172	517	1001	114	514	3178	N/A	764
b. TRACKS CORRELATED	1117	910	473	231	49	356	2698	N/A	583
4. NUMBER OF UNKNOW TRACKS	63	21	18	2	6	10	27	6	153
5. SCR ACTION INITIATED	50	20	15	1	6	8	25	6	13
6. NO SCR ACTION INITIATED	13	1	3	1	0	2	2	0	21
7. NUMBER OF INTERCEPT	22	7	8	1	2	6	21	2	69
8. NUMBER OF MISSED INTCP	4	0	3	0	1	0	1	2	11
9. IDENT PRIOR TO INTERCEPT	24	13	4	0	3	2	3	2	51
10. IDENT AFTER MISSED INTCP	1	0	0	0	0	0	0	1	2
11. IDENT W/OUT SCR INITIATED	11	0	3	1	0	2	2	0	19
12. REMAINED UNKNOWN	5	1	3	0	1	0	1	1	12
13. INTERCEPT EFFECT %	44	35	53	100	14	75	84	33	53
14. IDENT EFFECT %	92	95	83	100	83	100	96	83	92
15. *TRUE INTCP EFFECT %	85	100	73	100	67	100	95	50	86
16. FLIGHT PLANS RECEIVED	235	1819	1010	563	402	N/A	1599	723	635
17. FLT PLANS CORRELATED	231	1768	939	495	351	N/A	1557	688	602
18. CORRELATION %	98	97	93	88	87	N/A	97	95	95

## REMARKS:

\* Intercept Figure Preceded By Asterisk Is Determined By Intercepts  
Divided By Total Of Scrambles Less Identifications Prior To Intercept.

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32d AIR DIVISION (DEF)

SUMMARY OF AIR DEFENSE OPERATIONS FOR 1Apr.-30Apr,1954

18	REASON FOR NO SCRAMBLE ACTION	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-803
a.	WEATHER (WX)	3	0	1	0	0	0	0	0
b.	OUT OF INTERCEPT RANGE (OR)	0	0	0	0	0	0	0	0
c.	NO AI EQPD FTR IN SUITABLE LOCATION (NAIF)	0	0	1	0	0	0	1	0
d.	CONSERVATION OF AIRCRAFT (CA)	10	1	1	1	0	2	1	0
e.	NO FIGHTER IN SUITABLE LOCATION (NFSL)	0	0	0	0	0	0	0	0
19.	REASON FOR MISSED INTERCEPTS								
a.	WEATHER (WX)	0	0	0	0	0	0	0	1
b.	LATE SCRAMBLE (LS)	0	0	0	0	0	0	0	0
c.	AIRBORNE EQUIPMENT FAILURE (AEF)	0	0	0	0	0	0	0	0
d.	DARKNESS (DK)	0	0	0	0	0	0	0	0
e.	ELECTRONICS COUNTERMEASURES (ECM)	0	0	0	0	0	0	0	0
f.	Abort (ABT)	0	0	0	0	0	0	0	0
g.	CoNTROLLER ERROR (CE)	0	0	1	0	0	0	0	0
h.	GROUND EQUIPMENT FAILURE (GEF)	0	0	0	0	0	0	0	0
i.	AIRCRAFT PERFORMANCE (ACP)	0	0	0	0	0	0	0	0
j.	FADE PRIOR TO INTERCEPT (FPI)	4	0	2	0	1	0	1	1

REMARKS:

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32d AIR DIVISION FLIGHT PLAN CORRELATION  
1 Apr. - 30 Apr., 1954

	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80	32d
FLIGHT PLANS RECEIVED	235	1819	1010	563	402	N/A	1599	723	635
FLIGHT PLANS CORRELATED	231	1768	939	495	351	N/A	1557	688	602
FLIGHT PLANS NOT CORRELATED	4	51	71	68	51	N/A	42	35	32
REASONS FOR NON CORRELATION (Mechanical Limitations)									
1. SCHEDULED MAINTENANCE	3	7	14	27	28	0	22	3	10
2. EMERGENCY MAINTENANCE	0	0	2	3	4	0	0	0	9
3. OUT OF CALIBRATION LIMITS	0	16	23	8	5	0	9	14	7
5. GROUND CLUTTER	0	2	6	0	3	0	1	0	12
9. OTHER ■	1	15	21	18	0	0	5	17	7
TOTAL	4	40	66	56	40	0	37	34	27
(Other than Mechanical Limitations)									
4. WEATHER	0	9	0	12	7	0	0	0	26
6. LATE FLIGHT PLAN	0	0	5	0	1	0	0	0	6
7. DEVIATED FLIGHT PLAN	0	2	0	0	3	0	0	1	6
8. PERSONNEL ERROR	0	0	0	0	0	0	5	0	5
TOTAL	0	11	5	12	11	0	5	1	44
GRAND TOTAL	4	51	71	68	51	N/A	42	35	32

■ Most Common reason for No. 9

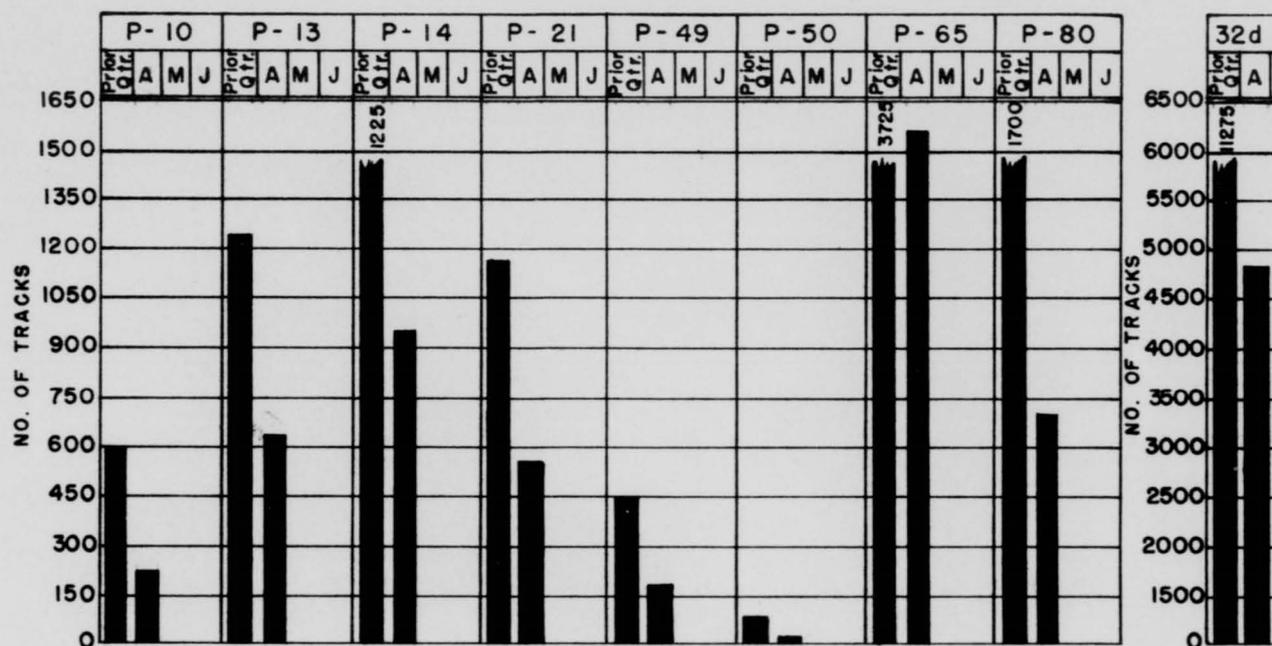
SMALL REFLECTING SURFACE  
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32d AIR DIVISION (DEF)

TOTAL TRACKS REQUIRING IDENTIFICATION

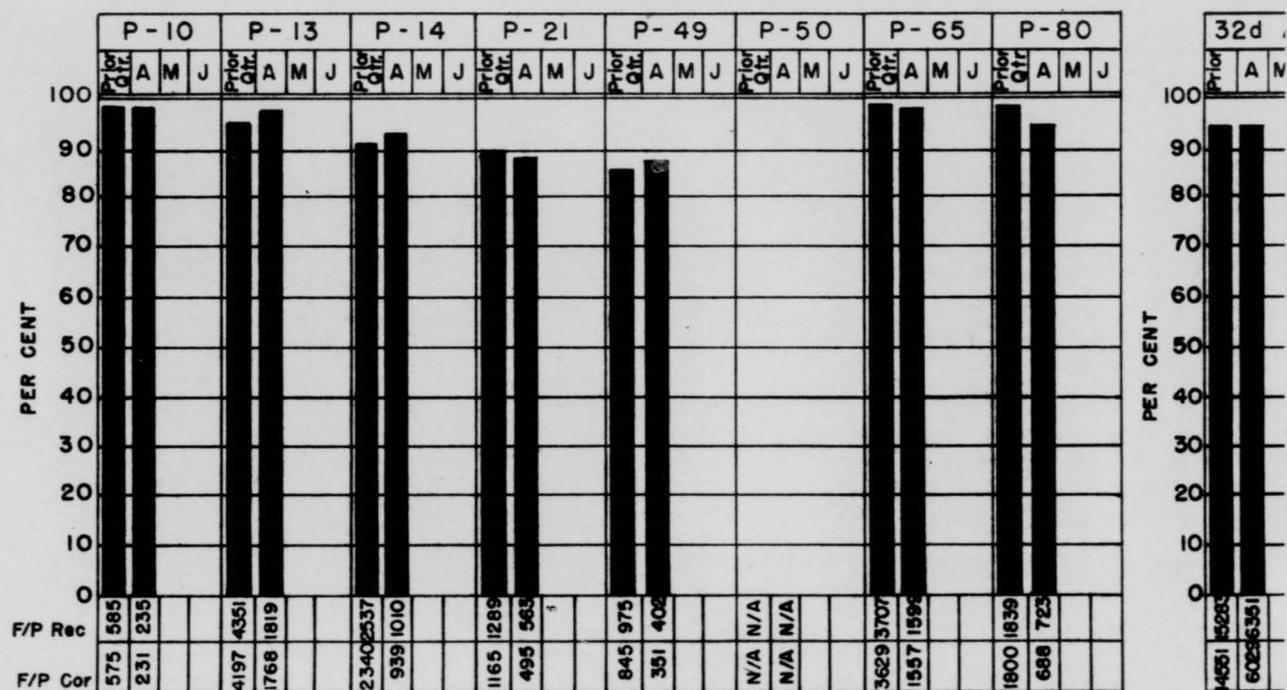


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32d AIR DIVISION (DEF)

FLIGHT PLAN CORRELATION



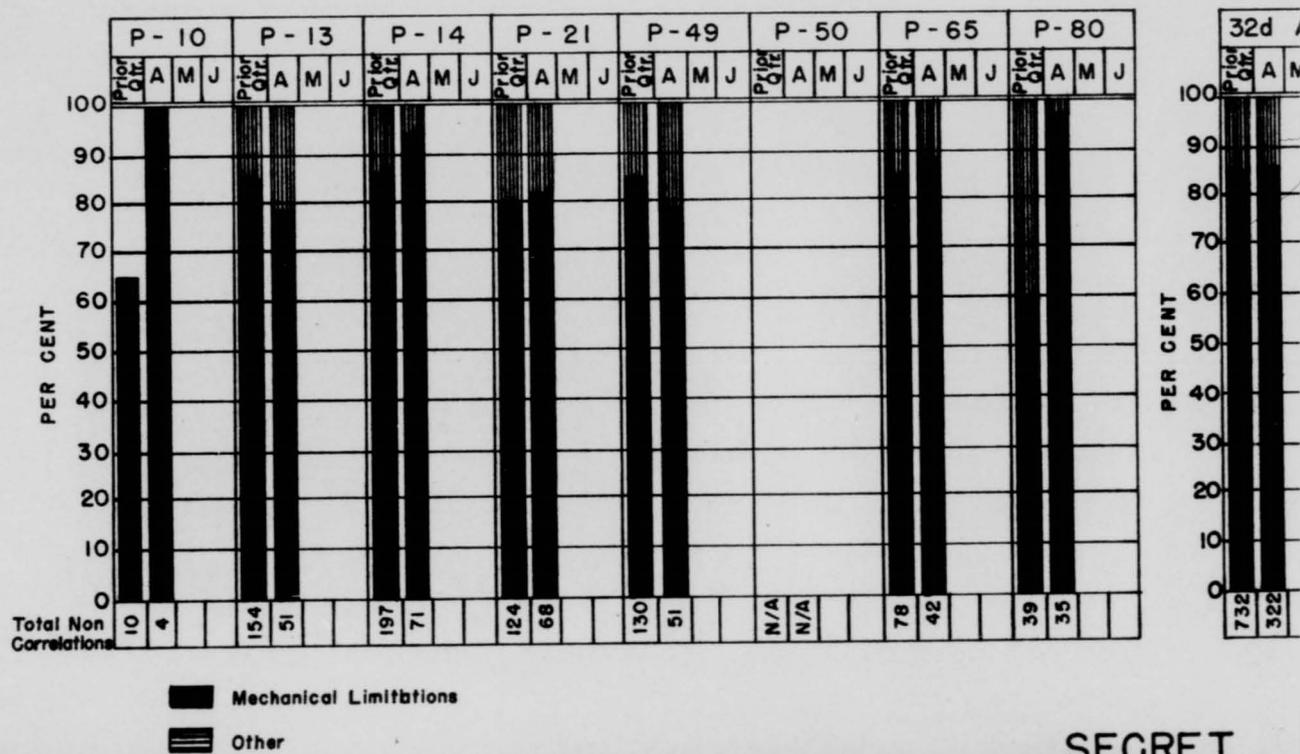
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32d AIR DIVISION (DEF)

NON-CORRELATIONS



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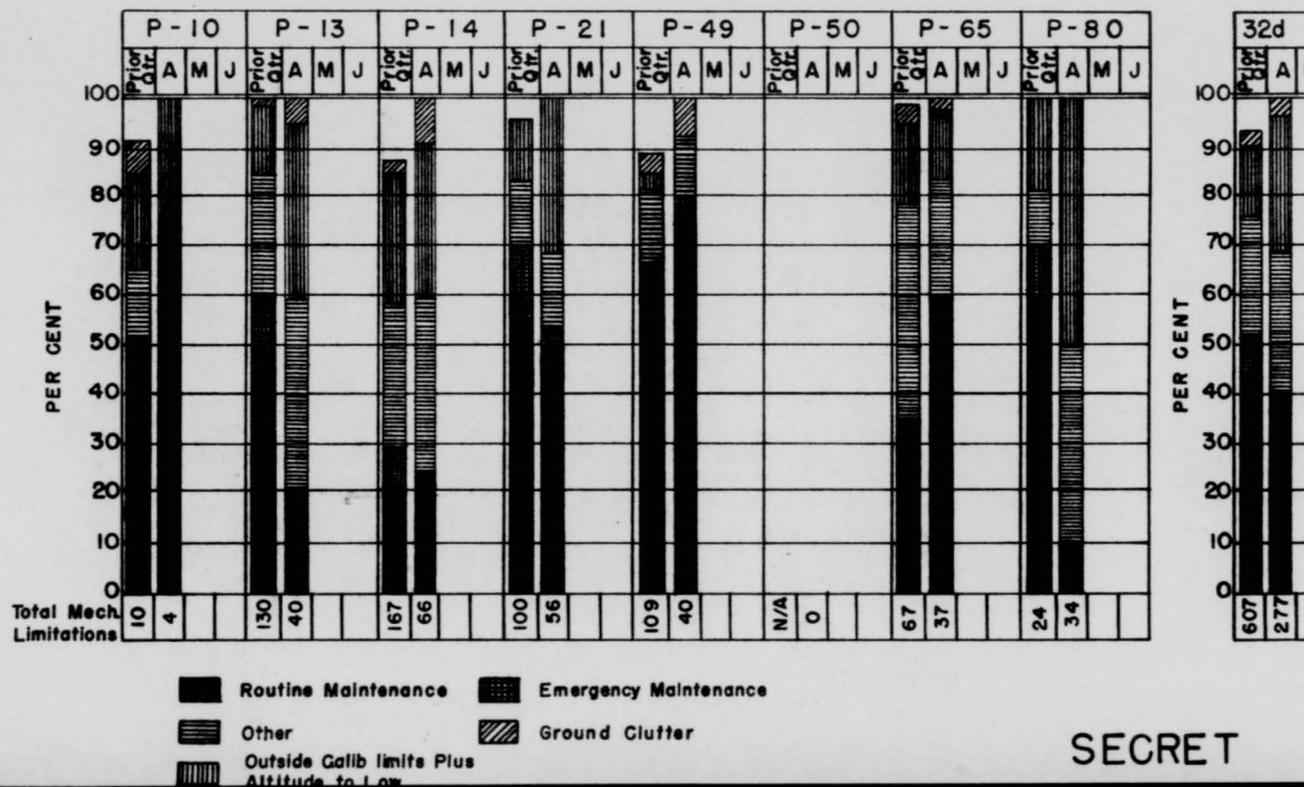
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32d AIR DIVISION (DEF)

NON-CORRELATIONS

( Mechanical limitations )



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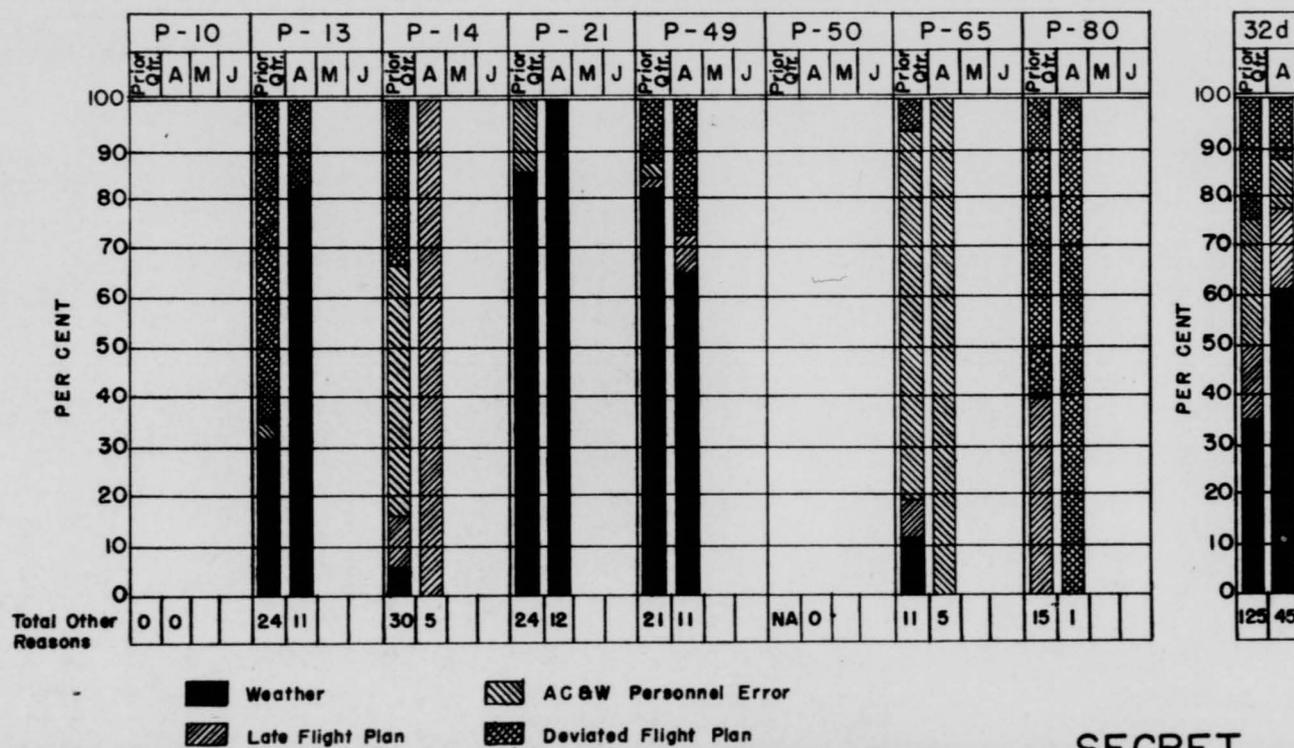
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32d AIR DIVISION (DEF)

NON-CORRELATIONS

(Other Reasons)



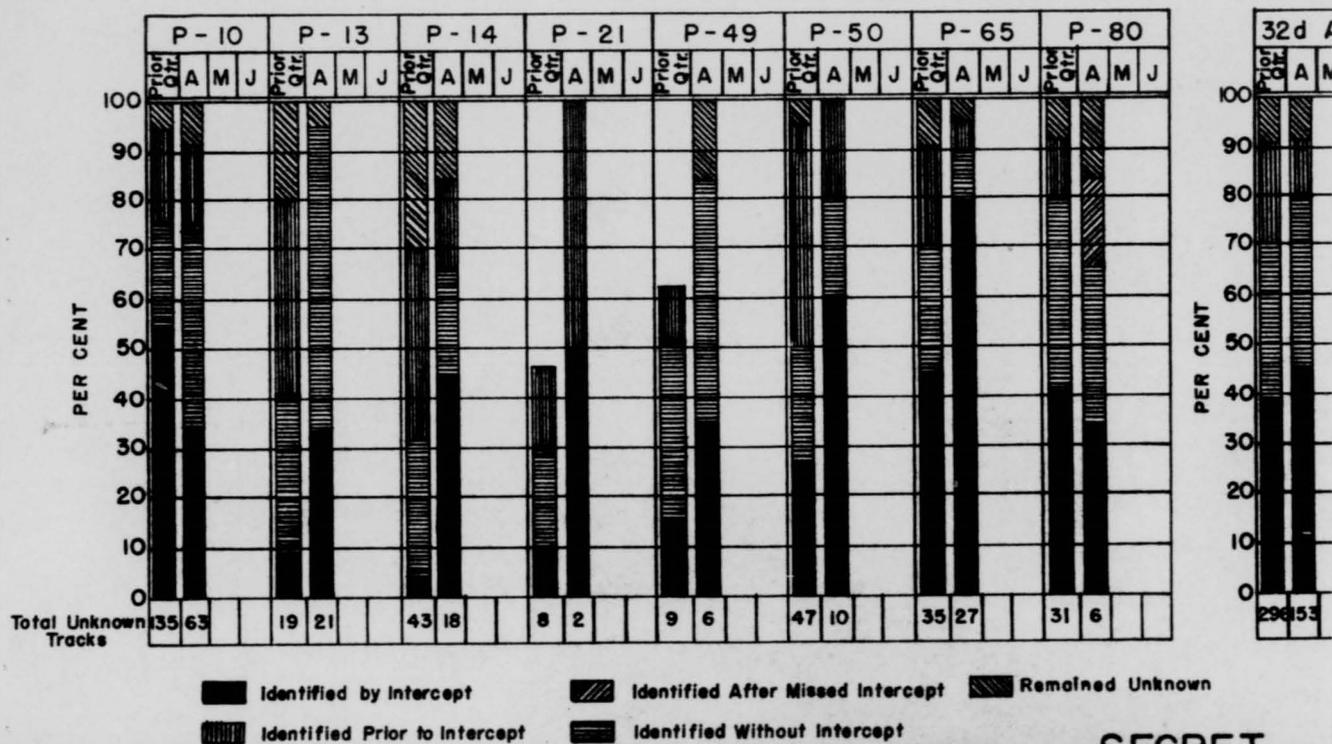
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32d AIR DIVISION (DEF)

IDENTIFICATION EFFECTIVENESS



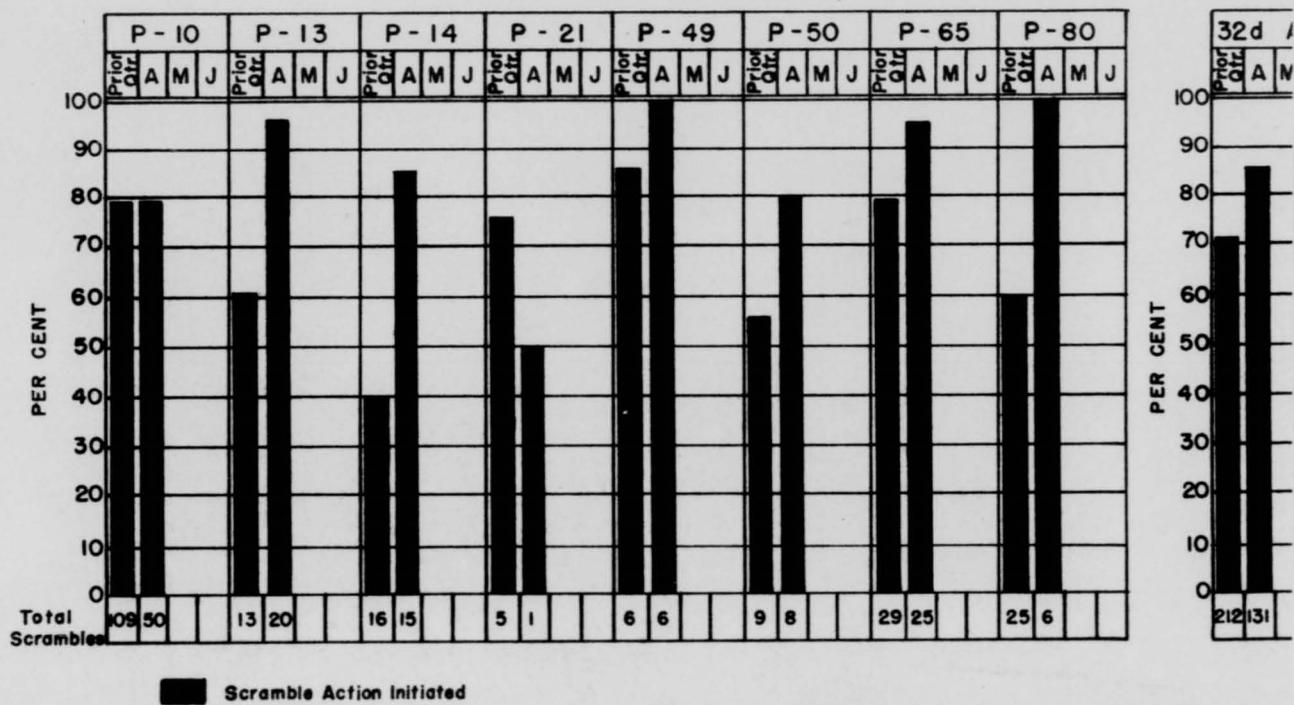
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32d AIR DIVISION (DEF)

SCRAMBLE ACTION



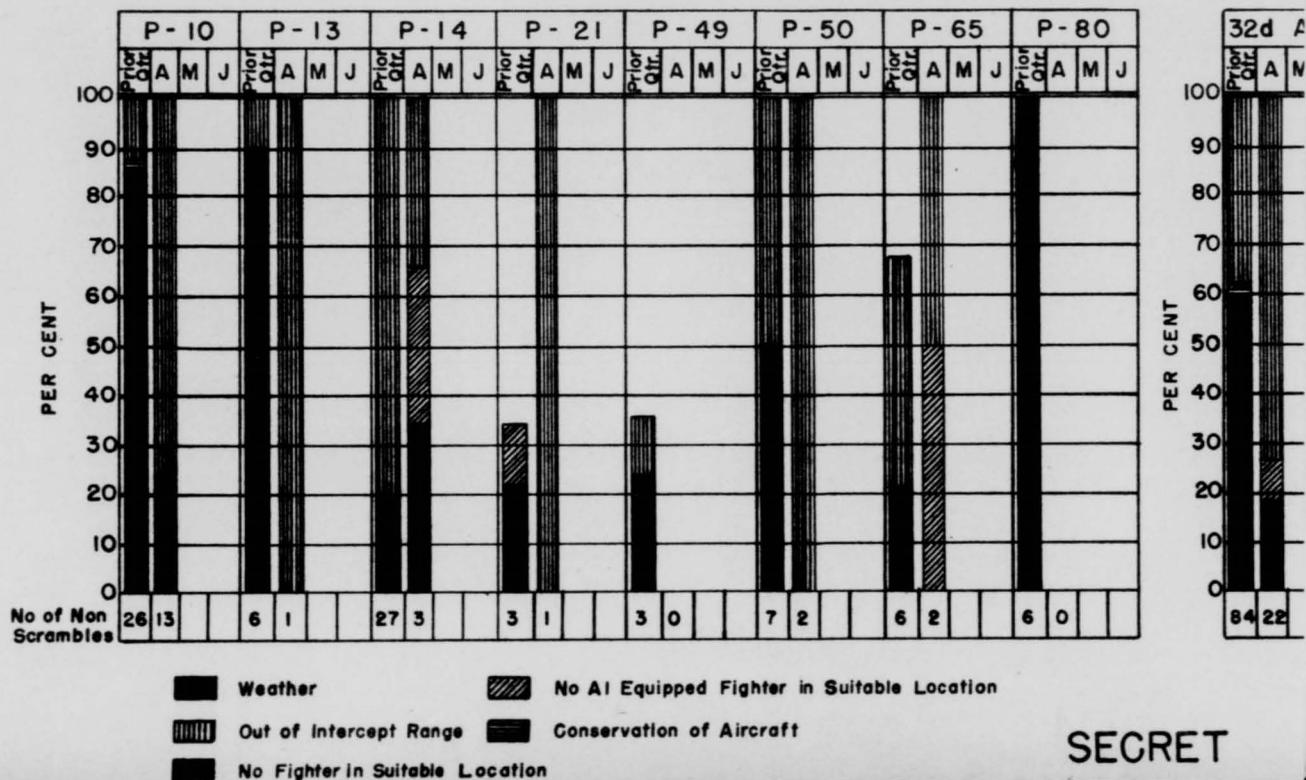
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32d AIR DIVISION (DEF)

REASONS FOR NO SCRAMBLE



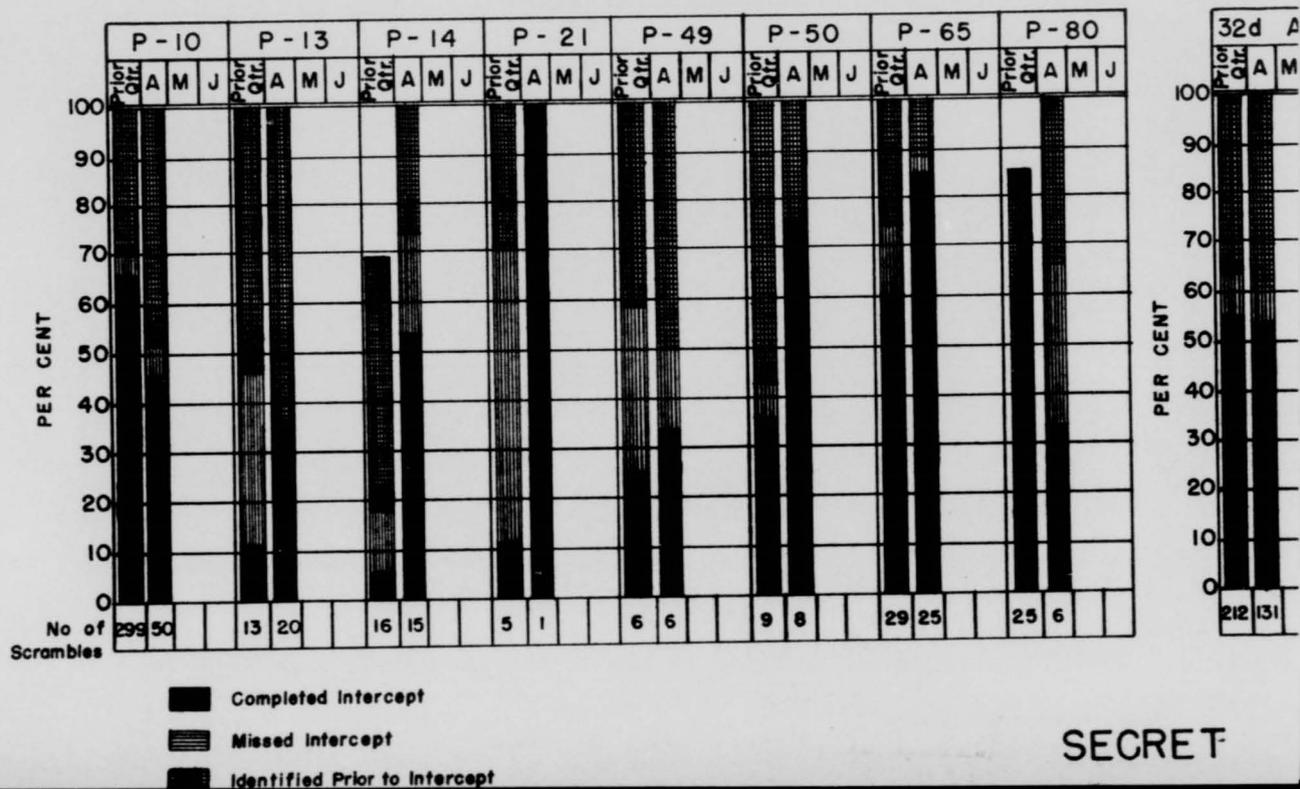
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32d AIR DIVISION (DEF)

INTERCEPT EFFICIENCY



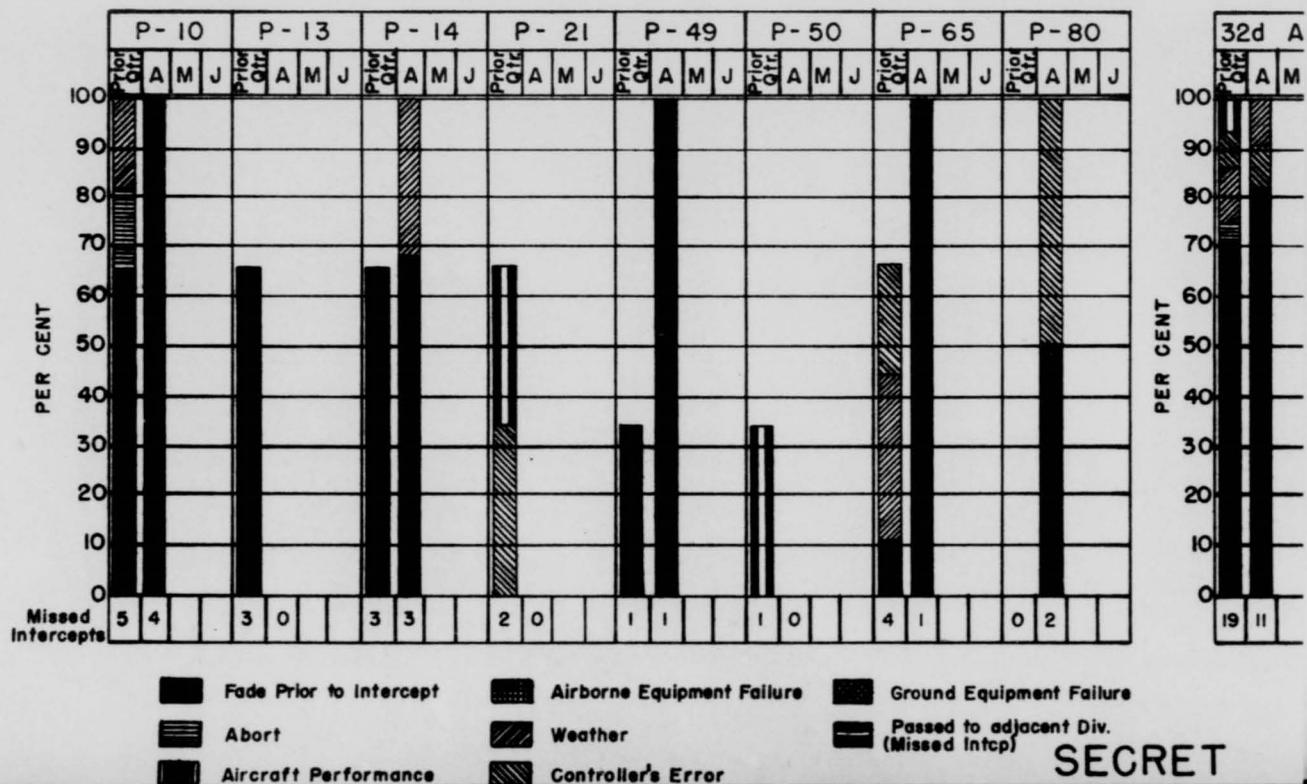
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32d AIR DIVISION (DEF)

REASONS FOR MISSED INTERCEPTS



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CO 564th Air Def Gp	
CO 654th AC&W Sq	
<del>CO 654th AC&amp;W Sq</del>	
CO 655th AC&W Sq	
CO 656th AC&W Sq	
CO 762d AC&W Sq	
CO 763rd AC&W Sq	
CO 764th AC&W Sq	
Co 765th AC&W Sq	
CO 766th AC&W Sq	
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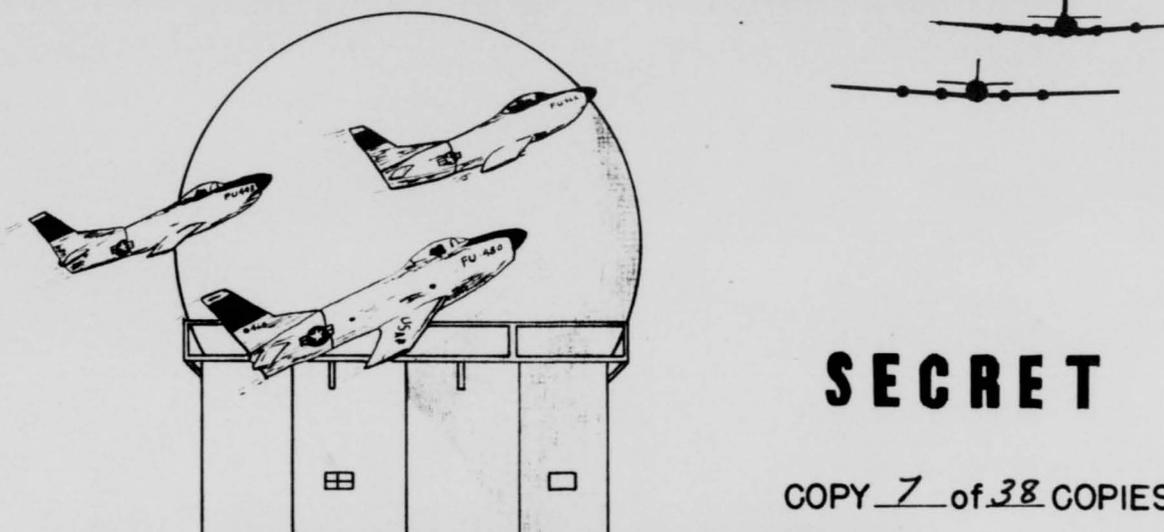
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**32d AIR DIV**

# OPERATIONS



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# SUMMARY

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32D AIR DIVISION (DEFENSE)

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Non-Correlation(Mechanical Limitations)	8
Non-Correlation(Other)	9
Identification Effectiveness	10
Scramble Action On Unknowns	11
Reason For No Scramble	12
Intercept Efficiency	13
Reason For Missed Intercept	14
Distribution	15

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## SECRET . SUMMARY OF AIR DEFENSE OPERATIONS FOR 1 May-31 May, '54

	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80	32d
1. PENETRATION TRACKS	257	583	975	377	225	15	1753	915	510
2. WORKLOAD TRACKS	1740	1636	352	119	309	938	874	2430	839
3. GOC TRACKS									
a. TRACKS RECEIVED	1065	1156	596	1793	204	592	4920	N/A	1039
b. TRACKS CORRELATED	1003	882	528	355	88	296	4227	N/A	737
4. NUMBER OF UNKNOWN TRKS	84	18	28	13	7	7	15	19	19
5. SCR ACTION INITIATED	52	9	23	6	6	5	5	12	11
6. NO SCR ACTION INITIATED	32	9	5	7	1	2	10	7	7
7. NUMBER OF INTERCEPT	27	4	8	1	2	3	3	7	5
8. NUMBER OF MISSED INTCP	2	0	4	4	2	0	0	1	1
9. IDENT PRIOR TO INTERCEPT	23	5	11	1	2	2	2	4	5
10. IDENT AFTER MISSED INTCP	0	0	0	0	0	0	0	0	0
11. IDENT W/OUT SCR INITIATED	29	7	3	1	1	2	9	3	5
12. REMAINED UNKNOWN	5	2	6	10	2	0	1	5	3
13. INTERCEPT EFFECT %	52	44	35	17	33	60	60	58	47
14. IDENT EFFECT %	94	89	79	23	71	100	93	74	84
15. *TRUE INTCP EFFECT %	93	100	67	20	50	100	100	88	81
16. FLIGHT PLANS RECEIVED	268	2235	1073	377	534	N/A	1779	913	717
17. FLT. PLANS CORRELATED	257	2151	960	339	469	N/A	1733	877	678
18. CORRELATION %	96	96	89	90	88	N/A	97	96	95

## REMARKS:

\*Intercept Figure Preceded By Asterick Is Determined By Intercepts  
Divided By Total Of Scrambles Less Identifications Prior To Intercept.

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32d AIR DIVISION (DEF)  
SUMMARY OF AIR DEFENSE OPERATIONS FOR 1MAY-31MAY, '54

18	REASON FOR NO SCRAMBLE ACTION	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80
	a. WEATHER (WX)	11	6	5	0	1	2	3	1
	b. OUT OF INTERCEPT RANGE (OR)	0	0	0	0	0	0	0	0
	c. NO AI EQPD FTR INSUITABLE LOCATION (NAIF)	0	0	0	0	0	0	0	0
	d. CONSERVATION OF AIRCRAFT (CA)	10	1	0	7	0	0	5	6
	e. NO. SCRAMBLE MULTIPLE CORRIDOR IDENT. STM	11	2	0	0	0	0	2	0
19.	REASON FOR MISSED INTERCEPTS								
	a. WEATHER (WX)	0	0	0	0	0	0	0	0
	b. LATE SCRAMBLE (LS)	0	0	0	0	0	0	0	0
	c. AIRBORNE EQUIPMENT FAILURE (AEF)	0	0	0	0	0	0	0	0
	d. DARKNESS (DK)	0	0	0	0	0	0	0	0
	e. ELECTRONICS COUNTERMEASURES (ECM)	0	0	0	0	0	0	0	0
	f. ABORT (ABT)	0	0	0	1	0	0	0	0
	g. CONTROLLER ERROR (CE)	0	0	0	0	0	0	0	1
	h. GROUND EQUIPMENT FAILURE (GEF)	0	0	0	0	0	0	0	0
	i. AIRCRAFT PERFORMANCE (ACP)	0	0	0	0	0	0	0	0
	j. FADE PRIOR TO INTERCEPT (FPI)	1	0	4	3	2	0	0	0
	k. PASSED TO 26th AD (DEF)	1	0	0	0	0	0	0	0

REMARKS :

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## SENAIR DIVISION FLIGHT PLAN CORRELATION

1 May - 31 May, 1954

	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80	32d
FLIGHT PLANS RECEIVED	268	2235	1073	377	534	N/A	1779	913	717
FLIGHT PLANS CORRELATED	257	2151	960	339	469	N/A	1733	877	676
FLIGHT PLANS NOT CORRELATED	11	84	113	38	65	N/A	46	36	39
REASONS FOR NON CORRELATION (Mechanical Limitations)									
1. SCHEDULED MAINTENANCE	9	28	18	15	39	0	6	22	13
2. EMERGENCY MAINTENANCE	0	2	7	0	0	0	0	0	9
3. OUT OF CALIBRATION LIMITS	0	14	21	0	11	0	12	5	6
5. GROUND CLUTTER	2	8	8	0	1	0	8	0	27
9. OTHER *	0	11	48	13	7	0	6	7	92
TOTAL	11	63	102	28	58	0	32	34	321
(Other than Mechanical Limitations)									
4. WEATHER	0	20	2	10	3	0	0	0	35
6. LATE FLIGHT PLAN	0	0	7	0	0	0	0	0	7
7. DEVIATED FLIGHT PLAN	0	1	1	0	4	0	0	2	8
8. PERSONNEL ERROR	0	0	1	0	0	0	14	0	15
TOTAL	0	21	11	10	7	0	14	2	65
GRAND TOTAL	11	84	113	38	65	0	46	36	391

\* Most Common reason for No. 9

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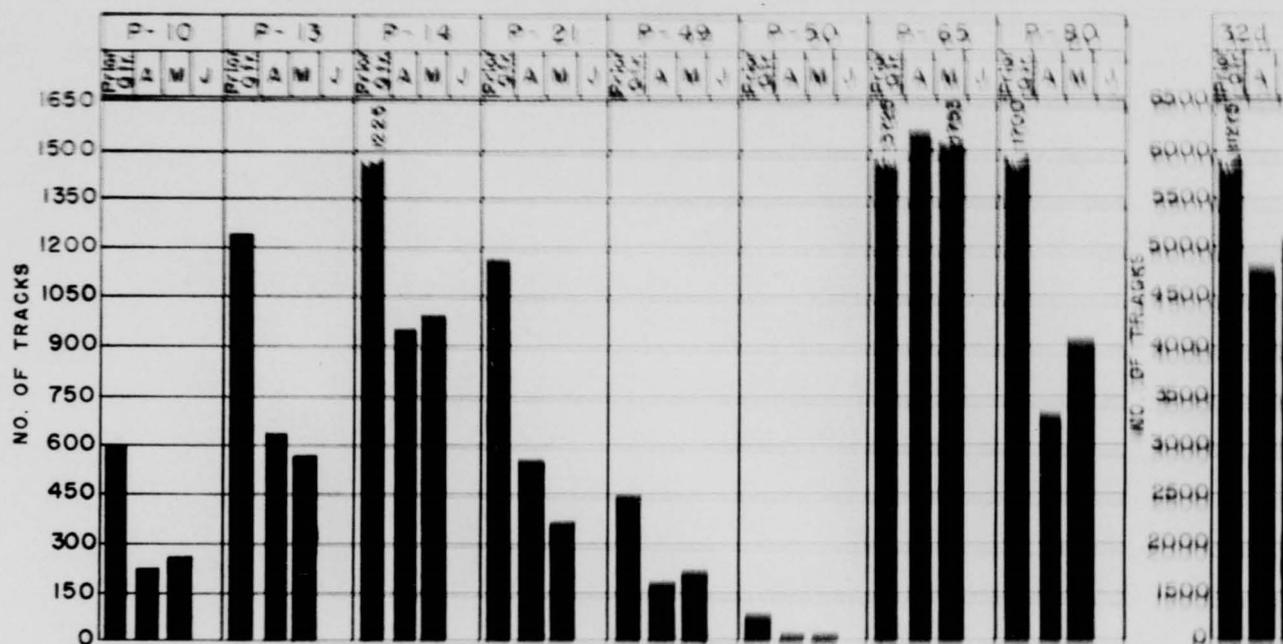
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320 AIR DIVISION (DEF)

TOTAL TRACKS REQUIRING IDENTIFICATION

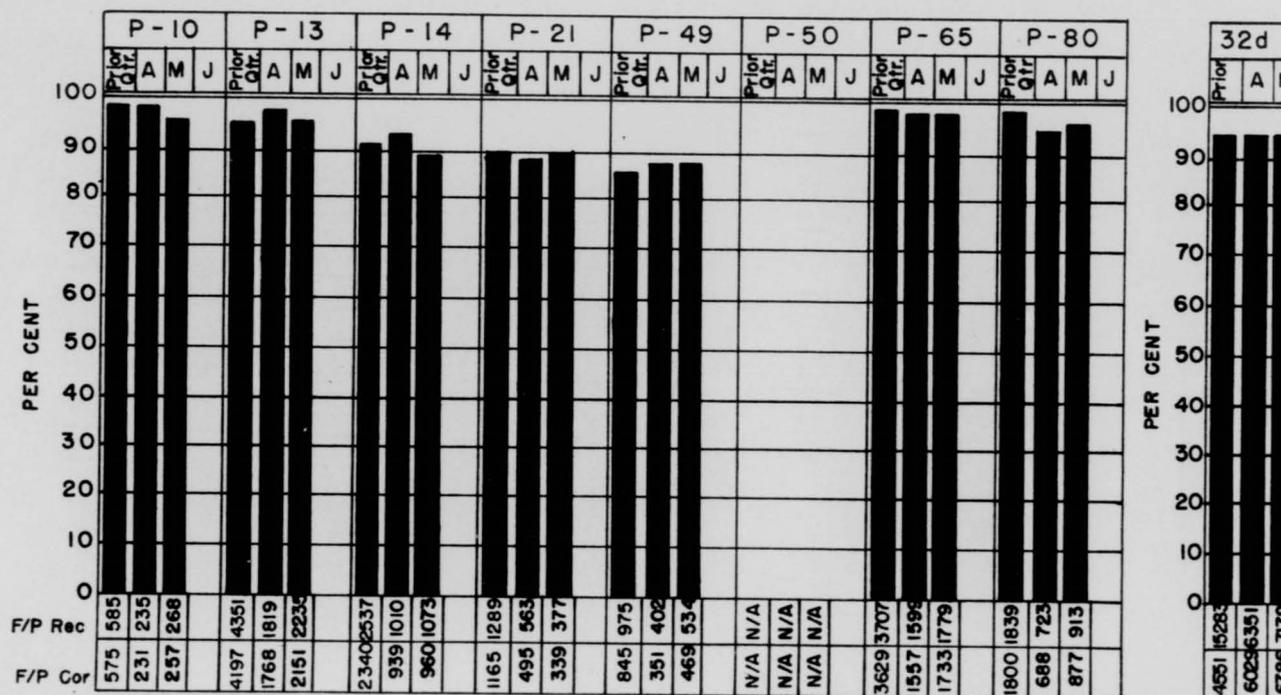


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32d AIR DIVISION (DEF)

FLIGHT PLAN CORRELATION

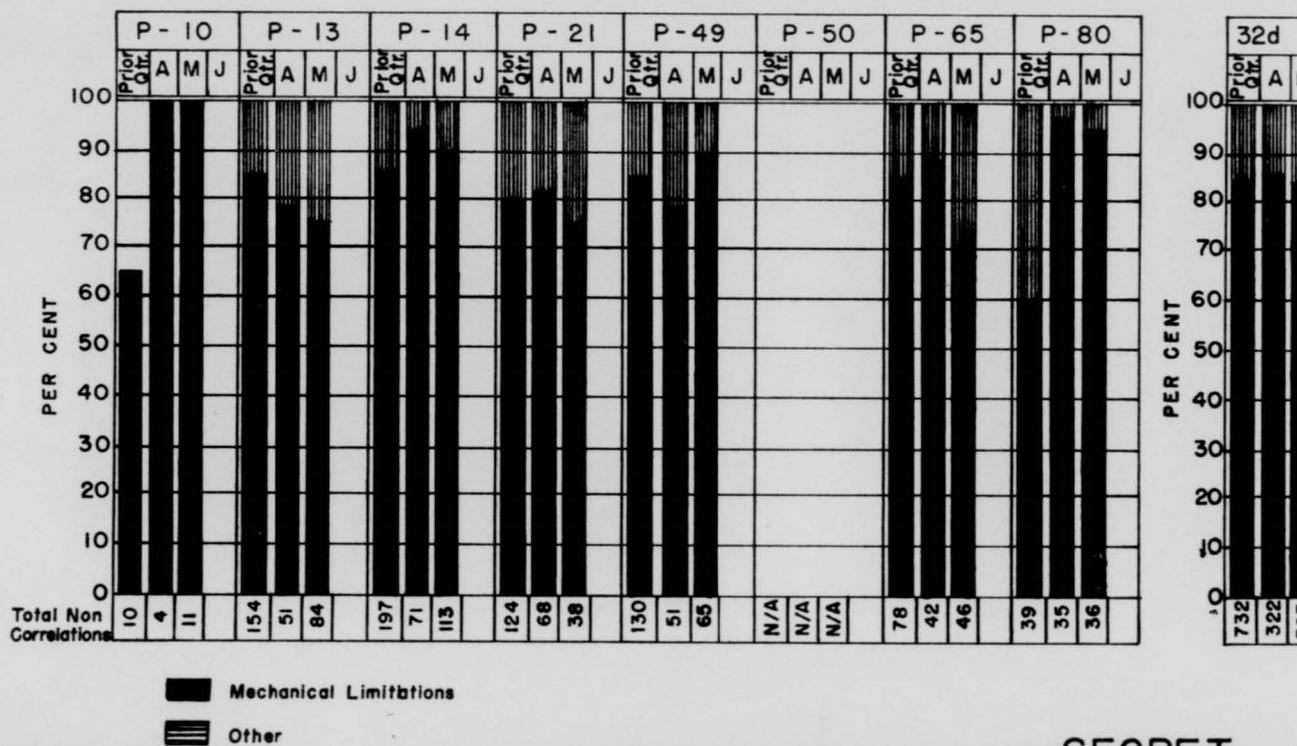


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32d AIR DIVISION (DEF)

NON-CORRELATIONS



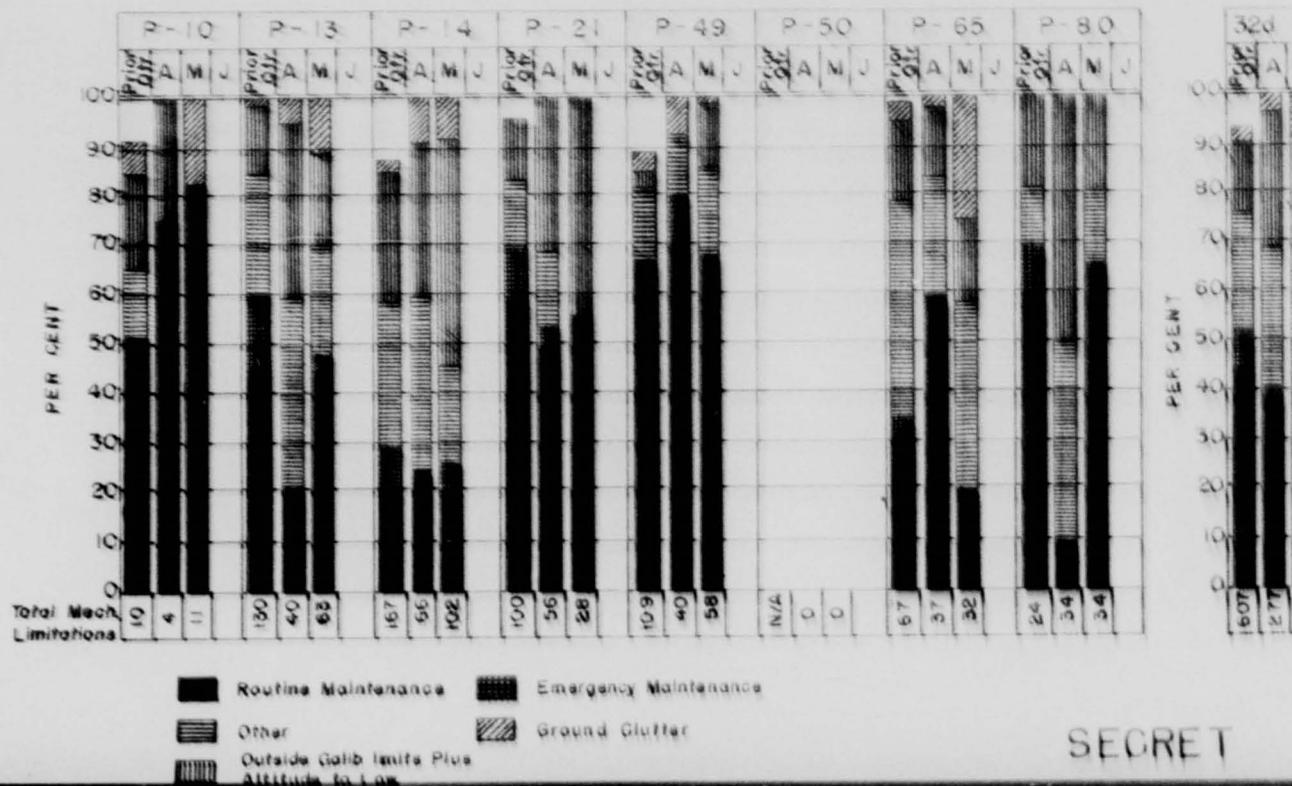
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32d AIR DIVISION (DEF)

NON-CORRELATIONS

(Mechanical limitations)



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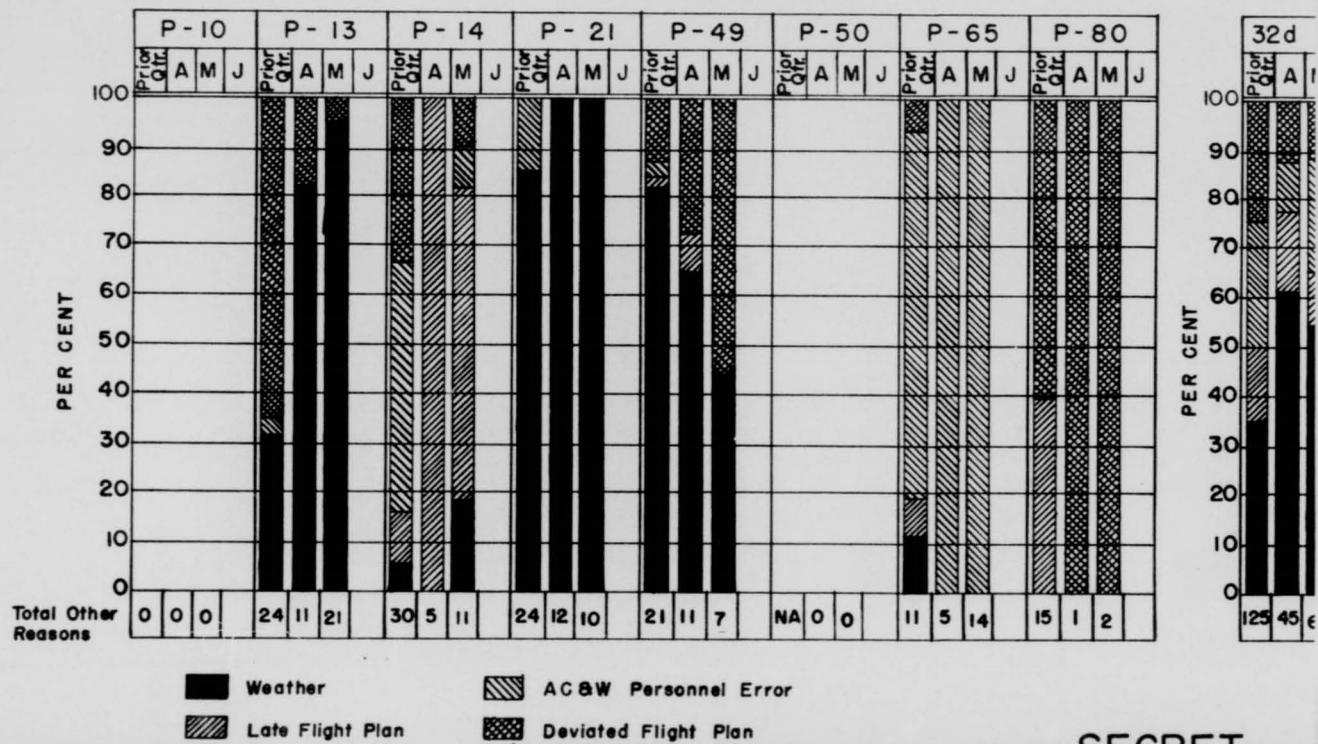
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32d AIR DIVISION (DEF)

NON-CORRELATIONS

(Other Reasons)



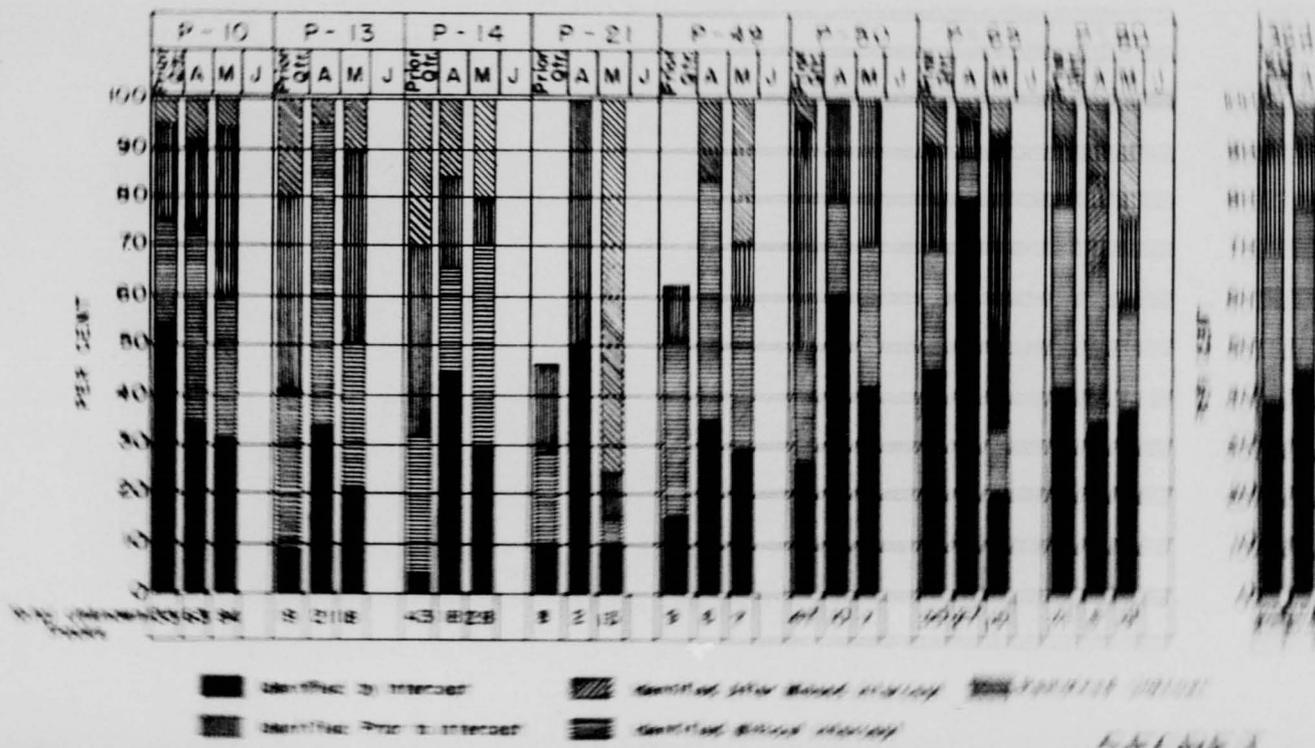
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322 2 8 DIVISION (197)

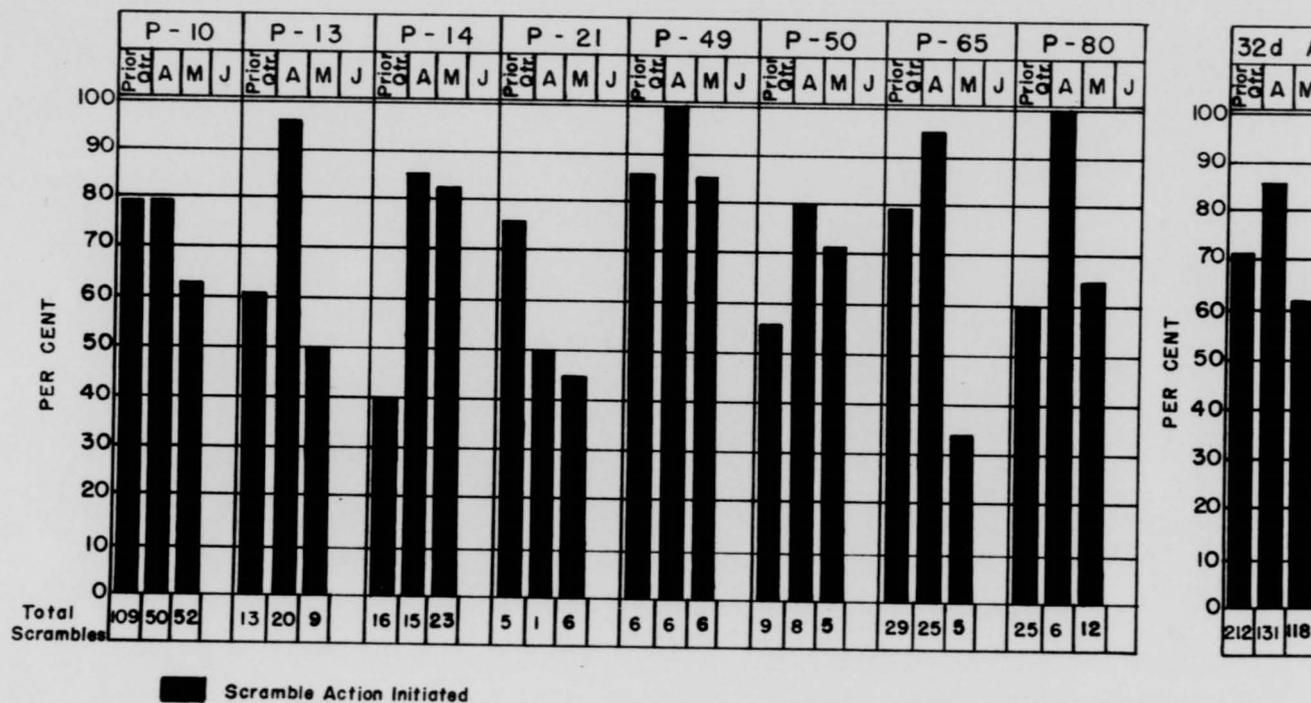
IDENTIFICATION EFFECTIVENESS



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32d AIR DIVISION (DEF)

SCRAMBLE ACTION



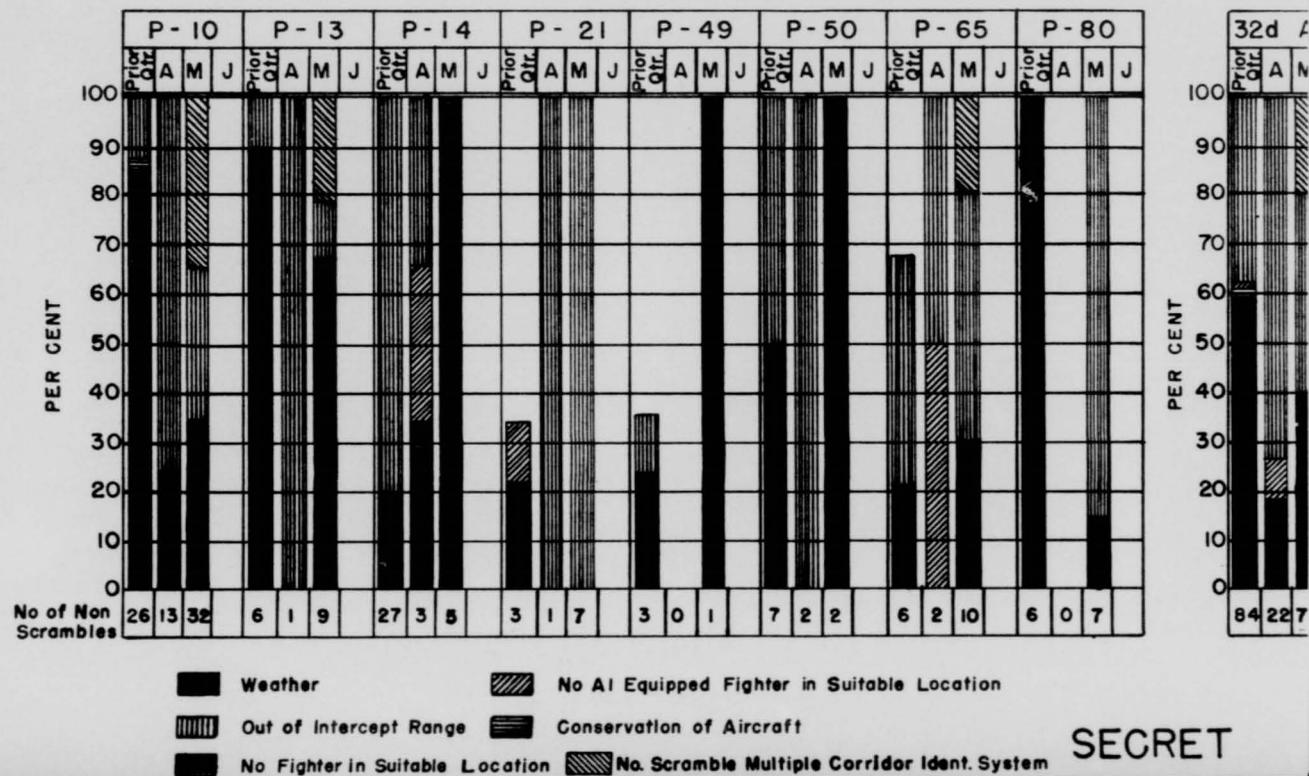
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32d AIR DIVISION (DEF)

REASONS FOR NO SCRAMBLE



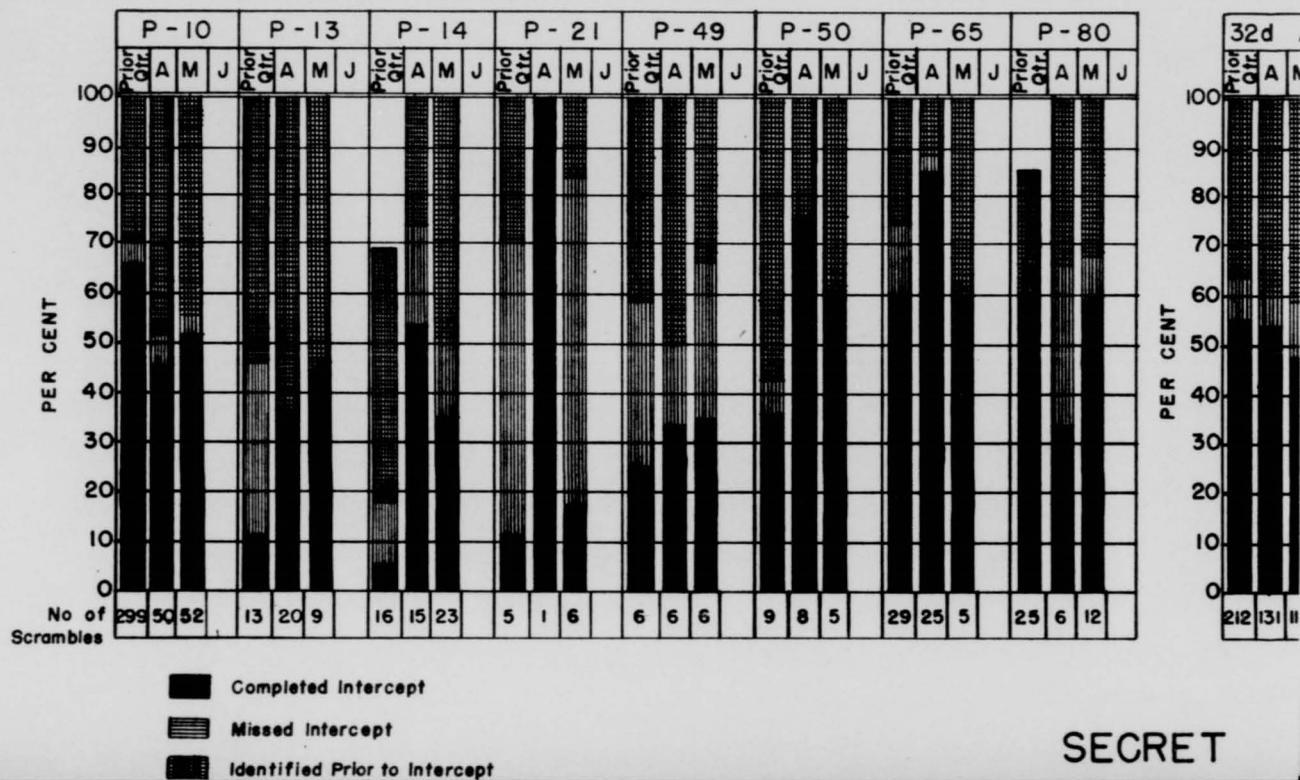
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32d AIR DIVISION (DEF)

INTERCEPT EFFICIENCY



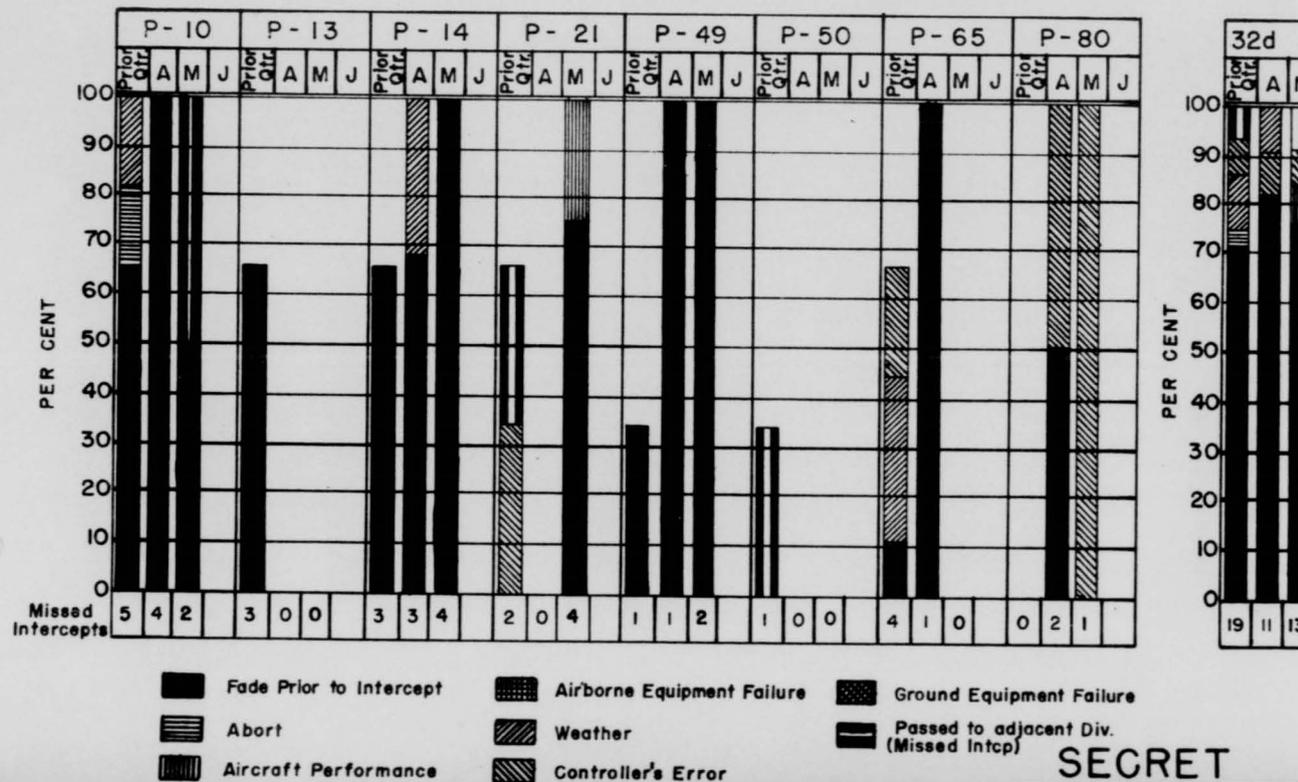
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32d AIR DIVISION (DEF)

REASONS FOR MISSED INTERCEPTS



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CO 655th AC&W Sq	
CO 656th AC&W Sq	
CO 762d AC&W Sq	
CO 763rd AC&W Sq	
CO 764th AC&W Sq	
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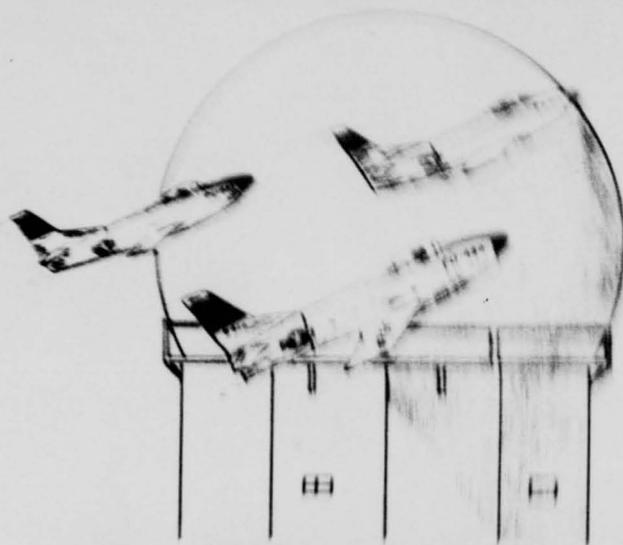
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**2ND  
AIR  
DIV**

# OPERATIONS



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# SUMMARY

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PREPARED BY  
OFFICE OF THE COMPTROLLER  
FOR DEPUTY OF OPERATIONS  
32D AIR DIVISION (DEFENSE)

SECRET

0630

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320 AIR DIVISION (DET)

## SECRET SUMMARY OF AIR DEFENSE OPERATIONS FOR 1JUN-30JUN'54

	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80	320
1. PENETRATION TRACKS	341	955	1,030	3	157	22	1,555	866	4,9
2. WORKLOAD TRACKS	1,755	1,420	371	1	273	948	1,686	2,765	9,2
3. GOC TRACKS									
a. TRACKS RECEIVED	1,112	1,031	541	1,089	200	460	5,501	0	9,9
b. TRACKS CORRELATED	756	700	479	216	112	326	4,816	N/A	7,4
4. NUMBER OF UNKNOWN TRKS	59	42	18	1	3	12	39	25	1
5. SCR ACTION INITIATED	38	32	18	1	3	12	26	23	1
6. NO SCR ACTION INITIATED	21	10	0	0	0	0	13	2	
7. NUMBER OF INTERCEPT	12	15	6	0	2	4	13	12	
8. NUMBER OF MISSED INTCP	4	2	1	1	0	5	4	2	
9. IDENT PRIOR TO INTERCEPT	22	15	11	0	1	3	9	9	
10. IDENT AFTER MISSED INTCP	0	0	0	0	0	0	0	0	
11. IDENT W/OUT SCR INITIATED	20	9	0	0	0	0	13	2	
12. REMAINED UNKNOWN	5	3	1	1	0	5	4	2	
13. INTERCEPT EFFECT %	32	47	33	0	67	33	50	52	
14. IDENT EFFECT %	92	93	94	0	100	58	90	92	
15. *TRUE INTCP EFFECT %	75	88	86	0	100	44	76	86	
16. FLIGHT PLANS RECEIVED	345	2,339	1,166	3	510	N/A	1,584	853	6,1
17. FLT. PLANS CORRELATED	328	2,206	1,028	3	378	N/A	1,514	802	6,
18. CORRELATION %	95	94	88	100	74	N/A	96	94	

## REMARKS:

\* Intercept Figure Preceded By Asterick Is Determined By Intercepts  
Divided By Total Of Scrambles Less Identifications Prior To Intercept.

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32d AIR DIVISION (DEF)  
SUMMARY OF AIR DEFENSE OPERATIONS FOR 1JUN-30JUN'54

18. REASON FOR NO SCRAMBLE ACTION	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80
a. WEATHER (WX)	4	0	0	0	0	0	0	0
b. OUT OF INTERCEPT RANGE (OR)	0	0	0	0	0	0	0	0
c. NO AI EQPD FTR IN SUITABLE LOCATION (NAIF)	0	0	0	0	0	0	0	0
d. CONSERVATION OF AIRCRAFT (CA)	11	5	0	0	0	0	3	1
e. NO SCRAMBLE MULTIPLE CORRIDOR IDENT STM	8	4	0	0	0	0	8	1
19. REASON FOR MISSED INTERCEPTS								
a. WEATHER (WX)	1	0	0	0	0	0	0	0
b. LATE SCRAMBLE (LS)	0	0	0	0	0	0	0	0
c. AIRBORNE EQUIPMENT FAILURE (AEF)	0	0	0	0	0	0	0	0
d. DARKNESS (DK)	0	0	0	0	0	0	0	0
e. ELECTRONICS COUNTERMEASURES (ECM)	0	0	0	0	0	0	0	0
f. ABORT (ABT)	0	0	0	0	0	1	0	0
g. CONTROLLER ERROR (CE)	0	0	0	1	0	0	0	0
h. GROUND EQUIPMENT FAILURE (GEF)	0	0	0	0	0	0	0	0
i. AIRCRAFT PERFORMANCE (ACP)	0	0	0	0	0	0	0	0
j. FADE PRIOR TO INTERCEPT (FPI)	2	2	1	0	0	4	4	2
k. PASSED TO 26th AD (DEF)	1	0	0	0	0	0	0	0

REMARKS:

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32d AIR DIVISION FLIGHT PLAN CORRELATION  
1 JUN -30 JUN, 1954

	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80	32c
FLIGHT PLANS RECEIVED	345	2,339	1,166	3	510	N/A	1,584	853	6,8
FLIGHT PLANS CORRELATED	328	2,206	1,028	3	378	N/A	1,514	802	6,2
FLIGHT PLANS NOT CORRELATED	17	133	138	0	132	N/A	70	51	!
REASONS FOR NON CORRELATION (Mechanical Limitations)									
1. SCHEDULED MAINTENANCE	11	48	24	0	120	0	20	0	22
2. EMERGENCY MAINTENANCE	0	12	9	0	0	0	0	1	2
3. OUT OF CALIBRATION LIMITS	0	32	14	0	6	0	1	4	5
5. GROUND CLUTTER	1	6	15	0	1	0	6	9	3
9. OTHER *	0	14	69	0	3	0	22	22	13
TOTAL	12	112	131	0	130	0	49	36	47
(Other than Mechanical Limitations)									
4. WEATHER	5	17	1	0	1	0	0	5	2
6. LATE FLIGHT PLAN	0	1	5	0	1	0	0	1	1
7. DEVIATED FLIGHT PLAN	0	2	0	0	0	0	1	3	1
8. PERSONNEL ERROR	0	1	1	0	0	0	20	6	2
TOTAL	5	21	7	0	2	0	21	15	7
GRAND TOTAL	17	133	138	0	132	0	70	51	54

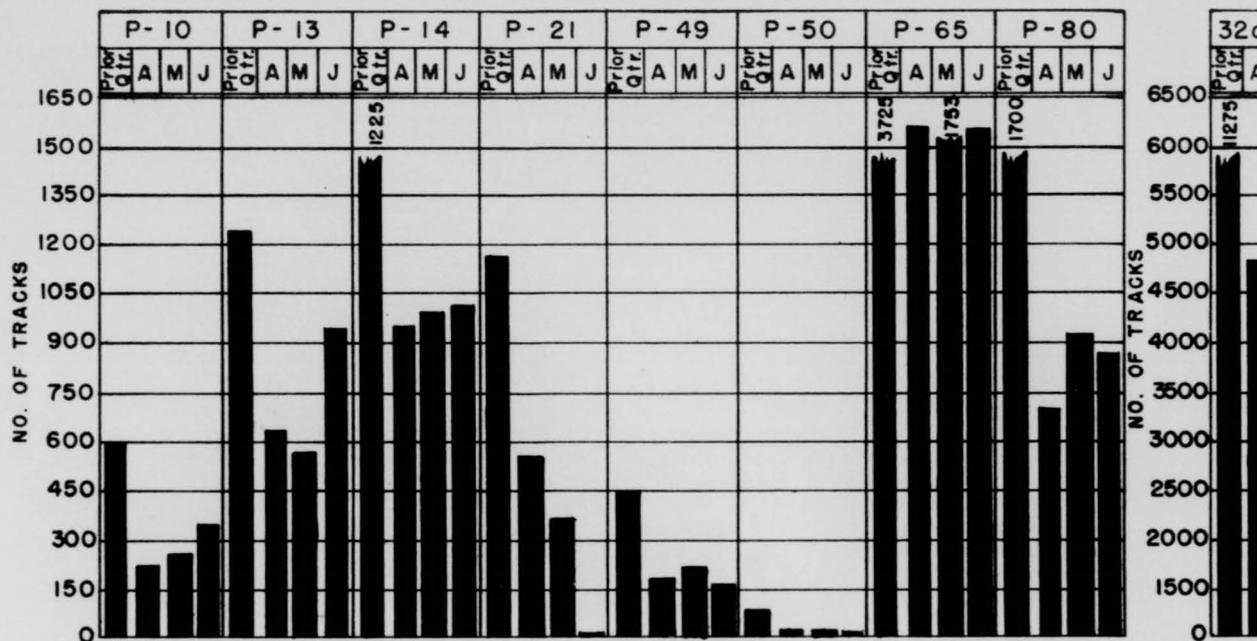
\*Most Common Reason For No.9 Controller Could Not Locate  
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32d AIR DIVISION (DEF)

TOTAL TRACKS REQUIRING IDENTIFICATION



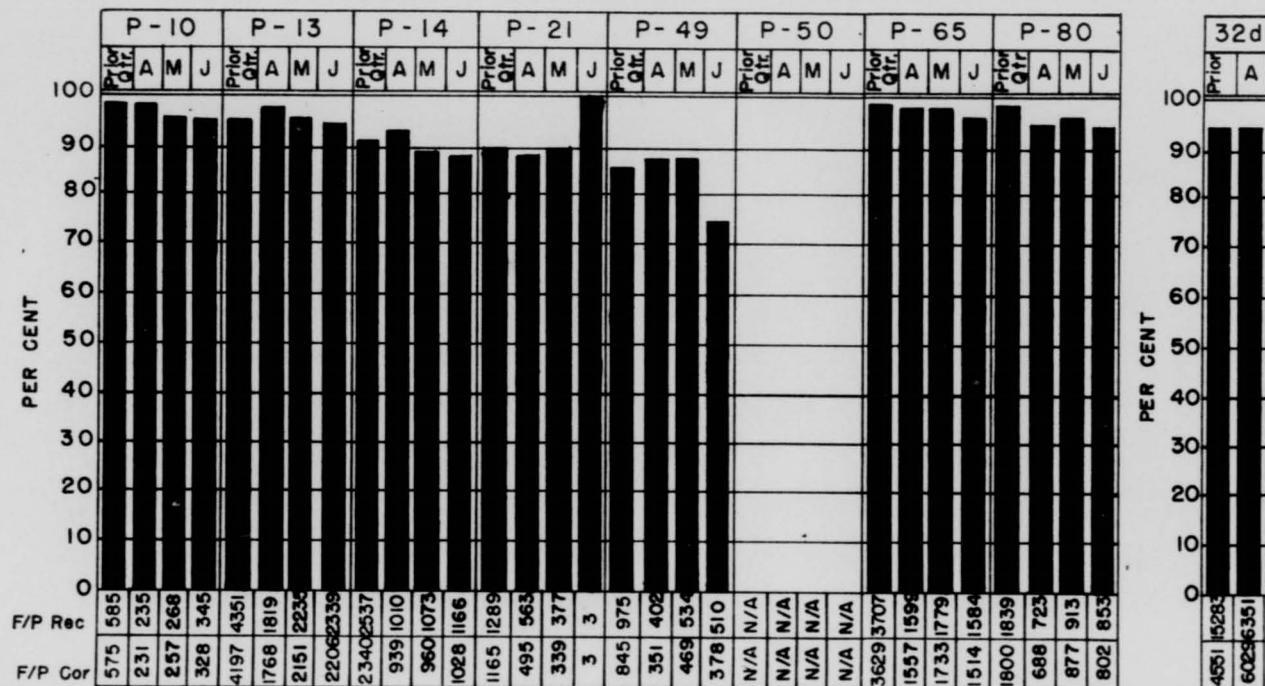
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32d AIR DIVISION (DEF)

FLIGHT PLAN CORRELATION



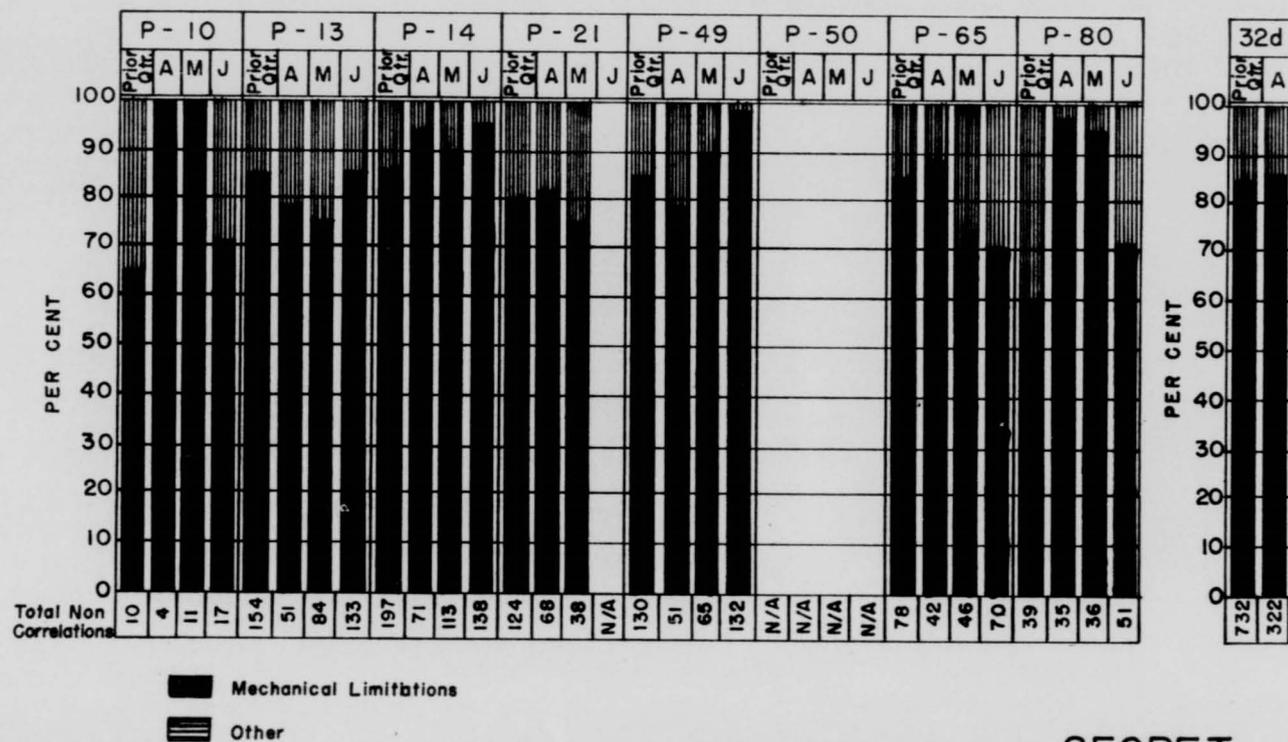
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32d AIR DIVISION (DEF)

NON-CORRELATIONS



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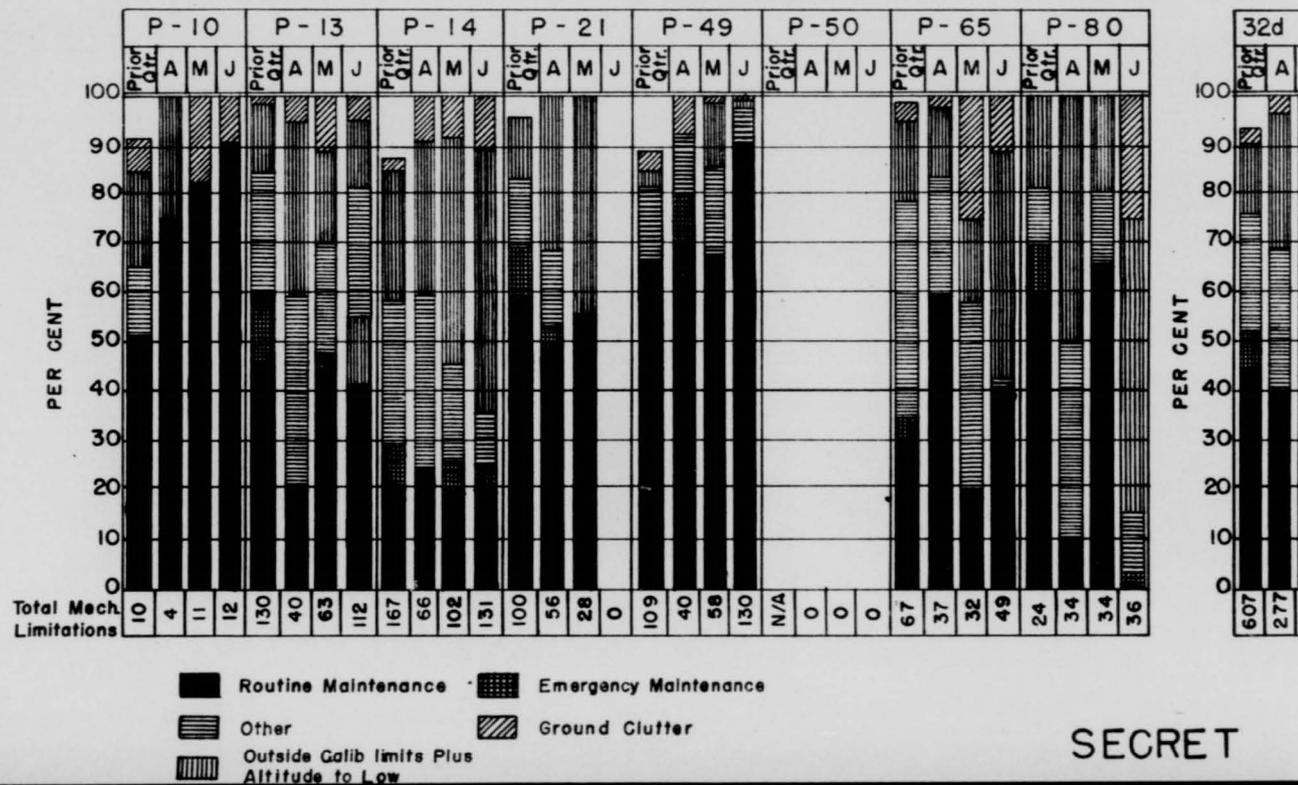
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32d AIR DIVISION (DEF)

NON-CORRELATIONS

(Mechanical limitations)



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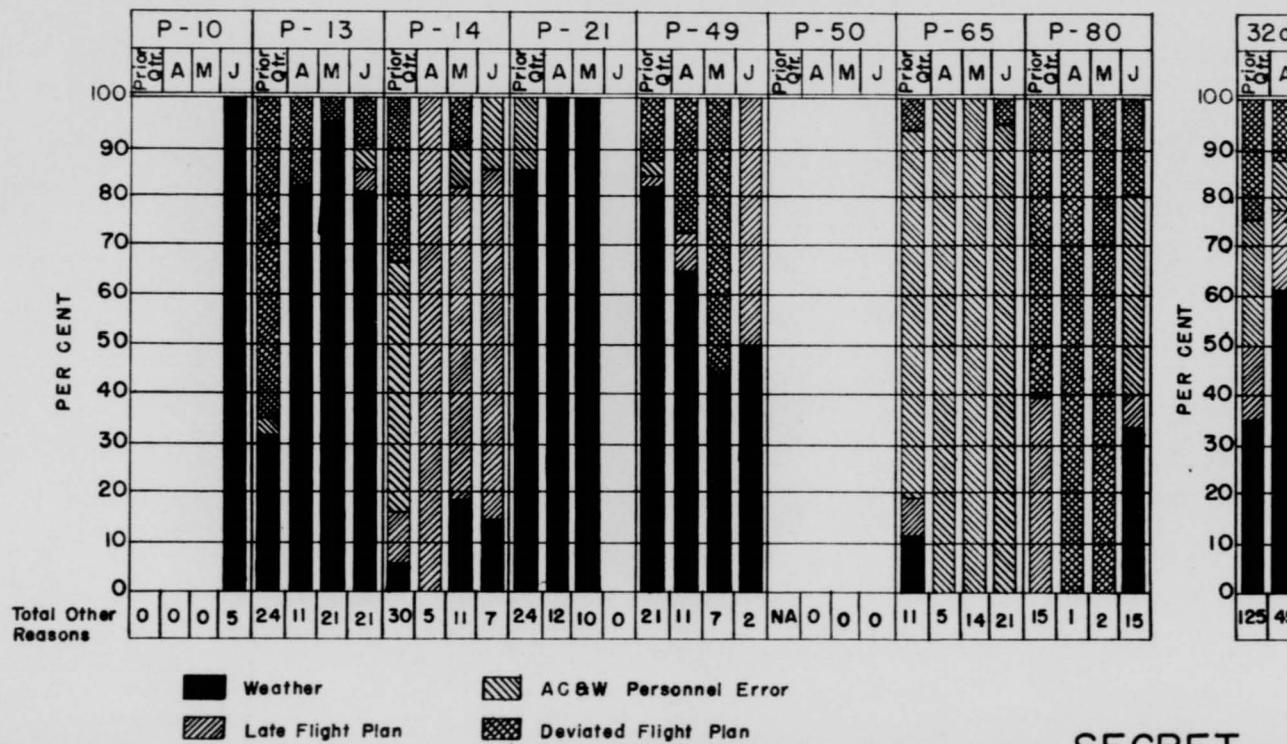
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32d AIR DIVISION (DEF)

NON-CORRELATIONS

(Other Reasons)



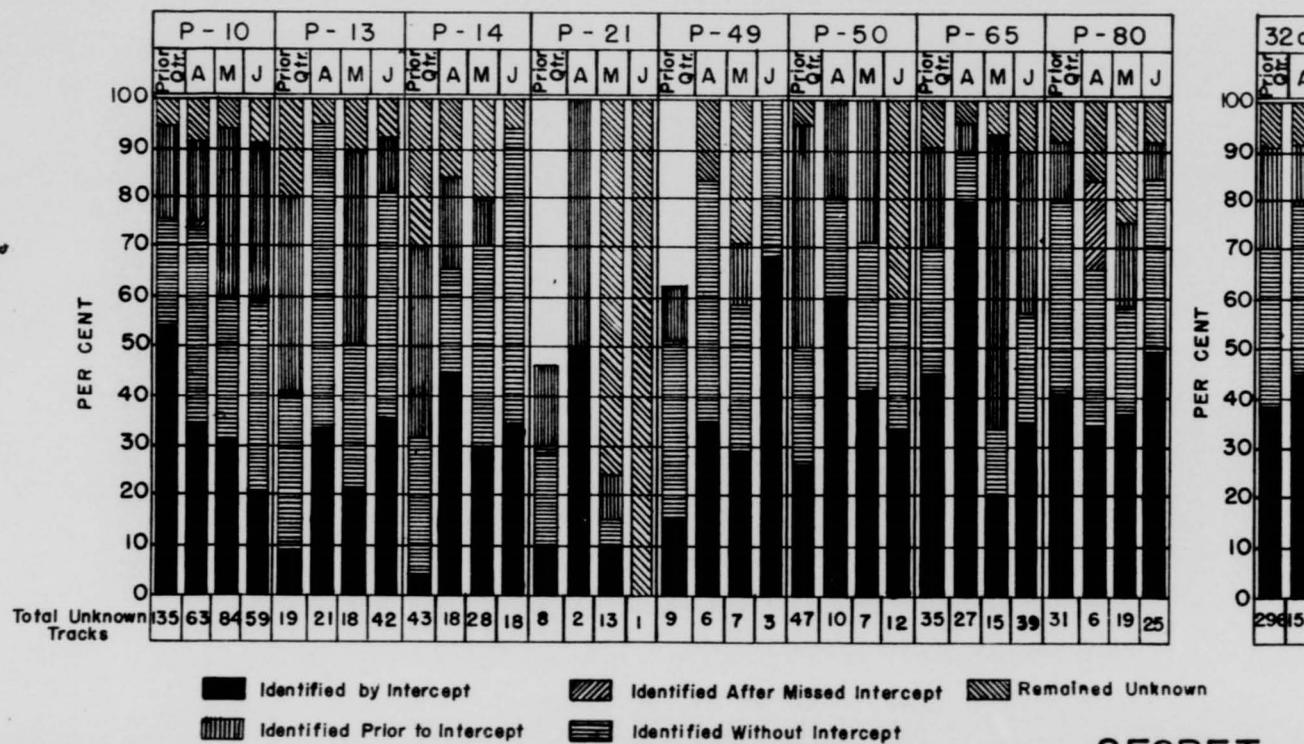
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32d AIR DIVISION (DEF)

IDENTIFICATION EFFECTIVENESS



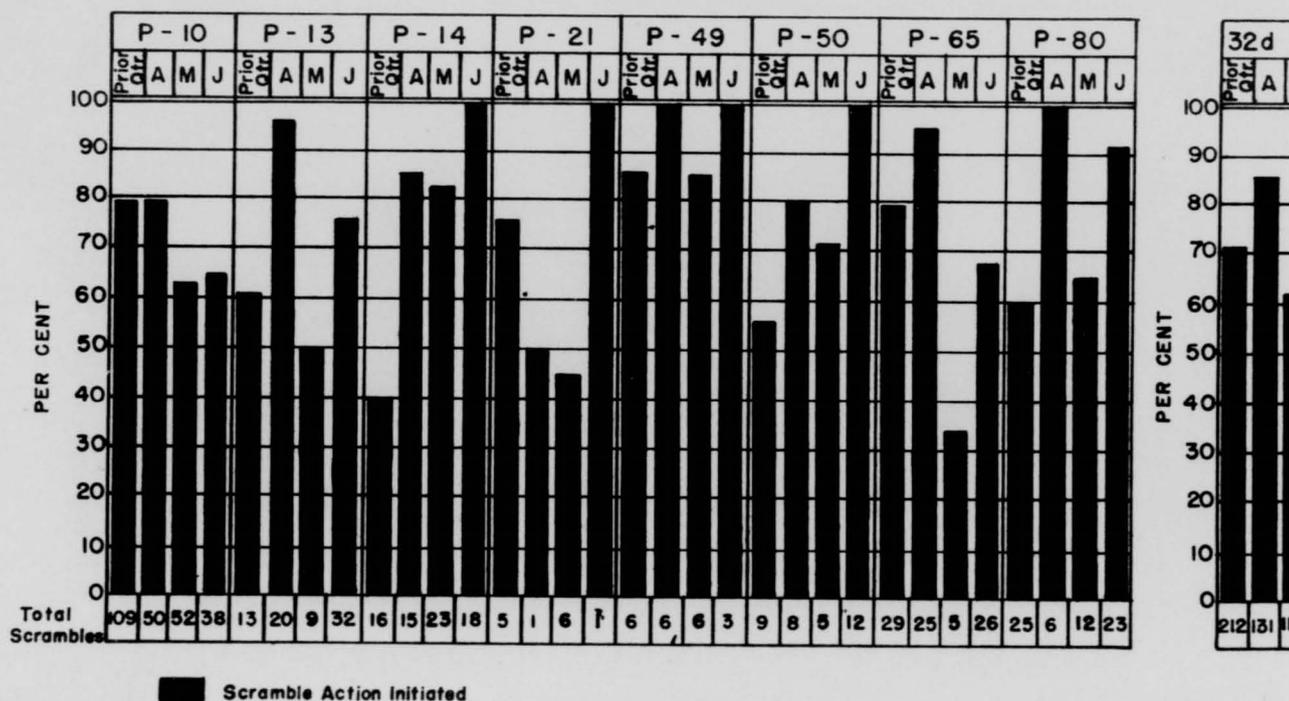
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32d AIR DIVISION (DEF)

SCRAMBLE ACTION



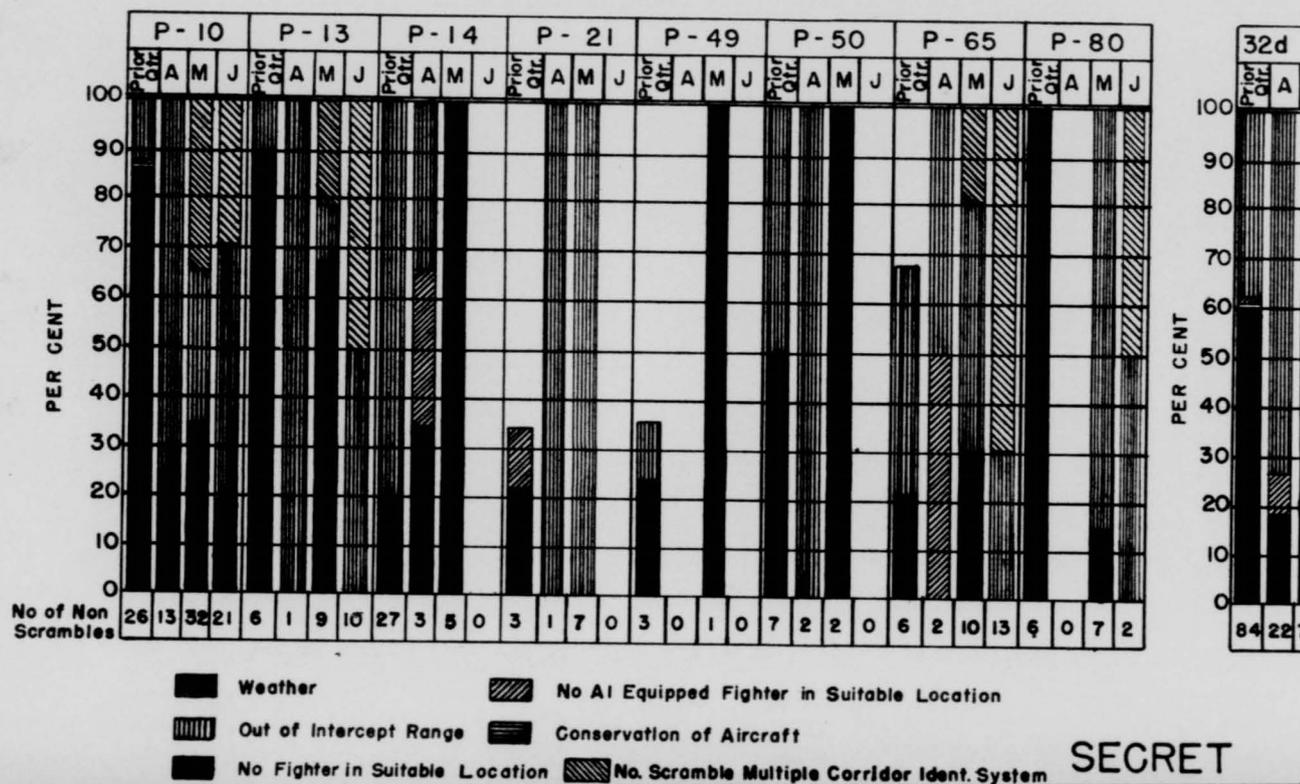
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32d AIR DIVISION (DEF)

REASONS FOR NO SCRAMBLE



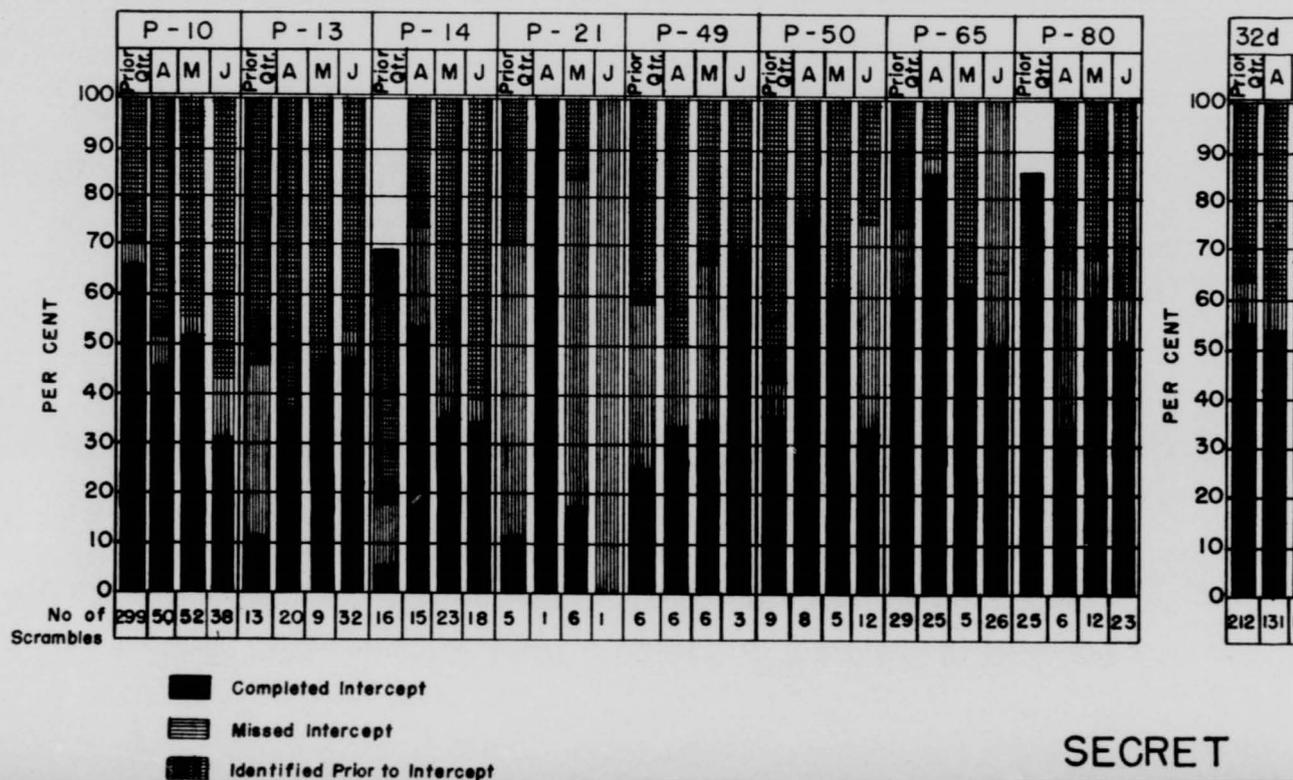
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32d AIR DIVISION (DEF)

INTERCEPT EFFICIENCY



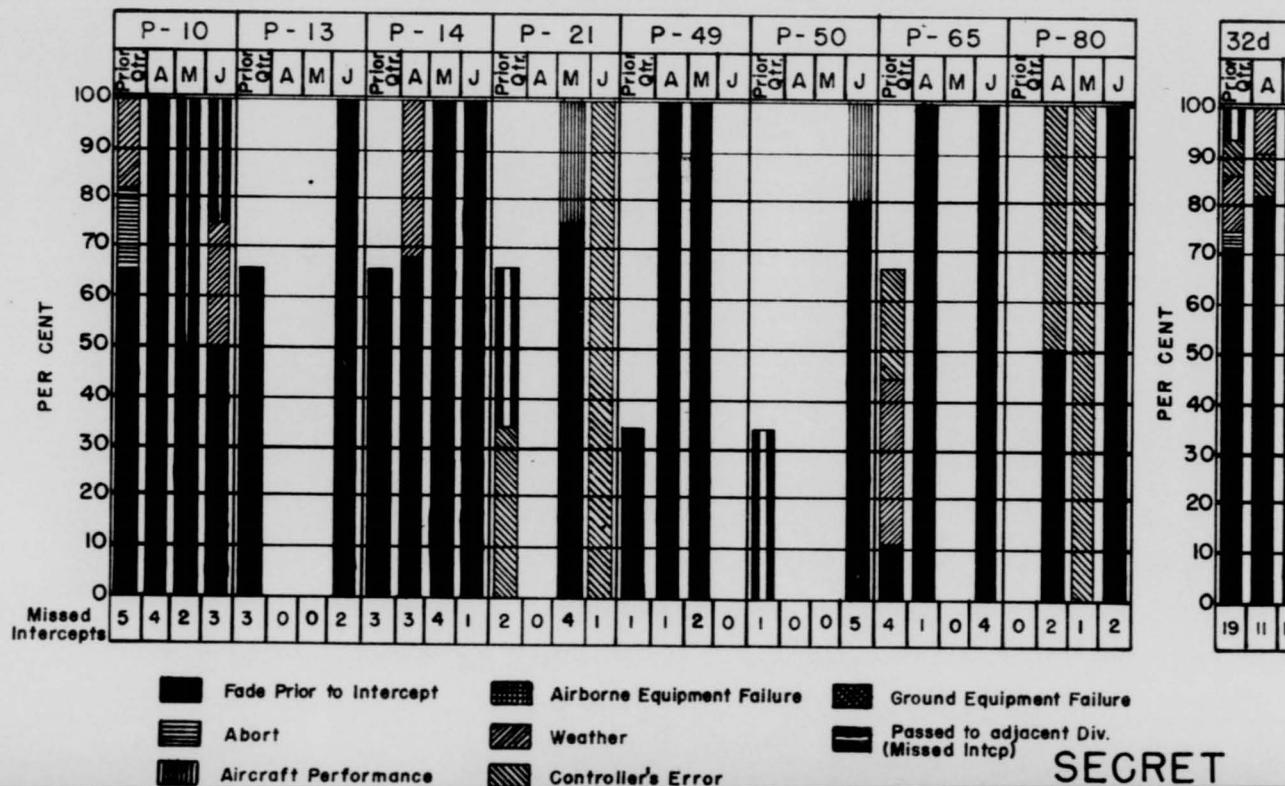
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32d AIR DIVISION (DEF)

REASONS FOR MISSED INTERCEPTS



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CO 654th AC&W Sq	1
CO 655th AC&W Sq	1
CO 656th AC&W Sq	1
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CO 763rd AC&W Sq	1
CO 764th AC&W Sq	1
CO 765th AC&W Sq	1
CO 766th AC&W Sq	1
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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-A

27 Jul 1954

SUBJECT: Review of Operational Procedure

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth,  
Massachusetts  
Commander, 4711th Defense Wing, Presque Isle Air Force Base,  
Presque Isle, Maine

1. This headquarters is becoming increasingly concerned with the prevalence of the type of incident exemplified in the following summary. It is desired that your subordinate units be made aware of this concern and the probable result if corrective action is not taken. Lack of experience by director personnel cannot be condoned as explanation for the occurrence.

2. Summary of Incident:

a. At 1810Z, 19 July 1954, a high-fast target was detected penetrating our defenses in the vicinity of Houlton, Maine, heading southwest. Possibility existed that the target was a B-47 en route from England; however, no flight plan was available. Intercept was made on a B-47 by Chatham, shortly before, but there was insufficient information available to insure positive identification as a friendly aircraft. Although detected at 1810Z, scramble was not ordered until 1814Z, at which time two F-86F's were diverted from CAP. Distance from the interceptors to the target was approximately 75 nautical miles in the lead, based on plots furnished the ADCC. (See Incl #1). Cut-off vector to the target path was not given until 1819Z. At this time, it should have been quite evident that intercept could not be completed. As the result, a "Tally-Ho" and subsequent tail chase took place with the interceptors several thousand feet low and several miles behind. The target faded unidentified.

b. A second high-fast target was detected at 1908Z approximately 30 nautical miles north-northwest of Concord, N.H. heading southwest. Several factors contributed to the missed intercept and eventual fading as unidentified of this target. Scramble was requested by the 654th AC&W Squadron of the 762d AC&W Squadron at 1857Z. Mailbag White, one F-94C was scrambled at 1857Z. Mailbag Red who was previously scrambled for another track was diverted to this target at

54-2125

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Hq 32d AD(D) OOT-A Subject: Review of Operational Procedure

1907Z. Both targets were evidently the same aircraft. White apparently was proceeding to P-13 area rather than on an intercept vector and was completely out of position. Red was not turned into an intercept vector soon enough to get into position and ended up in a tail chase with no more than a visual sighting of the contrails.

3. Comments received during staff visits and in exercise reports have indicated that the AC&W Squadrons are dissatisfied with the division policy of centralized control during exercises. The ADDC's would prefer that they be permitted to plan the scramble times rather than have this prerogative retained in the ADCC. Incidents such as the above could influence this headquarters toward retaining centralized control at all times, rather than to lean the other way and give more scramble authority to the AC&W Squadrons.

2 Incls:  
1. Overlay WK59C  
19 Jul 54  
2. Overlay A42  
19 Jul 54

WILLIAM H. CLARK  
Colonel, USAF  
Deputy Commander

2

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C O P Y

HEADQUARTERS  
764TH AIRCRAFT CONTROL AND WARNING SQUADRON  
ST. ALBANS AIR FORCE STATION  
St. Albans, Vermont

OPNS

15 Jun 1954

SUBJECT: EADF Regulation 60-13

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Reference your message ACFOCC 6027, provisions of EADF Regulation 60-13 will require revision to eliminate the necessity for pilots to repeat flight plan information for each AC&W station.

2. In EADF Regulation 60-13, pilots are instructed to give flight plan information to the ADCC via the C-I-W Circuit at base of departure (paragraph 8c(1)(a)), or to the first EADF AC&W Station (paragraph 8c(1)(b)), however, instructions to the ADCC include only passing of this information to the ADCC (Paragraph 8c(2)(a)-(b)-(c)). Further, there are no instructions to the ADCC to pass flight plan information to ADCC's; there are provisions for the Flight Met Forecaster to relay weather via appropriate ADCC's; but the only instructions regarding passing of flight plan information is for the ADCC to pass it to adjacent ADCC's (paragraph 8c(3)(c)).

3. It has been assumed by this headquarters in view of the above that pilots would, on such missions, give AC&W stations a brief report of point of departure, destination, altitude, weather at flight altitude and last known fix in the same manner as they report in to ATC's enroute.

4. It is requested that clarification be disseminated to pilots, on provisions of the 32nd SARPS as regards GCI letdowns. Provisions of paragraph 3b(1) and (2) preclude use of these procedures for recovery of cross-country aircraft. In the subject regulation, paragraph 8c(2)(b) infers that GCI recovery can be used and this station has on occasion had requests for recovery of cross-country flight using SARP procedures.

FOR THE COMMANDER:

WILLIAM J. BUCHANAN  
1st Lt., USAF  
Adjutant

212 2

C O P Y

Hq 764th AC&W Sq OPNS Subj: EADF Regulation 60-13

OOT-A (15 June 1954)

1st Ind

21 Jun 1954

HQ 32D AIR DIVISION (DEFENSE) Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. Interpretation of this headquarters of paragraph 8c, EADFR 60-13 is that all flights must be "flight followed" in order to provide assistance to the interceptor pilot. In this respect, normal procedure should be utilized whereby pertinent flight plan data is relayed between ADDC's along the proposed route of flight. Procedure is outlined in paragraph 7a(1), ADCR 55-30.

2. All units were advised by message this headquarters, site ACFOOT-FO 1118, that GCI letdown would be utilized only as prescribed by 32D SARPS. Deviations to the authorized usage should be reported as a violation of flying regulations.

3. Unless otherwise directed, correspondence will be routed thru normal command channels.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst Adjutant

GENERAL INSTRUCTIONS

1. The Air Defense Command is presently operating under a peacetime condition. However, maximum surveillance is to be maintained and aircraft necessary to perform identification by intercept have been provided by the fighter commitment now in effect. The present state of preparedness of the system is not defined as a "Warning White" condition. There is no state of alert now in effect.

2. When indications are such that maximum preparedness is desired, an "Air Defense Readiness" will be issued. This condition is for short periods of time during which maximum immediate readiness is maintained. This term should not be confused with maximum sustained operations. If the situation which prompted the declaration of the Air Defense Readiness does not develop into an attack, review of the situation by the Joint Chiefs of Staff, Commander, ADC, the President or Congress may result in the declaration of a "Military Emergency". If such is the case, Warning White will automatically be effected and the system will be placed on "maximum sustained operation". If the situation does not develop into an attack and there is no declaration of a Military Emergency, the system will revert to the present condition when so directed by ADC. Under the condition of Air Defense Readiness, all AC&W Squadrons are manned for maximum immediate operation, all fighter intercept aircraft are advanced to "Readiness" (5 minutes status), Battle Staff is manned, Defense Wing and Defense Group staff's are manned. In general, attempt is made to attain maximum combat potential, but no action is taken on passive defense measures, i.e., CONELRAD & SCATER are not implemented, MAJW and CADW Key Points are not notified. However, combat potential is increased by alerting the Ground Observer Corps, cancelling preventive radar maintenance and returning military personnel to duty from leave and pass. The only agencies outside the Air Defense Command which are alerted are:

1. Adjoining Canadian ADCC's
2. AAOC's

To insure proper working of the MADW and CALW Net however, a test "Test Air Defense Warning" is disseminated. This test is strictly a line check and no other information is released.

3. A Military Emergency may be declared by:

1. The President
2. Joint Chiefs of Staff
3. Commander, Air Defense Command

If not already declared prior to the actual attack, it will automatically become effective when such occurs. In addition, when a Military Emergency exists or is declared, a Warning White will also become effective unless the situation warrants a higher condition of Warning Yellow or Warning Red. If an Air Defense Readiness has not previously been declared, it will become effective

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on the initial declaration of a Military Emergency and the prescribed alerting will be effected for the Military Emergency. This requires alerting in addition to those units notified upon an Air Defense Readiness. When the Military Emergency is declared and a Warning White condition exists, i. e., no hostile attack expected immediately, that portion of Scater as pertains to Warning White will be instituted. When Warning Red or Yellow condition exists, SCATER will be fully implemented by the Division Commander. This is initiated by notification to Boston and Cleveland ARTCC's. When the Military Emergency is declared and a Warning Red or Warning Yellow condition exists, CONELRAD will be placed in effect by alerting over the CONELRAD Net and information of the Warning condition will be disseminated over the CADW and MALW Nets. When disseminating these messages, it must be stated that Military Emergency, Warning " \_\_\_\_\_ " exists.

4. General Information:

- a. When one air division determines that conditions exist which warrant declaration of Warning RED, or is directed to initiate Warning Red, all other air divisions will initiate not less than Warning Yellow.
  - b. When one air division initiates Warning Yellow, or is directed to initiate Warning Yellow, all other air divisions will initiate not less than Warning Yellow.
  - c. When Warning Red or Warning Yellow has been initiated in accordance with a or b above, Warning White (or termination of the ~~warning~~) will not be initiated until authorized by the Commander, ADC, who will determine when the initial attack phase is over.
7. Warning White will be used to lower the state of alert from a Warning Red or Warning Yellow only and does not return the system to the present peacetime status. Termination will be only when stated as such by the Commander, ADC.

STATE OF PREPAREDNESS

AIR DEFENSE READINESS:

To effect maximum combat potential for units assigned to or under the operational control of the Air Defense Command. This does not include alert notification to outside agencies for the initiation of Passive Defense Measures.

WARNING WHITE:

Attack by hostile aircraft is improbable. (No known hostile aircraft are suspected to be with or enroute to the air defense sector).

Use of Warning White:

- a. To release agencies from a Warning Red or Warning Yellow.
- b. To designate a warning condition following the declaration of a Military Emergency when a higher state of alert is not indicated.

WARNING YELLOW:

Attack by hostile aircraft is probable. (Hostile aircraft are enroute to the sector or, unknown aircraft, suspected of being hostile, are within the air defense sector.)

WARNING RED:

Attack by hostile aircraft is imminent. (Hostile aircraft or unknown aircraft, manifestly hostile in intent, are within or in the immediate vicinity of the air defense sector with the probability of entering the air defense sector.)

MILITARY EMERGENCY:

The state of events which indicates that action is in progress or is imminent or sufficiently probable as to require in the interest of National Security the implementation of any portion of approved plans and agreements for the air defense of the United States.

C O P Y

COMDR 32D A DIV (DEF) HANCOCK FLD,  
EASTWOOD STA 6, SYRACUSE, NY

RESTRICTED

ROUTINE

COMDR 470TH DEF WG OTIS AFB FALMOUTH MASS  
COMDR 4711TH DEF WG PRESQUE ISLE AFB PRESQUE ISLE, ME.

EAOPM 28155

RESTRICTED

PO&R 8039. "EADP msg EAOPM 28155 quoted FYI: Folg should be disseminated as info concerning realignment of USAF responsibilities: 'The USA will be resp for furnished, maintaining, and cmdg the equip and pers (less the forward air controller) of TAC air control parties. The comm equip involved must be compatible with and possess the same channel spacing as that used in the a/c. The USAF will be resp for: (a) Providing forward air controllers. (b) Directing a/c thru the forward air controller. (c) Controlling allocation of frequencies which are employed in close air supt comm. This asgnment of resp applies only to the equipment used to direct the flight of a/c thru simple visual-voice procedures. This realloc of resp betw the USA and USAF does not affect the US Marine Corps arrangements for prov TAC Air Control parties to its own elements. The eff dt of trnsf is est to be 1 Jan 54."

RESTRICTED

VITA FEDOROVICH, Lt Col, USAF

WILLIAM W. INGENHUTT, Col, USAF

D/OOT

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Hancock Field, Eastwood Station 6  
Syracuse, New York

OOT-A/PUB 4

12 Jan 1954

SUBJECT: Comments and Recommendations EADFL 55-15

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. In compliance with message your headquarters, EAOOT-A 320, subject as above, dated 6 January 1954, following report is submitted.

a. Paragraph 4c(1). Recommend the trigger word "Initial" be substituted for the word "Track". Remainder of sentence should conform to that sentence designated in paragraph 4f(1) b3, ADCR 55-29.

b. Paragraph 4c(6). Recommend this sentence be explicit in stating ground speed.

c. Paragraph 4d. Recommend plot telling frequency be either 5 miles or 2 minutes. One minute frequency is unnecessary and presents difficulty in reading from the ADDC plotting board.

d. Paragraph 4g. Line 4 as reads, "Contact lost targets, (fades) will be dead-reckoned", will tend to confuse. One standard definition should be used throughout. Contact lost targets are not "Fades", as defined by ADCR 55-29. Recommend sentence be amended to read "Contact lost targets will be dead-reckoned thru known areas of marginal radar coverage or for at least 5 minutes. Tracks which can not be re-established within these limits will be dead-reckoned for a period not to exceed 15 minutes, upon request from the ADDC, or faded."

e. Paragraph 4 l. The ADDC track designator for an interceptor should be the call sign and color code or pilot number, in accordance with ADCR 55-30 and ADCR 55-29. Therefore, if the AAA track is to be continued at the AAOC, it should carry the track designator as stated in the second sentence of paragraph 4 l. Additional instructions should be presented for display of the amplifying data.

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HQ 32D AD(D) OOT-A Subj: Comments and Recommendations EADFL 55-15

f. Paragraph 5. Recommend that reference to "area of responsibility", be omitted whenever possible. Each ADDC has an inherent responsibility for the collection of radar intelligence to the maximum extent of coverage, regardless of subsector boundaries. This thought should be implanted whenever possible.

2. With the exception of the minor amendments recommended above, this directive is considered excellent and sufficient to meet requirements.

FOR THE COMMANDER:

FREDERICK E. YORK  
Major, USAF  
Adjutant

*CONFIDENTIAL*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OIN

23 June 1954

SUBJECT: Policy for Dissemination of Intelligence Information During an  
Emergency, Actual or Simulated.

TO: See Distribution

1. It has been found that intelligence reporting procedures as established by ADC Reporting Guide, ADC and EADF Regulations 200-2, and EADF format reporting procedures do not adequately inform units of this command on the timely progress of the air situation.

2. In an effort to correct this situation, Division Headquarters will frequently transmit timely track information and friendly fighter action. A modified ADC Surveillance Form 159 (Test), dated 1 May 1953, will be used and will read as follows:

- (1) Identification
- (2) Track
- (3) Georef Grid Position
- (4) Zebra Time
- (5) Course
- (6) Number of Aircraft
- (7) Altitude
- (8) Speed
- (9) Remarks

Under Item (9), pertinent information will be included, such as: friendly fighter action, estimated time of arrival based upon 150 mile radius from fighter bases within this command, probable targets to be attacked, etc.

3. Teletype transmission will be used by Division Headquarters when the message is addressed to all units. Hot line calls will be made when the message is to go only to a few selected units.

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*CONFIDENTIAL*  
2004-54

CONFIDENTIAL

4. It is suggested that:

(a) ACEW Squadrons cross-tell the air situation within their sector to their assigned Fighter Squadrons.

(b) Each Commander use a map, preferably a polar projection with a georef grid, to display information received.

(c) Units whose Communications Center is located a distance from their Operations Section, reduce delivery time of messages either by installing "Pony" circuits, as authorized in EAD Regulation 100-15, dated 20 November 53, or by telephoning.

5. Recommendations for any improvement in this policy are invited.

BY ORDER OF THE COMMANDER:

DISTRIBUTION: "B"

for *FE York*  
VIRGINIA L. SWEET  
1st Lt, USAF  
Assistant Adjutant

CONFIDENTIAL

2004-54

SECRET

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OIN

28 May 1954

SUBJECT: (Unclassified) Characteristics Type-37 and Type-39 Aircraft (USSF)

TO: Subordinate Units

1. The inclosed information regarding subject aircraft is extracted from USAF SIRAB No. 91, 10 May 1954, and is forwarded for your information.

2. Upon withdrawal of inclosures, this correspondence will be downgraded to unclassified in accordance with paragraph 25g, AFR 205-1, 15 December 1953.

BY ORDER OF THE COMMANDER:

2 Incls  
1. Type-37 Acft  
2. Type-39 Acft

*Virginia L. Sweet*  
VIRGINIA L. SWEET  
1st Lt, USAF  
Assistant Adjutant

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TYPE-37

Preliminary photo interpretation reveals the Type-37 to be a swept-wing, four-engine, heavy jet bomber considered to have been designed by Tupolev. It is approximately 155 feet long and has a wing span of approximately 170 feet. The fuselage diameter is approximately 11.5 feet. The wings are cranked at the mid-span position with the inboard leading edge sweep on the order of 40 degrees and the outboard sweep approximately 37 degrees. A stall fence is located at about the two-thirds semi-span position.

The engines are located in the wing root position in a semi-buried installation. The nacelles protrude above and below the wing surface, and extend fore and aft of the wing. A conventional tail assembly is fitted with a moderately swept back single fin and rudder and a horizontal stabilizer is located on top of the aft gunners greenhouse. The forward portion of the crew compartment consists of a flat windscreen similar to the DC-6 installation. The aircraft appears to have a tandem gear installation as evidenced by what appears to be fore and aft wheel well doors in the bottom of the fuselage. There are two objects on the wing tips which could be housings for the outrigger gears.

In general, it can be said that the fuselage configuration remains similar to that of the TU-4 and Type-31 although the size of the aircraft is considerably larger than previously estimated.

Based on the tail pipe exhaust area, it is estimated that the engines are capable of developing 15,000 pounds sea level static thrust each. This value appears to be compatible with the estimated aircraft size and a gross weight on the order of 300,000 pounds. It is estimated that the sea level static specific fuel consumption is on the order of .88 at maximum power. Pending a detailed performance analysis performance characteristics previously estimated for the heavy jet bomber estimated to be operational in 1957 appear to be adequate.

The Type-37 is apparently equipped for visual type bombing through a sloped optical flat in the nose indicating continued use of Norden type equipment as well as radar type bombing similar to the mushroom equipment in the IL-28.

An estimated 17 foot long and 6 foot wide bomb bay in the fuselage, extending from the trailing edge of the wing to the midpoint of the wing root, is large enough to accommodate one 11,000 pound general purpose or one conventional atomic bomb.

The defensive armament apparently consists of three turrets, i.e. upper forward, lower forward and tail. Only one gun silhouette per turret is in evidence, but it is believed that the turrets are armed

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Type-37 (contd)

with two 23mm (approximately 800 RPM) guns. Fire control for the upper forward turret is provided from a top blister located forward of the turret and behind the pilot; the lower turret is selectedly controlled from side blisters (right side seen and left side reported) these being located directly aft of the pilot and midway up the side of the fuselage. A stud located on the top of the fuselage just aft of the nose and in front of the canopy appears to be an antenna suitable for operation in the VHF range. A bent dipole (AN/ARN-14) type antenna appears on the bottom of the fuselage just aft of the nose. This probably is a VHF localizer receiver antenna. A large radome, suitable for housing a blind bombing and navigation antenna, is located on the bottom of the fuselage underneath the canopy. This radome probably houses a blind bombing and navigation radar - perhaps an improved "mushroom" type.

Just aft of the radome there appears to be three stubs, one is bent and about twice as long as the other two. The length of these possible antennas indicates that they are suitable for VHF operation, or possibly as sensing antenna for the Soviet ARK-5 automatic radio compass. On the side of the fuselage just aft of the nose (approximately at the same forward position as the leading edge of the radome) there appears to be a small protrusion which might be suitable for housing a 1,000 MC/S distance measuring (DME) antenna. Another identical antenna would be expected to be mounted in a similar position on the other side of the aircraft. Behind the DME (possible) antenna and slightly higher on the side of the fuselage, there appear to be two wires, or halves of dipoles, that are each supported at three points. These wires or half-dipoles (together they would make a dipole) appear to be approximately eight feet long. This dimension would, perhaps, indicate a radio frequency of about 60 MC/S. The function of this probable antenna cannot presently be estimated.

All dimensions are a result of a preliminary photo interpretation and are subject to change after more detailed examination. The estimated performance of the Type-37 calculated to military specification 5011A will be available approximately 24 May.

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TYPE-39

Preliminary photo interpretation reveals the medium twin-jet bomber, designated Type-39 to be similar in configuration to the Type-37 but is probably an Ilyushin design. Photo interpretation is not sufficiently advanced to indicate the dimensions of the airplane, however, it appears to be in the same size class as the B-47.

The wing proportions appear to be the same as the Type-37 - - the inboard panel having 35 degrees sweep and the outboard 30 degrees sweep. There are two stall fences on each wing, the inboard fence located at approximately half semi-span and the outboard at about two-thirds semi-span. The engines in the Type-39, located in nacelles adjacent to the fuselage, are probably the same as those in the Type-37. The side of the fuselage is flattened just ahead of the air intakes thus forming a ramp. The fuselage is also scooped out at the jet efflux.

The Type-39 is apparently equipped for visual type bombing through the sloped underside of nose thus indicating continued use of Norden type equipment. In addition it appears to be equipped for radar type bombing similar to the "mushroom" equipment in the IL-28. There is no indication of bomb bay length or capacity.

Defensive armament apparently consists of three turrets - - upper forward, lower aft and tail. Only one gun silhouette per turret was seen, however it is believed that proportions support the estimate that the turrets are armed with two 23-mm (approximately 800 RPM) guns. Fire control for the upper turret is provided by an upper sighting station directly behind the pilot. The lower turret is possibly directed by one gunner using left and right stations below the horizontal stabilizer. The tail turret is optically controlled from an inhabited tail gunners station (B-29 type) or by the use of what appears to be a radar search/track antenna, approximately 30 inches in diameter, located over the gunner's station. Photographs of the Type-39 did not reveal as many antenna as did those of the Type-37. Antenna and radomes that can be identified are as follows: a) A large radome, suitable for housing a blind bombing and navigation antenna is located on the bottom of the fuselage underneath the canopy. This radome, in all probability, houses a blind bombing and navigation type radar - - perhaps an improved "mushroom" type. b) There are two stubs on the bottom of the fuselage just forward of the wing root. These stubs appear suitable for the operation of VHF. c) On the side of the fuselage, between the canopy and the wing root, there appear to be two wires or halves of dipoles, that are each supported at three points. These wires or half dipoles (together they would make a dipole) appear to be approximately eight feet long. This dimension would, perhaps indicate a radio

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Type-39 (cont'd)

frequency of about 60 MC/S. The function of this probable antenna cannot presently be estimated. d) The top of the vertical stabilizer of this aircraft is of a different color than the rest of the stabilizer. This is an indication of a flush or sub-skin mounted antenna, usually operating at VHF frequencies. e) There is a tail radome approximately 30 inches in diameter located just over the tail gun. It is believed that this radome houses a fire control radar capable of search and track functions.

All dimensions are a result of preliminary photo interpretation and are subject to change after more detailed examination. The estimated performance of the Type-39 calculated to military specification 5011A will be available approximately 24 May.

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-A

13 Jul 1954

SUBJECT: Proposed ADC Regulation on States of Preparedness and Air  
Defense Warnings

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. This headquarters is in receipt of information copy of letter, Headquarters, Air Defense Command, ADOOT-B1, subject as above, 23 June 1954.
2. It is requested that your headquarters, in reply to subject ADC letter, consider the following:
  - a. Reference paragraph 3a(6): Dissemination of intelligence information to other than established CADW key points would necessitate either installation of new circuits or engineering of circuits after initiation of hostilities. In either event, it is undesirable to increase the number of non-tactical circuits unless a definite "need to know" requirement is justified. It is considered doubtful if justification exists for dissemination of information other than degree of warning. This in itself should indicate the tactical situation.
  - b. Reference paragraph 4b: It is recommended that acts to be classified as hostile, include opening of bomb bays when approaching a vital target area if approaching the initial bomb release line.
  - c. Reference paragraph 4c(4): As evidenced in the past, an erroneous situation would be depicted at defense force and ADC if all aircraft which fail to meet identification criteria were declared hostile. As an example, SAC aircraft inbound to the United States might very well indicate a major attack in progress if declared hostile, whereas in actuality, their penetration might be expected, but due to criteria, cannot be identified. It is recommended that a means be retained for standard reporting of such incidents rather than rely on explanatory land line conversations.

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Hq 32d ADiv (D) OOT-A Subject: Proposed ADC Regulation on States of Preparedness and Air Defense Warnings (Cont'd)

d. Reference paragraph 4e: Under present joint defense agreements, it would appear that an aircraft which is declared hostile by a bordering nation would in turn be classified hostile, rather than "manifestly hostile in intent". As defined in proposed draft, what effect would this have on passing control of USAF interceptor aircraft to RCAF AC&W control for engagement of an aircraft classified hostile within Canada.

e. Reference paragraph 6: As this directive embraces such a wide variety of procedure, it is recommended that a more detailed statement of authorization be presented to indicate the echelon authorized direct coordination.

f. Reference paragraph 15b: It is highly recommended that due consideration be given to consequences resulting from sector-wide alerting. It is evident that complete paralysis of the industrial center of the United States would result from nuisance raids within the EADF Region, if the civilian population cooperated fully with civil defense instructions. Therefore, it is recommended that procedures be developed for selective alerting.

g. It is recommended that provision be made to separate the degree of fighter alerts from the states of Air Defense Warnings. It is anticipated that while this division is on a Warning Yellow because one section is threatened, other parts of the division might be completely clear. Under the above provisions the Air Division Commander would be able to lower the degree of fighter alert in the clear areas and thereby greatly increase the efficiency of these crews when they were most needed.

FOR THE COMMANDER:

1 Incl:  
Ltr fr ADC

HENRY R. BROWN  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

007-A

12 March 1954

SUBJECT: Misinterpretation of IFF Response

TO:

1. In reference to a recent message received from the Air Defense Command, (cite number AD-007-C 0325), concern is expressed about an incident in which a radar station misinterpreted the IFF response of a fighter. This error in reading is believed to have been a contributing factor to a recent fatal aircraft accident.

2. All operational personnel will become acquainted with the characteristics of radar range when employing M.F.I. The maximum theoretical range when utilizing M.F.I. is as follows: The AN/CR66B at 600 FPM is 135 nautical miles and the AN/FR83 at 400FPM is 150 nautical miles. Utilizing the AN/WR-6 IFF "Gate Duration" control set at 2500 microseconds the maximum range for this set is approximately 202 nautical miles. This permits the IFF range to extend 67 miles beyond the radar range of the AN/CR66B and 52 miles for the AN/FR8-3. Any IFF returns received at ranges beyond the maximum IFF range would be displayed on the FFI scopes, with zero range on the FFI scopes corresponding to maximum theoretical IFF range, i.e., 135 or 150 nautical miles for the 6B and FR83 respectively. The IFF presentation may result in range extension error as the aircraft range. The actual distance from the radar to the IFF return may be determined by adding the theoretical IFF range to the distance displayed on the FFI from the radar to the target. (Example: Radar is FR8-3, theoretical IFF range is 150 nautical miles. IFF return is detected at a range of 35 miles on the FFI scope. Add 35, the presented range to 150, the theoretical IFF range. The result is 185 nautical miles, the actual distance from the radar to target). There will be no azimuth error.

3. In order to preclude any misinterpretation of range mileage when utilizing IFF and IFF, the controlling station will cross-check with adjoining radar station is doubt exists as to the radar range of the aircraft under control.

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Hq, 32d AD(D), OOT-A Subject: Misinterpretation of IFF Response

If doubt still exists, the MTI will be momentarily shut off. It is also desired that all units review their established control procedures to insure their adequacy for controlling aircraft while operating with or without MTI:

BY ORDER OF THE COMMANDER:

s/t/ **FREDERICK E. YORK**  
Major, USAF  
Adjutant

CONFIDENTIAL

CONFIDENTIAL

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
SYRACUSE AIR FORCE STATION  
Eastwood Station 6,  
Syracuse, New York

OCT-A

SUBJECT: (Unclassified) AFSAL 5104

TO: Commanders, AC&F Squadrons and Fighter Interceptor Squadrons

1. The following information on the use of AFSAL 5104 has been received from EADF.

a. At a recent meeting ADC and SAC representatives agreed that AFSAL 5104 would be used by ground stations when direction finding equipment was available and by fighter-interceptor pilots when challenging B-47 type aircraft during an interception.

b. Air Defense Command feels that the use of AFSAL 5104, other than in paragraph a. above, for identification or recognition purposes would not be sufficiently accurate or secure.

c. The use of AFSAL 5104 will be included in the forthcoming ADC regulation on identification of air movements.

2. Additional information on the use of AFSAL 5104 by pilots to identify B-47 type aircraft will be forwarded at a later date.

3. This correspondence is classified Confidential in accordance with paragraph 24a(8), AFR 205-1.

BY ORDER OF THE COMMANDER:

INFO:  
Comdr Wings  
Comdr Groups

*Virginia L. Sweet*  
VIRGINIA L. SWEET  
1st Lt., USAF  
Asst Adjutant

CONFIDENTIAL

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HISTORICAL REPORT  
of the  
32d AIR DIVISION (DEFENSE)

HISTORICAL DIVISION AIR FORCE STATION SYRACUSE, NEW YORK	REPORT TO DEFENSE AGENCY DISTRICT OFFICE WASHINGTON, D.C.	R. DIV - 32-HI Jan - June 1954 p. 7
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THE AIR DEFENSE OF A SECTOR  
JANUARY thru JUNE 1954

SUPPORTING DOCUMENTS VI

HISTORICAL OFFICE  
SYRACUSE AIR FORCE STATION, NEW YORK

SRST Cont. No.  
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HISTORICAL REPORT  
OF THE 32D AIR DIVISION (DEFENSE)  
Number Sixteen

THE AIR DEFENSE OF A SECTOR  
January thru June 1954

RCS: 1-AF-D2

SUPPORTING DOCUMENTS  
VOLUME VI (Documents 216/1 thru 259)

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THIS PAGE IS DECLASSIFIED IAW EO 13526

C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
ENT AIR FORCE BASE  
COLORADO SPRINGS, COLORADO

16 Jun 1954

Colonel Aram S. Tootelian  
Deputy for Intelligence  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Toot:

Reference is made to par 5d, Memorandum for Record, dated 7 June 1954 relative to ADC DCS/I meeting of 5 June 1954, forwarded under separate cover to the Deputies for Intelligence of the three Air Defense Forces.

Attached for your information is a complete list indicating the planned distribution of non-ADC intelligence publications. This plan is based on economy, availability, avoidance of duplication, requirements of the ADC mission, and the planned contents of future ADC publications. The overall publications requirements for this plan are now awaiting Headquarters USAF approval.

Sincerely,

Clyde E. Wayt  
Major, USAF  
Acting Director  
Intelligence Requirements

1 Incl:  
Distr of Non-ADC Intel Pubs

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base  
Newburgh, New York

25 Jun 1954

EAEDI

SUBJECT: Planned Distribution of Non-ADC Intelligence Publications

TO: Commander  
32d Air Division (Defense)  
ATTN: Intelligence Officer  
Syracuse Air Force Station  
Eastwood Station #6  
Syracuse, New York

1. Forwarded for your information is a copy of a letter received from Headquarters Air Defense Command pertaining to Non-ADC Intelligence Publications and planned distribution.

2. Request your comments pertaining to this planned distribution.

BY ORDER OF THE COMMANDER:

2 Incls  
1. Ltr, Hq ADC  
2. Distr of Non-ADC  
Intel Pub

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

216 2

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Hq EADP EAEDI Subj: Planned Distribution of Non-ADC Intelligence Publications

OIN (25 Jun 54)

1st Ind

1 Jul 54

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base, Newburgh, New York

1. It is requested that articles of interest to ADC units that appear in intelligence publications that are to be deleted from distribution to units below Division level be published by ADC.

2. Since valuable intelligence publications such as USAFE Intel Summary and FEAF Intel Roundup are to be deleted from distribution below Defense Force level, it is recommended that the unimportant CONAC Air Intel Training Bulletin also be deleted.

3. It is recommended that expensive publications subject to revision, such as, USAF Airfields and Seaplane Stations of the World, USAF Intel Collection Guidance Manual, and ONI Warship Recognition Manual that are to be deleted from distribution be returned to ADC for proper disposition.

FOR THE COMMANDER:

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OIN/PHO-1

26 Jan 1954

SUBJECT: (Unclassified) Classification of Aerial Photography

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth,  
Massachusetts  
Commander, 4711th Defense Wing, Presque Isle AFB,  
Presque Isle, Me.

1. Pending the publication of ADC Regulation 205-4, ADC Headquarters has recently issued instructions prescribing the procedures pertaining to classification of information concerning ADC AC&W installations located in the United States. Concerning aerial photography of AC&W installations these instructions modify previous security requirements and necessitate a new survey of classified equipment that might be revealed. The instructions specify:

a. Aerial photography which shows site lay-outs, buildings, and/or radomes will be UNCLASSIFIED.

b. Aerial photography which reveals electronic equipment, or components thereof, will be interpreted by an electronics specialist and classified in accordance with the security classification of the equipment revealed, as listed in JANAP 140/

2. For example, if an AC&W radar antenna is covered by a radome, aerial photography of the site will normally be UNCLASSIFIED. If, however, an antenna such as the AS 295-A/UF, which is classified CONFIDENTIAL in JANAP 140 (b), or any other classified equipment is not completely concealed in the aerial photography, such photography may be given the same classification as the equipment revealed.

3. It is requested that consolidated reports of classified equipment, its location, nomenclature and effective date of security classification for each AC&W Squadron that could be revealed by aerial photography be furnished this headquarters at the earliest possible date.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt., USAF  
Adjutant

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C O P Y

NA-9:thrc  
16 May 1954

From: Aerological Officer, USNAS South Weymouth, Mass  
To: 762nd. ACW, North Truro, Mass.

Subj: Radar Weather Warning

1. It is requested that all weather phenomena likely to endanger aircraft operations or surface facilities observed on your radar be relayed to the Aerological Officer, USNAS South Weymouth, Mass., via the "AMIS Line".
2. We are particularly concerned with high winds, usually associated with heavy showers and thunderstorms.

L. E. TRUITT, CDR, USN

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USNAS South Weymouth 99, Mass NA-9:hrc Subject: Radar Weather  
Warning

ACQOPS (16 May 1954)

1st Ind

762D AIRCRAFT CONTROL AND WARNING SQUADRON, North Truro Air Force Sta-  
tion, North Truro, Massachusetts, 4 Jun 1954

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth, Mass.

1.1 With reference to paragraph 1 of basic communication, this station is reporting all weather phenomena observed on our radar in accordance with 32d Air Division Regulation 55-7, Radar Weather Reports, dated 7 January 1954. It was determined by telephone conversation with the Aerological Officer, USNAS, South Weymouth, Massachusetts that this type of information is desired by his station.

2. It is suggested that 32d Air Division Regulation 55-7 be furnished to the Aerological Officer, USNAS, South Weymouth, Massachusetts and that we be authorized to relay this report by our direct landline to the South Weymouth Naval Air Station.

3. With reference to paragraph 2 of basic communication, this type of information is available to USNAS, South Weymouth, Massachusetts on the weather teletype circuits A and B, and their facsimile net. They also have direct communications with Military Flight Service. The only additional information that this station could furnish would be an occasional pilot report.

FOR THE COMMANDER:

JAMES J. DOUGHERTY  
Captain, USAF  
Adjutant

USNAS South Weymouth, Mass. NA-9:hrc, Subj: Radar Weather Warning

DWOOT (16 May 54) 2nd Ind

HEADQUARTERS, 4707TH DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts, 12 Jun 1954

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Sta-  
tion, Eastwood Station 6, Syracuse, New York

Suggest that, if dissemination of radar weather reports to  
units other than those within 32d Air Division is deemed advisable,  
Division act as the collecting and disseminating agency.

FOR THE COMMANDER:

FOREST L. LITTLE  
1st Lt, USAF  
Asst Adj

USNAS South Weymouth, Mass. NA-9:hrc, Subj: Radar Weather Warning

OOT-FO (16 May 54)

3rd Ind

24 Jun 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth, Mass

1. Approved.
2. The 762nd AC&W Squadron is authorized to furnish the reports directly to the Navy. Emphasis must be stressed that these reports do not comprise a forecast.
3. Forwarded, herewith, are two copies of 32d Air Division Regulation 55-7 as requested in paragraph 2 of 1st Indorsement.

BY ORDER OF THE COMMANDER:

1 Incl  
32D AD(D) Reg 55-7  
(2 cys)

VIRGINIA L. SWEET  
1st Lt, USAF  
Assistant Adjutant

**SECRET**

HEADQUARTERS  
Eastern Air Defense Force  
Stewart Air Force Base, Newburgh, N. Y.

EAOOT-TW

16 Mar 1954

SUBJECT: (Unclassified) Request for Evaluation of Procedure for  
Utilization of E-4 Fire Control System for Identification

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. It is requested that you evaluate the attached procedure developed by the 568th Air Defense Group and forward your findings to this headquarters prior to 30 April 1954.
2. When inclosure is withdrawn or not attached, the classification of this correspondence will be downgraded to UNCLASSIFIED in accordance with paragraph 25g, AFR 205-1.

BY ORDER OF THE COMMANDER:

1 Incl  
Extract Copy of  
1st Ind form 568th  
ADef Gp, BOPR 373.5,  
30 Nov 53 (Secret)  
(2 cys)

JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

54-712

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Hq EADF, EAOOT-TW, Subject: (Uncl) Req for Evaluation of Procedures for  
Utilization of #-4 Fire Control System for Identification

OOT-FO (16 Mar 54) 1st Ind

HEADQUARTERS 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York 26 Mar 54

TO: Commander, 1707th Defense Wing, Otis Air Force Base, Falmouth, Mass.

Desire your headquarters comply with paragraph 1 basic correspondence,  
forwarding findings to this headquarters no later than 25 April 1954.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst. Adjutant

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Hq RAAF EACOT-TW Subject: (Uncl) Req for Evaluation of Procedures for  
Utilization of E-4 Fire Control System for Identification

DWO (16 Mar 54)

2nd Ind

HEADQUARTERS, 4707th DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts 31 Mar 1954

TO: Commander, 60th Fighter-Interceptor Squadron, Westover Air Force  
Base, Massachusetts

Request you test and evaluate the procedures outlined in inclosure  
number 1 and forward a report of your finding to this headquarters to  
arrive not later than 0800 hours 20 April 1954.

BY ORDER OF THE COMMANDER:

1 Incl:  
w/d 1 cy

/s/t/ FOREST L. LITTLE  
1st Lt, USAF  
Asst Adj

FS600P (16 Mar 54)

3d Ind

60th FIGHTER-INTERCEPTOR SQUADRON, Westover AFB, Massachusetts, 8 Apr 54

TO: Commander, 4707th Defense Wing, Otis AFB, Massachusetts

1. In compliance with paragraph 1 basic letter the following test  
results are described:

a. Target aircraft, a reflector equipped T-33 operating at  
altitudes between 15,000 feet and 25,000 feet. Ten identification test  
runs were accomplished with results of a similar nature so as to warrant  
further runs unnecessary. Runs at levels at which ground returns interfered  
with radar pick-up are extremely variable as to degree of success. Such  
target contact depends upon amount of ground return and pilot proficiency,  
for the purpose of this test runs at low levels were not attempted.

b. The technique applied was as follows:

(1) Irrespective of initial position, the interceptor was

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Hq EADP EACOT-TW Subject: (Uncl) Req for Evaluation of Procedures for Utilization of E-4 Fire Control System for Identification

either vectored by GCI or flown by pilot after radar contact to a stern chase position.

- (2) Average lock-on distance was 12 miles. After lock-on the interceptor pilot controlled his aircraft so as to place the Range Trace 5 - 10 degrees port or starboard of zero azimuth. Offset from zero azimuth precludes adverse flight conditions presented by propeller or jet wash of multi-engine aircraft
- (3) Over-take speed was most satisfactory at 50 knots and the steer dot was displaced approximately three-quarters inch above dead center of scope; Steer dot displacement port or starboard is governed by the like position of the Range Trace.
- (4) Breakaway at 1500 feet obviously becomes the approach limit for safe identification when the flight visibility is less than breakaway distance.

c. The overall success of this type intercept is directly dependent upon the operating condition of airborne electronic equipment and pilot skill.

d. Provided an identification can be accomplished before break-lock, this intercept is well within the limits of safety. If the target aircraft alters course or altitude after break-lock his new position no longer appears on the radar scope.

e. It is recommended that this type of intercept not be adopted as a standard procedure in view of the existing possibility of mid-air collision after break-lock. In the event of an absolute demand for identification such a procedure can be utilized as an alternative, however, in-flight visibility versus break-lock distance is the determining factor for safe and successful identifications.

FOR THE COMMANDER:

s/t/ L. E. SCHATZLEY  
Captain, USAF  
Adjutant

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Hq EADG EASCT-TW Subject: (Uncl) Req for Evaluation of Procedures for  
Utilization of E-4 Fire Control System for Identification

DWO (16 Mar 54) lth Ind

HEADQUARTERS, 4707th DEFENSE WING, Otis Air Force Base, Falmouth, Massa-  
chusetts 20 Apr 54

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Forwarded in compliance with the 1st Indorsement.
2. The evaluation presented in the 3rd Indorsement considers  
pressing the identification pass beyond the break-lock distance. It  
is not absolutely clear if this was the intent of the procedure ad-  
vanced by the 568th Air Defense Group.

FOR THE COMMANDER:

LIncl:  
n/c

/s/ GEORGE N. LEITNER  
Capt, USAF  
Adjutant

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Hq EADF EACOT-TW Subject: (Uncl) Req for Evaluation of Procedures for  
Utilization of # -4 Fire Control System for Identification

OOT-FO: (16 Mar 54)

5th Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6,  
Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Forwarded in compliance with basic letter.
2. This headquarters concurs that provided the forward visibility  
at intercept altitude is less than the break-lock distance, a flying  
safety hazard does exist.

FOR THE COMMANDER:

1 Incl:  
n/c

FREDERICK B YORK  
Lt Colonel, USAF  
Adjutant

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Hq 4709th Def Wg, WGEO 373.5, Subj: Use of E-4 Fire Control System for acft identification on active air defense missions

BOPR 373.5 (2 Nov 53) 1st Ind

Headquarters, 568th AIR DEFENSE GROUP, McGuire Air Force Base, Trenton, New Jersey 30 November 1953

TO: Commander, 4709th Defense Wing, McGuire Air Force Base, Trenton, New Jersey

1. \* \* \* \* \*

2. The target aircraft, a B-25K flew at altitudes from two thousand (2,000) to fifteen thousand (15,000) feet both over land and water. The target aircraft maintained approximately two hundred and thirty (230) knots IAS both level flight and descending flight. An attempt was made to simulate conditions actually encountered during Active Air Defense missions. Approximately thirty-five (35) runs were made by the interceptors, and all runs were accomplished under VFR conditions. Contact ranges averaged from eighteen (18) to twenty (20) miles on "B" scan and the average lock-on range was twelve (12) miles. All intercepts were accomplished at angles of less than nineteen degrees (19°) astern.

3. The procedure for accomplishing the identification pass with all safety factors considered is as follows:

a. The Ground Controller may place the interceptor in an offset head-on approach, a beam approach or a stern chase. In any event the pilot will accomplish lock-on and place the interceptor astern of the target.

b. He should then place the steering dot of the scope slightly below the outer periphery of the one inch circle. To more accurately describe the position of the steering dot, it should normally be held between the etched two-second mark on the face of the scope and the periphery of the circle. (See Attachment I)

c. Closing speed should be established at fifty (50) knots and the power set to maintain this closure speed. The speed brakes should then be set at one half ( $\frac{1}{2}$ ) extend. Minor corrections in closure speed can then be controlled by further extension or retraction of the speed brakes. This rate of closure provides the pilot with sufficient time to perform visual checks.

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Hq 568th ADCp, BOPR      Subj: Use of E-4 Fire Control System for  
acft identification on active air defense missions

d. When approximately three (3) miles from the target the pilot should know the target's altitude and speed. If the steering dot is positioned as indicated in Attachment I, the interceptor will be approximately four hundred (400) feet below the target, and this altitude variance will remain nearly constant until the breakaway signal is received. The scope should be used only as a reference from three (3) miles until breakaway, the pilot should fly the primary flight instruments to maintain heading, airspeed and altitude.

e. The breakaway signal will be received during Radar Phase II when making a stern intercept, and is approximately fifteen hundred (1500) feet from the target. Slight azimuth offsets may be used with the steering dot to provide an additional safety factor, but it is not considered necessary if the rate of closure is low.

4. It is recommended that all pilots attain proficiency in the F-86D Simulator prior to practicing this procedure in the air. Ground training of pilots should be directed to the development of techniques necessary in changing quartering head on and beam approaches to stern chases.

5. It is concluded that the ability of the pilot to accomplish intercepts with the E-4 Fire Control will increase with his ability to fly instruments.

FOR THE COMMANDER:

Attachment I  
withdrawn

/s/t/ JOHN T FARRINGTON  
Captain, USAF  
Adjutant

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C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
EAST AIR FORCE BASE  
COLORADO SPRINGS, COLORADO

ADDOOT-B1 452.05

12 Sep 53

SUBJECT: (Uncl) Minutes of Multiple Corridor Identification System  
Conference held 3 June 1953 at Headquarters, Commander  
Eastern Sea Frontier.

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. A review of subject minutes reveals several serious expressions of policy which are at variance with the established policies of this command.
2. Specifically, these inconsistencies are:
  - a. Paragraph 5c, Recommendation No. 3. The maximum capability of the multiple corridor system is predicated on an optimum of ten corridors. In light of the volume of air traffic in the EADF area, not less than four corridors are considered absolutely essential.
  - b. Paragraph 5f, Recommendation No. 6. This paragraph recognizes the multiple corridor system as an interim peacetime measure only. The system as proposed by this headquarters represents a wartime measure when made compulsory by regulation. The identification of air traffic into or through the Atlantic ADIZ remains a prerogative of this command. The routing of aircraft as suggested would in effect result in a restriction to air traffic because of the volume which would be created over certain civil airways.
  - c. Paragraph 12. This again recognizes the multiple corridor system as a peace time measure only.
3. It may be that the Navy "Barrier Patrol" can be integrated into an air defense system as an early warning device. It is our opinion that the complicated communications system, as described in subject minutes, will not permit effective identification of air traffic by the proposed barrier patrol.
4. It is desired that in future conferences with Eastern Sea Frontier our position be made clear as incorporating the following points:

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Hq ADC ADOOT-B1 452.05. Subj: (Uncl'd) Minutes of Multiple Corridor  
Identification System Conference held  
3 June 1953 at Headquarters, Commander  
Eastern Sea Frontier

a. The multiple corridor system, when regulatory, will be considered a wartime measure.

b. All Navy point to point air traffic will be expected to comply. This would include dispatch of aircraft from carrier to shore installations.

c. If at all possible, Navy gunnery training or antisubmarine patrol operations should be equipped with electronic identification devices. If not, they will operate outside of radar coverage or operate in accordance with mutually agreeable local procedures.

d. Our mission of air defense requires that we perform identification of aircraft approaching the United States.

BY ORDER OF THE COMMANDER:

s/t/ LEWIS E. SMITH  
Captain, USAF  
Asst Command Adjutant

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C O P Y

**CONFIDENTIAL**  
DEPARTMENT OF COMMERCE  
CIVIL AERONAUTICS ADMINISTRATION  
Washington 25

Dec 21, 1953

Brigadier General Kenneth P. Bergquist  
Headquarters, Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

Dear General Bergquist:

The operation of the Multiple Corridor Identification System at Nantucket, Massachusetts, has been the subject of considerable study by both Air Defense Command and Civil Aeronautics Administration personnel since these operations were initiated in March of this year. As you know, participation of both civil and military aircraft in this operation at Nantucket has been decidedly disappointing. It is only natural, therefore, that both CAA and ADC supervisory personnel actively engaged on this project have been considering revisions to MCIS procedures which would not only increase identification capabilities but would also give promise of greatly increased participation.

On November 3, 1953, our First Regional Office forwarded detailed suggestions for improving the identification techniques immediately in both the Boston and New York areas. The region proposed immediate abandonment of the existing corridors in the Nantucket area although it recommended retention of many of the features of the MCIS. The region's proposals were discussed in detail at the last meeting of the CAA-USAF Air Defense Planning Board at Colorado Springs on December 2nd and 3rd. CAA representatives were advised at that time, however, that your office had already directed Eastern Air Defense Force to take aggressive action to improve participation in the MCIS operation at Nantucket and to press for whatever implementation is required to improve the system.

In view of ADC's stated desire to continue this operation at Nantucket, this office has requested its New York Office to take concurrent action to continue this type of operation at Nantucket. (See copy of our dispatch of December 9 to our New York Office.) May I assure you that the CAA will render all possible assistance to your Command in its effort to make this system more effective at Nantucket.

It is believed, however, that our New York Office has made an extremely constructive suggestion for immediate improvement in identification techniques in the New York area where a facility on which to establish an MCIS does not exist at this time and may not be available for at least six months. Our First Region's specific suggestions with respect to New York are as follows:

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Brigadier General Kenneth P. Bergquist - 2

1. Briefing offices should be established at San Juan and such other airports in that area which generate an appreciable amount of traffic. Although we believe that briefing offices at Bermuda and San Juan would handle well over 90% of the traffic entering the New York area via the Tuna and Millville control area extensions, we have requested the New York Center to conduct a survey on the amount of traffic involved.
2. Retain the use of off-shore control area extensions as they are used at present in the New York area.
3. Use basic correlation limits of five minutes and twenty nautical miles, which, if met, would also require the proper execution of a simple check turn.
4. Establish secondary correlation limits acceptable to ADC, which, if met, would permit identification by VHF/DF to be effective.
5. Establish procedures which would permit identification to be effected by a maneuver:
  - a. When VHF/DF and/or check turn fails;
  - b. When VHF/DF would not resolve identification because of more than one aircraft in the "fix" area;
  - c. When aircraft fails to meet the secondary correlation limits.
6. One security feature of the present VHF/DF procedure used by the 26th Air Division (Defense) is that the New York Center advises GCI of the pilot's name and the registration number of the aircraft. The information, when transmitted by the pilot during DF fix, serves as an authentication code. (Flight plans are transmitted by radioteletype - also, pilot does not use name and registration number in other radiotelephone contacts.) Added security would result from use of a code word in lieu of this temporary procedure. Therefore, we recommend that code words be associated with each check turn and maneuver and that the appropriate word be transmitted by the pilot at the start of check turn, DF fix or maneuver. Unless a code word were assigned for VHF/DF, pilot could transmit the "maneuver" word when starting a DF fix transmission.
7. Authorize permanent use of 119.7 mcs or other suitable frequency(s) at Montauk and Highlands AC&W Stations.

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Brigadier General Kenneth P. Bergquist - 3

8. GCI stations be authorized to request check turns and VHF/DF without reference to ARTC. GCI stations to obtain ARTC approval before requesting pilots to execute maneuvers.

This proposal was also discussed at the CAA-USAF Air Defense Planning Board meeting. You will note that it imposes no routing restrictions on either civil or military operators and involves very little implementation other than the establishment of an additional briefing station at San Juan.

Initially, we believe that the simplified briefing requirements of the New York proposal can be monitored effectively by CAA personnel now on duty at San Juan, although we would like to make it clear that one or more additional positions might be required to insure the completeness of this briefing at San Juan. The preparation of appropriate briefing envelopes would, of course, be an additional duty of EADF or the 26th Air Division.

We believe our First Region's proposals with respect to immediate action in the New York area are sound and should be implemented immediately. We shall be glad to take concurrent action with your Command upon receipt of your concurrence.

We should also like to advise that this proposal is made with no intent to prejudice the establishment of an MCIS operation in the New York area when adequate land-based facilities are available.

This proposal was discussed at some length with working level personnel at your Headquarters and it is recognized that it has some limitations which are inherent in any identification system based solely on land-based radar and land-based VHF/DF. It appears quite clear, however, that with further development of identification capabilities it will ensure positive identification of aircraft at much greater distances from the coast line and that the VHF/DF procedure will be a primary and exceedingly valuable means for identification.

I am also enclosing a copy of a letter to our New York Office relative to CAA's participation in the further development of the MCIS operation in Nantucket.

Very truly yours,

Director  
Office of Federal Airways

Encl. 2

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FROM: Comdr ADC

TO : Comdr EADF

ADOOT-B1 019 your message, EAOOT-A C1618, 30 Nov 53. This message in two parts. Part 1. ADC position on your recommendations contained in referenced message was stated on your 1st Ind to your letter, EAOOT-A 452.05, 6 Nov 53, Subject: "Analysis Report of the Multiple Corridor Identification System". This position is further amplified as follows:

- a. Ultimate goal is to make the multiple corridor system regulatory. In our opinion, this goal is attainable when we can show significant improvement in our identification capability through voluntary participation in a workable system.
- b. We desire to continue the present system and to improve it with full realization of the difficulties involved.
- c. We will give full consideration to a request from your headquarters for additional personnel to make the system work properly.
- d. We have requested all major USAF commands and the Navy to make participation mandatory. Response has been most encouraging. We will further ask USAF to conform these agreements with a USAF regulation.

Part 2. Letter follows which appears in principle your recommendations and those of CAA, 1st Region for establishment of interim procedures in Atlantic City area. These procedures should be regarded as steps toward establishment of a multiple corridor system. Compatible features can be retained when adequate facilities are available and MCIS can be established in that area. This also answers your message, EAOOT-A C16, 7 Jan 54.

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N.Y.

12 February 1954

PLAN  
FOR INCREASING EFFECTIVENESS OF  
MULTIPLE CORRIDOR IDENTIFICATION SYSTEM  
(MCIS)

I. DESCRIPTION. The multiple corridor identification system (MCIS) is designed to increase the identification effectiveness of the EAEF air defense system in the Atlantic Ocean area approaches to the United States. Briefings are conducted at various overseas departure points and participation in the MCIS requires certain actions by participating aircraft, by the Civil Aeronautics Administration, and by the air defense system. Details of required actions for participation in the MCIS in the Eastern Air Defense Force area are contained in a document entitled "Multiple Corridor Identification System", 1 October 1953, which is periodically revised as required.

II. PURPOSE. The purpose of this document is to outline objectives which this command must reach in order to attain the desired degree of effectiveness which can be realized through the MCIS. These objectives, as listed, will provide policy and guidance for all elements of this command, relative to establishing requirements and/or programming actions in the immediate future for enhancement of the MCIS.

III. LONG RANGE OBJECTIVES. Listed in the following paragraphs are long range command objectives deemed necessary to attainment of 100 per cent identification effectiveness in the MCIS. They are not shown in order of priority and are listed as long range objectives because actions required to attain these objectives will extend quite far into the foreseeable future and in some cases will require a continuing program of actions as long as the MCIS is in operation. Actions necessary to attain certain of the listed objectives exceed the scope of authority of this level of command and will require formulation of appropriate recommendations to higher headquarters. Objectives which lie within the capabilities of this command will receive the timely attention of appropriate commanders at all echelons.

1. Regulatory Participation. Establishment of the requirement with CAA through ADC and USAF for early promulgation of an executive order making the MCIS regulatory.

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2. Briefing Responsibility. Establishment of the responsibility for aircrew briefings at overseas departure points upon the agencies operating these airfields.

3. Manning Requirements. For effective performance at all echelons of the MCIS function, determination must be made at each appropriate AC&W squadron, air division headquarters, and at this headquarters of manpower requirements, with action being initiated at each echelon for revision of appropriate personnel authorization documents.

4. Navigational Aids. Procurement and installation of consolan equipment at Nantucket and Atlantic City.

5. Communications. Effective operation of the MCIS dictates direct communication between participating aircraft and the air defense system. The objective is re-emphasis to appropriate agencies of the necessity for early resolution of this problem. Local coordination will be effected between elements of this command and corresponding echelons of the CAA.

6. Enforcement Procedures. During the present voluntary participation phase of the MCIS the primary method of enforcement that can be employed for civil aircraft is frequent coordination with agencies which control participating aircraft; the method for military aircraft will be through coordination with appropriate major commands.

7. Beacons. For maximum effectiveness of the MCIS or of any future identification system, a requirement is dictated for installation of keyed beacons in all civil aircraft which will extend detection range of ground equipment and enhance identification capability.

8. Educational Program. Establishment of a continuing mutual civil/military educational program for appropriate echelons outlining the responsibilities and functions of both CAA and the air defense system in aircraft identification functions. Continuing emphasis should be exerted by commanders at all echelons toward this objective.

9. Public Information. Establishment of a vigorous publicity program specifically designed to stress the requirement for the MCIS, how it operates, who participates, giving appropriate recognition to deserving agencies or persons, etc. This objective will receive emphasis by appropriate commanders at all echelons.

IV. SHORT RANGE OBJECTIVES. In addition to the points outlined in the preceding section, short range command objectives are listed in the following paragraphs. These points are identified as short range objectives because required actions associated with each of these objectives should be completed within a period of a few months subsequent to

issue of this document. It should be noted that the titles of several of these objectives are identical to titles of objectives in the preceding section, the difference in such cases being primarily in the degree and time of the required actions. As in the preceding section, objectives which are obviously beyond the scope of authority of this level of command will require formulation of appropriate recommendations from this headquarters, while objectives which are within the capabilities of this command will receive the timely attention of appropriate commanders at all echelons.

1. Briefing Responsibility. Initiation of the requirement that responsibility for aircrew briefings at overseas departure points be given to the agencies operating such airfields.
2. Manning Requirements. Initial determination at appropriate AC&W squadrons, air division headquarters, and at this headquarters of manpower requirements to adequately perform the MCIS function, submission of requests for revision of personnel authorization documents, and procurement of personnel.
3. Beacons. Initiation of the requirement for beacons in all civil aircraft operating in the Atlantic ADIZ.
4. Educational Program. Initiation of a civil/military educational program for appropriate echelons outlining the responsibilities of both CAA and the air defense system in aircraft identification functions.
5. Public Information. Initiation of a vigorous publicity program through the media of newspapers, magazines, etc., designed to stress the requirement for the MCIS, giving appropriate recognition to deserving agencies or persons, etc.
6. Analysis. Formulation and establishment of adequate analysis procedures.
7. Statistics. Furnishing of statistics derived from present and past analyses of the MCIS to USAF as justification for procurement of required navigational aids and communications facilities.
8. Coordination. Re-establishment of contact with all appropriate agencies and maintaining of coordination on our requirements, status of the MCIS, required changes, etc. It is envisioned that agencies such as SAC, MATS, etc., would be kept fully informed as to their status of participation in relation to other participating agencies.
9. Briefing Teams. Formation of briefing teams, each to be headed by a field grade officer. These teams will visit overseas departure points and the home offices of foreign carriers. These visits will be accomplished by 31 March 1954 or as soon as possible prior to that date. The purpose of these visits will be three fold

a. To investigate current briefing procedures and facilities at overseas departure points. To determine degree of interest and participation by involved agencies. When necessary, to pinpoint procedural breakdown or other causes for unacceptable participation at base visited.

b. To study facilities and existing operational procedures in order to arrive at best possible solution for briefing responsibility, location, and procedure. To establish personal contact with individuals presently performing briefings and with their superiors. To re-emphasize MCIS importance and to insure their cooperation in obtaining increased participation.

c. To acquaint airline operators with revised procedures and to insure their cooperation in briefing their pilots and encouraging participation.

10. Briefing Program. Establishment of a program whereby a briefing team will be formed in both the 26th Air Division (Defense) and the 32d Air Division (Defense) with a staff visit being made to each overseas departure point at least once each three months by each team. This program will be instituted immediately after completion of the visits mentioned in the preceding paragraph. The purpose of these visits is to insure that briefing is being conducted to the satisfaction of all concerned and to allow this headquarters to initiate timely corrective action wherever necessary.

11. Airspace Action. Initiation of action through appropriate agencies for acquisition of presently controlled airspace in the Nantucket and Atlantic City areas for institution of an additional corridor on the Nantucket-Yarmouth route and required corridors in the Atlantic City area.

12. Navigational Assistance to Aircraft. Formulation and implementation of procedures whereby navigational assistance will be provided aircraft participating in the MCIS.

13. Terminology Clarification. Initiation of action to insure that all appropriate agencies understand that the MCIS is no longer in any phase a test but has proved its value and has become standard procedure in the air defense system.

14. Procedure Changes. Establishment of changes to operational procedures as follows:

- a. Elimination of Check turns.
- b. Discontinuance of handling of envelopes as classified material.

c. Transfer of the responsibility for preparation and distribution of briefing envelopes and the collection of data for analysis to the appropriate air divisions.

d. Initiation of actions in the Atlantic City area on an interim basis using code words, D/F procedures and identification maneuvers in connection with current CAA procedures, these actions to continue until such time as the MCIS is established in that area.

e. Initiation of actions to obtain a common frequency for direct voice contact between participating aircraft and air defense direction centers.

f. Development of procedures for use by appropriate ADDCs and ARTCCs when direct communication with participating aircraft is authorized.

V. SUMMARY OF MAJOR OBJECTIVES. From the points which have been mentioned in the two preceding sections, it is apparent that a continuing program of actions must be pursued by all appropriate elements of this command in order to realize the full value of the multiple corridor system and to reflect increased effectiveness of the air defense system. The major objectives which should be attained are summarized as follows:

1. Regulatory Compliance with the MCIS.
2. Adequate Navigational Aids.
3. Adequate Communications Facilities.
4. Adequate Enforcement Procedures.
5. 100 Per Cent Participation.

M. R. NELSON  
Major General, USAF  
Commander

OFFICIAL:

s/t/ CARROLL W. McCOLPIN  
Colonel, USAF  
Deputy for Operations

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N.Y.

2 April 1954

Mr. J. F. Gill  
Chief Pilot, Eastern Air Lines  
Hangar 8  
New York Airport Station  
Flushing 71, New York

Dear Mr. Gill:

This headquarters, in coordination with CAA, Region One, developed a system for identification of aircraft approaching the east coast of the United States from certain overseas departure points. This system, inaugurated on March 20, 1953 was called TOMCIS (Test of Multiple Corridor Identification System).

Operation of the system during the past year has indicated that certain modifications should be made to improve the system. These modifications will permit direct communication between aircraft and air defense radar stations which will expedite identification and reduce communication lags.

It is felt that increased participation can be gained if the operating agencies will permit their operations personnel at certain locations to conduct pilot briefings and passing Identification Envelopes prior to departure of flights going direct to the United States.

A meeting will be held at the Office of the Civil Aeronautics Administration, Region One, Federal Building, New York International Airport, Jamaica, New York, at 9:00 A. M., April 12, 1954 to present the modified procedures (now called Nantucket MCIS) and proposals to the operating agencies concerned. Attendance by representatives from your organization will be appreciated.

Representatives of the CAA International District Office, New York, have advised representatives of this headquarters that they strongly endorse participation in this identification system. They have also stated that they would extend a parallel invitation urging attendance to all operating agencies.

Sincerely,

t/ J.W. FOUNTAIN, JR.  
Major, USEAF  
Asst Adjutant

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C O P Y

E X T R A C T

MINUTES OF CONFERENCE

Nantucket Multiple Corridor Identification System and  
New York Interim Maneuver Identification System

DATE: 0930, 12 April 1954

PLACE: Room 205, Federal Bldg, New York Int'l Airport, Jamaica, N. Y.

\* \* \* \* \*

The Chairman of the conference was Captain Paul H. Hansen of Eastern Air Defense Force Headquarters, Stewart Air Force Base, Newburgh, New York

Opening remarks welcoming the conferees and thanking them for past participation in the Nantucket Multiple Corridor Identification System were made by Mr. James R. Ducrest, CAA Air Defense Liaison Officer assigned by CAA to EADF, and by Brigadier General George F. Smith, Vice Commander, EADF, and Colonel Robin Olds, Director, Operations and Unit Training, EADF.

Captain Hansen then reviewed the past operation of Nantucket MCIS, which began with the short name of TOMCIS (Test of Multiple Corridor Identification System) on 20 March 1953.

The records show very poor participation, most of which appeared to have been caused by inadequate briefing facilities at take-off points. Lack of direct radio communication between the Air Defense radar stations and the aircraft resulted in excessive communications delays. "Unknown" flights were reduced during the first part of the test, but as participation decreased, the number of "unknowns" increased. Administrative errors in preparing the envelopes resulted in some aircraft being classed as unknowns.

Copies of the proposed procedures for Nantucket MCIS (Multiple Corridor Identification System) and for New York IMIS (Interim Maneuver Identification System) were distributed and the conferees were told that:

1. VHF 121.5 mcs. has been authorized for experimental use between Air Defense radar and the aircraft.
2. The Check Turn has been replaced by a code word.
3. Some of the old maneuvers have been eliminated. The new ones include the former "check turn".
4. Changes in terms have been made in order to achieve standardization.

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5. The main difference between MCIS and IMIS is that IMIS uses ... corridors, but uses normal routes.

6. CONSOLAN installations are planned for the Atlantic City and Nantucket areas.

7. A third corridor between Yarmouth and Nantucket is shown on the chart, but assignment of a flight to this corridor will not be made until changes to the Warning Areas involved have been approved.

Advantages of MCIS-IMIS over Flight Plan Correlation above were explained:

1. Considerably greater tolerances are permitted.
2. Correlation is subject to more error, and therefore less positive identification.
3. If an error occurs in the new system, identification can usually be effected by using the identification maneuver.
4. Correlation where there is traffic congestion can usually be effected by use of the maneuver.
5. With direct communication the pilot can request a radar check on this position.
6. Quick identification of friendly aircraft permits greater latitude in using radar and interceptor aircraft to detect and destroy hostile aircraft.

It was stated that the pilot has a responsibility to aid in the identification of his aircraft. With the cooperation of all concerned, the identification of our own aircraft can be helped considerably. 100% participation in this system should help to near 100% identification without the use of interceptor aircraft.

There was considerable discussion concerning the use of VHF and of 121.5 mcs. in particular. It was pointed out that:

1. Generally, VHF and radar reach out to approximately the same distance.
2. If VHF contact cannot be established, normal communications channels will be used.
3. Because there are times when Picket Vessels are stationed offshore, it is desirable to have the aircraft monitor the Air Defense Radar frequency from the time of penetration of the ADIZ.
4. Many military aircraft have a limited number of VHF channels available, but 121.5 is a common frequency.

5. If the load on 121.5 is too great, it may be possible to establish contact on 121.5 and arrange to switch to another frequency.

6. Authorization for the use of 119.7 mcs. has been requested but has not been received through both AF and CAA channels.

A list of briefing stations was distributed. It was explained that briefing will start at places which the briefing teams have been authorized to visit. The others will be integrated into the system as authorization is received. More will be added later as the requirements indicate.

Briefing on the old MCIS procedures will be discontinued from all points before the new procedures are implemented from any point.

The plan for establishing briefing stations was explained. It is hoped that permission can be obtained for the Air Carrier Operations personnel at the briefing stations to issue the envelope to the pilot. One person would be selected to receive envelopes from EADF, issue a supply to the operations office and supervise the local operation.

EADF agreed to notify the companies of the name of the personnel on the briefing teams and the approximate dates of their visits to the various locations. It was requested that the Air Carrier, upon receipt of this information, send messages to their operations personnel at those points, advising them of the proposed visit, and authorizing participation.

Copies of the procedures will be forwarded to the Air Carriers. It was recommended that all or pertinent portions be included in their Operations Manuals. Comments or recommendations will be appreciated. It was pointed out that many of the changes which appear in the new procedures are the result of comments from pilots.

It was pointed out that flights which do not participate in MCIS-IMIS are subject to the tolerances established by Part 620 of the Regulations of the Administrator.

The Air Force is trying to cut down on the number of interceptions of civil aircraft without sacrificing security. If an aircraft participates in MCIS-IMIS and is outside of Part 620 tolerances, violation reports normally will not be filed, but a report will be made to the air carrier concerned.

A question was submitted as to the term "Interim" in the New York procedures. The conference was told that the final determination would depend on several things: the installation of CONSOLAN and the availability of the required facilities. The question was then asked whether a good showing by IMIS might change the requirement for a fan-shap

corridor system. The undesirability of allowing aircraft to proceed directly toward a target such as New York was mentioned as a reason for requiring a procedure which would route the aircraft into the vicinity of Atlantic City.

A question arose as to the possibility of the procedures becoming regulatory. It was pointed out that on the west coast participation has been nearly 100%, and that unless a military emergency is declared, these procedures regulatory would limit the points from which flights could be made non-stop to the United States and this is undesirable at this time.

Several minor changes since the reproduction of the draft copies were pointed out.

The conferees were asked if their personnel could participate, There were no objections. Pan-American, KLM, TWA, Scandinavian, Colonial and BOAC specifically stated that their operations personnel could participate. KLM further stated that their operations personnel at Gender would issue envelopes to EL AL, Sabena, Swissair and IAI.

A statement was made that full participation in these procedures could so reduce the necessity for identification by interception that the military commands would have to send up special flights for intercept practice.

Some conferees took advantage of the conference to point out that some interceptor pilots have complained that Air Carrier pilots were shining lights in the jet fighter pilot's face. It was pointed out that this is not a deliberate action, that the wing ice detector lights are fairly directional, and are usually left on during the entire flight. An interceptor pilot might not see the light until he is directly in line with the wing, at which time the light is shining directly in his eyes.

It was pointed out that every attempt is being made to educate the interceptor pilot to the fact that these lights exist, and also the rotating red light which is installed on many aircraft.

The pattern for interception was discussed. The conferees were advised that this is a gradual overtaking pattern, straight in from the rear. The interceptor is to approach no closer than 500 feet unless he has been directed to obtain the aircraft identification number or letters. In that case, he is to come no closer than is necessary to read the identification.

After thanking the conferees for their attention and agreement to participate, the conference was adjourned at 1115.

C O P Y

BRIEFING FOR AIRLINE OPERATORS AND ASSOCIATED AGENCIES

**SUBJECT:** Nantucket Multiple Corridor Identification System (MCIS) and  
New York Interim Maneuver Identification System (IMIS)

**PLACE:** CAA Region One Headquarters, Federal Building, New York  
International Airport

**DATE:** 12 April 1954, 0900 hours.

BRIEFING AIDS:

1. MCIS Corridor Chart
2. IMIS Corridor Chart
3. MCIS Operating Instructions
4. IMIS Operating Instructions
5. MCIS Pilot Instructions
6. IMIS Pilot Instructions
7. Sample Identification Envelopes
8. Sample of Monthly Report
9. List of Briefing Points

I. INTRODUCTION

Colonel Oids

Necessity for a workable and dependable identification system.

II. PURPOSE

Colonel Oids

1. To present a brief review of past year's operations.
2. To explain changes in MCIS procedures.
3. To explain the new interim system for New York area.
4. To outline briefing plans.
5. To discuss hypothetical flights.
6. To discuss future plans.

III. GENERAL BRIEFING

Captain Hansen

1. Review of past year's operations.
  - a. Participation: Data from Dr Jordan's report covering  
26 July 53 - 23 Jan 54.

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(1) Air Carrier:

Total Flights	2519
Participated	344 (14%)

(2) Air Force:

Total Flights	662
Participated	403 (61%)

(3) Navy:

Total Flights	424
Participated	80 (19%)

(4) Civil Itinerant

Total Flights	66
Participated	3 (5%)

(5) Total Flights

3671
830 (23%)

b. Communications:

- (1) Direct communication from radar station to aircraft was not available. Requests for check turns and maneuvers had to be relayed through ART C Center to CAA ground station or commercial stations to pilot.
- (2) Elapsed time from check turn request to check turn started ran as high as 36 minutes.
- (3) Elapsed time from maneuver request to maneuver started ran as high as 21 minutes.
- (4) In many cases contact was not effected at all.

c. Effect on unknown incidence:

- (1) Although statistics are classified, unknowns were reduced during the first few months. This proved that the system would work on the east coast as well as the west coast.
- (2) As enthusiasm and participation decreased, unknown incidence started to rise.

- (3) Deficiencies in our method of operation became apparent which resulted in unknowns.
  - (a) Misunderstanding on part of pilots.
  - (b) Communications delays.
  - (c) Administrative errors.
  - (d) Check turn (6%)

2. Modification in Nantucket MCIS

a. Communications:

- (1) Direct communications authorized on VHF 121.5 mcs.
- (2) Normal en route and air traffic control frequencies to be used for backup.

b. Check turn eliminated, code word added.

- (1) Check turn frequently confused with "authentication maneuver."
- (2) Code word increases security. Hostile pilot has 50% chance of guessing correct check turn; 4% chance of guessing correct code word.
- (3) Code word becomes most effective when used in conjunction with D/F. Will get into D/F discussion later.

c. Some new maneuvers added. Require less time to perform.

d. Additional corridor requested for Yarmouth group which will shorten flights to Boston. Will not use this corridor until approval is received.

e. Terminology standardized with other MCISs.

- (1) Outer Reporting Line, Inner Reporting Line, Release Reporting Line.
- (2) Code names eliminated. Name of system will refer to locations.
- (3) Some small differences still necessary to do air traffic control structure, i.e., Fish names will designate specific reporting points.

3. Establishment of New York IMIS.

- a. Considerable time required to secure airspace for corridors in New York/Atlantic City area.
- b. Inadequate navigation aid at Atlantic City.
- c. Use of maneuvers in control area extensions suggested by CAA and adopted by ADC as an interim measure.
- d. Procedures are the same as MCIS.

4. Briefing

- a. Efforts to be concentrated first on stations generating most traffic.
- b. Old procedures will be discontinued when new procedures begin.
- c. Stations generating less traffic will be visited as soon as main stations are operating.
- d. Hope to provide briefing facilities at all possible departure points in the future.
- e. Physical arrangement at briefing points.
  - (1) At each base of airport we will try to establish a briefing supervisor.
    - (a) military bases: Local operations officer.
    - (b) Civilian airports: CAA or OOT. Where only one or two companies operate, possibly a dispatcher.
  - (2) Supervisor will receive envelopes from EADF and distribute as required to dispatchers.
  - (3) Supervisor would prepare monthly report.
  - (4) At military bases, operations officer or his representative briefs pilots and prepares report.
- f. Participation
  - (1) All major AF commands have instructed pilots to use the corridors whenever possible.
  - (2) We hope Navy will also request all pilots to do same.

- (3) Request that companies authorize dispatchers to receive a quantity of envelopes from supervisors and distributed same to pilots. Also request that dispatchers be authorized to act as supervisors where it is feasible.

g. Visits

- (1) Officers will leave as soon as possible after this meeting.
- (2) Officers will stay at each point long enough to insure thorough briefing for supervisors and dispatchers.
- (3) Every three months officers will visit each briefing point to report on progress at each.

5. Hypothetical Flights

- a. From Gander.
- b. From Azores.
- c. From San Juan.
- d. From Shannon overflying Gander.

6. Future Plans

- a. New York DMIS to continue until airspace and adequate navigational aids are available for corridors.
  - b. Installation of Consolan beacons.
    - (1) Money has been appropriated for installation of four. CAA to install at Atlantic City, Nantucket, Los Angeles and San Francisco. First to be completed by end of this year.
  - c. Progress of new D/F equipment being closely monitored by ADC for use in this program.
  - d. Briefing facilities at every possible departure point.
  - e. Individual participation reports to each using agency.
7. Advantages of MCIS or DMIS.
- a. Greater leeway in navigation over existing regulations.

b. Human errors can be corrected without relying on interception.

c. Pilot knows when he is identified.

d. Positive identification.

e. When necessary, radar aid is available.

8. Summary.

a. Our goal is 100% participation. We do not know if it will ever become necessary to make this system regulatory. If it should ever become regulatory, all personnel will know how it operates.

b. We will continue to search for improved communications.

c. Navigation aids will be improved in the near future.

d. Through thorough briefing and regular follow-up visits, discrepancies can be quickly detected and corrected.

9. Conclusion.

a. The rapid improvement in radar system has placed an additional responsibility on all pilots. That of identification. The responsibility will remain until world tensions relax. To get the most from the tremendous investment we have made, we must use the radar for the purpose for which it was established; detection, identification, interception and destruction of hostile aircraft. If we use fifty per cent of our investment for identification of friendly aircraft, we are not using the equipment properly. In terms of dollars and cents, it costs approximately \$900 every time we are required to use interceptors to make an identification. Much time, effort and money can be saved if each would do his share to make the multiple corridor system work.

C O P Y

Report of MCIS Standardization Conference

Colonel Olds

Capt Hansen

25 Mar 54

1. On 16, 17 and 18 March 54, the undersigned accompanied by Mr. Ducrest, this headquarters and Capt Will, 762nd AC&W Sqdn, No. Truro, attended a conference at Hqds, WADF for the purpose of standardizing the Multiple Corridor Identification System procedures for Los Angeles, San Francisco, Nantucket and New York. Also in attendance were representatives of ADC; CAA, Washington; WADF; 27th and 28th AD(D).
2. The 16th was devoted to a visit to the direction center at Mount Tamalpais which controls MCIS at San Francisco. The Squadron Commander presented a briefing on the operation of the system, after which, actual flights were observed on radar.
3. The main differences in the three systems as outlined in Inclosure 1 were resolved as follows:
  - a. Extra Line, Sierra Line and Penetration Reporting Point will be designated the "Outer Reporting Line", except at Yarmouth where it will be designated "Outer Reporting Point".
  - b. Yankee Line, Bravo Line and Boundary Reporting Point will be designated the "Inner Reporting Line".
  - c. Alpha Line, Zulu Line and Diversion Reporting Line (not shown in inclosure) will be designated the "Release Reporting Line", except at Nantucket for the Azores and Bermuda fans where it will be designated "Release Reporting Point".
  - d. Considerable time was spent in discussing the above points. The EADF representatives explained how the physical arrangement of the fans differed from those at Los Angeles and San Francisco, and how the EADF terminology could be applied to the west coast, but several exceptions would have to be made to apply the west coast terminology to Nantucket or New York. The ADC and CAA Washington representatives took a neutral stand in the matter. In order to prevent further delay of EADF's plans for improving the Nantucket MCIS and implementing the New York system, we accepted the compromise rather than refer the deadlock to higher authority.
4. The fish designations for corridors (presently used at Nantucket) will be dropped and the corridors will be numbered from north to south in each fan, i.e., Y-1,2,2; A-1,2,3; B-1,2,3.
5. The terms "identification envelope" and "ADC No." will be standard.

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6. A standard master sheet and a new identification record is being developed by ADC. The identification record will be kept on flight strips which are to be used by all direction centers in the near future. Flight strips will considerably reduce the data now being recorded on the cumbersome identification log. Until the new master sheets and flight strips are issued, we will use existing forms.

7. When direct communication between direction center and aircraft is established, the direction center will release aircraft from corridor responsibility as soon as identification is completed.

8. The term "within one minute", as used to determine when each aircraft would be challenged on 121.5, was changed to "immediately after the track was established". This change was felt to be more realistic because it allows the identification section to work on the most important track first when more than one track requires identification. This change was followed up by the paragraph "if an answer was not received from the aircraft on 121.5 within a reasonable time, the direction center should try to make contact through the appropriate ARTC Center or take appropriate tactical action". "Reasonable time" and "appropriate tactical action" in these cases will be dictated by the range of the target to be identified. In any case, the ultimate responsibility is placed directly on Identification Officer at the direction center. This was strongly recommended by the AC&W Squadron representatives.

9. Some new identification maneuvers were discussed, but all were either too lengthy or could not be easily followed on radar if high winds were encountered.

10. It was the unanimous opinion of all that briefing officers should be instructed to maintain maximum security of envelopes even though they are considered unclassified.

11. All code names for MCIS will be discontinued. Each set of fans will be identified according to location, i.e., Nantucket MCIS, San Francisco MCIS.

12. It was agreed that EADF should incorporate the changes in the procedures presently being revised because of the delay caused while awaiting clearances. This would make it unnecessary to revise the procedures at a later date. The other locations would incorporate the changes when a new set of envelopes is distributed.

13. The WADF representatives were not in favor of deleting the check turn in favor of the code word. This was natural since they have not experienced any difficulty with the check turn. They finally agreed to the change when it pointed out that use of the code word would eventually justify the installation of D/F equipment at appropriate direction centers.

s/t/ HANSEN

C O P Y

OPERATING INSTRUCTIONS

NEW YORK INTERIM MANEUVER IDENTIFICATION SYSTEM  
(Short Title: New York IMIS)

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Revised 12 April 1954

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1. Introduction: Procedures contained herein are supplemental to those presently contained in appropriate civil and military regulations (Part 620, CAA and AFR 60-22/OpNavInst 3722.5). Participation by military and civil pilots will be as prescribed by appropriate headquarters or company policy. Maximum participation is requested.

2. Purpose: To increase the identification capability of the air defense system and reduce the number of identifications requiring use of interceptor aircraft.

3. Area of Application: These procedures are applicable as indicated in paragraph 1 above, to all civil and military aircraft planning to cross the east coast of the United States between Norfolk, Virginia; and Montauk Point, New York, via the Atlantic ADIZ.

4. Definitions:

a. Identification Envelope. A sealed envelope containing:

- (1) Envelope Identification Number (on the outside of the envelope).
- (2) Pilot's Instructions.
- (3) Addressed Return Envelope.
- (4) Diagram of the Assigned Identification Maneuver.
- (5) Pilot Questionnaire.
- (6) Identification Code Word.

b. Envelope Identification Number: A number on the face of the Identification Envelope consisting of one or more numerals preceded by the letters "ADC". These serve to advise the air defense system of the assigned identification procedures.

c. Designated Reporting Points: Reporting points are as currently established for Air Traffic Control.

d. Identification Maneuver: The specific maneuver to be flown by the pilot when requested to "execute identification maneuver".

e. Pilot Questionnaire: A short questionnaire which each pilot is requested to complete at the conclusion of the flight. It should be returned with the contents of the envelope as outlined in paragraph 7d below.

f. Identification Code Word: The word used by the pilot when replying to the request to "identify code word". The specific code word for each flight is found on the maneuver diagram sheet.

5. Routes: Routes are as currently authorized for Air Traffic Control.

6. Procedures:

a. Communications:

- (1) Primary Frequency: VHF 121.5 mcs.
- (2) Alternate Frequency: Standard ARTC or Company frequency.
- (3) Pilots will monitor the primary frequency from the time the flight penetrates the Atlantic ADIZ until receipt of the "identification completed" message. The alternate frequency will be monitored in accordance with air traffic control procedures or company policy.
- (4) The Air Defense Radar Station will attempt to make all contacts on the primary frequency. If an answer is not received within a reasonable time, the radar station will request the appropriate ARTC Center to attempt contact on the alternate frequency. While awaiting an answer via the alternate frequency, the radar station will continue calling on the primary frequency.
- (5) If an aircraft is called on other than the primary frequency, the call should be answered on the same frequency. If the aircraft is also called on the primary frequency, the call should then be answered on the primary frequency.

b. Identification Criteria: Aircraft will be identified as friendly:

- (1) If observed by the air defense system as proceeding within the tolerance limits of plus or minus five minutes and twenty nautical miles right or left of flight plan course and, in addition, replies with the proper code word.
- (2) If observed outside the above tolerances but within the tolerance limits of plus or minus ten minutes and forty nautical miles right or left of flight plan course and, in addition, executes the proper identification maneuver.

Note: Execution of the identification maneuver will be requested only if the aircraft is not within the tolerances listed in 6b(1) above, or if required to resolve ambiguity when other aircraft are in the vicinity.

c. Briefing:

- (1) Briefing points are located at major overseas terminals from which aircraft frequently depart for non-stop flight to the United States via the area of application. Headquarters, Eastern Air Defense Force, will maintain a current listing of these terminals, and will provide same to operators concerned.
- (2) At the briefing point the briefing personnel will furnish each aircraft departing for the United States, via the area of application, with an Identification Envelope and will conduct appropriate briefing.
- (3) After briefing is completed, the briefing office will forward the Envelope Identification Number to the agency which will transmit the flight plan. This number will be entered in the remarks section of the flight plan and transmitted when the actual departure message is transmitted.

Example: "ADC 271"

- (4) If for some valid reason the pilot does not intend to follow these procedures and does not accept an Identification Envelope, the briefing office will request the agency transmitting the flight plan to include the remark "No IDIS" in the flight plan and transmit it with the actual departure message.

d. Pilot:

- (1) The pilot will be briefed at the take-off point and he will be given an Identification Envelope at this time.
- (2) After take-off, the pilot will open the sealed envelope and be prepared to comply with the identification procedures when requested.
- (3) Normal position reports and estimates will be forwarded.
- (4) Upon penetration of the Atlantic ABIZ, the pilot will monitor ~~VHF~~ 121.5 mcs in addition to the normal en route frequency and await further instructions.
- (5) Upon receipt of the request to "identify code word", the pilot will immediately transmit on the appropriate frequency the code word included on the maneuver diagram sheet. (See paragraph 6a above).

Example: "Eastern 456, this is Air Defense Radar.  
Identify code word".

Note: The code word will be requested and transmitted only when the aircraft is within the Atlantic ADIZ.

- (6) When specifically requested to "execute identification maneuver", the pilot will immediately perform the "identification maneuver" illustrated on the maneuver diagram sheet.
- (7) If weather or other considerations make it inadvisable to execute the maneuver, the pilot will so advise Air Defense Radar. In this case, consideration may be given to execution of the maneuver in the opposite direction.
- (8) When identification has been completed, the pilot will be so advised. It will then no longer be necessary to monitor VHF 121.5 mcs.
- (9) In the event that the flight plan calls for landing at a briefing point, and the pilot has not already been given an Identification Envelope, but conditions are found to exist which permit continuing to a point in the United States without effecting landing at the briefing point, the flight need not land for the sole purpose of picking up the Identification Envelope. In this case, identification will be performed in accordance with normal procedures. If the flight fails to meet the time/distance limitations of Part 620 of the Regulations of the Administrator, CAA, or AFR 60-22/OpNavInst 3722.5, whichever is appropriate, identification may be accomplished by interception. Normal air traffic control procedures will apply. The pilot should so advise the ARTC Center which, in turn, will notify the Air Defense System.

e. ARTC Centers (U.S.):

- (1) ARTC Center(s) will include the Envelope Identification Number when the flight plan information is forwarded to the Air Defense System in accordance with current agreements.
- (2) ARTC Center(s) will forward appropriate instructions between the aircraft and the Air Defense System through normal communications channels whenever the Air Defense Radar Stations are unable to communicate directly with the aircraft.

- (3) Prior to requesting execution of identification maneuver, Air Defense Radar will advise the appropriate ARTC Center of the assigned maneuver and will request authorization for its execution.

f. ARTC Centers (Outside of U.S.): ARTC Centers are requested to forward the remarks "ADC \_\_\_\_\_" or "No IDLS", as appropriate as part of the flight plan when the actual departure message is forwarded.

g. Air Defense Radar:

- (1) Air Defense Radar will be guided by the identification criteria outlined in paragraph 6b above.
- (2) Flights complying with the provisions of paragraph 6b(1) above will be requested to "identify code word" immediately after the track is established. (See example, paragraph 6d(5) above). If VHF contact is not effected within a reasonable time, the appropriate ARTC Center will be requested to relay the message to the aircraft.
- (3) Aircraft which reply with an incorrect code word will be classified unknown and appropriate tactical action will be taken.
- (4) After obtaining approval from the appropriate ARTC Center, flights complying with the provisions of paragraph 6b(2) above will be requested to "execute identification maneuver".
- (5) If, for any reason, it is inadvisable to execute the assigned maneuver, consideration may be given to execution of the maneuver in the opposite direction if specifically approved by the ARTC Center.
- (6) Aircraft failing to perform the correct identification maneuver will be classified unknown and appropriate tactical action will be taken.
- (7) When identification of the aircraft has been completed, Air Defense Radar will advise the pilot and forward to the appropriate ARTC Center an "identification completed" message including the aircraft's position in relation to a specific reporting point and time thereat.

Example of message to Pilot:

"Colonial 678, this is Air Defense Radar.  
Identification Completed".

Example of message to ARTC Center:

"For Colonial 678, identification completed.  
Position at 1703 Zebra is 25 miles east of  
(name of specific reporting point)".

h. Emergency:

- (1) In the event that an emergency makes it impractical to comply with DMIS procedures, the pilot should advise the ARTC Center and in the case of civilian aircraft, proceed in accordance with Part 620 of the Regulations of the Administrator, CAA. In the case of military aircraft, proceed in accordance with AFR 60-22/OpNavInst 3722.5.
- (2) The pilot of an outbound aircraft that must return to the U.S. because of an emergency should immediately advise the ARTC Center of the emergency, position and time thereof, altitude and route of flight to specified airport. The ARTC Center will advise the air defense system accordingly.

7. General:

- a. If, because of mechanical difficulties or other justifiable reasons, the pilot finds it impossible or impractical to execute the identification maneuver, the pilot will so advise Air Defense Radar.
- b. The successful execution of these identification procedures is dependent to a considerable degree upon the rapid relay of message to and from the pilot of the aircraft and the air defense system. These messages are considered of the highest priority subordinate in precedence only to messages pertaining to aircraft in distress and to necessary air traffic control instructions.
- c. Pilots are requested to return unused envelopes to any briefing office or to Headquarters, Eastern Air Defense Force, Stewart AFB, Newburgh, New York.
- d. The completed pilot's questionnaire, together with the Identification Envelope and its contents, should be returned to Headquarters, Eastern Air Defense Force, upon completion of the flight. A self-addressed envelope is provided for this purpose.

M. R. NELSON  
Major General, USAF  
Commander  
Eastern Air Defense Force  
e D

ORA W. YOUNG  
Regional Administrator  
Civil Aeronautics Administration  
Region One

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EACOT-OS

23 July 1954

Mr. Maurice Kauffman  
Station Manager  
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New York International Airport  
Jamaica 20, New York

Dear Mr. Kauffman:

The undersigned and Mr. James.R. Ducrest, CAA Air Defense Liaison Officer, this headquarters, are planning to visit the locations listed below for the purposes of briefing personnel concerned on the operating procedures and re-establishing pilot briefing facilities for the Nantucket Multiple Corridor Identification System.

<u>LOCATION</u>	<u>APRX ARRIVAL DATE</u>
Ministry of Civil Aviation, London	11 Aug 54
London Airport	12 Aug 54
Prestwick Airport	16 Aug 54
Ministry of Civil Aviation, Dublin	19 Aug 54
Shannon Airport	20 Aug 54
Ministry of Civil Aviation, Paris	26 Aug 54
Orly Field	27 Aug 54
Ministry of Civil Aviation, Lisbon	31 Aug 54

I am pleased to advise you that since the revised MCIS procedures were implemented on 28 April 1954, participation has been considerably improved, identifications have been expedited and interceptions vastly reduced. When briefing facilities are established at the airports listed above, I am sure that more improvement will result.

For your information, Nantucket MCIS pilot briefing facilities are now available at the following locations:

Gander Airport, Newfoundland  
Argentia Naval Station, Newfoundland  
St. Johns/Torbay Airport, Newfoundland

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Mr. Maurice Kauffman

23 July 1954

Stephenville/Harmon AFB,  
Lajes Airport, Azores  
Santa Maria Airport, Azores  
Kindley AFB, Bermuda  
Naval AirStation, Bermuda

Mr. O. B. Tomlin, CAA Air Defense Liaison Officer, Headquarters  
32d Air Division (Defense) and Mr. D. W. Mitchell, DOT Liaison Officer,  
Headquarters ADC RCAF, will depart on or about 9 August to establish  
briefing facilities at Sydney and Yarmouth, Nova Scotia.

After our return to this country, a list of all stations where  
pilot briefing is available, will be published and distributed.

Please accept my sincere thanks for the cooperation you have  
afforded this command in our efforts to continually improve the identi-  
fication capability of the air defense system.

Very truly yours,

t/ PAUL H. HANSEN  
Captain, USAF  
MCIS Project Officer

C O P Y

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status of MCIS and IMIS Programs

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21 July 54

1. The following is a summary of the Nantucket MCIS and New York IMIS programs to date:

a. Briefing:

(1) Briefing has been completed at the following locations:

- (a) Gander, Newfoundland
- (b) St. Johns/Torbay, Newfoundland
- (c) Argentia, Newfoundland
- (d) Stephenville/Harmon AFB, Newfoundland
- (e) Kindley and Naval Air Station, Bermuda
- (f) San Juan, Puerto Rico
- (g) Ramey AFB, Puerto Rico
- (h) Lajes, Azores
- (i) Santa Maria, Azores

(2) Captain Hansen and Mr. Ducrest will depart this headquarters not later than 9 August 1954 to conduct briefing at the following locations:

- (a) British Air Ministry to arrange for pilot briefing at London and Prestwick Airports.
- (b) Irish Air Ministry to arrange for pilot briefing at Shannon Airport.
- (c) French Air Ministry to arrange for pilot briefing at Orley Field.
- (d) Portuguese Air Ministry to explain pilot briefing which is being conducted at Santa Maria and Lajes. This is primarily a protocol visit since briefing has already been established at Lajes and Santa Maria.

(3) Mr. Tomlin, CAA ADLO, 32d Air Division (Defense) and Mr. Mitchel, DOT ADLO, RCAF, St. Hubert, will depart approximately 9 August 1954 to arrange briefing facilities at Sydney, Yarmouth and Halifax, Nova Scotia.

(4) Mr. Hammond, CAA ADLO, 26th Air Division (Defense) and Captain Wilson, 5th Fighter-Interceptor Squadron will depart as soon as possible after Captain Hansen and Mr. Ducrest return to arrange pilot briefing facilities at Nassau, BWI.

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Status of MCIS and IMIS Programs (Cont'd)

b. Participation:

- (1) During June 1954, a total of 282 flights (77%) out of a possible 368 flights participated in Nantucket MCIS. Main reason for non-participation is because several flights are overflying Gander from stations where briefing arrangements have not been re-established; i.e., Shannon, Prestwick, etc. This should be corrected by the end of August. Report of IMIS for June was delayed due to Operation Check-Point, but it is known that nearly all flights departing San Juan and Bermuda to New York are participating in IMIS.

c. Air Space:

- (1) Of the 282 flights participating in MCIS during June, 50 were declared unknown. Of the 50, 12 flights required scramble action and only one required a completed intercept. From a completed intercept point of view, these figures are excellent, but much improvement can be obtained in the 'Unknown' and 'scramble action' columns.
- (2) The main cause of unknowns (especially in MCIS is the inability of the direction centers to contact the aircraft by VHF radio as soon as the aircraft is detected. Although all of these unknowns do not result in scramble action, much needless reporting is caused. This directorate has recommended that EAOCE conduct a study to determine how VHF communications can be improved at Charleston, Brunswick and North Truro.

e. Cooperation:

- (1) Pilot questionnaires reflect great enthusiasm among participants. Several have reported excellent assistance from the direction centers in avoiding rough weather and most of them now seem to realize the importance of identification. As operational discrepancies are corrected and navigational aids are improved, a continued increase in the efficiency of the systems can be expected.

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MINUTES OF CONFERENCE

**DATE:** 3 August 1954  
**PLACE:** Hq, 32d Air Division (Def), Hancock Field, Syracuse, New York  
**PURPOSE:** To review and discuss procedures relating to operation of the Nantucket MCIS and New York DMIS.

**CONFEREES:**

Captain P. H. Hansen (Chairman)	Hq EADF
Lt. Colonel E. W. Fuller	Hq, 32d Air Division (Def)
Mr. J. W. Ducrest	CAA ADLO, EADF
Mr. O. B. Tomlin	CAA ADLO, 32d Air Div (Def)
Mr. M. K. Hammon	CAA ADLO 26th Air Div (Def)
Mr. W. P. Bocton	NY ARTC Center
Mr. C. R. Kynock	Boston ARTC Center
Major J. C. Mack	Hq, 32d Air Division (Def)
Captain E. H. McEachron	"
Captain H. E. Santmyer	"
Major J. Yaworski	Hq, 26th Air Division (Def)
Major F. W. Mueller	"
Major L. H. Potterbaum	646th AC&W Squadron
1st Lt. G. W. Peterson	"
Captain C. L. Rucker	654th AC&W Squadron
Captain J. C. Akin	770th AC&W Squadron
Captain J. J. Ruszczyk	773d AC&W Squadron
Captain W. F. Will	762d AC&W Squadron
1st Lt. J. H. Byrne	765th AC&W Squadron
Captain P. R. Jones	Hq, EADF

1. Captain Hansen opened the meeting and reviewed the status of the objectives which were included in the Plan for Improving MCIS which was prepared in February 1954.

a. Revisit Briefing Points.

(1) The following airports have been revisited by GAA Air Defense Liaison Officers/and/or assigned officers:

- (a) Gander
- (b) Stephenville
- (c) Argentia
- (d) St. Johns
- (e) Lajes
- (f) Santa Maria
- (g) Bermuda (DMIS & MCIS)
- (h) San Juan (DMIS)
- (i) Ramey AFB (DMIS)

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(2) The following airports remain to be completed:

- (a) Sydney
- (b) Yarmouth
- (c) Halifax
- (d) Shannon
- (e) Prestwick
- (f) London
- (g) Paris
- (h) Nassau

(3) Sydney, Yarmouth, and Halifax will be visited by Mr. Tomlin and Mr. Mitchell, DOT Liaison Officer, at Headquarters RCAF, St. Hubert, during the week of 9 August.

(4) Shannon, Prestwick, London, Paris, and Rhein Main will be visited by Mr. Ducrest and Captain Hansen. They will depart 9 August and expect to have all the briefing completed by the first week in September. They will also brief the appropriate foreign air ministries.

(5) Nassau will be visited by Mr. Hammond and Captain Wilson, 5th Fighter-Interceptor Squadron, after Captain Hansen and Mr. Ducrest return.

(6) If it is found desirable to brief additional airports, this will be accomplished.

b. Stimulating Participation.

(1) Nantucket MEIS: North Truro's records showed 77% participation during June. It is expected that this will be considerably increased after European departure points are revisited.

(2) New York IMIS: Highland's records showed 78% participation during June. This will improve after the visit to Nassau and by briefing the AC&W squadron at Fort Custis in order that aircraft approaching the coast, via the Bass reporting point, may participate.

c. Reduction of Scrambles. GOC records show a 10% reduction during May when only MEIS was in operation. Another 10% reduction was achieved in June after IMIS was implemented.

d. Reduction of Intercepts.

(1) Of 366 participants in IMIS during June, only 8 were integrated.

- (2) Of 282 participating in MCIS during June, only 7 were intercepted.

e. Identification Efficiency. During June, the number of "unknowns" increased by more than 200. Despite this fact, the "remaining unknowns" were two less than the previous month. A primary reason for calling this meeting is to arrive at a method for reducing the number of "unknowns".

2. Captain Hansen then outlined the objectives which remain to be accomplished.

a. Installation of Consolan beacons: Money has been appropriated by USAF, CAA will install, operate, and maintain the beacons. It is estimated that they will be installed at Nantucket and Atlantic City by the 2d quarter, FY 55.

b. Assignment of permanent air defense identification frequencies: Use of VHF 121.5 mcs is only temporary.

c. 100% participation.

d. Installation of D/F equipment.

e. Use of the Number 1 corridor in the Yarmouth fan: The New York Air Space Sub-Committee approved our request to revise the warning area and, presently, we are awaiting final approval from the Washington Committee.

3. Discussion:

a. Increase in Unknowns.

- (1) The main cause of the increase in unknowns is the requirement for the aircraft to transmit the code word to the radar station before it can be classified friendly. It was pointed out that a large percentage of these unknowns correlate within the five minute time tolerance and proceed via the proper corridor. Pilots frequently report that they are able to read the radar station but the radar station is unable to read the aircraft. Captain Jones pointed out that the difference in power output between the aircraft and the radar station makes this quite natural. Therefore, one solution would be to increase the receiving capability at the radar station. Captain Rucker stated that his squadron is working on that solution at the present time.
- (2) Another solution might be effected through the use of HF instead of VHF.

- (3) It was agreed that the use of the code word without D/F did little to solve the identification problem; however, it was also agreed that two way communication is necessary in order that friendly pilots may be assured that identification is completed.
- (4) Major Yaworski explained that picket vessels, in many cases, could receive the code word and pass it on to the radar station. The picket vessels could also correlate tracks. He pointed out that the communication difficulties between radar stations and aircraft were not as severe in the DMIS area. He requested approval to draw up procedures which could take advantage of the D/F equipment on the picket vessel and allow the radar station to complete the identification using the picket vessel plots in conjunction with the D/F. Captain Hansen stated it was desirable to get the picket vessels into the act as soon as possible. Therefore, if the 26th Air Division felt that picket vessel personnel were sufficiently trained to do the job, that it would be possible to revise the procedures if necessary. Major Yaworski also stated that a director from one of the radar stations is usually on board the picket vessel when it is on station. If his proposal is approved, he will insure that the director on board is familiar with all DMIS procedures. Captain Hansen stated that he was in favor of the plan and if his headquarters approved, he would send a message authorizing the 26th Air Division to go ahead.
- (5) Captain McEachron proposed that aircraft which proceed within the five minute time tolerances and through the assigned corridor, but which are classified unknown only because of the inability to obtain the code word, be classified friendly. The radar stations would continue to try to make contact in order that the code word may be eventually received and the pilot may be informed that identification is completed. He substantiated his proposal by pointing out that non-participants are classified friendly only by time and distance. Captain Hansen reiterated the need for two way communication and stated that he was afraid that if the code word requirement was removed, the efforts to obtain better communications would cease. However, he was willing to go along with the plan as long as proper records were kept which would show that the radar station had tried to make contact. Lt. Byrne stated that his squadron at Charleston was able to make contact approximately 60% of the

time. He also stated that his station is usually the first to detect the aircraft. This statement resulted in another suggestion by Mr. Tomlin that Charleston be made the master station for the Yarmouth corridor and that Brunswick and North Truro be provided master sheets so that they could back up Charleston. North Truro would remain the master station for the Azores and Bermuda corridors. Captain Hansen then stated that if the proposals made by Captain McEachron and Mr. Tomlin were approved by his headquarters, that he would forward a message authorizing the changes in the current procedures.

b. Tactical Reporting. Captain Hansen stated that he had been informed by Captain Clevenger, of the EADF GOC, that the term, No Scramble, Conservation of Aircraft (NSCA), was being used more frequently than the term, No Scramble, MCIS, or No Scramble, IMIS. This was an obvious effort to escape the five minute maximum time allowable for use of the No Scramble MCIS/IMIS term. In several instances, NSCA was used when the unknowns were well within normal scramble range and is therefore a violation of proper AC&W procedures. There was some confusion as to five minute time interval was to begin. Captain Hansen explained the station is normally allowed one minute to identify after establishment of track. If the aircraft is participating in MCIS/IMIS, the tactical action would be reported as NSIMIS or NSMCIS as the case may be. This tactical action would be good for a maximum of five minutes beginning after expiration of the first minute allowed for identification. If identification was not completed after the five minute interval was expired, the tactical action would be changed to indicate a scramble or no scramble with an appropriate reason. Captain Hansen once again reminded the conferees that the improper use of NSCA was considered serious by EADF and ABC.

c. Communications Procedures: Several examples of improper communications procedures have been reported by pilots.

- (1) Use of terms from JANAP 165 such as, "How are the oranges?" These terms are unfamiliar to most commercial pilots and must be avoided.
- (2) Failure to acknowledge calls from aircraft has also been frequently reported.
- (3) Many foreign pilots have only a limited knowledge of English and it is, therefore, most important that radar units follow the established communications procedures.

d. Aid to Navigation:

- (1) Many pilots have reported help given to them by the Direction Centers in avoiding severe weather. They

seem to be most grateful and it is felt that this is one of the selling points for MCIS/DMIS. Captain Hansen emphasized that the aircraft must be positively identified before any type of navigational aid can be extended.

- (2) The pilot questionnaires also indicated that pilots would like to check their position with the radar position. It was felt that type of aid could be extended when the radar station is not too busy. This aid would not be extended until after positive identification had been completed.

e. Reidentification:

- (1) Frequently, tracks which have been identified at long range fade and reappear. Standard procedure requires that a new track number be assigned if the track has been lost for more than 15 minutes. A new identification problem is then presented. Captain Hansen stated that the identified tracks must be dead reckoned all the way through the ADIZ. Therefore, if the dead reckoning procedure has been reasonably accurate and if the identification was correct in the first place, it should be perfectly proper to apply the same identification to the track when it reappears. Use of the identification maneuver or code word more than once must be strictly avoided. If the track can be identified by no other method, intercept must then be resorted to.
- (2) It was pointed out that current directives do not authorize the use of controller's discretion in identification. Captain Hansen stated that a meeting was being held at Headquarters EADF in two days for the purpose of preparing a supplemental directive to the new ADCR 55-12 (Identification). He would make this a point for discussion at that meeting with a view toward authorizing identification by director's discretion.

f. Identification Maneuvers: Representatives of the radar stations are satisfied with maneuvers currently being used but recommended that a minimum of four minutes be established for execution of the 360° turn. These instructions will be included on future identification maneuver diagrams.

g. Air Traffic Control: Mr. Hammond gave a brief resume' of the progress being made in the test being conducted at Highlands whereby personnel from the New York Air Traffic Control Center are using the radar information at Highlands for the purposes of air traffic control. He stated that positive identification is a must under this program, and it might be desirable to require all aircraft to do a maneuver when detected. Furthermore, communications must be dependable at all times. Various procedures will be used during the course of this tests and recommendations will be submitted accordingly after completion.

4. Captain Hansen closed the meeting by pointing out that considerable progress had been made since the MCIS procedures were revised and since the IMIS procedures were implemented. The aircraft operators, both civilian and military, have given their complete cooperation. Pilots realize their responsibility in helping to identify themselves. Therefore, they expect to be notified accordingly and if we fail to do our part, it is a direct reflection on the air defense system as a whole.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT

SUBJECT: Transmittal of 32D AD(D) Tactical Doctrine

TO:

1. Forwarded for your information and necessary action.
2. This doctrine has been developed as a guide to standardize training and techniques for the employment of lead collision course rocket firing aircraft. Comments to improve the procedures outlined are encouraged and requested and should be forwarded to this headquarters through channels.
3. It is recommended that Defense Wings schedule squadron formations (simulating mass bomber formations) against other squadrons. This would be beneficial teamwork training for the director-interceptor team in the principle of mass versus mass. After such missions, representatives of the AC&W Squadron and Fighter-Interceptor Squadron should get together for discussion and possible changes in their techniques and/or the procedures of this doctrine.
4. At present, the problems to be encountered with ECM and jamming have not been considered, but will be included in a later revision to the tactical doctrine.
5. It is anticipated that when this doctrine has been tried, there will be many problems. Another meeting will be held during June 1954 to discuss, criticize and revise the procedures of this doctrine to better meet the mission of the 32D Air Division.

1 Incl  
32D AD(D) Tactical Doctrine

Distribution:

4 cys ea Def Wg  
3 cys ea ADG  
3 cys ea FIS  
3 cys ea AC&W Sq  
8 cys 32D AD(D)

*Robert S. Israel, Jr.*  
ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

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32D AIR DIVISION (DEFENSE)

OPERATIONS

Tactical Doctrine

1. Purpose. To announce policy and procedure for the employment of interceptor aircraft in air defense operations.
2. Objective. To provide a doctrine for the effective utilization of A-I equipped aircraft against single or multiple enemy formations.
3. Responsibility. Unit Commanders are responsible for adherence to policy and implementation of procedure as contained herein. The tactics and techniques as prescribed will be the aim of unit and systems training conducted within the division.
4. Scope. The provisions and policy are applicable to all units, either assigned or under the operational control of this headquarters possessing aircraft equipped with lead collision course fire control systems. (E4, E5, E6 and E9)
5. General. As attacks against single target aircraft present no problem, this doctrine is devoted primarily to tactics required to counter mass attacks.
  - a. Commitments of interceptor aircraft will be on the basis of two rocket firing aircraft against each target aircraft, whenever possible. Decision for scramble and commitment of forces is normally vested in the AC&W squadron commander. However, under periods of increased activity as would be present during a hostile attack, the commitment of forces and scramble prerogative will be retained by the division commander. This action is necessary to insure the most effective and strategic allocation of the limited interceptor force. In the event of loss of all communications

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between the division command post and subordinate units, scramble prerogative will revert to the AC&W squadron commander who will be responsible for continuation of the air battle and is responsible to the appropriate defense wing commander for tactical action.

b. The strategic employment of the possessed bomber strength of the enemy presents three possible types of attacks:

- (1) Individual aircraft attacks, each carrying nuclear weapons.
- (2) A large group of relatively small formations, with nuclear weapons together with conventional explosives.
- (3) Mass saturation attack with the bombers in various types of formation, with both nuclear weapons and conventional explosives.

c. The problems encountered in attempting to mass a formation of interceptors are not encountered in engaging single enemy aircraft. However, counterattack by defending interceptor forces against a mass bomber stream or a mass constituted of small bomber formations will require the highest degree of proficiency of both members of the director-interceptor team. This proficiency must be achieved by continual study and exercise of tactics and techniques.

d. Based upon the theory expressed above, it is mandatory that this doctrine be developed on the assumption that the enemy will adhere to their long established application of the principle of mass in an offensive attack. As the enemy does not possess the capacity for a sustained mass attack, it is evident that we must be prepared to launch the maximum number of interceptors, strike the enemy formation in the most effective manner and complete the engagement in the least possible time. This is absolutely essential as

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interceptor forces are insufficient to permit the retaining of a ground reserve and our ability to recover and turn-around must constitute our capability of second attack.

e. To arrive at a solution to the operational problems involved in the development of this doctrine, consideration must be given to the limitation or influencing factors of our weapons. The general factors considered are as follows:

- (1) Ground handling facilities, configuration and features of the deployment base.
- (2) Operational characteristics of the various type interceptors.
- (3) Control capacity of the directing agency.
- (4) A-I equipment capabilities.
- (5) Employment limitations of the various type interceptors.

6. Limitations. The factors enumerated above can most readily be presented by dividing the problem into three sections; their relationship to the F86D, the F94C and the directing agency.

a. Limitations of the F86D are as follows:

- (1) Individual take-off is necessitated under IFR conditions by the design characteristics of the aircraft while utilizing afterburner. Close formation can not be maintained visually as no two aircraft are matched in climb and speed. The restriction in power adjustment precludes the use of variation in power setting to maintain position. Failure to utilize the afterburner will permit adjustment of power setting but by so doing, the full effectiveness of the aircraft is not realized. Formation can not be maintained on initial climb to altitude by use of the fire control system. This radar

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IFR

Phase IV After completion of attack phase III, pilots will contact recovery director for further instructions.

Phase III Individual positioning for attack will be made by the attack director.

30 seconds

Phase II Relative positioning for the attack phase will be made by the marshalling director before passing control to the attack director.

Phase I Aircraft will take off individually at thirty second intervals. Separation will be provided by marshalling director.

30 seconds

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requires a five minute warm up period after reaching 65 percent of full power. It is not practical nor feasible to maintain this power setting on the ground for the sole purpose of warm-up of equipment to permit a formation take-off. If such were done, climb would again necessarily have to be made without benefit of afterburner.

- (2) Direct control of individual aircraft is mandatory under IFR conditions and highly desirable under VFR conditions. The range of the search radar is insufficient to permit positioning by the pilot for the attack phase. Visual positioning by the pilot under VFR conditions greatly reduces the interceptor effectiveness as attacks must closely approximate a ninety degree angle to achieve proper rocket dispersion. It is apparent however, that when the enemy formation is in a relatively dispersed area, visual positioning by the pilot may more readily be achieved.
- (3) Low altitude search and lock-on presents considerable difficulty due to excessive ground clutter over which the pilot has no control.
- (4) Lack of smooth longitudinal control at high altitude and low airspeed, due to the "flying tail", results in erratic chasing of the radar presentation during the attack phase.
- (5) With this fire control system, difficulty is encountered in search, target identification and selectivity. This

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results in lock-on being delayed from the theoretical fifteen mile range down to as short as four miles.

b. Limitations of the F94C are as follows:

- (1) Although a visual close formation may be maintained under IFR conditions, the formation size is initially limited to the number of aircraft which may take-off simultaneously. Unless there is sufficient ceiling to permit a visual rendezvous prior to penetration of weather conditions, the formations are limited to two interceptors. After the radar warm up period of from five to seven minutes, the fire control system can be used to maintain a larger formation. The time delay encountered in massing a formation and the directing agency capacity is considered to nullify any value, as will be explained later.
- (2) A formation larger than four interceptors is not considered feasible due to the fact that an error in positioning of the lead aircraft would frequently necessitate considerable change in heading during the attack phase. These corrections would be multiplied to each succeeding aircraft in the flight to such a degree that no more than three aircraft could make the adjustment and complete an effective pass.

c. Limitations on directing agencies.

- (1) The primary consideration of an ADDC is the number of control scopes available and the number of units each director can efficiently control. A highly skilled director is not capable of directing more than four units simultaneously.

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In addition, the communications load on available frequencies is a considerable imposition on the capacity.

7. Procedure. Considering all aspects of the limitations and considerations outlined above, the following procedure is presented as the most acceptable manner of employment of interceptors to meet the objective.

a. Directing agency control functions must be divided into three categories:

These are:

- (1) Marshalling director. Marshalling of the interceptors after take-off and placing them for the most advantageous position for attack of the enemy formation. A considerable number of units may thus be controlled by one director, as few instructions will be necessary. Control will be maintained until such time as the attack director is capable of assuming control.
- (2) Attack Director. Positioning of the units for the attack phase. It is considered that each directing agency should have the capability of four scopes for this function. With four directors capable of control of four units simultaneously, it is evident that directing of the attack could be by direct individual control as expeditiously as interceptors became available.
- (3) Recovery Director. To assist in recovery of interceptors. During periods when all available interceptors are being employed under IFR condition, this position would require one director for this specific function. Under VFR conditions, the interceptor pilots would normally be capable

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of recovery without need for assistance other than vector and distance. In this instance, it is conceivable that the marshalling director could also function in this position.

b. Procedure for employment of the F-86D:

(1) VFR Conditions

- (a) Scramble under VFR conditions will be in flights of two aircraft. Take off will be at five second intervals between aircraft and thirty second intervals between flights.
- (b) Climb will be made at maximum power unless otherwise directed, with visual contact being maintained between flights until direct control of individual flights is assumed by the directing agency. Navigation during this phase will primarily be the responsibility of the directing agency but will be monitored by each individual pilot, as within his capability. The initial vector will be planned by the directing agency to achieve the optimum position for attack. Upon receipt of initial target information from the directing agency, each wingman will interpolate the position and heading of the target to place himself in the most advantageous position for attack. The angular position of the wingman should be approximately forty-five degrees to the rear of the lead aircraft and five to seven miles angular displacement. (This angular displacement will vary with the rate of closure on the target and target speed.) Direct control of each lead interceptor of the flights

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of two will be made individually by the directing agency. When the lead interceptor has AI contact, the attack director will assume direct control of the wingman to insure proper positioning for the optimum angle of attack. Upon hearing the report of "Judy" by the lead aircraft, the wingman will go into automatic search and complete his individual attack.

- (c) All rockets will be fired on one attack unless otherwise stipulated by the attack director. In event of a missed intercept, contact will be made with the attack director for further instructions. If possible, the attack director will reposition the interceptor. If such is not possible, and VFR conditions exist, attack will be made at the discretion of the pilot prior to returning to recovery base. Extreme caution must be exercised by the pilot in such case to prevent interference with subsequent attacking interceptors.
- (d) Upon completion of mission, if VFR and aware of position, pilot will check in with the recovery director of the directing agency and proceed to the recovery base as expeditiously as possible.

(2) IFR Conditions

- (a) Scramble will be made individually with thirty second intervals between aircraft.
- (b) Climb will be made at maximum power unless otherwise directed. Navigation during this phase will be the sole responsibility of the directing agency as it must

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be assumed that CONELRAD will be in effect and radio navigational aids will not be available.

- (c) Remainder of intercept will be conducted in the same manner as outlined above, with the directing agency exercising direct control over each aircraft.
- (d) Recovery will be by assist of the recovery director in accordance with normal procedure.

c. Procedure for employment of the F94C

(1) IFR conditions

- (a) Scramble will be made in flights of two aircraft with thirty seconds between flights.
- (b) Climb will be made utilizing afterburner unless otherwise stipulated by the directing agency. Climb will be in close formation until A-I equipment becomes operational. At this time, the wingman will position himself approximately three thousand yards directly behind the lead interceptor.
- (c) Upon assumption of control by the attack director, the lead aircraft will be placed on a ninety degree lead collision course with the target. At this time, the wingman will echelon by use of the A-I equipment, in the direction the target is progressing and in a position approximately forty-five degrees and three thousand five hundred to six thousand yards to the rear of the lead aircraft. (This angular displacement will vary with the rate of closure and the speed of the target. Also to be considered is the proficiency level of the

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air crew and director). The radar observer in the lead aircraft will "search" for the target. The radar observer in the second aircraft will "search" for the target while maintaining A-I position on the lead aircraft. Upon achieving A-I contact, the lead aircraft will initiate the attack phase. The radar observer, upon hearing report of "Judy" from the lead aircraft, will then concentrate on securing a contact with the target and proceed with the attack phase.

- (d) All rockets will be fired on one pass unless otherwise stipulated by the directing agency. Depending on the type formation being maintained by the enemy bombers, it may be desirable to effect two passes, firing half load on each pass. In event of missed intercept, contact will be made with the attack director of the directing agency for further instructions. If possible, the attack director will reposition the interceptor. If such is not possible, aircraft will return to recovery base under control of the recovery director, when IFR conditions exist.

(2) VFR conditions

- (a) Scramble will be made in elements of two with thirty second intervals between elements. Join-up into flights of four aircraft will be accomplished visually or with A-I equipment during the climb on course.
- (b) Climb will be made utilizing afterburner unless otherwise stipulated by the directing agency. Position

*SECRET*

during climb will be approximately three thousand yards between aircraft in trail. This position can be maintained visually by the pilot and monitored with the A-I equipment by the radar observer.

- (c) Control and positioning by the directing agency will be on the formation leader only. The remaining aircraft in the flight will maintain relative position on the lead aircraft as is specified in IFR procedure. Attack will be made in same manner, whether VFR or IFR with the number three and four aircraft following the same procedure as specified under IFR conditions for the number two aircraft.
- (d) In event of a missed intercept, the pilot will contact the attack director of the directing agency for further instructions. If possible, the attack director will reposition the interceptor. If such is not possible and VFR conditions exist, attack will be made at the discretion of the pilot prior to returning to recovery base. Extreme caution must be exercised by the pilot in such case to prevent interference with subsequent attacking interceptors.
- (e) Upon completion of mission, if VFR and aware of position, pilot will check in with the recovery director of the directing agency and proceed to the recovery base as expeditiously as possible.

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d. As will be noted throughout this procedure, attempt is not made to mass the available interceptors prior to attack. In this concept, the principle of mass is to be considered as the sustained attack capability rather than simultaneous attack capability. With the optimum employment design of A-I equipped interceptors being control of one interceptor against one target by one director, it is evident that the desire for control is to minimize the formation size, consistent with the necessity of employing the maximum number of interceptors in the least possible time. Also in this respect, the control capacity of the directing agency and the capability of the interceptors to maintain formation integrity are the primary determining factors. With the application of the principles specified in the procedure section of this doctrine, these two factors have been balanced.

d. Emergency utilization of interceptors.

- (1) Regardless of the operational status of the fire control radar when the attack may be made under VFR conditions, every interceptor capable of becoming airborne with munitions has a limited combat potential.
- (2) If the situation is grave enough to warrant utilization of this category interceptor, scramble will not be waived due to non-operational status of the fire control system radar. Aircraft which experience radar failure after becoming airborne will not abort the mission due to malfunction of the radar.

(a) Attacks to be made under visual conditions.

- 1 In cases wherein F94C aircraft lose their A-I potential after becoming airborne, they will continue with their flight until visual contact with the target

*SECRET*

aircraft has been made. Upon reaching the point of visual contact they will break off from the formation and proceed to attack using fixed sight.

2 In the case of F86D aircraft, they will continue under control of the directing agency until visual contact is attained at which time they will attack as outlined in preceding paragraph.

3 All in commission aircraft will be utilized for attacking massed target aircraft. Aircraft without A-I potential will be scrambled last.

(b) Attacks made under instrument conditions.

1 Aircraft without A-I potential will not be scrambled.

2 If an aircraft loses its A-I potential after becoming airborne, it will land as soon as possible but will avoid interfering with aircraft being scrambled.

8. AAA Coordination

a. Local arrangement will be made between the appropriate FIS, AC&W squadron and the antiaircraft unit commanders to establish corridors for the safe launching and recovery of interceptors, where applicable. Every attempt will be made to prevent conflict in operation of antiaircraft weapons and interceptor aircraft.

b. Although it is desired that engagement of the attacking force be made before progression to an area defended by antiaircraft weapons, when simultaneous engagement of interceptors and antiaircraft weapons becomes necessary, attack will not be withheld. However, due consideration will be given to the possibility of positioning and vectoring the interceptors in

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such a manner as to preclude the necessity for simultaneous engagement. This will not be construed as justification for indiscriminate vectoring of interceptors thru antiaircraft defended areas.

9. Systems training of tactics.

a. In view of the large turnover of personnel and changes in application of weapons, a guide such as this doctrine is necessary to acquaint commanders and operational personnel with the division commanders policies for the tactical employment of weapons. This guide may further be used to direct the unit training programs.

b. The past air defense exercises and command post exercises have clearly demonstrated the need for training in employment of the principles of mass versus mass, the passing of fighters between adjacent directing agencies, engagement of mass formations of attacking bombers, the use of centralized and decentralized scramble to obtain the maximum fighters on mass targets and the problems of route displacement when engaging high - fast targets.

c. In order to meet these requirements, it is planned to hold inter-wing exercises at frequent intervals to enable the division commander to evaluate the state of proficiency and training. However, it is obvious that there is a dire need for support in this training program from forces of other USAF Commands. This support is necessary to provide a realistic training by actual engagement of bomber forces.

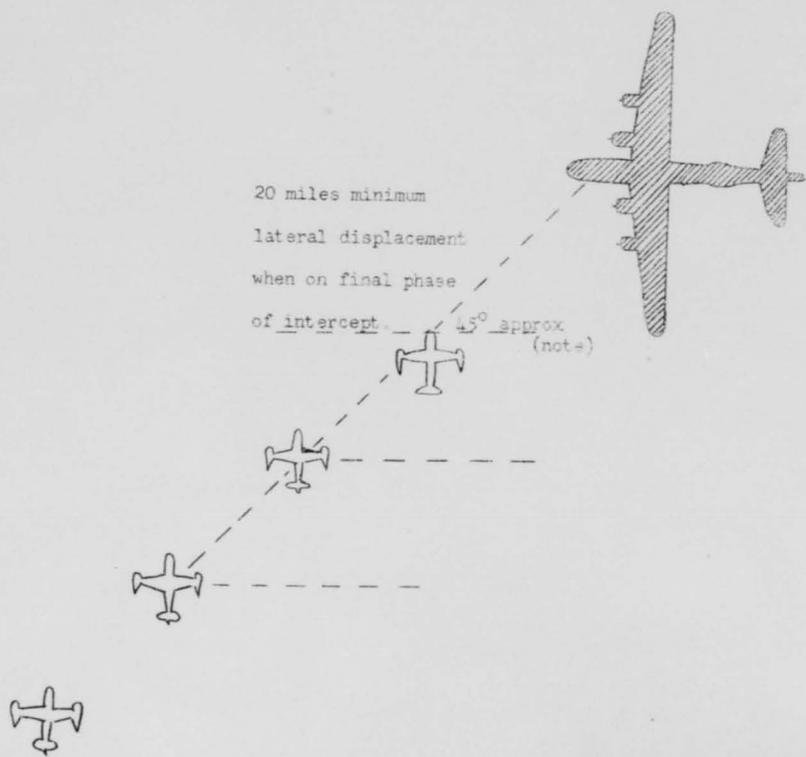
d. By the use of this program, all units will be endeavoring to keep astride of current developments in the employment of weapons and will be alert, rather than complacent in the mission of air defense.

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F-94C

NOTE: The relative angle of the interceptor to the enemy will vary  
and will be governed by the overtake speed and target speed.  
The angle of echelon should be the same as this angle.



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F94C

Phase IV After completing attacks phase interceptor pilot will contact director on preassigned channel for recovery. Circumstances permitting, the aircraft will be joined for formation recovery. Otherwise, aircraft will be recovered individually.



Phase III Attack director will position fighters for final attack.



Phase II The marshalling director will form flights and position them for use by the attack director assigned by the chief director.



Phase I Aircraft will take-off in elements of two.

Under VFR conditions the second element will join on the lead element on departure. When IFR conditions prevail, elements will depart at 30 second intervals.



F94C Base

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F-86D

VFR

Phase IV After completing attack Phase III, flight leaders will contact recovery director for further instructions.

Phase III Attack director will position aircraft to maintain a 30 second interval between attacks.

Phase II Aircraft will maintain visual echelon formation under control of the marshalling director.

Phase I Aircraft will take-off in flights of two, 5 seconds between aircraft and 30 seconds between flights.

5 seconds  
30 seconds  
∞

SECRET

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-A

18 May 1954

SUBJECT: Transmittal of Interceptor Positioning Study

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass.  
Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. Transmitted herewith for your information and dissemination are copies of Intercept Positioning Problem study prepared by Headquarters, Air Defense Command.

2. This study is not to be considered as a directive but as a thought provoking guide. Any comments or recommendations desired will be welcomed.

BY ORDER OF THE COMMANDER:

1 Incl:  
Intep Positioning  
problem  
57 cys 4707th  
56 cys 4711th

VIRGINIA L. SWEET  
1st Lt., USAF  
Asst Adjutant

227 1

J 7 5 4

C O P Y

INTERCEPTOR POSITIONING PROBLEM

SECTION I

The problem of properly positioning the fighter interceptor for beam attack on the target has been of considerable concern to all persons working in the air defense operational field. Experience within the air divisions and even during Project "Lock On" seemed to indicate that there was something wrong within the airborne radar system or some other factor, for even when the controller was sure he had established a good beam attack, the pilots reported that they ended up in a head on or stern chase. Analysis of the problem has resulted in some rather startling conclusions which completely alter the solution to positioning and make possible this solution by exact means rather than by guesswork, arbitrary fighter-target speed relationships, and neglect of wind effect.

To go back to the basic fundamentals, we must first consider the interceptor pilot setting up an attack on a target by visual means. There is no relative wind between the interceptor and the target; consequently, the interceptor pilot never has to worry about wind drift heading corrections, etc. In addition, since both the target and the interceptor are in the same air mass, neither has any movement with respect to the other except that induced by the interceptor movement along his line of flight and the target's movement along his line of flight. What this means is simply this: When the interceptor pilot observes that he is in a good beam pass position and this observation is borne out by the subsequent attack, the flight path of the interceptor is perpendicular to the flight path of the bomber. The prob-

C O P Y

lem is exactly the same as if we wanted two trains to collide with one heading 90 degrees to the heading of the other. We don't have to consider the movement of the earth, although it is moving, in figuring out how to set the track so that the two trains will collide. Obviously, we set the track with one 90 degrees to the other, and then, depending on the speed of the trains, we put them in relative positions on the track so that they will arrive at the intersection at the same time. It is to be noted that the air intercept problem is identical. The interceptor pilot is no more concerned with the air mass movement, or wind, as we know it, than is the train engineer with the movement of the earth. From the above analysis we can reach the conclusion that within the air mass, although it is moving, the interceptor and the target will have flight paths that intersect at 90 degrees.

Now let us see what the controller sees during a good collision course intercept. What he sees can be simply stated as a 90 degree intercept of the target by the interceptor with both aircraft moving in the same direction due to movement of the air mass. This means that if a vector were drawn in the proper direction and length to indicate movement of each aircraft, and to each vector was added the effect of the wind on the aircraft, we would then have a resultant vector which would be in each case a scaled representation of the movement of the aircraft with respect to the ground. In other words, the resultant vector of true airspeed and wind gives us the ground speed vector, which is what the controller sees on his scope.

C O P Y

To make this a little clearer, since there is always wind, what we have said above is that the controller will never, except through sheer coincidence, see an intercept on his scope that looks like a 90 degree beam attack. If he does see one, he should immediately have a strong suspicion that it has not been a 90 degree intercept in the air.

The immediate question that arises at this point is, is there any standard pattern the controller sees so that he will know how to set up a true beam intercept. The answer to this question is no, because the direction and magnitude of the wind will vary for every problem, as in general will the true air speeds of the bomber and of the interceptor.

In order to arrive at the solution we must go to simple kinetics, and, using vector diagrams, find out some means of positioning the interceptor on the controller's scope so that in the air he is positioned for a 90 degree beam intercept. This seems extremely complicated and beyond the means of the average radar station; however, this is not the case.

When the controller first sees the target and is told to conduct an intercept against it, he can immediately determine the target track and the target speed. He can then draw a scaled vector representing this magnetic course and speed. It is a relatively simple matter, with wind direction and velocity at intercept altitude known, to draw on the end of this target vector another vector scaled in magnitude to the wind velocity and in the direction from which the wind is blow-

C O P Y

ing (correcting for magnetic variation). If this is done, the line joining the tail of the target vector to the tail of the wind vector represents to the same scale the heading and magnitude of the true airspeed of the target. In other words, this resultant vector indicates the speed and heading of the aircraft within the air mass where it will be attacked. It is relatively simple now to position the fighter who will also be within the same air mass so that he will intercept the target at a 90 degree angle flying a straight course provided that the target's true airspeed is known accurately.

In the above discussion, the only factor which was of no great importance was the selection of the common scale used to scale off the magnitude of the target, wind and interceptor true airspeeds. It is readily seen from this that we can determine any number of points where the interceptor can be positioned with relation to the bomber to give a true beam intercept. Each one of these positions will be different from all others in both offset and lead. However, two straight lines drawn from the point from which we originally drew the target vector will pass through all of these points. One straight line will be to the port of the target's track; the other will be to the starboard of the bomber's track. These are the two intercept positioning lines. If at any point on the bomber's track a fighter is positioned on either of these lines with the proper heading and the proper true airspeed, it will be set up for a true beam attack. The proper magnetic heading that the interceptor should have may be determined

C O P Y

from the vector diagram we have set up, provided the entire diagram is oriented to magnetic north. This selection is illustrated in succeeding pages.

If we superimpose a clear plastic disk over the diagram we have drawn, we can trace those two positioning lines and the bomber's track so that the positioning lines can be used directly on the controller's scope. His problem then will be simply to get the interceptor on one of the positioning lines with the proper heading and proper airspeed as he moves the disk along with the target track.

Attachment #2 to this document is an illustration of the plastic disk of Interceptor Positioning Card as it goes through the various stages of preparation for the controller's use.

Attachment #1 is a step by step instruction sheet for the mechanical construction of the vector diagram, and an explanation of where the necessary information for this construction is obtained. Included are instructions for transferring the necessary information from this diagram to the positioning cards.

It is to be re-emphasized that the controller, in observing the interceptor on his scope, will not see what appears to be a collision course intercept due to the effect of air mass movement on the relative movement of target and interceptor. He must adhere to the interceptor heading, airspeed and positioning as indicated by the vector diagram solution to the problem and not by what he sees.

C O P Y

PROBLEMS INVOLVED

SECTION II

It is impossible by exact means to determine the lead necessary when turning the interceptor so that he will have the proper heading when he intercepts the positioning line. Too many variables are involved, including the interceptor's heading with respect to the line as he approaches it, the effect of the wind during his turn, the movement of the line as it is carried forward with the target and the variations in target speed and interceptor speed with altitude.

As a result of the above, even with experience, the controller will frequently find that when he has the interceptor to the proper attack heading he will be either in front of or behind the positioning line. If behind, the corrective turn away from the target will be necessary to position the interceptor on the line, prior to resuming that attack heading. If forward of the positioning line a corrective turn toward the target will accomplish the same thing.

It is desirable, as has been proven by the Lock-On Project and by experience, that the fighter be in position on his beam attack prior to lock-on. The absolute minimum for this is fifteen (15) miles from the target to allow for any final corrections that must be made by the pilot. The minimum off-set from the bomber track at which the fighter must intercept the positioning line has been determined as twenty (20) miles, for initial positioning attempt. Lines indicating these limits should be drawn on the positioning card after final expansion of scale by the controller.

COFW

For the particular purpose of effecting the intercept without loss of time, the controller must also strive to have the intercept intersect the positioning line at not more than 30 miles off-set from the target track.

The means by which he intersects the positioning line within the required limits are discussed in another section of this document.

It must be remembered that the problem as the controller sees it on his scope is entirely different from that seen by the interceptor pilot. The off-set angle with which the interceptor pilot sees the bomber (given to him by the controller from the vector diagram) means absolutely nothing to the controller with reference to the picture he sees on his scope. From the time the interceptor pilot gives his JUDY, the pilot will see the development of a true beam intercept in the air, while the controller sees what is apparently a quartering beam from either head on or tail position, depending on the wind effect. When the pilot has given his JUDY, then he is confronted with the problems of the AI intercept and must make any necessary further corrections or adjustments according to the interceptor techniques discussed in another section of this document.

The controller must follow the interceptor through on the AI attack so that he will be prepared at the conclusion of the attack to reposition or recover the interceptor as necessary.

C O P Y

DETERMINATION OF THE INTERCEPTOR POSITIONING LINE

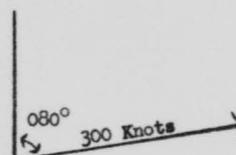
STEP 1: Controller, after the target has been referred to him for intercept action, accurately determines the target track speed and magnetic course and passes this information to the Intercept Technician.

Target  
Track Speed 300 Knots  
Track Heading 080°

Mag N



STEP 2: The Intercept Technician, using any arbitrarily selected BASE POINT on his plotting board, lays out the TARGET VECTOR from the base point, oriented with magnetic north and scaled off to any convenient scale with the numerical value of the target's speed.



STEP 3: The Intercept Technician next determines the target altitude, either from the original track estimate or preferably from the HRI; and reads the WIND direction and magnitude for that altitude from the wind chart furnished him.

Wind  
Velocity 100 Knots  
From 213° Magnetic

Mag N



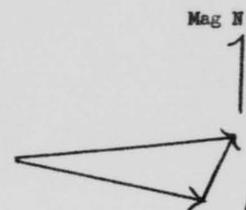
Attachment #1

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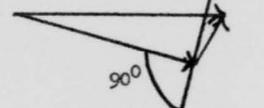
**STEP 4:** The Intercept Technician next draws a line from the end of the target vector (opposite end from the base point) in the direction the wind is blowing from (as furnished on his wind chart) and scales off the magnitude of the wind velocity in the same scale as used for the target magnitude. This new vector is the **WIND VECTOR**. **NOTE:** The wind must be corrected for magnetic variation before use.



**STEP 5:** The Intercept Technician now draws a line from the base point to the free end of the wind vector. This line is the **TARGET HEADING VECTOR**.



**STEP 6:** The Intercept Technician next erects a line perpendicular to the target heading vector at the point where it meets the wind vector. This line will be the two interceptor vectors.



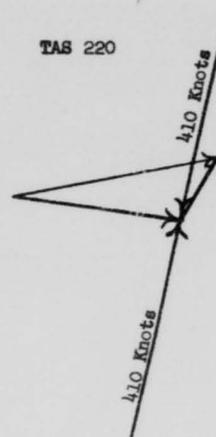
**STEP 7:** The Intercept Technician now refers to the Interceptor Airspeed Chart and determines the desired interceptor IAS for the intercept altitude. This is noted on the **POSITIONING CARD** for the future reference of the controller (enter on the side of the card opposite to the direction of target travel from the center reference point.)

TAS 410

C O P Y

**STEP 8:** The Intercept Technician next refers to the **TRUE AIRSPEED CHART** and determines the true airspeed of the interceptor for the IAS previously determined in Step 7.

TAS 220



**STEP 9:** The Intercept Technician next scales off the magnitude of the interceptor **TAS** on the line he has erected perpendicular to the target heading vector in both directions from the point of intersection of the target heading vector and the wind vector. The two points thus positioned are the reference points used to draw the **INTERCEPTOR POSITIONING LINES**, one on each side of the target.

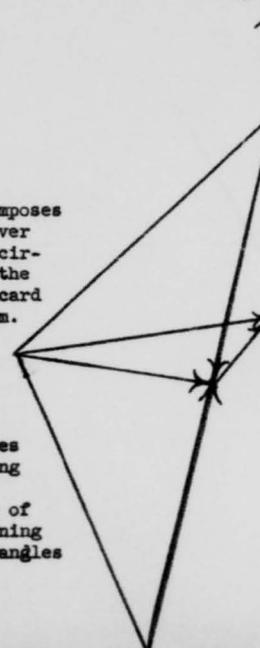
**STEP 10:** The Intercept Technician next draws the two **INTERCEPTOR POSITIONING LINES**, each line passing through the base point and one of the two reference points determined in Step 9 above.

Mag N

**STEP 11:** The Intercept Technician next superimposes the clear plastic **POSITIONING CARD** over his diagram, with the center of the circular card over the base point, and the **TARGET TRACK LINE** (diameter) of the card over the **TARGET VECTOR** on the diagram.

**STEP 12:** The Intercept Technician next traces the **POSITIONING LINES** on the **POSITIONING CARD** with grease pencil.

**STEP 13:** The Intercept Technician next measures the two angles between the positioning lines and the interceptor vectors (on the diagram) and marks the value of each angle by its respective positioning line on the positioning card. These angles are equal.



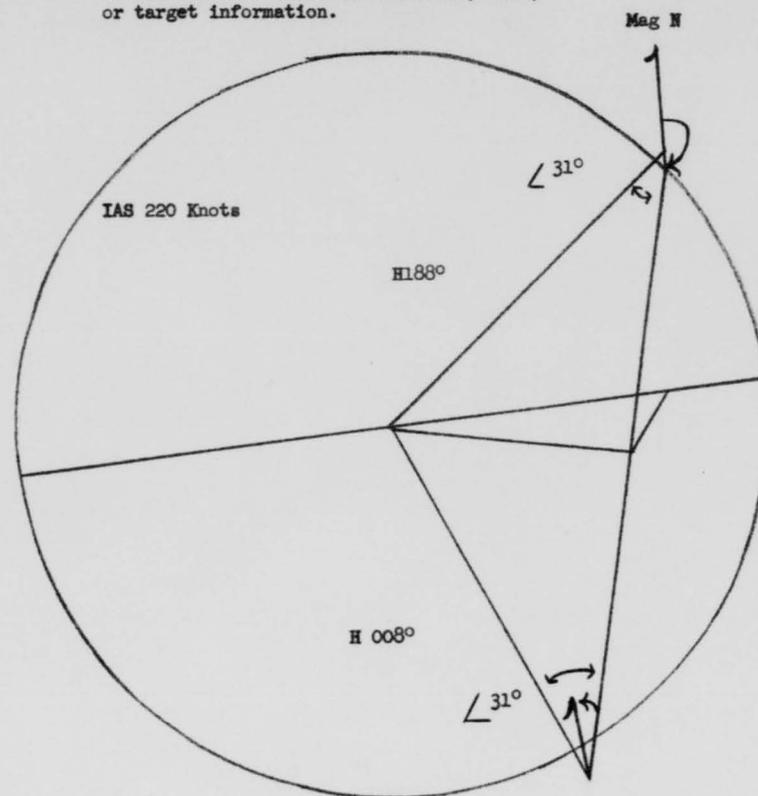
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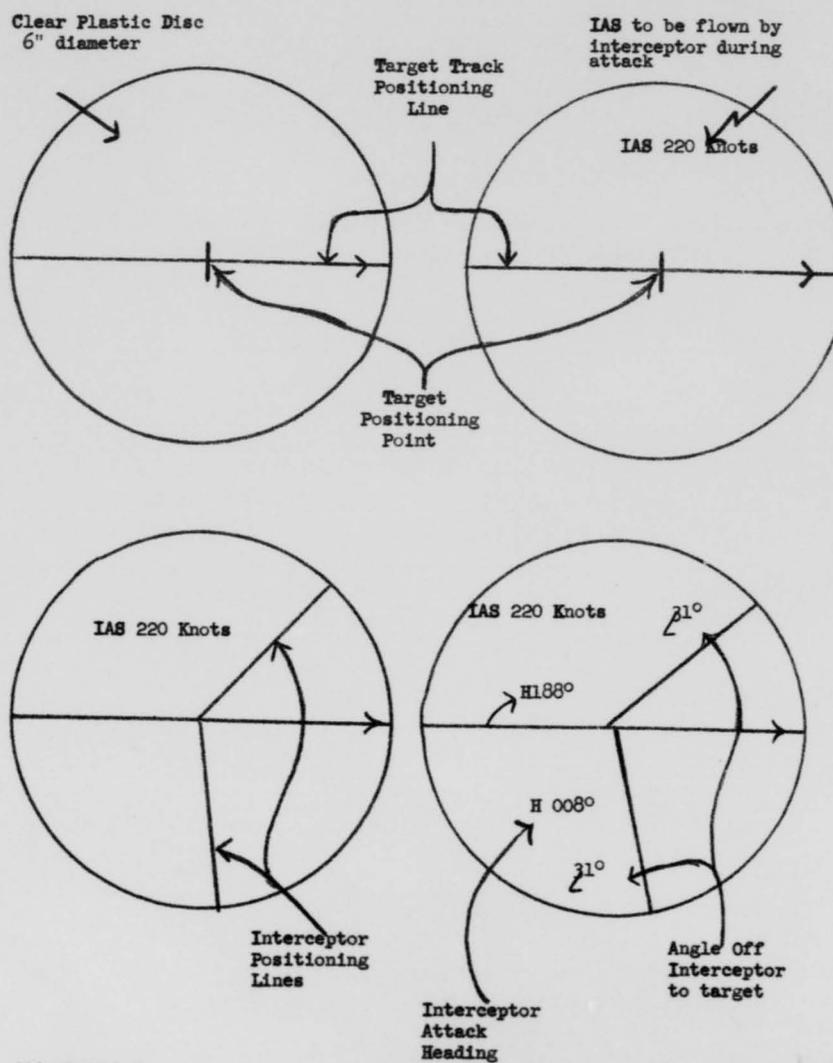
STEP 14: The Intercept Technician next measures, on the diagram, the true heading of each of the two intercept vectors (from the positioning reference point toward the intersection of the target heading vector and the wind vector) and marks each value beside its respective positioning line of the positioning card, preceding the value with H to distinguish it from the interceptor angles off previously noted on the card. These two headings are reciprocals.

See following page  
for illustration of  
steps 11-14.

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STEP 15: The Intercept Technician next hands the positioning card to the Controller, and, if necessary, starts preparing a new card on the basis of corrected altitude, wind, or target information.





Attachment 2

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C O P Y

HEADQUARTERS  
Eastern Air Defense Force  
Stewart Air Force Base, Newburgh, N.Y.

EAOOT-TS

14 Mar 1954

SUBJECT: Collision Course (90° Beam) Interception Computation

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. 50 copies of a procedure for conducting lead collision course interceptions have been forwarded under separate cover. This procedure is a method of utilizing basic wind vectors to compensate for effect of wind and to determine correct vectors for interception. Sufficient copies are forwarded for the distribution of six copies to each aircraft control and warning squadron.
2. Preliminary tests indicate that this technique increases the percentage of successful interceptions and answers many problems which have long confronted directors. Your attention is invited to the necessity of utilizing a well trained control technician in the computation of collision course problems.
3. It is desired that action be taken to have this technique adopted at each direction center as soon as possible and that this headquarters be advised of the extent to which director proficiency is increased. Also, any problems beyond solution at wing or division level should be brought to the attention of Director of Operations and Unit Training, Headquarters EADF.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

227 2

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Hq EADW EA00F-TS Subj: Collision Course (90° Beam) Interception  
Computation

OOT-A (14 Mar 54) 1st Ind 19 May 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. Forwarded for your information and compliance.
2. Copies of procedure referred to in basic letter were forwarded under separate cover. Previous letter of transmittal will be removed and destroyed.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst Adjutant

C O P Y

CONFIDENTIAL

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
OFFICE OF THE DEPUTY COMMANDER

MEMO TO CO ISRAEL

When W/C Anderson was here for the CIS Meeting we discussed tactics and control on the side.

ODO proposes to send cys of our Tactical Doctrine to the Canadian sector CO's and to continue to exchange ideas.

s/ WHC  
t/ DEPUTY COMMANDER

Fine!

s/ R S Israel

CONFIDENTIAL

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C O P Y

HEADQUARTERS  
32D AIR DIVISION

OFFICE OF DEPUTY FOR OPERATIONS

MEMO TO Capt Santmyer

I discussed our Tactical Doctrine with W/C Anderson when he was here.

Would like your comments on their training.

Also would like to send Anderson and Sector II CO a copy of our Tac. Doctrine.

s/ F.  
DEPUTY FOR OPNS.

CONFIDENTIAL

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C O P Y

CONFIDENTIAL  
AC&W Operations - Broadcast Control

OOT

OOT-A/SANTMYER/091

10 June 1954

1. Ref par 2, remote (Broadcast) control should be worked into our doctrine to cover the employment of augmentation and support forces. Believe there will be considerable opportunity to employ this procedure, especially with SAC and TAC aircraft. I visualize utilizing our regular A-I forces for singles and small formations and striking the large gaggles with Non-A-I's of 84's, 51's etc. Believe that an attacking force would exploit VFR conditions with mass formations at extremely high or extremely low altitudes, and place singles and small formations under weather protection. This would permit our A-I equipment to be employed on these small formations, for which they are best suited.

2. As to the statement as to where remote control could be applied (par 1a, c & d), do not believe these are the basic considerations due to the FCS limitations relative to visual positioning by the pilot. How many jets have we lost due to inoperative Radio Compass? How accurately can pilotage be performed without radio aides when CONELRAD is in effect, or target is out over the Atlantic or "on top".

3. The phase progression looks good for development of the procedure. However, we would have to reverse our trend and simulate A-I interceptors as being Non-A-I.

4. Tactical Doctrine will be sent as soon as we can get additional copies reproduced.

s/t H.E.S.  
SANTMYER/091

CO  
For your info &/or comment.

WWI

1894-54

Noted R S Israel

CONFIDENTIAL

J 7 7 2

C O P Y

No..C.4-1-10.(SecCdr.....

DEPARTMENT OF NATIONAL DEFENCE

ROYAL CANADIAN AIR FORCE

Edgar, Ont, 2 Jun 54.

Commander,  
32nd Air Division (Def) USAF,  
Syracuse, N.Y.

ACW Operations - Broadcast Control

1. Reference is made to discussions which took place at your HQ 27 May 54 between the Deputy Commander, Lt. Col Fuller and the undersigned Officer. One of the items of discussion involved your Tactical Doctrines for the operation of large numbers of fighters against mass tracks, which I read with considerable interest.
2. Since an exchange of ideas on this significant problem would appear to be most welcome, I am enclosing for your information a copy of the training activity planned within RCAF ADC to counter the problem in a somewhat different fashion.
3. May I express my thanks for the cooperation and hospitality extended to me by your officers on my recent visit to your HQ.

s/ T G Anderson

t/ (T.G. Anderson) W/C,  
Sector Commander,  
3 ABCC.

1894-54

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**CONFIDENTIAL**

064-41-5 (CSO)

DEPARTMENT OF NATIONAL DEFENCE

Royal Canadian Air Force

St. Hubert, Que, 17 May 54.

Sector Commander,

- 1 ADCC, RCAF, Lac St. Denis, Que.
- 2 ADCC, RCAF, St. Margarets, N.B.
- 3 ADCC, RCAF, Edgar, Ont.

Group Commander,

- 1 Grp (Aux) HQ, Montreal, Que.
- 2 Grp (Aux) HQ, Toronto, Ont.

Commanding Officer,

- 14 Wing HQ (Aux), Toronto, Ont.
- 16 Wing HQ (Aux), Hamilton, Ont.
- 17 Wing HQ (Aux), Winnipeg, Man.
- 22 Wing HQ (Aux), London, Ont.
- RCAF Station Bagotville, Que.
- RCAF Station St. Hubert, Que.
- RCAF Station Uplands, Ont.
- RCAF Station, North Bay, Ont.
- RCAF Station, Toronto, Ont.
- RCAF Station, Hamilton, Ont.
- 11 ACNW Sqn, Lac St. Denis, Que.
- 12 ACNW Sqn, Mont Apica, Que.
- 13 ACNW Sqn, Ste. Marie, Que.
- 14 ACNW Sqn, Parent, Que.
- 21 ACNW Sqn, St. Margarets, N.B.
- 31 ACNW Sqn, Edgar, Ont.
- 32 ACNW Sqn, Foymount, Ont.
- 33 ACNW Sqn, Falconbridge, Ont.
- 34 ACNW Sqn, Senneterre, Que.
- 211 AW Sqn, Moisie, Que.

Officer Commanding,

- 3 AW (F) OTU, North Bay, Ont.
- 445 AW(F) Sqn, Uplands, Ont.
- 440 AW (F) Sqn, Bagotville, Que.
- 423 AW (F) Sqn, St. Hubert, Que.
- 419 AW (F) Sqn, North Bay, Ont.
- 431 (F) Sqn, Bagotville, Que.
- 400 (F) Sqn (Aux), Toronto, Ont.
- 401 (F) Sqn (Aux), Montreal, Que.
- 411 (F) Sqn (Aux), Toronto, Ont.
- 420 (F) Sqn (Aux), London, Ont.

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424 (F) Sqn (Aux), Hamilton, Ont.  
438 (F) Sqn (Aux), Montreal, Que.  
402 (F) Sqn (Aux), Winnipeg, Man.  
403 (F) Sqn (Aux), Calgary, Alta.

ACMS Operations - Control - Intercept  
Introduction of Broadcast Control Procedures

1 As you are fully aware, the attention of the air defence system has been focussed entirely on control procedures whereby the fighter has been guided to its target by the GCI controller. It must be appreciated, however, that close guidance of the fighter would not be possible if one or more of the following conditions were encountered by the controller:

- (a) Jamming of VHF Communications when a large fighter force is being controlled.
- (b) A high density of bombers and/or fighters over a wide area, so as to swamp the communications facilities and/or the controller's control capacity.
- (c) Loss of the fighter echoes from the control scopes because of jamming, weather returns, or extreme range of the fighter.
- (d) Lack of echoes on the control scopes and loss of communication contact with the fighter because of the low altitude of both the target and the intercepting fighter.

2 In order to provide an effective interception capability when normal close control is impossible, it is intended to begin immediately the development of broadcast control procedures. Broadcast control, which was pioneered by the RAF and is now a standard procedure in that service, is essentially the broadcasting by the controller of raid position, and such additional information as can be obtained concerning raid composition, heading, altitude and speed. The broadcast is sent out either over VHF, or, in the event of VHF jamming, over commercial broadcasting stations. The fighter is left to its own resources for navigating so as to intercept the enemy and then, after engaging the enemy, to return to base.

3 In respect to the use of commercial broadcasting facilities when normal VHF facilities are jammed or otherwise inoperative, it is planned to arrange a communications link between certain AC&W Sqn and an appropriate station of the CBC. A limited test was made last year involving one AC&W Sqn and one CBC Station, and very promising results were obtained. This year, during July, further trials will be carried out as outlined hereunder.

4 To build up experience and technique in progressive steps, the implementation of broadcast control will advance in the following sequence of phases:

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C O N F I D E N T I A L

- (a) Phase I: Single Fighters vs. Single Targets (VFR) Conditions:  
Single CF-100 and F-86 aircraft intercepting single targets under day VFR conditions, and within the surveillance of one GCI Station. Normal VHF Facilities will be used for raid broadcasting.  
Purpose: To evolve basic controller and aircrew procedures.
- (b) Phase II: Single A 11 - Weather Fighter vs. Single Targets (IFR)  
Conditions: Single CF-100 aircraft intercepting single targets under actual or simulated IFR conditions and within the surveillance of one GCI station. Normal VHF facilities will be used for raid broadcasting.  
Purpose: To evolve AWF navigation procedures when visual reference to the ground is not possible
- (c) Phase III: Several All-Weather Fighters vs. Several Targets (VFR or IFR)  
Conditions: Two or more CF-100 aircraft, flying singly, intercepting two separate targets which pass through the surveillance of two or more GCI Stations under VFR or IFR conditions. Normal VHF facilities will be used for raid broadcasting.  
Purpose: Firstly, to evolve GCI hand-over procedures for broadcast control and secondly, to determine the controller and aircrew procedures when two or more targets must be intercepted.
- (d) Phase IV: Single Fighters (Aux) vs Single Targets (VFR)  
Conditions: Single or a section of day fighters (Auxiliary/ Intercepting a single target which passes through the surveillance of one or more GCI stations under day VFR conditions. Normal VHF facilities will be used for raid broadcasting.
- (e) Phase V: Single Day Fighters vs Single Targets (IFR)  
Conditions: Single or a section of day fighters (regular and auxiliary) intercepting a single target, which passes through the surveillance of one or more GCI stations, under actual or simulated IFR (on top) conditions. Normal VHF facilities will be used for raid broadcasting. Purpose: To evolve day-fighter navigation procedures when visual reference to ground is not possible
- (f) Phase VI: Several Day Fighters vs. Several Targets (VFR or IFR)  
Conditions: Two or more sections of day fighters (regular and auxiliary) intercepting two separate targets which pass through the surveillance of one or more GCI stations, under VFR or IFR (on top) conditions. Normal VHF facilities will be used for raid broadcasting.  
Purpose: To train day fighter pilots in the interception of multiple targets.
- (g) Phase VII: Use of Commercial Broadcasting facilities Conditions:  
Single fighters, or sections of fighters, intercepting one or

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C O N F I D E N T I A L

more targets which pass through the surveillance of two or more GCI stations. CBC broadcasting facilities will be used, which will be available from 0100 to 0700 hours. CF-100 aircraft would participate from 0100 to 0500 hours, and the day fighters for the remaining two hours when light conditions will permit their operation.

Purpose: To evolve the AC&W hand-over procedures and the effective reception ranges of certain broadcasting stations.

(h) Phase VIII: Several Fighters vs. Several Targets (Low Level)

Conditions: Single fighters, or sections of fighters, intercepting one or more targets which pass at low level (below 5,000 feet) through the GObC network. Normal VHF facilities will be used.

Purpose: Firstly; to determine how effectively the GObC network can report low level raids, second; to determine the most efficient system for broadcasting GObC raid information, thirdly; to determine the reception limits of VHF at low level within the AC&W System, and fourthly to determine the requirement for ground pyrotechnics to assist the pilot in sighting a low level raid.

5 It will be apparent from the above that the implementation plan is designed to institute broadcast control by firstly exercising the regular fighter squadrons and then, when the basic procedures have been established, by exercising the auxiliary fighter squadrons.

6 The following time schedule is proposed for the implementation of the above listed phases:

(a) May and June - Phases I, II and III.

(b) 3-18 July (Auxiliary Summer Camp): Phases IV, V, VI.

(c) 1-15 July - Phase VII. The use of the CBC facilities has been requested for two mornings during this period.

(d) August and September: Phase VIII.

On the conclusion of Phase VIII, broadcast control will take its place in the day-to-day operations of the air defence system in equal importance to close control, and, therefore interception practices will be divided equally between the two procedures. The commercial broadcasting facilities will not be available, however, without prior arrangement by this Headquarters.

7. The introduction of broadcast control, in the phases listed above, will be under the direct control of this Headquarters. Until such time as fighter squadron commanders receive a directive giving the details as to the time, place and other conditions regarding their participation, they are urged to give immediate attention to such items as maps, map boards, and

C O N F I D E N T I A L

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familiarization with GEORF which will be required by the participating aircrews. Similarly, AC&W Sqn commanders are urged to give immediate attention to arranging an efficient and rapid system for broadcasting raid information. Staff officers from this CHQ will conduct briefings with the controllers and the aircrew before the commencement of each phase, and will monitor the progress of all units concerned.

(C.L. Annis) A/C,  
for AOC ADC.

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C O P Y

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Mission Evaluation Reports

OOT  
ODO  
OOT-FO  
ADCC  
OOT-A

OOT-A/SANTMYER 13 Mar 54

1. The attached Mission Evaluation Reports indicate deficiencies in relation to paragraph 8a, EADFL 55-14, (inclosed for your reference).

2. It is recommended that the operations officers of the 1st IRCS be requested to attend a critique at this headquarters, to discuss conduct of these missions to enable the ADCC to comply with paragraph 8a.

3. Items evidenced by these reports which need to be resolved are:

a. Prior coordination of missions.

b. Scheduling of flights to permit utilization of fighters. This has been a sore subject on these reports as many contain a remark that this is poor utilization of the flying time. Example is: 4 March 54, 132 man hours expended with no intercepts. This should be corrected before EADFL takes the initiative.

c. Evaluation of mission reports. It appears that the report is useless in obtaining an evaluation by the aircrew of the B-29. Example of this is the remark on the 26 Feb report which states the F-94 passes were poor because the interceptor went by at 90 degrees. Evidently, the B-29 crews need briefing on the collision course intercept technique.

s/ SANTMYER/91

I agree - Hays

ADCC Note & Return to D/O WWI

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C O P Y

HEADQUARTERS  
Eastern Air Defense Force  
Stewart Air Force Base, Newburgh, N.Y.

EAOOT-TW

17 May 1954

SUBJECT: Weapons Systems Training

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Reference. EADF letter, EAOOT-TW, subject as above, 22 April 1954.

2. Exercise Think Fast, held on 26 April 1954 in the 26th and 32d Air Divisions (Defense), was the first of a series of systems training exercises to be held semimonthly by this headquarters. These exercises will be planned and the objectives, tasks, times and routes promulgated by this headquarters. Division commanders may supplement Think Fast operations orders as they desire providing stated objectives are adhered to.

3. Systems training will progress in phases, beginning with full warning, simple exercises and culminating in no warning exercises demanding extreme alertness and the highest standards of performance throughout Eastern Air Defense Force. Each exercise will be designed to scrimmage our system in one or more of the following operational areas:

- a. Day and night medium altitude, single against single, lead collision course intercept technique.
- b. Day and night high speed-high altitude, single against single, lead collision course intercept technique.
- c. Day and night multiple against mass intercept tactics and technique.
- d. Low altitude detection and interception.
- e. Anti-jamming technique.
- f. ADDC-AAOC early warning.

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EAOOT-TW Subject: Weapons Systems Training (Contd)

- g. Remote control technique.
- h. Passing control of interceptors.
- i. IFR scramble and recovery procedures.
- j. Utilization of attack commanders.

Division commanders should evaluate each exercise in terms of desired performance within these operational areas and direct their systems and unit training toward the strengthening of demonstrated weaknesses.

4. To insure that maximum benefit is derived from these exercises, mission critiques should be held between aircrews, directors, and controllers. These critiques should take place soon enough after exercises that events can be clearly recollected. This headquarters sanctions any reasonable amount of travel associated with such critiques and encourages their use as a means of developing team efficiency.

5. This headquarters will normally require no reports on these exercises. It is, however, desired that each division provide this headquarters with an overlay of their portion of each exercise showing target tracks, points of intercept, scramble and intercept times. When deemed appropriate, division and wing aircraft control and warning and fighter operations personnel are urged to forward comments and recommendations pertinent to these exercises.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

Hq EADF EAOOT-TW Subj: Weapons Systems Training

OOT-A (17 May 54)

1st Ind

22 May 1954

HEADQUARTERS 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass.  
Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. It is planned that in the immediate future intra division exercises will be conducted in addition to ADC and EADF scheduled exercises.

2. Reference paragraph 3, basic letter instructions will be contained in the operations order for the submission of data necessary for evaluation.

3. Reference paragraph 4, basic letter it is recommended that coordination be effected between AC&W and Fighter-Interceptor Squadrons for scheduled missions to accomplish director-intercept pilot cross training in accordance with ADC Regulation 50-21.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst Adjutant

C O P Y

Hq EADP, EA00T-TW, Subject: Weapons Systems Training

DWOOT (17 May 54) 2nd Ind

HEADQUARTERS, 4707TH DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts, 2 June 1954

TO: See Distribution

1. Forwarded for your information and necessary action.
2. This headquarters has been alerted to expect at least one (1) Air Defense exercise each week from now until late fall or early winter.
3. Desire that Fighter-Interceptor and AC&W Squadron personnel, especially aircrews and directors, work together to obtain maximum benefits from these exercises. Critiques, either by telephone or scheduled formal meetings as dictated by the situation, are mandatory. Every effort will be made to improve present tactics and techniques and develop new ones as necessary.
4. Units will not submit reports on these exercises containing criticism or derogatory remarks about their opposite member in the air defense team to any headquarters above this wing unless the report clearly shows that the problem was discussed with the unit concerned and the corrective action mutually agreed to by both units to correct the situation is indicated. In the event any problems cannot be resolved between the units concerned they will be referred to this headquarters through command channels.

BY ORDER OF THE COMMANDER:

DISTRIBUTION:  
"B" minus 3,4,1C & 11

GEORGE N. LEITNER  
Captain, USAF  
Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-A

12 Mar 1954

SUBJECT: 32-SCATER

TO: Commander  
Flight Service Center  
Middletown Air Force Base  
Middletown, Pennsylvania

1. Reference appendix No. 6, Annex F, EADF SCATER Plan, dated 1 August 1953.

2. Boston ARTC Center will notify MFS-Middletown of Air Defense Warning Red: Warning Yellow and Warning White implemented in the 32d Air Division (Defense) Sector via interphone as follows:

"This is Boston ARTC Center. Warning (color), 32d Sector."

3. Upon receipt of notification of a Warning Yellow or Warning Red, it is requested that all requests for movements of non-tactical military aircraft within the 32d Air Division (Defense) Sector be forwarded to the Boston or Cleveland ARTC Center, as appropriate, for coordination with the ADCC. In the event of interphone failure between MFS-Middletown and the appropriate ARTC Center, such request should be forwarded via interphone directly to the ADCC.

4. It is understood that MFS-Middletown has interphone service with the Ninth Coast Guard District Office, Cleveland, Ohio. Please advise whether or not this service exists. If this service does exist, it is further requested that the Ninth Coast Guard District Office be notified of the Air Defense Warning conditions listed in paragraph #1. If this service does not exist, other arrangements for notification will be made by this headquarters.

5. Military control towers and Base Operations Offices within the 32d Air Division (Defense) sector will receive Air Defense Warning conditions from the appropriate ARGC Centers.

FOR THE COMMANDER:

cc: Boston ARTC Center  
cc: Cleveland ARTC Center  
cc: O&F EADF, ATTN: Capt Hansen  
cc: CAA ADLO 32d AD(D)  
cc: Comdr, 9th CG District

FREDERICK E. YORK  
Major, USAF  
Adjutant

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C O P Y

COMDR 32D A DIV (DEF) HANCOCK FLD,  
EASTWOOD STA 6, SYRACUSE NY

RESTRICTED

ROUTINE

COMDR 4707TH DEF WG OTIS AFB FALMOUTH MASS

EAOOT -A 27046

RESTRICTED

OOT-A 7021 . EADF msg EAOOT-A 27046 is quoted FYI and action.  
"EAOOT-A 27046. The folg msg fr ADC is quoted FYI and nec action.  
We are querying ADC for further clarification. Will advise accord-  
ingly. "ADDOOT-B1 21782 subj: Intpr of Conelrad and Scat Implementa-  
tion Policies in Relation to a Mil Emerg. Conelrad plans w/b imple-  
mented simultaneously w/announcement of wgn yellow and wng red,  
whichever comes first, w/o ref to a mil emerg. The wng red emerg  
provs of the plan for the scety cntl of air traf w/b implemented  
during wng yellow and wng red w/o ref to a mil emerg. The wng white  
provs of the plan for scety cntl of air traf will not be implemented  
prior to the formal declatation of a mil emerg. You are advised this  
policy is not to be intpr under any circumstances as an implication  
that initial announcement of a wng yellow or wng red automatically  
constitutes a mil emerg. Req this info be dissem to subordinate  
units and other agencies concerned."

RESTRICTED

VITA FEDOROVICH, Lt Col, USAF

WILLIAM W. INGENHUTT, Colonel, USAF

D/OOT

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SECRET

SECURITY INFORMATION

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADOOT-C 676

29 May 1953

SUBJECT: (UNCLASSIFIED) Department of Defense CONELRAD Plan

TO: Commanding General  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Inclosed are eight (8) copies of the Department of Defense CONELRAD Plan as approved by the Secretary of Defense, 9 March 53, and the Director of the Office of Defense Mobilization, 3 April 1953.

2. This plan is the approved basic outline plan from which the various military services will develop detailed operational plans at the air division (defense) level. In this regard, instructions have been received from higher authority, in addition to policy contained in Paragraph VIa(3) of subject plan, that this command will furnish assistance and guidance as required in the preparation and development of the local detailed operational plans of the various military services.

3. It will be noted that this basic outline plan includes all types of Department of Defense radio transmitting facilities. Many of these facilities which fit into the over-all SCAT program have already been included in the various air division (defense) SCATER plans. In this regard, it is recommended that any additional Department of Defense facilities not already provided for which fall within this category be included in appropriate air division (defense) SCATER plans. (Reference NOTE NO. 3, Page 11 of Plan.) To provide for those Department of Defense facilities which are not to be included in SCATER plans, detailed operational plans for each service should be developed at the air division (defense) level with the policies and procedures contained in this basic plan being used as a guide. It appears advisable to develop these plans for each service within each air division (defense) as annexes to the over-all CONELRAD program; i.e., an annex for the Army, an annex for the Navy, an annex for the Coast Guard, and an annex for the Air Force. From time to time, other annexes to the over-all CONELRAD plan covering the various civil

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SECURITY INFORMATION

Hq ADC ADOOT-C 676 Subj: (Uncl) Department of Defense CONELRAD Plan

government agencies operating radio stations will be required as the basic outline plans for these agencies are approved.

4. Reference Paragraph VIa(2). Local agreements by air division (defense) commanders and cognisant Army, Navy, and Air Force commanders will constitute approval of local operational plans.

5. Reference Paragraph VIb(1). The implementation of Department of Defense CONELRAD will be in accordance with established ADC policy for CONELRAD operation. (Reference Paragraph 7a(2), ADC Regulation 55-40, "Air Defense Warnings," 15 July 52 and our message ADOOT-C 56584, 27 Oct 52.)

6. Distribution of this basic outline plan to the various military services concerned will be accomplished by their appropriate headquarters with instructions to contact appropriate air division (defense) commanders for development of the detailed operational plans required.

7. Headquarters USAF has directed this headquarters to submit a monthly progress report on the status of Department of Defense CONELRAD. It is desired, therefore, that you submit to this headquarters on the first of each month, beginning 1 July 53, a similar project report covering Department of Defense CONELRAD in your air defense force. This report should be narrative in form and give the general status of Department of Defense CONELRAD as concerns Army, Navy, Coast Guard, and Air Force facilities. A reports control symbol for this report will be provided in the near future.

8. Authority for reproduction of the basic outline Department of Defense CONELRAD Plan on a need-to-know basis is granted your headquarters.

BY COMMAND OF GENERAL CHIDLAW:

1 Incl  
Plan for the Alerting and  
Opr of Dept of Def Radio Sta

s/t/ THOMAS C. SAVAGE  
Major, USAF  
Asst. Adj. Gen.

Secret

CLASS OF OPERATION

CLASS I

These stations will leave the air when the CONELRAD Plan (Radio Alert) is put in effect as directed by the appropriate authority.

Stations may return to the air when the all clear is given.

CLASS II

These stations may be authorized for special services during periods of imminent air attack.

CLASS III

These stations may remain in service during periods of imminent air attack and actual attack (The Radio Alert).

They will operate under the following general rules:

- a. No transmission shall be made unless they are extreme emergency effecting the national safety or the safety of people and property.
- b. Transmissions shall be as short as possible. The carrier shall be removed from the air during periods of no modulation.
- c. No station identification shall be given either by announcement of call letters or by announcement of location. (If station identification is necessary to carry on the service; tactical call signs will be authorized.)

CLASS IV

These stations shall leave the air during periods of impending air attack (Radio Alert) unless CAA plans require the station in question to remain in operation as a navigational aid or to handle air traffic of an extreme emergency nature.

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CLASS V

Communications of extreme emergency affecting the national safety or the safety of the ship may be transmitted under the following conditions:

- a. The position of the ship must not be given unless imperative in connection with the emergency.
- b. Transmissions must be short.

CLASS VI

These stations may operate in a normal manner during a Radio Alert\*.

CLASS VII

Stations must operate in the broadcast CONELRAD system or leave the air during a Radio Alert.

\*Emissions of this type while not useful for air navigation will provide a beacon signal for homing on the aircraft or group of aircraft or other units using this service.

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CONELRAD Radio Alert Procedure

1. Upon the declaration of a military emergency condition yellow or red the Commander 32d Air Division will direct the Senior Controller to implement the CONELRAD Alert.
2. The Senior Controller will disseminate the condition yellow or red CONELRAD Alert by the following means:
  - a. Alert CADW "yellow or red Air Defense Warning", MADW "yellow or red Air Defense Warning" and also alert the broadcast CONELRAD warning net.
  - b. Mass hotline calls to all AC&W Squadrons, Fighter Interceptor Squadrons, EADF, and adjacent Air Divisions.
  - c. Direct the Base Radio HF net to issue the CONELRAD alert and condition yellow or red over the call net. Then go into controlled operation.
  - d. Send a "flash" precedence teletype message, tactical addressee group (TA) stating "A military emergency has been declared, warning yellow or red, implement CONELRAD Radio Alert".
3. Further dissemination of the CONELRAD Radio Alert to individual units having landline communications with AC&W Squadrons will be the responsibility of the AC&W Squadron Commanders, (IE) Filter Centers, National Guard, AAA, etc.
4. The 32d Air Division Headquarters HF communications will be placed under controlled operation as indicated in Attachment #1.
5. The CONELRAD Radio Alert will be discontinued and returned to normal operations under condition white or all clear.

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CONELRAD Radio Alert

AC&W Squadron

1. CONELRAD Radio Alerts will be received from Headquarters, 32d Air Division by one or all of the following means:
  - a. High Frequency Radio Call Net.
  - b. Landline Telephone Circuits (Hotlines)
  - c. "Flash"-Teletype Message.
2. In addition to the CONELRAD Radio Alert the warning condition "yellow" or "red" will also be given.
3. The radio operator and/or the teletype operator on duty who receives the "condition yellow or red - implement CONELRAD Radio Alert" message will notify the Senior Director immediately. The Senior Director will notify the Squadron Commanders and all other base personnel concerned in order that controlled operations can be effected.
4. Further dissemination of the CONELRAD Radio Alert to individual units having landline (hotline) communications with the AC&W Stations will be the responsibility of the AC&W Squadron Commanders. Units referred to above include Filter Centers, AAA, and National Guard Units as applicable.
5. The Parts 10 through 17 contains each AC&W Squadrons facilities and control information.

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CONELRAD Radio Alert

AC&W Squadrons

1. Implementation of CONELRAD Radio Alerts will be received from Headquarters, 32d Air Division by one or all of the following means:
  - a. High frequency radio net.
  - b. Land-line telephone circuits (Hot Lines).
  - c. Operational priority teletype message.
2. The radio operator and/or the teletype operator on duty who receives the CONELRAD Alert will notify the duty Senior Director immediately. The Senior Director will notify the squadron commander and personnel concerned in order that controlled operations can be effected.
3. The Parts 10 through 17 contain each AC&W Squadrons facilities and control information.

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ATTACHMENT #1

SAMPLE

AF Station	Location	Tactical Call Word
32d Air Division (Defense)	Syracuse, New York	AMAZON

The following types of equipment are subject to CONELRAD:

High Frequencies (HF)

Frequencies	Power	Emission	Authorized Use	Class of Operations
1. 2040 KCS	400 W	CW or Voice	Hotline Back-up	Class 3
2. 2618 "	"	" "	" "	"
3. 2732 "	"	" "	" "	"
4. 4630 "	"	" "	" "	"
5. 4865 "	"	" "	" "	"
6. 4902.5"	"	" "	" "	"
7. 4955 "	"	" "	" "	"
8. 5735 "	"	" "	" "	"
9. 4815 "	250 W	" "	" "	"

Station Call  
MARS (AF2FCD)

3307.5	100 W	CW or Voice	Class 2
7560	"	" "	"

NOTE: This format need not necessarily be ruled or boxed as illustrated.

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, New York

EAOCE-C

25 March 1954

SUBJECT: (UNCLASSIFIED) Tactical Call Signs

TO: Commander  
32d Air Division (Defense)  
ATTN: MARS Director  
Syracuse Air Force Station  
Eastwood Station #6  
Syracuse, New York

1. The tactical call signs as shown on Inclosure 2, are assigned for MARS activities of Commands for utilization on Radio-Telephone, CW and Radio-Teletypewriter circuits during test or under actual CONELRAD conditions. Stations hearing tactical call signs in use, as listed above, will immediately initiate use of their own tactical call sign and will at that time handle only priority traffic in the method prescribed by sub-paragraphs (1), (2), and (3) of Paragraph 1, Headquarters USAF letter, AFOAC-S/M 311, 30 July 1953, subject: MARS Operation During CONELRAD Alert. The only notification that will be given will be the statement "CONELRAD Conditions Exist". This will signal the beginning of utilization; utilization of tactical call signs will continue until notification is given on all "All-Clear".

2. This Headquarters is assigned tactical call signs as listed on Inclosure 3 for MARS activities of this command for utilization on Radio-Telephone, CW and Radio-Teletypewriter circuits during test or under actual CONELRAD conditions.

3. This list will be downgraded to UNCLASSIFIED at such time as call signs are placed in use.

BY ORDER OF THE COMMANDER:

- 3 Incls
1. Hq USAF Ltr, AFOAC-S/M  
311, 30 Jul 53, Subj:  
MARS Opr During CONELRAD  
Alert
  2. Tac Call Signs for the Command
  3. Tac Call Signs for ADC

/s/t/ JAMES R. WORLINE  
Capt., USAF  
Asst. Adjutant

232 3

"If inclosures are withdrawn (or not attached), the classification of this correspondence will be downgraded to UNCLASSIFIED, in accordance with Par 25g AFR 205-1"

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*CONFIDENTIAL*

Hq EADF EAOCE-C Subject: (UNCLASSIFIED) Tactical Call Signs

DCE (25 Mar 54) 1st Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Sta 6,  
Syracuse, New York 12 Apr 54

TO: Commanders, 32d Air Division (Defense), MARS Directors

Forwarded for your information and necessary action.

BY ORDER OF THE COMMANDER:

3 Incls  
n/c

*Virginia L. Sweet*  
VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

*CONFIDENTIAL*

*1135-54*

copy

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON 25, D.C.

AFOAG-S/M 311

30 July 1953

SUBJECT: MARS Operation During CONELRAD Alert

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado  
ATTN: Command MARS Director

1. The AF portion of the Department of Defense Plan for the alerting and operation of Department of Defense radio stations (CONELRAD) has been issued to the field. MARS AF base stations will operate in accordance with Note 2 of the Appendix to Department of Defense CONELRAD Plan which is quoted:

"These stations may remain in service during a CONELRAD Alert if the appropriate commander of the service concerned deems it necessary.

They will operate under the following general rules:

- (1) No transmissions shall be made unless they are of extreme emergency affecting the national safety or the safety of people and property (such as tactical military operations).
- (2) Transmissions shall be as short as possible. The carrier shall be removed from the air during periods of no traffic.
- (3) No station identification shall be given either by signing of call letters or by announcement of location. (If station identification is necessary to carry on the service, tactical calls may be used)."

2. MARS stations are included in the Department of Defense Plan under the following types: base stations, fixed stations, land mobile stations and mobile stations.

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Dept of the Air Force, AFOAC-B/M 311, Subj: MARS Operation During CONELRAD  
Alert

3. In order to implement the AF policy letter "MARS Operation During Wartime" dated 14 April 1952, and revision thereto, dated 16 June 1953, coordination covering operation of base stations in your command should be conducted with the geographically related Air Division for each base of your command. TAC call signs for operation as indicated in sub-paragraph 3 of Note 2, quoted above, will be published by this headquarters in the near future.

BY ORDER OF THE CHIEF OF STAFF:

s/t/ JOSEPH E. HANNAH  
Lt. Col., USAF  
Executive, Comms Sys Div  
Directorate of Communications

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CONFIDENTIAL

TACTICAL CALL SIGNS FOR WADF MARS

MARS STATION	PHONE CALLS	CW & RTTY CALLS
HQ ADG	AUGER	OM9
HQ WADF	AUGER-CA	OM9-CA
HQ 25th ADiv	AUGER-CB	OM9-CB
HQ 27th ADiv	AUGER-CD	OM9-CD
HQ 28th ADiv	AUGER-CE	OM9-CE
4702nd Def Wg	AUGER-CF	OM9-CF
529th ADG	AUGER-CG	OM9-CG
533rd ADG	AUGER-CH	OM9-CH
94th Ftr Intop Sq	AUGER-CI	OM9-CI
626th AC&W Sq	AUGER-CJ	OM9-CJ
637th AC&W Sq	AUGER-CK	OM9-CK
638th AC&W Sq	AUGER-CL	OM9-CL
666th AC&W Sq	AUGER-CM	OM9-CM
668th AC&W Sq	AUGER-CN	OM9-CN
669th AC&W Sq	AUGER-CO	OM9-CO
670th AC&W Sq	AUGER-CP	OM9-CP
680th AC&W Sq	AUGER-CQ	OM9-CQ
689th AC&W Sq	AUGER-CR	OM9-CR
750th AC&W Sq	AUGER-CS	OM9-CS
751st AC&W Sq	AUGER-CT	OM9-CT
757th AC&W Sq	AUGER-CU	OM9-CU
758th AC&W Sq	AUGER-CV	OM9-CV
759th AC&W Sq	AUGER-CW	OM9-CW
760th AC&W Sq	AUGER-CX	OM9-CX
761st AC&W Sq	AUGER-CY	OM9-CY
774th AC&W Sq	AUGER-CZ	OM9-CZ
775th AC&W Sq	AUGER-CAL	OM9-CAL
776th AC&W Sq	AUGER-CBL	OM9-CBL
777th AC&W Sq	AUGER-CDL	OM9-CDL
917th AC&W Sq	AUGER-CEL	OM9-CEL
918th AC&W Sq	AUGER-CFL	OM9-CFL
919th AC&W Sq	AUGER-CGL	OM9-CGL
Mt Hood Relay, Govt Camp, Ore.	AUGER-CHL	OM9-CHL

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TACTICAL CALL SIGNS FOR CADE MARS

MARS STATION	PHONE CALLS	CW & RTTY CALLS
HQ ADC	AUGER-	OM9
HQ CADF	AUGER-BA	OM9-BA
HQ 29th ADiv	AUGER-BC	OM9-BC
HQ 31st ADiv	AUGER-BR	OM9-BR
HQ 33rd ADiv	AUGER-BK	OM9-BK
HQ 34th ADiv	AUGER-BP	OM9-BP
681st AC&W Sq	AUGER-BD	OM9-BD
740th AC&W Sq	AUGER-BE	OM9-BE
778th AC&W Sq	AUGER-BY	OM9-BF
779th AC&W Sq	AUGER-BG	OM9-BG
780th AC&W Sq	AUGER-BH	OM9-BH
795th AC&W Sq	AUGER-BI	OM9-BI
786th AC&W Sq	AUGER-BJ	OM9-BJ
793d AC&W Sq	AUGER-BL	OM9-BL
796th AC&W Sq	AUGER-BM	OM9-BM
797th AC&W Sq	AUGER-BN	OM9-BN
798th AC&W Sq	AUGER-BO	OM9-BO
663d AC&W Sq	AUGER-BQ	OM9-BQ
674th AC&W Sq	AUGER-BS	OM9-BS
739th AC&W Sq	AUGER-BT	OM9-BT
765th AC&W Sq	AUGER-BU	OM9-BU
787th AC&W Sq	AUGER-BV	OM9-BV
788th AC&W Sq	AUGER-BW	OM9-BW
789th AC&W Sq	AUGER-BX	OM9-BX
791st AC&W Sq	AUGER-BY	OM9-BY
915th AC&W Sq	AUGER-BZ	OM9-BZ
916th AC&W Sq	AUGER-BZ1	OM9-BZ1

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## TACTICAL CALL SIGNS FOR EADF MARS

MARS STATION	PHONE CALLS	OW & RTTY CALLS
HQ ADC	AUGER	OM9
HQ EADF	AUGER-A	OM9-A
HQ 26th ADiv	AUGER-B	OM9-B
HQ 30th ADiv	AUGER-C	OM9-C
HQ 32d ADiv	AUGER-D	OM9-D
500th ADG	AUGER-E	OM9-E
501st ADG	AUGER-F	OM9-F
502d ADG	AUGER-G	OM9-G
518th ADG	AUGER-H	OM9-H
519th ADG	AUGER-I	OM9-I
520th ADG	AUGER-J	OM9-J
525th ADG	AUGER-K	OM9-K
527th ADG	AUGER-L	OM9-L
528th ADG	AUGER-M	OM9-M
564th ADG	AUGER-N	OM9-N
568th ADG	AUGER-O	OM9-O
575th ADG	AUGER-P	OM9-P
646th AC&W Sq	AUGER-Q	OM9-Q
647th AC&W Sq	AUGER-R	OM9-R
648th AC&W Sq	AUGER-S	OM9-S
655th AC&W Sq	AUGER-T	OM9-T
656th AC&W Sq	AUGER-U	OM9-U
661st AC&W Sq	AUGER-V	OM9-V
662d AC&W Sq	AUGER-W	OM9-W
664th AC&W Sq	AUGER-X	OM9-X
665th AC&W Sq	AUGER-Y	OM9-Y
675th AC&W Sq	AUGER-Z	OM9-Z
752d AC&W Sq	AUGER-AB	OM9-AB
753d AC&W Sq	AUGER-AC	OM9-AC
754th AC&W Sq	AUGER-AD	OM9-AD
755th AC&W Sq	AUGER-AE	OM9-AE
762d AC&W Sq	AUGER-AF	OM9-AF
764th AC&W Sq	AUGER-AG	OM9-AG
765th AC&W Sq	AUGER-AH	OM9-AH
766th AC&W Sq	AUGER-AI	OM9-AI
770th AC&W Sq	AUGER-AJ	OM9-AJ
771st AC&W Sq	AUGER-AK	OM9-AK
772d AC&W Sq	AUGER-AL	OM9-AL
773d AC&W Sq	AUGER-AM	OM9-AM
781st AC&W Sq	AUGER-AN	OM9-AN
782d AC&W Sq	AUGER-AO	OM9-AO
783d AC&W Sq	AUGER-AP	OM9-AP
784th AC&W Sq	AUGER-AQ	OM9-AQ
912th AC&W Sq	AUGER-AR	OM9-AR
914th AC&W Sq	AUGER-AS	OM9-AS
46th Ftr Intcp Sq	AUGER-AT	OM9-AT
49th Ftr Intcp Sq	AUGER-AU	OM9-AU
60th Ftr Intcp Sq	AUGER-AV	OM9-AV

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COMMAND	RADIO-TELEPHONE	CW & RATT	PHONE	SUFFIXES
	JANAP 119	JANAP 110		CW & RATT
ADC	Auger	OM9	A-Z, 1-0	OM9-A-Z, 1-0
SAC	Batfish	3E5	A-Z, 1-0	3E5-A-Z, 1-0
ConAC	Bassinet	85C	A&B, 1-0	85C-1, A-Z
APGC	Bassinet	85C	C&D, 1-0	85C-2, A-Z
AirU	Bassinet	85C	E, 1-0	85C-3, A-Z
ATC	Wolfgal	ONP	A-Z, 1-0	ONP-1-0, A-Z
ARDC	Whiskey Sour	VE7	A&B, 1-0	VE7A, 1-20
AMC	Whiskey Sour	VE7	C, D, & E, 1-0	VE7B, 1-20
SWC	Whiskey Sour	VE7	F, 1-0	V E7C, 1-10
USAFSS	Old Joe	VA2	A&B, 1-0	VA2A, 1-20
MATS	Old Joe	VA2	C&E, 1-0	VA2B-E, 1-20
ATRC	Old Reliable	8GL	A-Z, 1-0	8GL-1, A-Z
HQ COMD	Console	J99	A-Z	J99, A-Z
NEAC	Bathroom	YJ1	A-Z, 1-0	YJ-1, A-Z, 1-0
HQ USAF	Console	J99	A-Z	J99, A-Z
AAC	Outsmart	OXN	A-Z, 1-0	OXN-1-0, A-Z
USAFE	Warmaster	AV8	A-Z, 1-0	AV8-A-Z, 1-0
FEAF	Tax Money	23X	A-Z, 1-0	23X-1-0, 1-0
CAirC	Sturdy Prince	8J7	A-Z, 1-0	8J7A-B, 1-0

CONFIDENTIAL

Incl 2

1135-54

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C O P Y

CONFIDENTIAL

EACOT-AF

8 Feb 1954

SUBJECT: (Uncl) CONELRAD Plans; FCC Agency Plan

TO: Commander  
32nd Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. The inclosed copies of the FCC radio station list are forwarded for inclusion under annex N in Air Division U. S. Government CONELRAD plan format.

2. Due to the limited number of stations involved, breakdown by air division sector is not being supplied. Installations within each air division sector may be identified from the inclosed list and used in the preparation of annex N by each air division (defense).

3. The alerting system for FCC stations is operative and the details are contained in FCC release numbered 88090 previously supplied.

4. Upon withdrawal of inclosure, classification of this correspondence will be downgraded to unclassified in accordance with paragraph 26g, AFR 205-1.

BY ORDER OF THE COMMANDER:

1 Incl:  
List of F.E.M.B.  
Radio Transmitters  
& Channels (dup)

JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

287-54

CONFIDENTIAL

233 1

J 8 0 2

C O P Y

SECRET

EAOOT-AF

12 Apr 54

SUBJECT: (Unclassified) CONELRAD Plans

TO: Commander  
32nd Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Reference is made to paragraphs 4, 5 and 6 of a letter released by this headquarters to air divisions (defense) in the eastern region, EAOOT-AF, Subject: CONELRAD Plans, dated 1 February 1954.
2. This headquarters is receiving completed CONELRAD annexes from air divisions (defense) prior to having been supplied with the basic printed CONELRAD plan format previously requested in paragraph 4 of letter dated 1 February 1954.
3. All air divisions (defense) are requested to proceed with the printing of the basic CONELRAD plan format containing those approved FCC plans and government agency plans already completed in detail.
4. As additional approved CONELRAD plans are received from the FCC and government agencies concerned, and after details have been coordinated with representatives of these agencies, this headquarters should be supplied with nine completed annexes to be associated with the format referred to in paragraph 3 above.
5. Each annex when completed should contain the following data:
  - a. Call letters of stations.
  - b. Location
  - c. Power.
  - d. Frequencies employed.
  - e. Type of emission.
  - f. Method of alerting.

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EACOT-AF , Subject: (Unclassified) CONELRAD Plans (Cont'd)

g. Method of control to be imposed on the station by the agency concerned.

6. Inclosures 1 and 2 are sample copies of completed air division (defense) plan format compiled by the 28th Air Division (Defense) and are intended for use as a guide in the preparation of similar formats in this region.

7. It is desired that air divisions (defense) supply this headquarters with a current listing of all government agency CONELRAD plans received by their headquarters.

8. It is suggested that portions of Air Force CONELRAD plans now being submitted to air divisions (defense) by air bases and stations be held in abeyance pending resolution of control policies by major air commands.

9. Upon withdrawal of inclosures, classification of this correspondence will be downgraded to unclassified in accordance with paragraph 25g, AFR 205-1.

BY ORDER OF THE COMMANDER:

2 Incls.

1. Plan for the Con of  
US Govt Radio Stas.,  
28th AD(D), Secret
2. Plan for the Con of  
FCC Radio Stas.,  
28th AD(D), Conf.

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

SECRET

C O P Y

SECRET  
HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

DCE

SUBJECT: (Unclassified) CONELRAD Report (Central Symbol AF-XCA-H2)

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. The percent and estimated time for completion of radio or landline linkage military radio station is undetermined.
  - a. Air Force - presently all Air Force bases within this division have been contacted and are working on their CONELRAD Plan.
    - (1) Received basic plan from 1st Air Force.
  - b. Army -presently plans to connect eight radio stations to the warning net.
  - c. Navy - indicated that 116 radio stations will be connected to the warning net.
    - (1) Received the basic Navy plan 29 January 1954.
  - d. Coast Guard - still working on their plan and have a total of 104 radio stations to be controlled by the CONELRAD Plan.
2. Capt. William H. Rite has recently been designated as Conelrad Officer of the 32d Air Division (Defense).

FOR THE COMMANDER:

FREDERICK E. YORK  
Major, USAF  
Adjutant

0-516 234 1

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SECRET

C O P Y

1610TH AIR TRANSPORT GROUP, (ATLD-MATS)  
Greiner Air Force Base  
Manchester, New Hampshire

30 April 1954

OPS COM

SUBJECT: (Uncl) CONELRAD

TO: Commander  
32d Air Division (Defense)  
Hancock Field  
Eastwood Station 6  
Syracuse, New York

1. Draft copy of CONELRAD PLAN for Greiner AFB is submitted for your coordination and approval prior to submission to our higher headquarters.

2. In view of the proposed CONELRAD test in July of 1954, it is requested that the coordination and approval of this plan be expedited.

FOR THE COMMANDER:

1 Incl:  
Proposed CONELRAD  
(3 cys)

CHARLES W. GUSTAFSON  
Lt Col, USAF  
Executive Officer

1553-54

224 2

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SECRET

C O P Y

OCE

SUBJECT: CONELRAD Plan

TO: Commanders, AC&W Squadrons

1. Transmitted herewith are two copies of the 32nd Air Division (Defense) Military CONELRAD Plan containing only those annexes and parts pertinent to your mission.
2. Commanders will insure that all personnel involved are thoroughly familiar with their particular duties as indicated by this plan.
3. Corrections, suggestions, and/or comments that may arise concerning this plan will be forwarded direct to Headquarters, 32d Air Division (Defense), ATTN: CONELRAD Project Officer, in order that the document may be kept current by early change publication.
4. Parts 18 through 28 have been excluded as a matter not necessary to your mission. Should a requirement exist a request for one or more of these parts will be forwarded for inclusion in your document upon receipt of proper justification.
5. When inclosure is withdrawn or not attached, the classification of SECRET on this correspondence will be canceled.

BY ORDER OF THE COMMANDER:

1 Incl:  
CONELRAD Plan (dup)

VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

54-198

234 2

SECRET

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SECRET

C O P Y

HEADQUARTERS  
MIDDLETOWN AIR MATERIEL AREA  
Olmsted Air Force Base, Middletown, Pa.

MAFP

3 June 1954

SUBJECT: CONELRAD Plan

TO: Commander  
32d Air Division (Def)  
Hancock Field  
Eastwood Station 6  
Syracuse, New York

1. Attached, herewith, are four copies of the General Electric Company, Syracuse, CONELRAD Plan.
2. A representative from this office visited the above installation assigned to MAAMA and explained CONELRAD in detail and what was expected from this installation.
3. It is requested the attached plan be reviewed and three copies returned to this Headquarters. A deadline date of 10 June has been established for the return of the plan to MAAMA Headquarters.

FOR THE COMMANDER:

1 Incl:  
GE CONELRAD Plan

L. A. Jeffers for  
A. F. MORRETT  
Chief, Plans Division  
Asst for Programing

Upon removal of inclosure  
this correspondence may be  
declassified in accordance  
with AFR 205-1.

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C O P Y

Hq Middletown Air Materiel Area MAPP Subject: CONELRAD Plan

OCE (3 June 1954) 1st Ind 10 June 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Sta 6, Syracuse, New York

TO: Middletown Air Materiel Area, Olmsted Air Force Base, Middletown, Pennsylvania

1. Subject CONELRAD Plan as submitted will be acceptable to this headquarters with minor changes.
  2. Reference paragraph III, CONELRAD Plan. The Division CONELRAD Coordinator does not have the authority as indicated by this paragraph.
    - a. Recommend that so much of this paragraph as reads "CONELRAD Coordinator" be changed to read "Commander".
  3. Reference paragraph IV. Inasmuch as all the transmitters listed are FCC licensed Mr. Cave, the FCC Liaison Officer to the 32nd Air Division, was consulted and makes the following recommendation.
    - a. Recommend that a section IVc be added to read:

"A monitor will be setup to receive station WHEN as back-up to the above alerting procedure."
  4. Capt. William H. Pate, of this headquarters, after consulting Lt. Guy H. Mooney, of the General Electric Company, has taken the liberty of adding the following to the Form 90, inclosure to your basic plan.
    - a. Under column "How Alerted" - CD and Station WHEN
    - b. Under column "Control Procedure" - Class I
- FOR THE COMMANDER:

1 Incl/  
n/c

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

54-1250

SECRET

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C O P Y

SECRET

Hq ADC ltr, ADOOT-B1, Subj: (Uncl) Air Defense Command CONELRAD Conference

EAOOT-AF (8 Jun 54)

1st Ind

28 June 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

1. Forwarded for action.
2. Your headquarters was previously directed not to include Air Force radio or radar stations in Air Division (Defense) - U.S. Government CONELRAD Plans until major air commands had instructed their subordinate stations concerning the specific controls to be applied to those stations. This delay in the preparation of Air Force CONELRAD plan was ordered when it became apparent that certain Air Force radio stations, in the absence of instructions, were applying controls on network operations without regard to the other stations involved in the network.
3. Inclosure 1 of the basic letter is a report of a meeting of major air commands in which those commands agreed to inform their subordinate stations as to the specific control to be applied to each station. It will be noted that each Air Force base in your sector will furnish your headquarters with a CONELRAD plan in accordance with the format attached (Incl. 2) to the basic letter. It will also be noted that the Air Force Base CONELRAD Plan will include stations that are "tenant" on that base, including on-base MARS and CAP stations. The stations involved in aeronautical communications (SCATER Plan stations) will be listed separately from non-aeronautical stations (CONELRAD Plan stations.) It will be noted that directors of off-base Air Force CAP stations will furnish their CONELRAD plans directly to air division (defense) headquarters.
4. When incorporating the Air Force Base CONELRAD Plans into Annex W of Air Division (Defense) - U.S. Government CONELRAD Plans, it is desired that the following appendix numbers be used.

- |                                   |            |
|-----------------------------------|------------|
| a. Air Defense Command            | Appendix 1 |
| b. Strategic Air Command          | Appendix 2 |
| c. Military Air Transport Command | Appendix 3 |
| d. Tactical Air Command           | Appendix 4 |
| e. Air Materiel Command           | Appendix 5 |
| f. Air Training Command           | Appendix 6 |

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Hq ADC ltr, ADOOT-B1, Subj: (Uncl) Air Defense Command CONELRAD Conference

EAOOT-AF (8 Jun 54) 1st Ind (Cont'd)

- g. Air Research and Development Command Appendix 7
- h. Air Proving Ground Command Appendix 8
- i. Continental Air Command Appendix 9
- j. Civil Air Patrol Appendix 10
- k. Military Affiliated Radio Service Appendix 11
- l. Headquarters Command, USAF Appendix 12

5. This headquarters has not yet received from Headquarters ADC any list of controls to be applied to Air Defense Command stations; your headquarters will be advised immediately upon receipt of this information.

BY ORDER OF THE COMMANDER:

3 Incls:  
w/d 3 cys ea. of  
Incls. 1, 2 & 3

JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

SECRET

0811

C O P Y

SECRET

EAOOT-OS

2 Jun 1954

SUBJECT: (Unclassified) Preparation of Classified Air Division SCATER Plans

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. References:

a. Inclosure 1 to 1st Inclosure of letter, this headquarters, subject as above, file EAOOT-A 381, 12 October 1953. Referenced inclosure is entitled, "Instructions and Information Pertaining to Preparation of Classified SCATER Plans."

b. Letter, this headquarters, EAOOT-OS, 20 May 1954, Subject: (Unclassified) Supplement to SCATER - Tactical Military Flights, with 2 inclosures.

c. Message, your headquarters, ACFOOT-A 5032.

2. The proposed CAA memorandum (Inclosure 2 to letter referenced in Paragraph 1b above) is approved by Headquarters, Air Defense Command.

3. This headquarters had requested, that if referenced memorandum was approved, the commands concerned be notified by Air Defense Command of the procedures to be used in the EADW region. This request resulted in the following instructions from Headquarters, Air Defense Command: Paragraph 3 of Reference 1a above is changed to read: "The commander, air division (defense) concerned is authorized to distribute the classified portion of the SCATER Plan, or parts thereof, on a need-to-know basis." The distribution policy permits the dissemination of procedures applicable to sectors to commands concerned.

4. For your information, the proposed list of navigational aids, submitted in Reference 1c above, has been forwarded to Headquarters, Air Defense Command, together with those submitted by the 26th and 30th Air Divisions (Defense). Headquarters, Air Defense Command, advised that

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EACOT-08 Subject: (Unclassified) Preparation of Classified Air  
Division SCATER Plans (Contd)

these lists will be consolidated and transmitted to the commands concerned. If a single list of aids is approved for use by all commands, you will be immediately notified.

5. Headquarters, USAF, has directed all commands concerned to review their plans for movement of aircraft during military emergencies with a view toward reducing traffic over industrial or highly populated areas and correcting plans which conflict with other commands. As these plans are revised, it may be anticipated that the navigational aid requirements will change, Headquarters, USAF, has authorized direct communication between air defense force commanders and the commanders of major air commands to coordinate routes for emergency movements.

6. This letter is classified SECRET in accordance with Paragraph 23c, AFR 205-1.

BY ORDER OF THE COMMANDER:

JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

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SUPPLEMENT TO 32-SCATER  
ANNEX F, APPENDIX 2

SPECIFIC IMPLEMENTING INSTRUCTIONS - BOSTON/CLEVELAND ARTC CENTERS

1. General.

a. The information and specific actions contained herein will be used for the 32d Air Division (Defense) sector in lieu of those listed in Appendix 2, Annex F, SCATER.

b. The ADCC will advise the ARTC Centers of air defense warning conditions in accordance with SUPPLEMENT TO 32-SCATER, Annex F, Appendix 1--  
SPECIFIC IMPLEMENTING INSTRUCTIONS - ADCC.

c. Each air defense warning condition, except Air Defense Readiness, will be authenticated by the ADCC and the ARTC Center. Authentication will be in accordance with SUPPLEMENT TO 32-SCATER - IMPLEMENTING INSTRUCTIONS/  
AUTHENTICATION CODE.

d. The following appropriate information, in the form of a check sheet similar to the SCATER ACTION RECORD attached to Regional "O" Circular, "Procedures to Test SCATER", will be maintained at each sector controller's and the Watch Supervisor's positions.

- (1) A copy of the air defense warning message to be broadcast. (The message for Warning Red or Warning Yellow is contained in paragraph 2, Attachment 1, Appendix 2, Annex F, SCATER. The message for Warning White - All Clear is contained in paragraph 2.a.(5) below.
- (2) A list of agencies to be alerted by the sector and air navigation radio aids (excluding aeronautical communication stations) within the sector to be controlled; the time required to control and the assigned control category of such aids. (This information is contained in SUPPLEMENT TO 32-SCATER - CONELRAD). Adjacent ARTC Centers, MFS Middletown and local airlines and other aeronautical agencies with which the Center has direct Service F will also be alerted.
- (3) A list of the diversion airports within and immediately adjacent to the sector, and the largest type of aircraft that can be landed at each airport. (This information is contained in Regional "O" Circular, "Suitability of Airports for Air Carrier Aircraft During Emergency Conditions". The ADCC and ADDC's have been provided with a copy of this information.)
- (4) Appropriate implementing actions specified herein or in other SUPPLEMENTS TO 32-SCATER, and special local operating instructions required for the effective and expeditious implementation of SCATER.

DATE: 15 MARCH 1954

236 1

0 8 1 4

2. Actions.

a. Upon receipt of an air defense warning condition from the ADCC, the APPROPRIATE actions listed below will be taken as expeditiously as possible:

(1) Air Defense Readiness.

(a) This is a warning condition used solely within the Air Defense Command to alert its own and supporting units that a more critical condition is anticipated. The ARTC Centers will be advised of this condition so that the Watch Supervisor may evaluate the existing staffing to determine if additional personnel will be required. This condition SHALL NOT be disseminated by the ARTC Centers.

(2) Military Emergency (to be authenticated).

- (a) Issue to all agencies to be alerted: "A MILITARY EMERGENCY HAS BEEN DECLARED. WARNING (existing warning condition) J2D SECTOR."
- (b) In the event a Military Emergency is declared PRIOR to a Warning Red or Yellow, Warning White will exist and the Warning White restrictions prescribed in paragraph 1, Attachment 1, Appendix 2, Annex F, SHALL, will be implemented automatically by the ARTC Centers. If the declaration occurs during a Warning Red or Warning Yellow, these restrictions will be implemented upon receipt of Warning White - All Clear.
- (c) Additional restrictions that the ADCC may require when Warning White conditions exist are contained in paragraph 2 a.(5).

(3) Warning Yellow (to be authenticated).

(a) Unless specifically advised to the contrary by the ADCC, implementing actions for Warning Yellow will be the same as prescribed below for Warning Red.

(4) Warning Red (to be authenticated).

- (a) Issue to all agencies to be alerted: "WARNING (Red or Yellow) J2D SECTOR."
- (b) Advise adjacent ARTC Centers: "WARNING (Red or Yellow) J2D SECTOR. DISCONTINUE CLEARING AIRCRAFT INTO (center) AREA UNTIL FURTHER ADVISED."
- (c) Broadcast the air defense warning message (see paragraph

1.d.(1) above) on all Center frequencies. If going off the air immediately, broadcast twice. If staying on the air for ATC purposes, broadcast twice followed by two broadcasts each five (5) minutes for three subsequent broadcasts.

(d) Suspend all radio transmissions, including carrier emissions, when no longer required for ATC purposes, except for BROADCAST OF WARNING MESSAGE, MILITARY NECESSITY and/or AIRCRAFT EMERGENCY. Use of Center call sign to be held to a minimum.

(e) Confirm warning condition by forwarding the following message to the associated INSAC for transmission over appropriate teletypewriter circuits:

1. "ZZZ (station identification) (date-time group) ALCKT (numbers). CONFIRMING WARNING (Red or Yellow) 32D SECTOR. ALL STATIONS IN THIS SECTOR TAKE APPROPRIATE ACTION. (ARTC Center name)."

(f) Land and/or divert all civil and non-tactical military aircraft not approved by the ADCC as expeditiously as possible. The following will apply:

1. At Controller's discretion, separation standards may be reduced to the extent required to land aircraft in the shortest possible time.

2. All clearances will be prefixed with "AIR DEFENSE EMERGENCY".

3. Effect necessary coordination with approach control (or tower) for diversion of aircraft that cannot be landed in allowable time. Unless otherwise advised by the ADCC, aircraft may be landed for ten (10) minutes at ALBANY/SCHENECTADY; BOSTON/BEDFORD; BUFFALO/NIAGARA FALLS; LIMESTONE/PRESQUE ISLE; ROCHESTER and SYRACUSE areas before taking diversion action. If the air defense situation dictates the immediate diversion from one or more of these areas, the ADCC will advise the area(s) involved and recommended direction(s) of diversion. If the air defense situation permits landing for a longer period of time, the ADCC will specify the time that landings must be completed. (See paragraph 2.c.(1), Specific Implementing Instructions - ADCC).

4. Direct IFR flight plan aircraft to suitable diversion airports (see paragraph 1.d.(3)) by the issuance of ARTC clearance. (Appropriate landing or diversion

instructions for aircraft on DVFR or VFR flight plan are contained in the air defense warning message which is broadcast by all aeronautical communication stations).

5. Divert aircraft away from fighter bases unless the use of such bases for landing and/or diversion has been coordinated with and approved by the appropriate ADCC, as fighters will not be expected to adhere to the normal scramble corridors prescribed in SARPS.
6. Direct controlling agencies to shut down key navigation aids immediately when no longer required for the landing and/or diversion of IFR flight plan aircraft, or upon instructions from the ADCC. (See SUPPLEMENT TO 32-SCATER - COMELRAD instructions relative to non-key aids).
7. Advise ADCC as the following is accomplished:
  - a. When area is clear of traffic and all key aids are shut down.
  - b. When all non-key aids are shut down.
8. The entire division sector will, in effect, be considered an ADIZ during Warning Red or Yellow. Therefore, as soon as workload associated with the diversion and landing of aircraft will permit, flight plans and current position on all aircraft, except those in the process of being landed, will be passed to the appropriate ADCC.
9. Advise aircraft owners and operators of the disposition made of their aircraft, when necessary.
10. Instruct controlling agencies to make available navigation aids that are required for the recovery of fighter-interceptor aircraft when directed by the ADCC. (See paragraph 2.c.(5) Annex F, Appendix 1, SUPPLEMENT TO 32-SCATER, SPECIFIC IMPLEMENTING INSTRUCTIONS - ADCC).
11. Instruct controlling agencies to make available navigation aids that are required for other tactical aircraft, as specified in the appropriate SUPPLEMENT TO 32-SCATER, or as directed by the ADCC.
12. Coordinate with the ADCC all requests for movement of civil and non-tactical military aircraft.
13. Advise the appropriate ADCC of the departure and

DATE: 15 MARCH 1954

arrival times of civil and non-tactical military aircraft for which prior or "on-the-spot" approval has been granted by the division commander. (Movements for which prior approval has been granted are contained in attachments to SUPPLEMENT TO 32-SCATER, Annex E).

14. When a prolonged Warning Red or Warning Yellow condition prevails and the air defense situation permits, the Air Division (Defense) Commander may allow limited operations within specific areas to permit the dispersal of aircraft from airports within critical target areas. (See paragraph 2.a.(4), SUPPLEMENT TO 32-SCATER, Annex F, Appendix 1, SPECIFIC IMPLEMENTING INSTRUCTIONS - ADCC). In such instances, inform operators having aircraft at airports listed in paragraph 2.a.(4)(f) of the limited operations and coordinate any requested movements with the ADCC.
- (5) Warning White - All Clear (to be authenticated).
- (a) Issue to all agencies to be alerted: "WARNING WHITE, 32D SECTOR."
  - (b) Confirm warning condition by forwarding appropriate message to the associated INSAO for transmission over appropriate teletypewriter circuits.
  - (c) Broadcast at least three (3) times over all Center frequencies: "WARNING-WHITE, 32D SECTOR."
  - (d) Resume normal radio communications and regulations of air traffic in accordance with restrictions prescribed in paragraph 1, Attachment 1, Appendix 2, Annex F, 32-SCATER.
  - (e) Coordinate with the ADCC any requests for aircraft to be operated with exemptions to restrictions listed in (d) above.
  - (f) During Warning White conditions (Warning White - All Clear or Military Emergency declared prior to a Warning Red or Yellow) the identification capabilities of one or more ADCC's may necessitate restricting the flow of air traffic penetrating and/or operating within an ADIZ or portion thereof to the identification capability of such ADCC(s). In such instances, the ADCC will inform the ARTC Center(s) of the area(s) involved and the minimum vertical and longitudinal separation required between aircraft. (See paragraph 2.d.(3), SUPPLEMENT TO 32-SCATER, Annex F, Appendix 1, SPECIFIC IMPLEMENTING INSTRUCTIONS - ADCC). Upon receipt of request for such restrictions, the ARTC Center(s) will issue a NOTAM similar to the following and disseminate the

contents thereof by interphone to all towers, stations  
within and ARTC Centers adjacent to the specified area:

1. "AIR DEFENSE NOTAM. EFFECTIVE IMMEDIATELY, PRIOR  
APPROVAL IS REQUIRED FROM (name of Center) FOR ALL  
IFR AND DVFR AIRCRAFT MOVEMENTS PENETRATING (and/or  
operating within) THE U. S. ADIZ (area specified by  
the ADCC).

SUPPLEMENT TO 32 SCATER, ANNEX F, APPENDICES 3 THROUGH 8

SCATER ALERT FORM

IS LOCATED IN THE 32D SECTOR AND WILL RECEIVE ALERTS FROM

Upon receipt of alert in "32D SECTOR", take following APPROPRIATE action as simultaneously as possible:

DECLARATION OF MILITARY EMERGENCY

NOTIFY local agencies listed below: "MILITARY EMERGENCY DECLARED. WARNING (current condition), 32D SECTOR."

RED OR YELLOW WARNING

BROADCAST following on all available frequencies: (Stations going off air immediately, broadcast twice. Stations remaining on air for ATC purposes broadcast twice followed by 2 subsequent broadcasts each 5 minutes for 3 subsequent broadcasts.)

"AIR DEFENSE EMERGENCY. AIR DEFENSE EMERGENCY. ALL AIRCRAFT NOT ON ATC CLEARANCE DESCEND IMMEDIATELY TO MINIMUM SAFE ALTITUDE; PROCEED AWAY FROM LARGE METROPOLITAN AREAS AND LAND AS SOON AS POSSIBLE AT NEAREST AVAILABLE AIRPORT. AIRCRAFT ON ATC CLEARANCE STAND BY FOR FURTHER CLEARANCE."

NOTIFY local agencies: "WARNING (Red or Yellow), 32D SECTOR."

Name

Number

CONTROL these key navigation aids as directed by ARTCC. Advise ARTCC as accomplished.

RECALL local traffic. Expedite landing of other air traffic. Advise ARTCC when all known aircraft has landed. (At Controller's discretion, separation standards may be reduced to the extent required to land aircraft in the shortest possible time.

PROHIBIT take off of aircraft not approved by ARTCC.

SHUT DOWN immediately, unless otherwise instructed by ARTCC, these non-key navigation aids. Advise ARTCC when accomplished.

SUSPEND all radio communications, including carrier emissions, except for MILITARY NECESSITY; BROADCAST OF WARNING MESSAGE: AIRCRAFT EMERGENCIES; ATC MESSAGES ATTENDANT TO LANDING OR DIVERTING AIRCRAFT. Duration of transmissions & use of station identification to be kept to a minimum.

NOTE: FACILITIES BORDERING ON A SECTOR WHICH HAS BEEN ALERTED SHALL, PROVIDED THEY ARE NOT THEMSELVES UNDER ALERT, BROADCAST THE FOLLOWING APPROXIMATELY EACH 5 MINUTES:

"AIR DEFENSE EMERGENCY (direction) OF (your location). THAT AREA CLOSED TO AIRCRAFT NOT ON FLIGHT PLAN APPROVED BY DEFENSE FORCES."

WARNING WHITE - ALL CLEAR

BROADCAST (at least 3 times): "WARNING WHITE, 32D SECTOR."

NOTIFY local agencies.

RESUME traffic and normal radio communications.

TURN ON all nav aids and report their status to the ARTCC.

NOTE: (1) 75-mcs Fan, Outer, Middle & Z Markers and GCA/ASR/PAR need not be controlled unless listed herein.  
(2) DME will be controlled with the VOR.

J 8 2 0

SUPPLEMENT TO SC-SCATER  
ANNEX F, APPENDIX

SPECIFIC IMPLEMENTING INSTRUCTIONS - ADCC

1. General.

a. These specific actions will be used in lieu of those contained in paragraph 2, Annex F, Appendix 1, SCATER and for associated SCATER Tests.

2. ADCC Implementing Actions.

a. AIR DEFENSE READINESS - COCKED PISTOL.

(1) Ring Boston and Cleveland Centers. Identify and say: "(For test use 'COCKED PISTOL'; otherwise 'AIR DEFENSE READINESS'), 32D SECTOR." (Do not authenticate) and sign off. When acknowledgement and sign-off (including time) are received from the Centers, record time below:

BOSTON: \_\_\_\_\_ Z                      CLEVELAND: \_\_\_\_\_ Z

(2) If the Air Defense Readiness (or Cocked Pistol) is cancelled without additional Warning Condition being declared, ring Boston and Cleveland Centers. Identify and say: "(-'AIR DEFENSE READINESS' or 'COCKED PISTOL', as appropriate), 32D SECTOR CANCELLED." (Do not authenticate) and sign off. When acknowledgement and sign-off (including time) are received from the Centers, record time below:

BOSTON: \_\_\_\_\_ Z                      CLEVELAND: \_\_\_\_\_ Z

b. DECLARATION OF MILITARY EMERGENCY - BIG NOISE. (NOT TO BE TESTED).

(1) Check authentication code words. Ring Boston and Cleveland Centers, ask for WATCH SUPERVISOR. Identify and say: "A MILITARY EMERGENCY HAS BEEN DECLARED. WARNING (existing Warning Condition--see Note), 32D SECTOR. AUTHENTICATION IS \_\_\_\_\_" and sign off. When acknowledgement and sign-off (including time) are received from the Centers, record time below and mark all authentication code words used.

BOSTON: \_\_\_\_\_ Z                      CLEVELAND: \_\_\_\_\_ Z

(NOTE: When a Military Emergency is declared prior to a Warning Red or Yellow, Warning White conditions will prevail and the ARPC Center will automatically implement the action required by Attachment 3, Appendix 2, Annex F, SCATER. Additional restrictions that may be implemented are contained in paragraph 4.)

DATE: 15 MARCH 1954

c. WARNING YELLOW - LEMON JUICE and WARNING RED - APPLE JACK.

(1) (See Note). Check authentication code words. Ring Boston and Cleveland Centers, ask for WATCH SUPERVISOR, identify and say: "(For test use 'LEMON JUICE' or 'APPLE JACK', as appropriate; otherwise 'WARNING YELLOW' or 'WARNING RED'), 32D SECTOR (see Note 2). AUTHENTICATION IS \_\_\_\_\_" and sign off. When acknowledgement and sign-off (including time) are received from the Centers, record time below and mark out authentication code words used.

BOSTON	CLEVELAND
WARNING YELLOW _____ Z	WARNING YELLOW _____ Z
WARNING RED _____ Z	WARNING RED _____ Z

(NOTE 1: Unless specifically advised to the contrary by the ADDC, ARTC implementing actions for Warning Yellow and Warning Red will be the same.)

(NOTE 2: Unless otherwise specifically advised by the ADDC, ARTC Centers will have a maximum of ten (10) minutes to land aircraft at ALBANY/SCHENECTADY; BOSTON/REDFORD; BUFFALO/NIAGARA FALLS; LIMESTONE/PRESQUE ISLE; ROCHESTER and SYRACUSE areas before taking diversion action. When the air defense situation dictates the immediate diversion from one or more of these areas or permits landings to be accomplished for a longer period of time, insert the area(s) involved and recommended direction(s) of diversion, or specify time that landings are to be completed; i.e., "..... DIVERT TRAFFIC AWAY FROM THE LIMESTONE/PRESQUE ISLE AREA TO THE SOUTH OR WEST IMMEDIATELY....." or ".....TRAFFIC CAN BE LANDED (or at specified areas) UNTIL (time).....".

(2) RECORD time and notify Sector Controller when Boston and Cleveland Centers report the following:

	BOSTON	CLEVELAND
AREA CLEAR OF TRAFFIC AND ALL KEY AIDS SHUT DOWN:	_____ Z	_____ Z
NON KEY AIDS SHUT DOWN:	_____ Z	_____ Z

(3) APPROVE, unless the air defense situation prohibits, requests from appropriate Civil Defense and Military Commanders for the movement of high-priority civil and non-tactical military aircraft required for the transportation of essential supplies, equipment, key personnel, etc. and for bomb damage assessment, ground traffic control, patrol, surveys, etc. Normally, such approvals will restrict aircraft operations to not more than 1000 feet above the terrain and require the filing of departure and arrival reports with the appropriate ARTC Center. When requests are received from other than through the ARTC Center (CADW, NAVY, etc.), advise the appropriate ARTC Center.

2 DATE: 15 MARCH 1954

and ADDC(s) of the approval. (Movements for which prior approval has been given are listed in attachments to Supplement to 32-SCATER, Annex E).

(NOTE: The ARTC Center will advise the appropriate ADDC of the departure and arrival times. The ADDC will advise adjacent ADDC's and appropriate Filter Centers and AAA Brigades).

(4) NOTIFY ARTC Centers, when prolonged Warning Red or Yellow prevails and the air defense situation permits, areas in which limited aircraft operations may be conducted. Such operations will normally be limited to minimum terrain clearance altitudes, and departure and arrival reports will be required.

(NOTE: This procedure should be applied whenever practicable to permit the dispersal of aircraft from airports within critical target areas).

(5) REQUEST the appropriate ARTC Center to make available navigation aids required for recovery of F/I aircraft. Such aids will be requested only when IFR conditions prevail or an aircraft emergency exists and aid is absolutely essential for the recovery of aircraft. The ARTC Center will be instructed to have aid shut down immediately when no longer needed for the recovery.

(6) COORDINATE with the ARTC Center(s) movements and air navigation aid requirements of other tactical aircraft, as may be required.

d. WARNING WHITE (ALL CLEAR) - SNOWMAN.

(1) Check authentication code words. Ring Boston and Cleveland Centers, identify and say: "(For test use 'SNOWMAN'; otherwise 'WARNING WHITE - ALL CLEAR') 32D SECTOR. AUTHENTICATION IS \_\_\_\_\_" and sign off. When acknowledgement and sign-off (including time) are received from the Centers, record time below and mark out authentication code words used.

BOSTON: \_\_\_\_\_ Z                      CLEVELAND: \_\_\_\_\_ Z

(2) RECORD time and notify Senior Controller when Centers report the following:

	<u>BOSTON</u>	<u>CLEVELAND</u>
KEY AIDS RESUMED OPERATIONS:	_____ Z	_____ Z
NON-KEY AIDS RESUMED OPERATIONS:	_____ Z	_____ Z

(3) When Warning White restrictions prevail (Warning White - All Clear or Military Emergency preceding Warning Red or Yellow), it may be necessary to restrict the flow of air traffic penetrating and/or operating within an ADIZ or portion thereof to identification capabilities of one or more ADDC's. In such instances, the appropriate ARTC Center will be advised of the area involved (defined as a line extending between specific geographical locations) and the

maximum lateral and longitudinal spacing between aircraft; i.e., "RESTRICTED  
FLOW OF AIR TRAFFIC PENETRATING (and/or operating) IN THAT PORTION OF THE AREA  
FROM THE NORTH AND EAST OF A LINE EXTENDING BETWEEN MEGANTIC AND TOPSFIELD  
WITHIN 30 MILES OF EACH OTHER TO NOT MORE THAN ONE AIRCRAFT EVERY 5 MINUTES."

4  
DATE: 15 MARCH 1954

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SUPPLEMENT TO 32-SCATER  
ANNEX E

E R R A T A

MOVEMENT OF PRIORITY CIVIL AND NON-TACTICAL MILITARY AIRCRAFT

DURING A WARNING RED OR WARNING YELLOW

DATED 15 MARCH 1954

Amend paragraph 7, page 2, next to last sentence, to read: "The ADDC will coordinate departure reports, as required, with the appropriate AAA Unit, GOC Filter Center, and adjacent ADDC(s).

SUPPLEMENT TO 32-SCATER  
ANNEX E

MOVEMENT OF PRIORITY CIVIL AND NON-TACTICAL MILITARY AIRCRAFT

DURING A WARNING RED OR WARNING YELLOW

1. The procedures and information contained herein are supplied to clarify and augment Annex E, SCATER, within the 32d Air Division (Defense) Sector.
2. Movements of priority civil and non-tactical military aircraft that may be required during a Warning Red or Warning Yellow are categorized as follows:
  - a. LOCAL: Movements over a specific location (city, military installation, reservoir, dam, forest, etc.) required for ground traffic control, bomb damage assessment, patrols, aerial observations, etc.
  - b. NON-LOCAL: Movements between two or more terminals required for the transportation of essential supplies, equipment, key personnel, etc.
3. To minimize workload within the ADCO and ARTC Centers and to preclude unnecessary delay to these movements, State Directors of Civil Defense and military commanders are requested to submit their requirements for local and any non-local movements for which specific aircraft assignment, route and terminal information can be planned in advance to the Commander, 32d Air Division (Defense) for consideration of prior air defense approval at the earliest possible date. These requests should contain the following information:
  - a. Responsible organization requiring movements.
  - b. Aircraft identification (registration).
  - c. Type and identifying colors of aircraft.
  - d. Base of operations.
  - e. Purpose and details of operations.
4. Local and any non-local movements for which specific route and terminal information can be planned in advance will be granted prior approval where such approval will not conflict with the defense of the 32d Air Division (Defense) Sector. Non-local movements for which specific operations cannot be planned in advance and those movements for which prior approval cannot be granted without conflicting with the defense of the Sector will require an "on-the-spot" approval as the need for operations arises. "On-the-spot" approvals will normally be requested through the appropriate ARTC

DATE: 15 MARCH 1954

Center. However, in the event of an emergency, requests may be submitted directly to the ADCC by use of the CADW Net.

5. Air defense approval will normally limit aircraft operations to altitudes not in excess of 1000 feet above the immediate terrain and will require the filing of departure and arrival reports with the appropriate ARTC Center. Such reports will normally be filed through the nearest CAA facility, or directly with the ARTC Center. However, in the event of an emergency, the reports may be filed directly with the ADCC by use of the CADW Net.

6. The Commander, 32d Air Division (Defense) is to be notified of any changes made in aircraft to be used for operations for which approval has been granted. This notification is to contain the pertinent information prescribed in paragraphs 3.b and c. Where the change is made immediately prior to departure, the pertinent information will be filed with the departure report.

7. The ARTC Center will notify the appropriate ADCC of the departure and arrival times of air defense approved movements, except when such times are filed directly with the ADCC, the ADCC will notify the ARTC Center and appropriate ADCC. The ADCC will notify the appropriate AAA unit and GOC Filter Center. The ADCC will likewise notify the ARTC and appropriate ADCC of "on-the-spot" approvals received directly by the ADCC.

8. A complete listing of prior-approved movements will be maintained at the ADCC and appropriate ARTC Center. A listing of only those movements for which they are directly concerned will be made available to each CAA, civil and military control tower, CAA Communications Station, Military Base Operations Office, ADCC, AAA Brigade and GOC Filter Center. Listings will be provided by use of the following attachment for each state concerned, and should be maintained at the appropriate operating position for ready reference.

- a. MAINE . . . . . Attachment 1
- b. MASSACHUSETTS . . . . . Attachment 2
- c. NEW HAMPSHIRE . . . . . Attachment 3
- d. NEW YORK . . . . . Attachment 4
- e. VERMONT . . . . . Attachment 5

SUPPLEMENT TO 32-SCATEP, ANNEX E

ATTACHMENT # \_\_\_\_\_

PRIOR APPROVED PRIORITY CIVIL & NON-TACTICAL MILITARY AIRCRAFT MOVEMENTS

STATE OF \_\_\_\_\_

AIRCRAFT REGISTRATION	TYPE	IDENTIFYING COLORS	BASE OF OPERATIONS	DETAILS AND AREA OF OPERATIONS

DATE: \_\_\_\_\_

J 8 2 8

S E C R E T

REVISED PERSONNEL STRENGTH

		3	4	1	2	3	4	1	2	3	4	2	4
OTIS AFB MASS (E)													
564 FDM SQ (Should Read)(E)	T/O Off	8	8	8	8	8	8	8	8	8	8	8	8
	NT/O Off			2	2	3	8	8	8	8	8	8	8
	T/O Amn	113	113	113	113	113	113	113	113	113	113	113	113
	NT/O Amn	16	23	119	162	210	210	307	307	307	307	307	307
	Grd Civ			6	6	11	16	16	16	16	16	16	16
	Ung Civ	32	32	50	50	73	77	77	77	77	77	77	77

S E C R E T

54-351

J 8 2 9

S E C R E T

DELETE THE FOLLOWING NT/O AMN FROM ALL F 102 FTR SQDS

FTR SQ	LOCATION	DEF FORCE	56 (4)	57 (2)	57 (4)
303	Griffiss	E			-15
58	Otis	E		-15	-15
437	Otis	E		-15	-15
329	Griffiss	E			-15
TOTAL EASTERN DEL				-30	-60

S E C R E T

54-351

J 8 3 0

S E C R E T

FIGHTER-INTERCEPTOR PROGRAM

74th F/I Squadron will deploy to Thule, Greenland August 1954

57th F/I Squadron will deploy to Keflavik, Iceland October 1954

82nd F/I Squadron will return to Presque Isle from Keflavik, Iceland October 1954  
equipped with F-89D

318th F/I Squadron will return to Presque Isle from Thule, Greenland August 1954  
equipped with F-89D.

S E C R E T

54-352

J 8 3 1

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OCAA

10 June 1954

SUBJECT: Supplement to 32-SCATER, Annex E - MOVEMENT OF PRIORITY CIVIL AND  
NON-TACTICAL MILITARY AIRCRAFT DURING A WARNING RED OR WARNING  
YELLOW, dated 15 March 1954

TO: See Distribution

1. Reference letter this headquarters, same subject and file as above, dated 15 March 1954. Inclosed are two (2) copies each of the following attachment(s) to the subject supplement, dated 10 June 1954, listing the priority civil aircraft movements for the states specified for which prior approval has been granted by this headquarters.

2. The appropriate state authority has been advised that this approval is limited to air defense requirements and does not constitute authority for aircraft to be conducted contrary to other applicable regulations; nor does it constitute assurance that aircraft will not be inadvertently subject to interception or antiaircraft fire.

3. AC&W Squadrons and Filter Centers will insure that those movements that may occur within their respective areas of responsibility will be readily available at the appropriate operating position(s). Three (3) attachment forms are inclosed for this purpose.

BY ORDER OF THE COMMANDER:

*Virginia L. Sweet*

VIRGINIA L. SWEET  
1st Lt, USAF  
Assistant Adjutant

2 Incls

1. Atchmt to 32-SCATER, Annex E (2 cys)
2. Atchmt to 32-SCATER, Annex E Form (3 cys)

Distribution:

Det Comdr, Manchester Filter Center (Atchmts 3 & 5)  
Det Comdr, Albany Filter Center (Atchmt 3)  
Comdr, 654th AC&W Sq. (Atchmt 3)  
Comdr, 656th AC&W Sq. (Atchmts 3 & 5)  
Comdr, 762d AC&W Sq. (Atchmt 3)  
Comdr, 764th AC&W Sq. (Atchmts 3 & 5)

236-2

Hq 32d Air Div (Def) OCAA Subject: Supplement to 32-SCATER, Annex E -  
MOVEMENT OF PRIORITY CIVIL AND NON-TACTICAL MILITARY AIRCRAFT DURING A  
WARNING RED OR WARNING YELLOW, dated 15 March 1954, 10 June 1954

Info. cy:

Comdr, 4707th Def Wg  
Comdr, 4711th Def Wg  
Comdr, 517th Air Def Gp  
Comdr, 564th Air Def Gp  
CAA ADLO, EADF  
CAA ADLO, NY-396  
OOT, EADF (Attn: Capt Hansen)  
ODO, 32d AD(D)  
Boston ARTCC  
ADCC, 32d AD(D)

STATE OF NEW HAMPSHIRESUPPLEMENT TO 32-SCATER, ANNEX EATTACHMENT # 3PRIOR-APPROVED PRIORITY CIVIL & NON-TACTICAL MILITARY AIRCRAFT MOVEMENTS

NOTE: These movements are approved as prescribed in paragraphs 5 and 6, Supplement to 32-SCATER, Annex E, dated 15 March 1954 for bomb damage assessment, ground traffic control, forest fire patrol, etc., in the areas described herein at altitudes not in excess of 1000 feet above the immediate terrain.

AIRCRAFT REGISTRATION	TYPE	IDENTIFYING COLORS	BASE OF OPERATIONS	DETAILS AND AREA OF OPERATIONS
N9207H	Grumman Widgeon	Grey, Red Trim	Nashua	20-mile radius of Nashua and/or 25-mile radius of Mt. Washington.
N5251K	Navion 260	Green	Keene	20-mile radius of Keene.
N3941V	Cessna 195	Silver, Red Trim	Skyhaven Airport/Rochester	20-mile radius of Newmarket.
N1408D	Cessna 170	Silver, Red Trim	Concord	15-mile radius of Concord.
N3270V	Bonanza	Silver, Red Trim	Newport	15-mile radius of Croydon Mountain Park.
N1279C	Tri Pacer	Grey, Red Trim	Concord	20-mile radius of Wolfeboro.
N9816A	Cessna 195	Silver, Red Trim	Concord	20-mile radius of Carr Mountain and/or 25-mile radius of Magalloway Mountain.

cc: ODO and CAA, 32d AD(D); OOT and CAA ADLO, EADF; NY-396

DATE: 10 JUNE 1954

E-3

J 8 3 4

STATE OF VERMONTSUPPLEMENT TO 32-SCATER, ANNEX EATTACHMENT # 5PRIOR-APPROVED PRIORITY CIVIL & NON-TACTICAL MILITARY AIRCRAFT MOVEMENTS

NOTE: These movements are approved as prescribed in paragraphs 5 and 6, Supplement to 32-SCATER, Annex E, dated 15 March 1954 for bomb damage assessment, ground traffic control, forest fire patrol, etc., in the areas described herein at altitudes not in excess of 1000 feet above the immediate terrain.

AIRCRAFT REGISTRATION	TYPE	IDENTIFYING COLORS	BASE OF OPERATIONS	DETAILS AND AREA OF OPERATIONS
N 4173M	Piper Sup. Cruiser	Red & Cream	Champlain	10-mile radius from St. Albans radar site.
N 3236A	Cessna 170B	Red & Silver	Champlain	10-mile radius from Burlington City Hall.
N 7968H	Piper Sup.	Red & Cream	Middlebury	Area bounded by Vergennes, Bristol, Brandon and Orwell.
N 84418	Aeronca 7AC	Red & Yellow	Rutland	5 miles on either side of line connecting Rutland and Fair Haven.
N 6545M	Stinson 165	Maroon	Bennington	8-mile radius from Bennington Center.
N 1755A	Piper Sup. Cub	Grey	Vernon	10-mile radius from Brattleboro Center.
N 7413K	Piper PA 40	Cream	Springfield	10-mile radius from Bellows Falls Center.
N 6942K	Piper PA 40	Cream	Springfield	5 miles on either side of a line connecting Springfield and Ludlow.
N 4805K	Navion	Brown & Cream	Windsor	5-mile radius of action from Windsor.
N 4676H	Piper PA 17	Yellow	Post Mills	10-mile radius of action from White River Junction.

cc: ODO and GAA, 32d AD(D); OOT and GAA ADLO, EADF; NY-396

DATE: 10 JUNE 1954

E-5

J 8 3 5

STATE OF VERMONT

SUPPLEMENT TO 32-SCATER, ANNEX E

ATTACHMENT # 5PRIOR-APPROVED PRIORITY CIVIL & NON TACTICAL MILITARY AIRCRAFT MOVEMENTS

NOTE: These movements are approved as prescribed in paragraphs 5 and 6, Supplement to 32-SCATER, Annex E, dated 15 March 1954 for bomb damage assessment, ground traffic control, forest fire patrol, etc., in the areas described herein at altitudes not in excess of 1000 feet above the immediate terrain.

AIRCRAFT REGISTRATION	TYPE	IDENTIFYING COLORS	BASE OF OPERATIONS	DETAILS AND AREA OF OPERATIONS
N 4680M	Piper PA 11	Blue & Yellow	Barre- Montpelier	5 miles on either side of a line connecting Montpelier and Waterbury.
N 1559E	Aeronca 7AC	Yellow & Red	St Johnsbury	5 miles on either side of a line connecting St Johnsbury and Lyndonville.
N 92906	Skyranger 185	Red & Cream	Newport	5 miles on either side of a line connecting Newport and Barton.
N 2221H	Ercoupe	Aluminum	Barre- Montpelier	5 miles on either side of a line connecting airport, Hardwick and Morrisville.
N 5882H	Piper PA 16	Cream & Red	Manchester	Green Mountain National Forest from Wallingford south to the Massachusetts border.
N 2349E	Aeronca 7AC	Red & Yellow	Bristol	Green Mountain National Forest from Bolton south to Mendon.
N 72764	Cesana 140	Silver	Champlain	Forest area from Bolton north to Canadian border. (Approx. 5 miles on either side of the Long Trail from Bolton to Canadian border).
N 2183H	Ercoupe 415GD	Blue & Grey	Barre- Montpelier	Groton Forest.

cc: ODO and CAA, 32d AD(D); OOT and CAA ADLO, EADF; NY-396

E-5a

DATE: 10 JUNE 1954

J 8 3 6

STATE OF VERMONT

SUPPLEMENT TO 32-SCATER, ANNEX E

ATTACHMENT # 5PRIOR-APPROVED PRIORITY CIVIL & NON-TACTICAL MILITARY AIRCRAFT MOVEMENTS

NOTE: These movements are approved as prescribed in paragraphs 5 and 6, Supplement to 32-SCATER, Annex E, dated 15 March 1954 for bomb damage assessment, ground traffic control, forest fire patrol, etc., in the areas described herein at altitudes not in excess of 1000 feet above the immediate terrain.

AIRCRAFT REGISTRATION	TYPE	IDENTIFYING COLORS	BASE OF OPERATIONS	DETAILS AND AREA OF OPERATIONS
N 4832H	Piper PA 17	Yellow	Canaan	Forest area from St Johnsbury north to Canadian border. (Area bounded on the south by U.S. Route 2, on the east by Vermont Route 102, on the north by the Canadian border, and on the west by Vermont Route 114 and U.S. Route 5).

cc: ODO and CAA, 32d AD(D); OOT and CAA ADLO, EADF; NY-396

DATE: 10 JUNE 1954

E-5b

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N.Y.

EACOT-SF

17 May 1954

SUBJECT: Air Traffic Control Procedures

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Attached letter from Department of the Air Force is forwarded for your information and dissemination to all interested units of your command. Your attention is specifically directed to paragraph 3 of this attached letter.
2. Desire any constructive comments and recommendations pertaining to this subject be forwarded to arrive at this headquarters not later than 1 July 1954.
3. Letter from Headquarters, 1802d AACS Group, Mitchel Air Force Base, New York, Subject: Expedited ATC Procedures, 8 April 1954, is also attached for your information and guidance.

BY ORDER OF THE COMMANDER:

2 Incls:

1. Ltr, Dept of the AF, AF00P-0c-FL, Subj: Same as above, 9 Apr 54
2. Ltr, Hq 1802d AACS Gp, O-, Subj: Expedited ATC Pros, 18 Apr 54

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

237

J 8 3 8

HQ EAWF, EA00T-SF Subj: Air Traffic Control Procedures

OOT-FO (17 May 54) 1st Ind 20 May 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4700th Defense Wing, Otis Air Force Base, Falmouth,  
Mass.  
Commander, 4711th Defense Wing, Presque Isle AFB, Presque  
Isle, Me.

1. Forwarded for your information and dissemination to all interested units of your command.
2. Desire any constructive comments and recommendations pertaining to this subject be forwarded to arrive this headquarters not later than 28 June 1954.

BY ORDER OF THE COMMANDER:

2 Incls:  
n/c

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst Adjutant

C O P Y

DEPARTMENT OF THE AIR FORCE  
Washington 25, D.C.

AFOOP-OC-FL

9 April 1954

SUBJECT: Air Traffic Control Procedures

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. As the number of jet aircraft in the Air Force inventory continues to increase, the problems associated with Air Traffic Control will become untenable unless steps are taken to develop adequate procedures to handle them. The capabilities and limitations of jet aircraft are not yet understood by all agencies responsible for air traffic control, or, unfortunately, by all senior Air Force officers. Traffic control procedures which were developed for conventional, propeller-driven aircraft with comparatively slow speeds, low altitudes of operations, and relatively no limit on the time element are entirely inadequate for jet operations. Each echelon of command must be made aware of this fact, and must assist in the development of procedures that will be adequate for jet operations, yet sufficiently flexible to incorporate conventional traffic into the system.

2. This Headquarters is attempting to provide a solution to this problem by working with the Civil Aeronautics Administration and other users of the air space. Action has been initiated to revise the Air Force-Navy Civil manuals "Criteria for Standard Instrument Approach Procedures" and "Procedures for the Control of Air Traffic". Existing traffic separation standards will be reviewed with the thought in mind of reducing them in order to increase the amount of traffic in the controlled airspace. Radar traffic control procedures are being developed which will materially reduce the problem.

3. Pending the development of adequate procedures on a national scale, local commanders must assist in alleviating the current problem by:

a. Improving local terminal area procedures through negotiation with Air Traffic Control Centers and other local users of the airspace.

b. Utilizing to a greater extent, and listening to the professional advice of qualified air traffic control personnel available to them through their AACS units.

INCL 1

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c. Developing, in coordination with AACS, expedited traffic control procedures for their tactical missions, and then converting these procedures insofar as possible to intinerant operations into their bases. Headquarters, AACS, has developed expedited procedures for one major command. These procedures are available and can be utilized by all commands in solving their tactical traffic control problem.

4. Request that the importance of this matter be brought to the attention of your subordinate commanders, and that action be initiated in accordance with paragraph 3 above. Further request that your comments and recommendations concerning solutions to the over-all jet traffic control problems be forwarded to this Headquarters.

BY ORDER OF THE CHIEF OF STAFF:

R. M. RAMEY  
Major GENERAL, USAF  
Dir of Ogrs, Office of Deputy  
Chief of Staff, Operations

C O P Y

AIRWAYS AND AIR COMMUNICATIONS SERVICE  
HEADQUARTERS 1802D AACS GROUP  
Mitchell Air Force Base, New York

O-

8 April 1954

SUBJECT: Expedited ATC Procedures

TO: Commanders,  
1909 AACS Squadron, Andrews AF Base, Md.  
1912 AACS Squadron, Olmsted AF Base, Pa.  
1913 AACS Squadron, Langley AF Base, Va.  
1914 AACS Squadron, Wright-Batterson AFB, Ohio  
1916 AACS Squadron, Mitchel AF Base, N.Y.  
1918 AACS Squadron, Scott AF Base, Ill.  
1947th AACS Squadron, Limestone AF Base, Ms.

1. As a result of problems which were encountered concerning the development of Expedited ATC procedures, a conference was called at the Chicago ARTC Center on 23 March 1954 to discuss these procedures and their use. Representatives of CAA Third Regional Office, chiefs of ARTC Centers, Approach Control Towers and Air Defense Liaison Officers within the Third Region and representatives from 1800th AACS Wing, 1802d AACS Group, 1911th, 1985th and 2009th Squadrons were in attendance.

2. Mr. H. F. Cole, Chief AOD, CAA Third Region, acted as Chairman, Mr. A. E. Taylor, Chief Chicago ARTC Center, opened the discussion with a resume of the directives received concerning these procedures, interpretations of the material, action taken to date, and the problems which have arisen in connection with the development of tactical formation approaches. During the discussion, the following questions were raised by CAA personnel and clarification presented by the AACS representatives:

a. Who are considered to be the users and will more than one command be involved?

Although the Expedited ATC Procedures project was first initiated for one specific command, it was later directed that these procedures be developed for other commands and bases. From an ATC standpoint, it was considered immaterial which command would use the procedures. Aircraft types and other necessary information should be provided during preoperational planning.

b. Under what conditions will these procedures be employed?

INCL 2

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0-- Expedited ATC Procedures

These tactical approach procedures should be developed primarily for use during conditions of military necessity, however, it may be expected that they will be practiced occasionally for training purposes or during large scale aircraft movement exercises upon approval of all agencies concerned. Therefore, it would not be acceptable for the operations letters to contain any stipulations to the effect that they would be employed only under "Military Necessity" type clearances. This matter was subjected to considerable discussion by CAA representatives due to anticipated disruption of normal traffic, but it was emphasized that there was no desire on the part of the Air Force to seriously delay other users of the airspace, and that use of these procedures would be contingent upon complete prior coordination with and approval by the CAA facilities involved. CAA representatives pointed out that any training missions would be more favorably considered if conducted during periods of relatively light traffic.

c. Must the airspace surrounding the destination be blocked?

Operations under these procedures should be conducted on a moving airspace reservation principle and sufficient area should be kept free of other known aircraft to afford separation between such aircraft and the participating formation. This should not preclude other departures from an affected airport during conduct of these approaches, nor should it restrict regular VFR operations beyond the effect of a normal practice GCA approach.

d. Which aircraft will have priority for approach when user and other military aircraft are involved?

Priority between military aircraft is under discussion within the military establishment at this time. Preoperational coordination for a tactical mission can be expected to include the priorities to be used.

e. Will procedures be used for practice in metropolitan as well as in less congested areas?

Use of these procedures under simulated conditions in metropolitan areas, as elsewhere, will be subject to prior approval of the ATC facilities concerned.

f. What bases will be involved?

Development of these procedures for all active AF bases to which an instrument approach is feasible, has been directed. This includes joint-use airports.

g. Can practice approaches be interrupted and how?

0- Expedited ATC Procedures

Tactical formation approaches being conducted under training conditions can be interrupted if circumstances require such action. Preliminary coordination should include provision for flight to alternate airport by aircraft affected.

h. Who is responsible for coordination at joint Civilian/USAF Airports?

At joint use, Military/Civil Airports, necessary coordination with the airport manager is considered to be the responsibility of the Base Commander.

i. With whom does CAA coordinate regarding these procedures?

Liaison with CAA concerning use of these procedures normally will be effected by the Base Commander of his designated representative.

j. Will procedures be used where radar is not installed?

Timed approaches, using existing navigational aids, should be developed where radar is not available. These procedures should indicate the limitations required.

3. This data is forwarded for your information and guidance in the development of the Expedited ATC Procedures for locations within your Squadron areas.

BY ORDER OF THE COMMANDER:

C. E. BARTLETT  
Major, USAF  
Adjutant

cc: CAA 1st Rgn

SECRET

C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADDOOT-B1

28 May 1954

SUBJECT: (SECRET) Request for Authority to Divert Tactical Air  
Traffic During Military Emergency

TO: Director of Operations  
Headquarters, USAF  
Washington 25, D. C.

1. The "Plan for the Security Control of Air Traffic during a Military Emergency," 15 July 1952, is not applicable to military aircraft engaged in tactical operations (reference paragraph 5c); consequently, our air division (defense) commanders are not presently authorized to divert tactical air traffic around battle or threatened areas.
2. If tactical aircraft were to enter a battle or threatened area, the air defense problem would become more complex and air defense capability seriously impaired; further, the safety of the aircraft and aircrews would become highly questionable.
3. This command is making every attempt to route tactical aircraft around critical target and densely populated areas. The authorization granted by your headquarters, permitting the air defense force to assist major commands in preparing mutually acceptable routes, should reduce diversion requirements to a minimum and at the same time reduce the number of navigational aids required.
4. It is requested that the air division (defense) commanders be granted the authority to divert the tactical flights in those instances where their proposed route will encounter a threatened or battle area. In addition, this diversion authority would permit the turning off of navigational aids in the threatened area. In our opinion diversion of tactical traffic would be mutually advantageous to this command and to those commands participating.

FOR THE COMMANDER:

s/t/ JOSEPH D. HORNEBY  
Lt Col, USAF  
Asst Command Adj

C O P Y

SECRET

54-1377

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GO 33, Hq 32d ADiv(Def), is the last of the series for 1953.

HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Hancock Field, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS)  
NUMBER 1)

12 January 1954

ASSUMPTION OF COMMAND

Under the provisions of Air Force Regulation 24-1, the undersigned assumes command of the 32d Air Division (Defense), during the temporary absence of COLONEL ROBERT S ISRAEL JR.

*James O. Beckwith*  
JAMES O. BECKWITH  
Colonel, United States Air Force  
Commander

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS)  
NUMBER 5)

11 February 1954

ASSUMPTION OF COMMAND

Under the provisions of Air Force Regulation 35-54, the undersigned hereby assumes command of the 32d Air Division (Defense).

*Robert S. Israel, Jr.*  
ROBERT S ISRAEL, JR.  
Colonel, USAF  
Commander

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS)  
NUMBER 19)

28 June 1954

ASSUMPTION OF COMMAND

Under the provisions of Air Force Regulation 24-1, the undersigned assumes command of the 32d Air Division (Defense), during the temporary absence of COLONEL ROBERT S ISRAEL JR.

  
RICHARD A LEGG  
Colonel, United States Air Force  
Commander

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 8

5 March 1954

STAFF ANNOUNCEMENT

Captain Carl Burak, AO751253, United States Air Force, is appointed Acting Deputy for Personnel, effective this date.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E. YORK  
Major, USAF  
Adjutant

s/t/ FREDERICK E. YORK  
Major, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADG)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 11

29 March 1954

STAFF ANNOUNCEMENT

LIEUTENANT COLONEL FRANK L. FENN, 2910A, United States Air Force, is appointed  
Deputy for Personnel, effective this date.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E YORK  
Major, USAF  
Adjutant

*F E York*  
FREDERICK E YORK  
Major, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 8

15 March 1954

STAFF ANNOUNCEMENT

CHAPLAIN (MAJOR) RUSSELL C. ARCHER AO526547, United States Air Force, is appointed Staff Chaplain effective this date, in accordance with the Staff Structure announced in 32d Air Division Regulation 20-1, 15 March 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E YORK  
Major, USAF  
Adjutant

*F E York*  
FREDERICK E YORK  
Major, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 10

16 March 1954

AMENDMENT TO GENERAL ORDER

So much of General Order Number 8, this headquarters, dated 15 March 1954 as reads: "GENERAL ORDER NUMBER 8" is amended to read: "GENERAL ORDER NUMBER 9."

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E. YORK  
Major, USAF  
Adjutant

s/t/ VIRGINIA L. SWEET  
1st Lt., USAF  
Asst Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS)  
NUMBER 6)

19 February 1954

STAFF ANNOUNCEMENT

LIEUTENANT COLONEL DAYTON R. GRIFFITH AO230454, United States Air Force is assigned duty as Division Surgeon, vice MAJOR GEORGE K REBERDY AO1756939, United States Air Force.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E YORK  
Major, USAF  
Adjutant

*F E York*  
FREDERICK E YORK  
Major, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS)  
NUMBER 15)

13 May 1954

STAFF ANNOUNCEMENT

VOC on 1 May 54 are cfmd ESPWO MAJOR GEORGE K REBERDY A01756939, United States Air Force is assigned duty as Division Surgeon, vice LIEUTENANT COLONEL DAYTON R GRIFFITH A0230454, United States Air Force.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E YORK  
Lt Colonel, USAF  
Adjutant

*F E York*  
FREDERICK E YORK  
Lt Colonel, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 13

1 May 1954

STAFF ANNOUNCEMENT

Under the provisions of Air Force Regulation 35-54, MAJOR JOHN A. BELL 12627A, United States Air Force is assigned duty as Commander, Headquarters Squadron Section, Headquarters 32d Air Division (Defense) during the absence of MAJOR MYLES A. KING, 14001A, United States Air Force.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E YORK  
Lt Colonel, USAF  
Adjutant

*F E York*  
FREDERICK E YORK  
Lt Colonel, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 16

7 June 1954

STAFF ANNOUNCEMENT

Under the provisions of Air Force Regulation 35-54, MAJOR MYLES A KING 14001A, United States Air Force is assigned duty as Commander, Headquarters Squadron Section, Headquarters 32d Air Division (Defense) vice MAJOR JOHN A BELL 12627A, United States Air Force.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E YORK  
Lt Colonel, USAF  
Adjutant

*F E York*  
FREDERICK E YORK  
Lt Colonel, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 17

10 June 1954

STAFF ANNOUNCEMENT

Under the provisions of Air Force Regulation 35-54, MAJOR JOHN A BELL 12627A, United States Air Force is assigned duty as Commander, Headquarters Squadron Section, Headquarters 32d Air Division (Defense) during the absence of MAJOR MYLES A KING, 14001A, United States Air Force.

BY ORDER OF THE COMMANDER:

OFFICIAL:

*Virginia L. Sweet*

VIRGINIA L SWEET  
1st Lt, USAF  
Asst Adjutant

FREDERICK E YORK  
Lt Colonel, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 18

23 June 1954

STAFF ANNOUNCEMENT

Under the provisions of Air Force Regulation 35-54, LIEUTENANT COLONEL FRANK L FENN 2910A, United States Air Force is assigned additional duty as Commander, Headquarters Squadron Section, Headquarters 32d Air Division (Defense) vice MAJOR JOHN A BELL 12627A, United States Air Force, during the temporary absence of MAJOR MYLES A KING 14001A, United States Air Force.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E YORK  
Lt Colonel, USAF  
Adjutant

*F E York*  
FREDERICK E YORK  
Lt Colonel, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Hancock Field, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS)  
NUMBER 3)

13 January 1954

REASSIGNMENT OF UNIT

The 4673d Ground Observer Squadron, ADC, effective 13 January 1954, is attached to Headquarters Squadron Section, 32d Air Division (Defense), ADC, Hancock Field, Eastwood Station 6, Syracuse, New York, for the purpose of administration and logistical support.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E YORK  
Major, USAF  
Adjutant

*Donald R. Casey*  
DONALD R. CASEY  
Major, USAF  
Assistant Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADG)  
Hancock Field, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS)  
NUMBER 2)

13 January 1950

STAFF ANNOUNCEMENT

- 1: MAJOR DONALD R CASETY AO908475, United States Air Force, is, in addition to his other duties, appointed Director of Civilian Defense.
- 2: MAJOR CHARLES LAPPAS AO578270, United States Air Force, 4673d Observer Squadron, this station, is, in addition to his other duties, appointed assistant Director of Civilian Defense, for this headquarters.

BY ORDER OF THE COMMANDER:

OFFICIAL:

*Donald R Casety*  
DONALD R CASETY  
Major, USAF  
Assistant Adjutant

FREDERICK E YORK  
Major, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 12

30 March 1954

STAFF ANNOUNCEMENT

MAJOR DONALD R. CASEY AO908475, United States Air Force, is appointed Director of Civilian Defense, effective this date.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E YORK  
Major, USAF  
Adjutant

*F E York*  
FREDERICK E YORK  
Major, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 7

26 February 1954

ARMED FORCES RESERVE MEDAL

Under the provisions of paragraph 17, Air Force Regulation 35-50, CHAPLAIN  
(MAJOR) RUSSELL C ARCHER AO526547, United States Air Force, is awarded the Armed  
Forces Reserve Medal.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E YORK  
Major, USAF  
Adjutant

*F E York*  
FREDERICK E YORK  
Major, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS)  
NUMBER 4)

8 February 1954

ARMED FORCES RESERVE MEDAL

Under the provisions of paragraph 17, Air Force Regulation 35-50, CAPTAIN HENRY R MEYER AC697665, United States Air Force, is awarded the Armed Forces Reserve Medal.

BY ORDER OF THE COMMANDER:

OFFICIAL:

*Virginia L. Sweet*

VIRGINIA L SWEET  
1st Lt, USAF  
Assistant Adjutant

VIRGINIA L SWEET  
1st Lt, USAF  
Assistant Adjutant

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS)  
NUMBER 14)

10 May 1954

OPERATIONAL CONTROL OF  
DETACHMENT 16 - 12TH WEATHER SQUADRON

1. Announcement is made confirming the assumption of operational control of Detachment 16 - 12th Weather Squadron effective 5 February 1952.

2. The specific operational control exercised over Detachment 16 - 12th Weather Squadron is the assignment of tasks, designation of objectives and the direction necessary for the accomplishment of weather support for the 32d Air Division (Defense), but does not include administration, discipline, internal organization, and unit training except as requested by the Commander, Detachment 16 - 12th Weather Squadron. Operational control will be exercised through the Commander, Detachment 16 - 12th Weather Squadron, in his capacity as Staff Weather Officer to Headquarters, 32d Air Division (Defense).

3. Authority: AFR 20-2.

BY ORDER OF THE COMMANDER:

OFFICIAL:

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

s/t/ FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

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THIS PAGE IS DECLASSIFIED IAW EO 13526

C O P Y

HISTORY  
OF  
SYRACUSE RESCUE COORDINATION CENTER

1 January 1954 - 30 June 1954

256

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THIS PAGE IS DECLASSIFIED IAW EO 13526

HISTORICAL REPORT

1. RCC Personnel.

Senior Controller - Major Henry Schmaltz  
Senior Clerk - S/Sgt. Thomas R. Tipton

2. The RCC of the 32d Air Division (Defense) at Syracuse, New York is a facility of the 5th Air Rescue Group with Headquarters at Westover Air Force Base. Operational Control of the RCC in accordance with AFR 20-54 remains with Commander of Air Rescue Service. The logistic support for the operation of the RCC is the responsibility of the Division to which the unit is assigned.

3. The function of the RCC is divided into two main fields:

- a. Coordination
- b. Control

4. The RCC at the 32d Air Division (Defense) was activated by the assignment of Major Henry Schmaltz to the 32d Air Division (Defense) in December 1953. In January 1954 Airman First Class Tipton was assigned to the RCC as the Senior Clerk. During this initial period considerable efforts were devoted to establishing the rescue panel, obtaining the required communications facilities and indoctrinating the ADCC and GCI personnel on the mission of the RCC and responsibilities of Air Rescue Service. The Division has adequately provided the Senior Controller with an office in which the administrative functions of the RCC are handled. Files have been established, SOP's written governing the operation of the Center, and coordination has been effected ;with the various units which assist or are responsible for rescue activities.

5. With the Senior Controller and one airman assigned, the operation of the RCC is limited to normal duty hours, with the Senior Controller on call after duty hours and on weekends. This creates a hardship on the personnel and limits the number of liaison and coordination visits that should be made by the Senior Controller. It is extremely difficult to fulfill the requirement of manning the control panel and still make the necessary liaison visits. This situation could be relieved by the assignment of additional personnel.

6. During the period of 1 January through 30 June 1954 this RCC received one hundred and thirty-one alerts; of these alerts ninety-seven were actual and thirty-four were false. (This is not a true picture of the number of emergencies within the 32d Air Division (Defense) because, for the first few months, even though correspondence had been initiated, all of the personnel of the various units were not aware of

the establishment of the RCC. Also, the fact that the RCC is not manned 24 hours per day should be considered when reference is made to the number of alerts received). For the period February through June, rescue aircraft from the 46th Air Rescue Service were scrambled on twenty-one emergencies. Of the one hundred thirty-one alerts received, it is impossible from the information available to accredit a specific number of saves to any particular agency. The presence of the RCC in the ADCC and the utilization of the GCI facilities on rescue missions has greatly reduced the number of scrambles which the Air Rescue Squadron normally would be required to perform. The scrambling of ADC fighter aircraft and the diverting of other aircraft in the vicinity of an emergency has also reduced the scramble requirements of the Air Rescue Squadron. The assignment of helicopters at ADC bases has further strengthened the rescue potential within the 32d Air Division. The RCC, through the ADCC communication network, maintains liaison with the units possessing these aircraft and on two occasions within the past period dispatched these aircraft to assist in rescue missions. The effectiveness of the utilization of these aircraft was demonstrated by an H-19 helicopter from Presque Isle Air Force Base which rescued the pilot of a downed ADC fighter. The use of all of the available facilities with a rescue potential in the Division area, whether a fighter to investigate an emergency, a helicopter or a conventional aircraft to perform the rescue, can best be coordinated at the ADCC by the RCC personnel.

7. From a national defense standpoint, the 32d Air Division (Defense) must be considered of vital importance because of the target concentration, the Active Air Defense and "Early Warning" responsibilities. The action taken by this Division will be a crucial factor upon which the entire safety of the nation may depend. Therefore, the RCC being assigned to this division, it also should be considered of prime importance.

8. The daily routine operation of the RCC consists of obtaining the aircraft status from the various rescue organizations, Senior Controller attending the daily briefing of the ADCC (at which time the RCC activities and rescue matters are discussed and coordinated). A daily log is maintained by the controller and activity report is completed daily which stresses the highlights of the day's activities. The Senior Controller receives daily weather briefing and maintains notations of the sea condition of the coastal area adjacent to the 32d Air Division. Also, a procedure has been established whereby the Air Rescue Squadron is alerted any time a fighter aircraft is scrambled over water on an Air Defense mission to unknown target which is penetrating the ADIZ. This is done so that the Air Rescue Squadron is aware of the activities which are taking place within the Air Rescue Squadron's area of responsibility. This service is also a tremendous morale factor for the fighter crews. Senior Controller also monitors

or participated in all ADCC exercises and alerts the squadrons accordingly.

9. Projects initiated during the reporting period were:

a. A continuing program to familiarize the ADCC personnel on Air Rescue Service. This is done by showing appropriate training films and by presenting ARS activities to the staff at the daily briefings.

b. A development of a new interception procedure which would greatly facilitate the interception of a distressed aircraft and in addition provide a closer escort coverage for the modern high speed aircraft.

10. The monthly activity report of this RCC attached herewith is inclosed as a substantiating document to this Historical Report. These monthly activities reports indicate the operational statistics, liaison visits, the air defense exercises and other miscellaneous activities.

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N.Y.

EAOPM

28 Jan 54

SUBJECT: Air Rescue

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station #6  
Syracuse, New York

1. Informal information has been received by this headquarters indicating that helicopters have been assigned to Limestone AFB for rescue purposes. The requirement for rescue equipment (Helicopter) at Presque Isle AFB has been one of long standing. Consequently, it has been the intent of this headquarters to assign rescue type helicopters to Presque Isle AFB at the earliest possible date after their availability. However, in view of the close proximity of Presque Isle AFB to Limestone AFB, it is the opinion of this headquarters that if the above equipment is available, the air rescue requirement at Presque Isle AFB could possibly be provided for by Limestone AFB, thereby eliminating the necessity for duplicating rescue equipment in that area.

2. Provided that the above equipment is on hand at Limestone AFB, desire that you establish liaison with appropriate personnel at Limestone AFB to determine if air rescue can feasibly be provided for Presque Isle AFB. In the event that the air rescue requirement of Presque Isle AFB can be provided, desire that you make whatever arrangements that may be necessary.

3. Direct this headquarters be advised if satisfactory arrangements can be made concerning the above proposal in order that this headquarters can take the necessary programming action regarding rescue equipment.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst. Adjutant

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RESCUE COORDINATION CENTER  
5TH AIR RESCUE GROUP(ARS-MATS)  
SYRACUSE AIR FORCE STATION  
SYRACUSE, 6, NEW YORK

RCC

3 February 1954

SUBJECT: Monthly Activity Report of RCC Activities, 1-31 January 1954  
(Ref: 5th ARG O-3)

TO: Commander  
5th Air Rescue Group (ARS-MATS)  
Westover Air Force Base, Massachusetts

1. RCC personnel:

Senior Controller (CIC) Operations Specialist	Major A/lc	Henry Schmalitz Thomas R Tipton
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2. During the month of January this RCC received a total of eight alerts; six were actual and two were false. Of the six actual alerts, two were aircraft crashes, one was a bailout, one an inflight emergency and two overdue Navy aircraft. Of the two false alerts, one was an accidental transmission on emergency equipment by maintenance personnel and the other was an SOS transmission which could not be located or identified.

3. The following alert is cited for informational purposes:

a. At 1510Z, 30 January 1954, the Presque Isle control tower operator relayed to the "Amazon" RCC that an F-89 had landed at the base without radio contact and noted that the canopy and radar observer were missing. The 45th Air Rescue Squadron was immediately alerted along with the Ground Observer Corps, Coast Guard, Navy, State and local police. After landing, the pilot reported that he lost his canopy between 20,000 and 30,000 feet, and was uncertain of his position and the time that the radar observer ejected. The pilot lost his helmet and oxygen mask when the canopy blew off and was forced to descend immediately. The 45th ARS was unable to get airborne because of the 200 foot ceiling and 1/2 mile visibility at Westover, and heavy, clear icing in the clouds enroute to Presque Isle. The weather in the probable search area was considerably better and base operations at Presque Isle dispatched a C-45, two T-33's and three F-89 aircraft for searching. When the weather at Westover prohibited the 45th ARS from becoming airborne, a request was immediately made of the Canadian RCC at Halifax, N.S., for assistance. The weather also prevented the Canadian aircraft from joining the search; however they are placed on a standby status. At 1645Z, the ADCC weather officer forecasted very unfavorable conditions for the search in the Presque Isle area and advised all aircraft to return to the base immediately. At 1655Z, a report was received from the Ground Observer Corps post near Presque Isle that the radar observer had been located on a farm about five miles southeast of the airbase. The radar observer was found dead with his parachute partially opened. The incident is being investigated by personnel from Presque Isle AFB. The mission was concluded and all participating agencies were alerted.

4. Official visits:

a. On 22 January, the Senior Controller visited Presque Isle AFB, Me.

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RCC Monthly Activity Report, 1-31 Jan 54, 3 Feb 1954

A conference was held with the base operations officer, Captain Earle V Flagg. Some of the items covered in the discussion were:

- (1) Winter survival in Maine.
- (2) Survival equipment.
- (3) Operation and use of the helicopter.
- (4) Communications equipment.
- (5) Availability of base aircraft for search and rescue purposes.

b. On 26 January, Flying Officer Earnest Cooke of the RCAF, visited the 32d Air Division ADCC, and was briefed on the operations and functions of the RCC by the Senior Controller.

c. On 28 January, the Senior Controller visited the 27th Fighter-Interceptor Squadron at Griffiss AFB, Rome, N.Y. A discussion was held with Captain Wilbur Hutchenson, the squadron operations officer. The main points of the discussion were rescue and survival.

d. On 29 January, Major Emerson B Heller of the 5th Air Rescue Group, and Captain Robert J Martin of the 46th Air Rescue Squadron at Westover AFB, Mass, made an informal visit to this RCC.

Info cys to:  
46th ARS  
49th ARS  
26th AD  
32d AD  
EADF  
ADC

HENRY SCHMALTZ  
Major, USAF  
Senior Controller

RESCUE COORDINATION CENTER (ARS-MATS)  
32ND AIR DIVISION (DEFENSE)  
SYRACUSE AIR FORCE STATION  
EASTWOOD STATION 6,  
SYRACUSE, NEW YORK

RCC

3 March 1954

SUBJECT: Monthly Activity Report of RCC Activities, 1-28 February 1954  
(RCS: 5th ARG O-3)

TO: Commander  
5th Air Rescue Group (ARS-MATS)  
Westover Air Force Base, Massachusetts

1. RCC personnel:

Senior Controller (OIC)	Major	Henry Schmaltz
Operations Specialist	A/1c	Thomas R Tipton

2. During the month of February, this RCC received a total of seventeen alerts, of which twelve were actual and five were false. Of the twelve actual alerts, eight were in-flight emergencies and four involved crashed aircraft. Of the five false alerts, one involved an overdue aircraft, one a false report of a bailout, two reported crashes, and one "Mayday" transmission on 6475 kcs. This "Mayday" could not be identified or a fix established. The two false crash reports were attributed to jet aircraft passing through the sonic barrier.

3. The following report is cited for informational purposes:

a. At 1628E, 26 February, Flight Service reported an emergency, AF 9803, a B-25 enroute to Limestone AFB, Maine, was over Millinocket, Maine, at 1621E, at 7000 feet, one propeller feathered. GCI station "Eagle Beak" was alerted and had the aircraft painted on its weapon. At 1633E the 46th AR Sq was alerted. At 1637E "Eagle Beak" established radio contact with AF 9803 on 121.50 mcs. In the meantime the RCC controller requested that "Rams Head 24", an F-89 which was on Combat Air Patrol over Presque Isle, be diverted to intercept and escort AF 9803 to Limestone AFB. At this time, Boston CAA reported that AF 9803 did not request rescue escort. At 1645E "Rams Head 24" made a "Tallyho" on AF 9803. At 1651E "Eagle Beak" painted AF 9803 and "Rams Head 24" over Presque Isle, and at 1703E reported that the B-25 had landed safely at Limestone AFB. The 46th AR Sq was de-alerted and the mission closed.

4. Consolidation of incidents for the month of February on which rescue aircraft were scrambled or diverted from local flights:

a. At 0823E, 6 February, the 46th AR Sq was scrambled to intercept AF 5635, a C-54 returning to Westover on three engines. Boston Control (CAA) also notified the Coast Guard and UF 1275 was also airborne for the intercept. At 1005E another alert was received to intercept and escort AF 2603, a C-54, also returning to Westover on three engines.

RCC Subj: Monthly Activity Report of RCC Actys, 1-28 Feb 54 3 Mar 54

At 1005E, AF 7218, the SA-16 from the 46th AR Sq was diverted to intercept AF 2603, and the Coast Guard UF 1275 completed the intercept on AF 5635. Both C-54's landed safely at Westover and the missions were closed.

b. At 1517E, 7 February, Flight Service alerted this RCC on a reported bailout in the vicinity of Augusta, Maine. Flight Service also reported that the only traffic in the area was a T-33 flying locally out of Dow AFB, Maine. GCI stations were alerted and reported negative communications or radar contact with the T-33. At 1523E an SA-16 of the 46th AR Sq was scrambled for the area of the reported bailout. At 1531E the T-33 landed safely at Dow AFB. With no aircraft in the area missing or overdue, it was assumed that the mission was a false report and the SA-16 returned to Westover. State Police also investigated the report and confirmed the mission to be false.

c. On 19 February, AF 7175, an SA-16 of the 46th AR Sq was diverted from a local flight to investigate a crashed aircraft near Newport Beach, R.I. This information was received from GCI station "Man". Two Navy aircraft were in control of the mission, assistance was not requested, and AF 7175 returned to Westover.

d. On 23 February GCI station "Founder" reported that "Dynamo 79", a Canadian F-86, was missing from a local flight out of Chatham, New Brunswick. Halifax RCC was contacted and they requested the assistance of the 46th AR Sq. AF 7175, an SA-16 of the 46th AR Sq was diverted from a local flight at Westover to Chatham and instructed to report to Squadron Leader Fox, the search commander at Chatham. On 25 February "Dynamo 79" was located through a hole in the ice, approximately one and one-half miles off shore in Shediac Bay, near Moncton. AF 7175 returned to Westover.

5. Official visits:

a. On 6 February, five officer-instructors from the AC&W school at Tyndall AFB, Florida, visited this ADCC and were given a briefing on Air Rescue Service and the operation of the RCC.

b. On 11 February, the ARS film "That Others May Live" was shown and a briefing on Air Rescue Service given by Major Schmaltz to the Syracuse Squadron of the Civil Air Patrol.

c. On 17 February, the ARS film was shown to the personnel of the 27th Fighter-Interceptor Squadron, Griffiss Air Force Base, N.Y.

d. On 19 February, the ARS film was shown at the Officer's Call to the personnel of the 32nd Air Division.

e. On 23 February, the ARS film was shown and a short talk on Air Rescue Service was given by A/lc Tipton to the personnel of the 9300th VART Unit at Syracuse, N.Y.

RCC Subj: Monthly Activity Report of RCC Actys, 1-28 Feb 54 3 Mar 54

f. On 24 February, Majors Roy L Holdiman and Walter J Payne from Headquarters Air Rescue Service made a staff visit to this RCC. Also, twenty-two fighter crew personnel from Otis AFB, Massachusetts, visited this AFCC and were briefed on Air Rescue Service and the operation of the RCC.

g. During the month of February the ARS training film "That Others May Live" was shown on the various shifts to the ADCC crew personnel during their normal tour of duty. This film is also scheduled to be shown on three days in March to personnel who have missed the previous showings.

*Henry Schmalz*  
HENRY SCHMALTZ  
Major, USAF  
Senior Controller

Info to:  
46th AR Sq  
49th AR Sq  
ADC  
EADF  
RCC, 26th Air Div  
32nd Air Div

RESCUE COORDINATION CENTER (ARS-MATS)  
 32D AIR DIVISION (DEFENSE)  
 SYRACUSE AIR FORCE STATION  
 EASTWOOD STATION 6,  
 SYRACUSE, NEW YORK

RCC

3 April 1954

SUBJECT: Monthly Activity Report of RCC Activities, 1-31 March 1954  
 (RCS: 5th ARG O-3)

TO: Commander  
 5th Air Rescue Group (ARS-MATS)  
 Westover Air Force Base, Massachusetts

1. RCC personnel:

Senior Controller (CIC)	Major	Henry Schwartz
Operations Specialist	w/lt	Thomas R Tipton

2. During the month of March this RCC received a total of thirty alerts, of which twenty were actual and ten were false. Of the twenty actual alerts, twelve were in-flight emergencies, two were overdue aircraft, one was a bailout and five were crashes. Of the ten false alerts, six involved radio difficulties, either because equipment was inoperative or because emergency equipment was used improperly: one involved a false report of a crash; two involved false reportings of bailouts that were found to be a radio-controlled target plane and a radio-sonde weather balloon; and one was a flare sighting by GOC, but a communications search produced negative results.

3. The following incident is cited for informational purposes:

a. At 2100Z, 29 March, the 46th Air Rescue Squadron reported that AF #5521, a C-54 which had departed Westover AFB at 1830Z for the Azores, was returning with one engine inoperative and with the possibility of losing another engine. The 46th Sq controller reported AF #5521 was estimating Bel Intersection at 2152Z, and they were scrambling an SA-16 for an intercept and escort. At 2103Z a request was made of GCI station P-10 to control the intercept; this station was shut down for maintenance, but the ADC controller requested they become operational as soon as possible. At 2104Z a request was made of GCI stations P-13 and P-45 (26th AD) for assistance on the intercept. At 2110Z P-10 reported that their station was back in operation and would control the intercept. At 2112Z this RCC requested the 46th Sq to check MATS for the number of passengers aboard AF #5521. At 2117Z SA-16 #7218 was airborne from Westover. At 2120Z a request was made to New York Search for a position report and to determine if the Coast Guard had scrambled any aircraft. They reported that the Coast Guard was not dispatching any aircraft at this time. At 2121Z information was received from the 46th Sq that there were forty-two on board AF #5521. At this time the 46th Sq was queried relative to scrambling the second aircraft. At 2130Z, in view of the nature of the emergency, the number of passengers, the approaching darkness, and the 35 knot headwind, this RCC requested that the second SA-16 be dispatched. At 2134Z Roslyn RCC was requested to have the Coast Guard scramble one UF-1G with instructions for the aircraft to contact P-10 when airborne. At 2148Z, P-10 relayed that SA-16 #7218 was in radio contact with AF #5521, and that it was estimating Boston at 2309Z. At 2150Z P-10 plotted the distressed aircraft at Geo-Ref HN 2205, and was vectoring ~~AF #7218~~ ~~258~~ 9

RCC Subj: Monthly Activity Report of RCC Actys, 1-31 Mar 54 3 Apr 54

for the intercept. At 2204Z, the second SA-16 aborted take-off from Westover because of mechanical difficulties. At 2206Z, CG UF-1G #1280 was airborne from Quonset Point, R.I. At 2215Z, P-10 reported that it had vectored AF #7218 to AF #5521, and that #7218 was in visual contact with #5521. At 2230Z, P-10 reported that UF-1G #1280 was also vectored to #5521. At 2244Z, P-10 reported that #5521 was estimating Westover at 2347Z. At 2250Z and 2311Z, AF 5521 and AF 7218 respectively, landed at Westover AFB; UF-1G 1280 returned to Quonset Point, R.I. All agencies were de-alerted and the mission was complete.

4. A consolidation of incidents for the month of March on which rescue aircraft were scrambled are as follows:

- a. On 1 March, one SA-16 from the 46th AR Sq was scrambled to intercept two lost National Guard F-51's; the F-51's landed safely prior to intercept.
- b. On 25 March, two SA-16's from the 46th AR Sq were scrambled to search for an F-94 which had crashed into the water near Otis AFB; both aircraft returned to Westover because of icing conditions.
- c. On 27 March, one SA-16 from the 46th AR Sq was scrambled to search for a reported bail-out that later turned out to be a radio-sonde weather balloon.
- d. On 29 March, one SA-16 from the 46th AR Sq was scrambled to intercept and escort an R-6D returning to Westover AFB on three engines. Also, this date, one SA-16 from the 46th AR Sq was scrambled to intercept and escort a C-54 returning to Westover on three engines.

5. Official visits:

- a. On 31 March, Major Schmaltz visited Headquarters 5th Air Rescue Group at Westover AFB, Massachusetts.
- b. On the first three days of March, the ARS film "That Others May Live" was shown to personnel of the various sections of the 32d Air Division at Syracuse, New York.
- c. On 8 March, Major Schmaltz, Syracuse RCC, S Sgt Edward R Free and A/1c James H McClimans of the 46th Air Rescue Squadron presented a three hour program on Air Rescue Service, Escape and Evasion, and Survival to the personnel of the 27th Fighter-Interceptor Squadron at Griffis AFB, Rome, N.Y.

Info copy to:  
46th AR Sq  
49th AR Sq  
32d Air Div  
RCC 26th Air Div  
EADF  
ADC

*Henry Schmaltz*  
HENRY SCHMALTZ  
Major USAF  
Senior Controller

RESCUE COORDINATION CENTER  
5TH AIR RESCUE GROUP (ARS-MATS)  
SYRACUSE AIR FORCE STATION  
SYRACUSE, 6, NEW YORK

1 May 1954

RCC

SUBJECT: Monthly Activity Report of RCC Activities, 1-30 April 1954  
(RCS: 5th ARG O-3)

TO: Commander  
5th Air Rescue Group (ARS-MATS)  
Westover Air Force Base, Massachusetts

1. RCC personnel:

Senior Controller (OIC)  
Operations Specialist

Major  
S Sgt

Henry Schmalz  
Thomas R Tipton

2. During the month of April 1954, there were a total of twenty-one alerts, of which fifteen were actual and six were false. Of the fifteen actual alerts, eight were in-flight emergencies; two were missing in flight, and as of the date of this report, are still missing; one was a forced landing by a civilian aircraft; there were two overdue aircraft, one a civilian, located later, and the other was a jet in which the pilot failed to close the flight plan; one was an evacuation from a picket vessel; one was a call for assistance in searching for two drowned fishermen (assistance was requested and received from the helicopter at Fresque Isle AFB, Maine). Of the six false alerts, one was a false report of a crash; one was due to Flight Service forwarding the incorrect take-off time (due to time-zone change-over); two were Mode 4 transmissions (one a "pilot error" without prior notification, the other was an accidental transmission); one was an airline aircraft on a training flight which was inadvertently flying a triangular pattern, indicating an emergency; and one was a failure of an aircraft to make a required position report.

3. The following incident is cited for informational purposes:

a. At 1725L, GCI station "Man" alerted "Amazon", saying that a man aboard Picket Vessel #4 was stricken with acute appendicitis, and requested the patient be evacuated immediately; the vessel, "Toronto Charlie" was at Geo-Ref HM 3759. At 1730L, the 46th Air Rescue Squadron at Westover AFB was notified; they were requested to scramble two SA-16's, one for evacuation and one for top cover during the water landing and escort. At 1746L, Man relayed that the diagnosis of the stricken man was made by a hospital corpsman aboard the vessel, the patient's temperature was 101. At 1747L, the 46th AR Sq reported that one SA-16 would be used for the mission. At this time, Man was instructed to have an F-94 available to fly top cover for the SA-16. At 1826L, AF 7218, SA-16 was airborne from Westover to the picket vessel. At 1835L, Man established radio contact with AF 7218. Radar contact was established at 1838L. At 1840L, the 26th Air Division was notified of the mission and requested they alert the New York Search for possible assistance in the event a water landing is not possible.

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RCC Subj: Monthly Activity Report of RCC Actys, 1-30 Apr 54

4 May 54

At 1920L, Man advised that they have an F-94 standing by to fly top cover for the SA-16. At 1921L, the picket vessel advised they have radar contact with the SA-16 and are vectoring it to the scene. At 1933L, the weather and sea condition was relayed to the SA-16 (sea condition 1). At 1937L, the F-94 scrambled to fly top cover (the first F-94 aborted because of a defective canopy). At 1938L, the SA-16 relayed through Man that a water landing was estimated in 15 minutes. At 1940L, Man relayed that the SA-16 had the picket boat in sight, and was preparing for the water landing. At 1954L, both the SA-16 and the F-94 relayed through Man that the SA-16 had landed on the water and was standing by to take the patient aboard. At 2004L, the 46th AR Sq requested that the SA-16 be advised to bring the patient to Westover AFB. The SA-16 was airborne at 2007L, and advised that the aircraft was OK. At 2022L, Man relayed the final condition of the patient before leaving the picket vessel: Blood count rising rapidly--temperature rising. This information was relayed to the 46th AR Sq, and suggested the possibility of diverting the patient to Otis AFB or to Logan Airport at Boston. The 46th Sq advised that they have the medical personnel and the hospital standing by to handle the patient on arrival. At 2030L, AF 7218 advised that the ETA for Westover was 2130L. At 2040L, the SA-16 advised that the patient was resting easily, with a temperature steady at 101. At 2130L, the following message was received via Man from the Commander, Eastern Sea Frontier: "From COESF--Squadron Commander greatly appreciates the voluntary and effective action taken by the Air Force in airlifting the patient from the picket vessel. Thanks and well done". This message was relayed to the 46th AR Sq. At 2136L, AF 7218 landed at Westover AFB with the patient; mission complete; all agencies were notified and de-alerted.

4. This RCC monitored EADF missions "Green Garter" on 5 April, "Think Fast" on 26 April, and also a series of joint navy fighter-interceptor practice missions on 19 April. On 22 April, the 46th AR Sq dispatched an H-19 to Otis AFB to perform rescue coverage for a gunnery meet of ADC jet aircraft. This RCC coordinated the details, and thru the GCI cites, monitored the mission.

5. On 23 April, President Eisenhower's flight from New York City to Fort Knox, Ky was monitored by this RCC and progress reports were relayed to the 46th and 49th AR Sqs.

6. On 15 April, the RCC communications panel was enlarged with the addition of the direct line to Flight Service. Also, the direct line to the 46th AR Sq was extended to include the 5th Air Rescue Group headquarters.

7. Official visits:

a. On 13 April, Major Schmaltz visited GCI station "Nightcap", where a conference was held with the commander, Major Robert M Kirby.

b. On 23 April, personnel from GCI station "Moscow" and RCAF exchange personnel visited the ADCC and were briefed by the Senior Controller on Air Rescue Service and the RCC.

c. On 26 April, Major Schmaltz visited the Air Route Traffic Control Center and the Air Movement Identification System sections of the Boston CAA; coordination was effected with the chief controller and the sector controller.

RCC Subj: Monthly Activity Report of RCC Actys, 1-30 Apr 54

4 May 54

d. On 26 April, another group of RCAF exchange personnel visited the 32d Air Division ADCC, and, in the absence of the Senior Controller, were briefed on Air Rescue Service and the RCC by S Sgt Tipton.

e. On 24 April, the Senior Controller visited Presque Isle AFB, Maine, and coordinated rescue activities.

f. On 27 April, the films "The Story of the Helicopter" and "The Military Uses of the Helicopter" were shown and a discussion was held with the members of the 9300th VART Unit in Syracuse by S Sgt Tipton.

8. Personnel changes:

a. Effective 1 April, the Operations Specialist received a promotion to staff sergeant.

Info cpys to:  
46th AR Sq  
49th AR Sq  
32d Air Div  
26th AD RCC  
EADF  
ADC

*Henry Schmalz*  
HENRY SCHMALTZ  
M-36, USAF  
Senior Controller

COPY

RESCUE COORDINATION CENTER  
5TH AIR RESCUE GROUP(ARS-MATS)  
SYRACUSE AIR FORCE STATION  
SYRACUSE 6, NEW YORK

RCC

11 May 1954

SUBJECT: Monthly Activity Report of RCC Activities, 1-30 April 1954

TO: Commander  
5th Air Rescue Group (ARS-MATS)  
Westover Air Force Base, Massachusetts

1. Reference RCC Monthly Activity Report for April 1954. Paragraph 3b, indicating the number of aircraft scrambles performed during the month of April was omitted in error. Subject report should have included the following information:

a. On 9 April, an SA-16 was scrambled from the 46th Air Rescue Squadron to intercept and escort a C-54 enroute from Bermuda to Westover AFB with one engine inoperative.

b. On 26 April, an SA-16 was scrambled from the 46th Air Rescue Squadron to intercept and escort a B-17 which was transmitting a Mode 4 emergency signal.

c. On 30 April, an SA-16 was scrambled from the 46th Air Rescue Squadron to evacuate a patient from a picket vessel (see par 3a of the monthly report).

HENRY SCHMALTZ  
Major, USAF  
Senior Controller

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RESCUE COORDINATION CENTER  
5TH AIR RESCUE GROUP(ARS-MATS)  
SYRACUSE AIR FORCE STATION  
SYRACUSE, 6, NEW YORK

RCC

3 June 1954

SUBJECT: Monthly Activity Report of RCC Activities, 1-31 May 1954  
(RCS: 5th ARG O-3)

TO: Commander  
5th Air Rescue Group (ARS-MATS)  
Westover Air Force Base, Massachusetts

1. RCC personnel:

Senior Controller (OIC)	Major	Henry Schmaltz
Operations Specialist	S Sgt	Thomas R Tipton

2. During the month of May 1954, there were a total of thirty-two alerts, of which twenty-four were actual and eight were false. Of the twenty-four actual alerts, thirteen were in-flight emergencies, one of which resulted in the crew bailing out and the aircraft crashing; seven were crash reports and one was a request for the evacuation of a patient from a military transport at sea; there were three aircraft reported overdue. Of the eight false reports, seven were Mode 4 transmissions, and one was a reported triangular emergency pattern; of the seven Mode 4's, four were apparently from navy aircraft, as they all faded in the vicinity of Quonset Point NAS, R.I.

3. There were a total of twenty aircraft scrambled on eight of the thirty-two alerts; seven were from the 46th Air Rescue Squadron at Westover AFB, two were from the Coast Guard, and eleven were from various ADC bases.

4. The following incident is cited for informational purposes:

a. At 1059L, 24 May, "Rams Head 30" (an F-89) reported to GCI that he had 1700 pounds of fuel remaining (approx 40 minutes) and was lost, but thought his position to be in the vicinity of Millinocket, Me. At 1128L, "Eagle Beak" alerted the RCC and ADCC. GCI cites "Founder" and "Wild Bill" were also alerted, but none were able to positively identify the aircraft on their "weapons", and the last radio contact was made at 1102L. Two minutes after the RCC was alerted, the 46th Air Rescue Squadron at Westover AFB was requested to scramble the alert aircraft; twenty minutes later the SA-16 was airborne with the para-medical team. At 1134L, two F-89's were diverted to the Millinocket area in an attempt to establish contact with "Rams Head 30". While this action was taking place, Boston Search (Coast Guard), Flight Service, NY Search and GOC were alerted, as well as a ramp check at Presque Isle AFB, with negative results. At 1154L, an ADC helicopter and C-47 were placed on stand-by at the Presque Isle base. At 1200L, two more flights of fighter-interceptors were diverted to investigate an unknown target; however, it faded before an intercept could be made. At 1204L, the RCC assigned the C-47 from Presque Isle a search area and requested the helicopter to proceed to Millinocket for further instructions. At 1206L, information was

RCC Subj: Monthly Activity Report of RCC Actys, 1-31 May 54

3 Jun 54

received from the base operations officer (Capt Flagg) at Presque Isle that a report had been received via telephone that the radar operator had bailed out in the vicinity of Millinocket. This was confirmed at 1221L, the location being approximately 45 50N, 69 10W, having bailed out between seven and eight thousand feet. At 1231L, additional aircraft were requested and assigned search areas in the vicinity of Millinocket. At 1256L, a report was received from Capt Flagg at Presque Isle that the second parachute was sighted approximately one and one-half miles from the first one. At 1336L, the pilot was reported to be hanging in the harness of his parachute which was caught in the trees. At 1346L, and 1352L, the helicopter and the SA-16, respectively, were reported over the scene; a check by the helicopter revealed that the pilot was not in the harness and could not be located. By this time, instructions had been forwarded to the SA-16 to have the para-medics jump in order to locate the pilot and render such medical attention as may be necessary. After the medics had jumped, the H-19 located the pilot and and evacuated him to Millinocket. The helicopter returned to the scene and picked up the para-medical team; while waiting for the medics to be evacuated to the Millinocket airport, the SA-16 searched for the crashed aircraft. After the medics were picked up by the SA-16, they returned to Westover and the mission was closed out. Radar surveillance and communications contact was maintained with the search aircraft during the mission thru the GCI cites and the CAA radio station at Millinocket. After the initial alert was received, excellent cooperation and maximum utilization of available resources was received from all participating agencies.

#### 5. Official visits:

- a. On 6 May, twenty-two operations personnel from the GCI cite "Moscow" visited the Control Center and were briefed on the operation of the RCC.
  - b. On 10 May, fifty-one AFROTC cadets visited the Control Center from Cornell University and were briefed on the operations of the RCC and Air Rescue Service; they were also shown two training film on military helicopters.
  - c. On 19 May, Major George Kallis and Captain William Thompson, of the Olmstead Flight Service Center visited the Control Center and were briefed on the operation of the RCC and its responsibilities.
  - d. On 27 May, Wing Commander Thomas G Anderson, from the RCAF Control Center #3, visited the Control Center and was briefed on the operation of the RCC.
6. EADF missions "Full House", "Think Fast #2 and 3", "Big Photo" and "Brown Trout" and a 5th ARG special mission to Canada were monitored by the RCC in May.

Info cys to:  
 46th ARS  
 49th ARS  
 32d AD  
 26th AD RCC  
 EADF  
 ADC

HENRY SCHMALTZ  
 Major, USAF  
 Senior Controller

RESCUE COORDINATION CENTER  
5TH AIR RESCUE GROUP(ARS-MATS)  
SYRACUSE AIR FORCE STATION  
SYRACUSE 6, NEW YORK

RCC

3 July 1954

SUBJECT: Monthly Activity Report of RCC Activities, 1-30 June 1954

TO: Commander  
5th Air Rescue Group (ARS-MATS)  
Westover Air Force Base, Massachusetts

1. RCC personnel:

Senior Controller (OIC)	Major	Henry Schmaltz
Operations Specialist	S Sgt	Thomas R Tipton

2. During the month of June 1954, there were a total of twenty-three alerts; twenty were actual and three were false reports of aircraft crashes. Of the twenty actual alerts, ten were in-flight emergencies, six were overdue, three were crashes and one was a forced landing. The wreckage of a previous alert (24 May) was located and reported to the RCC on 4 June.

3. There were eleven aircraft scrambled or vectored on five of the twenty-three alerts; two were from the 46th Air Rescue Squadron at Westover AFB (one H-19 and one SA-16), one Coast Guard, two Navy and six ADC aircraft.

4. Official visits:

a. On 3 June, Col H.C. Vaughn, of EADF headquarters, visited the ADCC and the RCC, and was briefed on the operations of Air Rescue Service and the RCC.

b. On 21 June, the operations personnel from GCI station P-49 visited the ADCC and were briefed on the operation of the RCC.

c. On 24 June, the color film on the A-3 airborne lifeboat was shown to the personnel of the Syracuse CAP Squadron.

d. On 29 June, Major Schmaltz visited EADF headquarters to coordinate Air Rescue Service activities relative to the RCC.

5. The following EADF and 32d Air Division missions were monitored during the month of June: "Think Fast #4, 5, & 6" and "Pogo Stick #2". The RCC personnel participated in the 32d Air Division exercise "Turn Around", which included simulated rescue missions.

Info cys to:  
46th ARS  
49th ARS  
26th AD RCC  
32d AD  
EADF & ADC

*Henry Schmaltz*  
HENRY SCHMALTZ  
Major, USAF  
Senior Controller

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OPERATION PLAN NO 3-54

(AIR-LIFT SUPPORT FOR CONTINENTAL DIVISION MATS

OPERATIONS PLAN NO. 502-53)

1 JUNE 1954

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OFR

1 June 1954

SUBJECT: (Unclassified) 32d Air Division (Defense) Operations Plan 3-54

TO: See Distribution

1. Inclosed is subject plan.
2. The purpose of this plan is to provide emergency airlift forces as may be required by the implementation of EADF Operations Plan 3-53 in support of CNTLD MATS Operations Plan 502-53.
3. Air Defense Wings will prepare supplementary instructions, directives or plans as required to support this contingency plan.
4. Revisions and/or amendments to 32nd Air Division (Defense) Operations Plan 3-54 will be issued as required.
5. When inclosures are withdrawn or not attached, the classification of Confidential as on this letter will be canceled.

FOR THE COMMANDER:

1 Incl:  
32D AD(D) Ops Plan  
3-54

*F E York*  
FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

DISTRIBUTION:

ADC - 2  
EADF - 3  
4707th Def Wg - 5  
4711th Def Wg - 5  
Continental Div MATS - 2  
32nd Air Div - 13 (ODO, OOT, PDP, MDM, ADJ, CCG, OPR - 2, CAH - 5 )  
(TOTAL - 30 copies)

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OPRS PLAN 3-54  
1 JUNE 1954  
HQ 32D AD(D)

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OPERATIONS PLAN  
Serial No 3-54

HEADQUARTERS, 32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Sta 6  
Syracuse, New York  
1 June 1954

CHARTS AND MAP REFERENCES

As Required

TASK ORGANIZATION

4707th Defense Wing

4711th Defense Wing

1. GENERAL SITUATION: This plan is designed to support EADF Operations Plan 3-54. The Chief of Staff, USAF, is responsible for making available specified military airlift to meet any pending emergency caused by suspension of rail services and/or other domestic emergencies; and has designated the Commander, MATS, as the Task Force Commander to plan for and exercise operational control over all military owned transport aircraft. The Commander, Continental Division, MATS has been designated the Deputy Task Force Commander.

a. Friendly Forces.

(1) The U.S. Army and the U.S. Navy will provide such other assistance as may be required in the support of this plan. In accordance with CONTLD MATS Plan #502-53.

b. Assumptions.

(1) A widespread and prolonged suspension of rail service within the U.S. would necessitate the intensive utilization of Military airlift to meet the emergency.

(2) The Chief of Staff, USAF, will be responsible for the utilization of all military transport aircraft devoted to this emergency operation.

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- (3) The Department of the Navy, Air Force and the National Guard will be ordered to make available as many transport aircraft as possible, without impairing their military commitments. (In accordance with COMFLD, MATS Ops Plan 503-53).
- (4) For purposes of this plan, only twin engine aircraft assigned within the continental U.S. will be utilized. A minimum of fifty per cent (50%) of all military twin engine aircraft of Friendly Forces will be made available.
- (5) Aircraft, personnel, and facilities will be utilized on a seven day per week twenty-four hour per day basis.

2. MISSION: To position twin-engine transport aircraft, personnel, equipment and supplies of this command in order to support continental Division MATS in the execution of:

- a. Accomplishing movement of priority military personnel and cargo during an emergency.
- b. Utilization of all available military airlift, not required for priority personnel and cargo to transport other personnel and cargo, in accordance with approved priorities.

3. TASKS FOR PARTICIPATING COMMANDS AND SUBORDINATE UNITS:

- a. The following commands will provide facilities and logistical support at specified centralized control points as established by the Tasks Force Headquarters:

Air Materiel Command

Strategic Air Command

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Tactical Air Command  
Military Air Transport Service  
Air Defense Command  
Air Training Command  
Fleet Logistic Air Wing, Atlantic (Continental)  
Atlantic Division, MATS  
Pacific Division, MATS  
Continental Division, MATS

b. Headquarters, Continental Division MATS will be established as Task Force Headquarters. This MATS Division will assume operation control of all aircraft participating in this plan.

c. 4707th Defense Wing will:

- (1) Deploy two (2) C-47 Aircraft, crews, operations and maintenance personnel to Tinker Air Force Base. See Annex "A" Appendix IV.
- (2) Deploy personnel to aid in establishing a air transport Group to Tinker Air Force Base, See Annex "A" Appendix II.

d. 4711th Defense Wing will:

- (1) Deploy two (2) C-47 aircraft, crews, operations and maintenance personnel to Tinker Air Force Base. See Annex "A" Appendix V.
- (2) Deploy personnel to aid in establishing a Air Transport Group to Tinker Air Force Base, See Annex "A" Appendix III.

X. GENERAL:

- (1) This plan will become effective when directed by the Commander, 32d Air Division (Defense).

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1 June 1954  
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- (2) Aircraft, crews, and personnel will be in position at deployment bases within 24 hours after receipt of the implementing orders of this plan. Aircraft deployed will arrive at base of operations with at least 30 hours flying time remaining prior to next inspection.
- (3) Operational Control of all participating aircraft and personnel will be assumed by Task Force Headquarters, Continental Division MATS. Operations will be conducted in accordance with CNTLD MATS Op's Plan 502-53.
- (4) Participation of aircraft in this plan will be based on a six (6) hour daily utilization (180 hours per month).
- (5) The Task Organization Defense Wing Commanders will prepare supplementary instructions, directives, or plans necessary to accomplish this mission. These publications will receive the necessary review to maintain a current status.
- (6) If at any time subsequent to the receipt or the implementation of this plan Defense Wing Commanders determine that they will be unable to support the requirements of this plan, this headquarters will be advised immediately.

4. ADMINISTRATION AND LOGISTICAL MATTERS:

a. Personnel. See Annex A.

- (1) Personnel with suitable civilian background, secondary AFSC's or related AFSC's will be utilized if AFSC's called for are not available.

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1 June 1954  
HQ 32D AD(D)

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b. Supply and Service Responsibilities. See Annex "B".

- (1) No action will be taken towards prestocking, programming for resources or mobilizing forces and equipment. This does not preclude the preparation of lists of equipment and supplies necessary for this plan or advanced supply and service planning.

5. COMMAND AND COMMUNICATIONS:

a. Command. Commander, Continental Division, MATS, will assume operational control as Deputy Task Force Commander upon implementation of this plan. Continental Division MATS Headquarters will be designated as Task Force Headquarters.

b. Communication. In accordance with CNTLD MATS Operation's Plan No. #502-53.

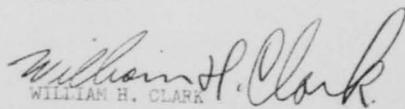
ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

DISTRIBUTION:

ADC - 2  
EADF - 3  
4707th Def Wg - 5  
4711th Def Wg - 5  
Continental Div MATS - 2  
32nd Air Div - 13 (ODO, OOT, PDP, MDM, ADJ, CCG, OPR - 2, CAH - 5)

(TOTAL - 30 copies )

OFFICIAL:

  
WILLIAM H. CLARK  
Colonel, USAF  
Deputy Commander

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ANNEX "A"

TO

32ND AIR DIVISION OPS PLAN

3-54

PERSONNEL AND ADMINISTRATION

1. ORGANIZATION:

a. The Deputy Task Force Commander will assume operational control of all elements of this plan and will be directly responsible to Commander MATS.

b. The organization at each location will consist of an Air Transport Group (Provisional), Air Transport Squadron (Provisional) and an Air Traffic Squadron (Provisional).

2. STRENGTH, REPORTS, RECORDS & REPLACEMENTS:

a. Strength reporting will be in accordance with current directives (AFR 20-38 and AFM 171-6), and such additional instructions as the Deputy Task Force Commander may direct.

b. Personnel reporting required as follows:

- (1) Upon implementation of this plan, a personnel requisition listing skills necessary for the accomplishment of this mission, over and above the resources available to the Provisional Group Commander, will be forwarded to the Deputy Task Force Commander. Requisitions will indicated number in AFSC, transmission will be by electrical means.

ANNEX "A"  
OPRS PLAN 3-54  
1 June 1954  
HQ 32D AD(D)

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(2) Seventy-two (72) hours after implementation, provisional Group Commander will reflect the effectual personnel in place by duty AFSC and operating site.

c. Personnel records will be handled in accordance with current directives. Temporary information copies of service records and form 66 will accompany personnel to provisional groups and squadrons, with appropriate handling and disposition being effected.

d. Replacement personnel procedures will be in accordance with current directives and such policy as established by Deputy Task Force Commander.

3. PERSONNEL SUBSTITUTIONS:

a. Possibility exists that AFSC's peculiar to MATS Operation as specified in Appendix I and II. Annex A BADF Op's Plan 3-53 will not be available. Personnel with suitable civilian background secondary AFSC's or related AFSC will be utilized.

4. TASK ORGANIZATIONS:

a. 4707th Defense Wing will supply personnel as listed in Appendix II & IV.

b. 4711th Defense Wing will supply personnel as listed in Appendix III & V.

5. AIR CREW QUALIFICATIONS:

See Appendix I.

ANNEX "A"  
OPRS PLAN 3-54  
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BREAK-DOWN OF THE T/D CREW AND MAINTENANCE PERSONNEL REQUIREMENTS IN RADIO TO AIRCRAFT

	UNIT	AFSC	GRADE	TOTAL	COMM'D	OP'S	CREWS	MATERIAL
1	Flight Commander C/O	1416	Maj	1				
2	Pilot, Two-engine	1044C	Capt	8			8	
3	Pilot, Two-engine	1044C	Lts	8			8	
4	Operations Officer	1435	Capt	1		1		
5	Acft Maint Officer	4344	Capt	1				1
1	Sr Statistical Spec1	83150	S/Sgt	1				1
2	Sr Personnel Spec1	73250	Sgt	1	1			
3	Sr Clerk	70250	S/Sgt	1				1
4	Sr Clerk	70250	Sgt	1	1			
5	Appren Clerk	70230	Cpl	2		1		1
6	Clerk Helper	70010	Pvt	1				1
7	Orgn Supply Super	64173	T/Sgt	1				1
8	Sr Orgn Supply Spec1	64151	S/Sgt	1				1
9	Appren Orgn Supply Spec1	64131	Cpl	1				1
10	Appren Airframe Rorman	52430	Cpl	1				1
11	Sr Metal Processing Spec1	53250	S/Sgt	1				1
12	Sr Metal Processing Spec1	53250	Sgt	1				1
13	Flt Mech Tech	4317W	T/Sgt	8			8	
14	A/C Maint Tech	43171	M/Sgt	9				9
15	A/C Maint Tech	43171D	T/Sgt	1				1
16	A/C Maint Supvr	43170	M/Sgt	2				2
17	Sr A/C Instr Mech	43156	S/Sgt	1				1
18	Sr A/C Electrician	43154	S/Sgt	1				1
19	Sr A/C Recip Eng Mech	43152E	S/Sgt	1				1
20	Sr A/C Mechanic	43151D	S/Sgt	4				4

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APPENDIX I

TO

ANNEX "A"

AIRCREW COMPLEMENTS AND QUALIFICATIONS

1. AIRCREW COMPLEMENTS:

a. The minimum crew complement for all aircraft will consist of a pilot, co-pilot, and aerial engineer. Commander responsible for airlift is authorized to augment the aircrew as necessary.

2. AIRCREW QUALIFICATIONS:

a. Prior to assignment to an Transport Mission:

- (1) All crew members will be current in the crew position for the model aircraft to which assigned in accordance with requirements established by parent command.
- (2) Pilot and co-pilot will possess a current instrument rating (AF Form 8 or 8A).
- (3) All pilots assigned to plush type aircraft for the purpose of transporting VIP personnel will be required to meet the following additional crew qualifications:

Pilot

Flight Experience	1200
Night	75
Time in model	100
Instrument (Actual or Simulated)	75
May be accomplished in Synthetic Trainer	10

APPENDIX I  
OPRS PLAN 3-54  
1 June 1954  
HQ 32D AD(D)

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Flight Experience	<u>Co-Pilot</u>	200 or more flying hours, complete a flight check to fulfill requirements established on MATS Form #10
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APPENDIX I  
OPRS PLAN 3-54  
1 June 1954  
HQ 32D AD(D)

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APPENDIX II

TO

ANNEX "A"

4707TH PERSONNEL FOR MANNING PROVISIONAL GROUP

Title	AFSC	GRADE	OFF	AMN
<u>Command</u>				
Commanding Off	0066B	Col	1	
<u>Personnel and Administration</u>				
Adjutant	7324	Capt	1	
Career Gdnce Spec1	73150	A/1C		1
Personnel Supvr	73270	M/Sgt		1
<u>Operations</u>				
Air Operations Off	1435	L/Col	1	
Air Operations Spec1	27150	A/1C		2
Air Operations Supvr	27170	M/Sgt		1
<u>Material</u>				
Acft Maintenance Off	4344	Maj	1	
Radio Maint Supvr	30170	M/Sgt		1
Acft Maint Tech	43171D	M/Sgt		1
Orgn Supply Supvr	64173	M/Sgt		1
<u>Traffic</u>				
Air Trans Off	6024	Maj	1	
Appren Clerk	70230	A/2C		1
			TOTAL	5 9

GRADE NUMBER	COL	L/COL	MAJ	CAPT	LT.	M/SGT	T/SGT	S/SGT	A/1C	A/2C
	1	1	2	1		5			3	1

APPENDIX II  
 OPRS PLAN 3-54  
 1 June 1954  
 HQ 32D AD(D)

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APPENDIX III

TO

ANNEX "A"

4711TH PERSONNEL FOR MANNING PROVISIONAL GROUP

<u>TITLE</u>	<u>AFSC</u>	<u>GRADE</u>	<u>OFF</u>	<u>AMN</u>						
<u>Command</u>										
Executive Off	7024	Maj	1							
Sr Clerk	70250	S/Sgt		1						
<u>Personnel &amp; Administration</u>										
Clerk	70250	A/1C		2						
Sr Personnel Spec1	73250	S/Sgt		1						
Sr Statistical Spec1	83150	S/Sgt		1						
<u>Operations</u>										
Chief Pilot	1044B	Maj	1							
Air Operations Officer	1435	Maj	1							
Sr Air Opns Spec1	27150	S/Sgt		1						
Clerk	70250	A/1C		1						
<u>Material</u>										
Supply Off	6224	Lt.	1							
Acft Maint Tech	43171D	T/Sgt		1						
Sr Orgn Supply Spec1	64151	S/Sgt		1						
Clerk	70250	A/1C		1						
<u>Traffic</u>										
Air Trans Supvr	60170	M/Sgt		2						
Clerk	70250	A/1C		1						
			TOTAL	4 13						
GRADE	COL	L/COL	MAJ	CAPT	LT.	M/SGT	T/SGT	S/SGT	A/1C	A/2C
NUMBER			3		1	2	1	5	5	

APPENDIX III  
OPRS PLAN 3-54  
1 June 1954

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APPENDIX IV

TO

ANNEX "A"

4707th Defense Wing T/D crew, operations and maintenance personnel requirements in ratio to aircraft, as contained in par #4, a, (1) Annex A EADF Ops Plan #3-54.

<u>TITLE</u>	<u>AFSC</u>	<u>GRADE</u>	<u>OFF</u>	<u>AMN</u>
<u>Command</u>				
Flight Commander C/O	1416	Maj	1	
<u>Operations</u>				
Appren Clerk	70250	Cpl		1
<u>Crews</u>				
Pilot, Two-engine	1044C	Capt	4	
Pilot, Two-engine	1044C	Lt.	4	
Flt. Mech Tech	4317W	T/Sgt		4
<u>Material</u>				
Acft Maint Off	4344	Capt	1	
Sr Statistical Spec1	83150	S/Sgt		1
Sr Clerk	70250	S/Sgt		1
Clerk Helper	70010	Pvt		1
Sr Orgn Supply Spec1	64151	S/Sgt		1
Appren Air Frame Rprman	53430	Cpl		1
Sr Metal Processing Spec1	53250	Sgt		1

APPENDIX IV  
OPRS PLAN 3-54  
1 June 1954  
HQ 32D AD(D)

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<u>TITLE</u>	<u>AFSC</u>	<u>GRADE</u>	<u>OFF</u>	<u>AMN</u>
A/C Maint Tech	43171D	M/Sgt		4
A/C Maint Supvr	4317D	M/Sgt		1
Sr A/C Instr Mech	43156	S/Sgt		1
Sr A/C Recip Eng Mech	43152E	S/Sgt		1
Sr A/C Mechanic	43151D	S/Sgt		2
Sr A/C Mechanic	43151D	S/Sgt		1
A/C Electrician	43134B	Sgt		1
Appren A/C Mech	43131D	Cpl		3
Sr A/C Propeller Mech	42350	S/Sgt		1
Sr Radio Mech (Adm Eg)	30150	S/Sgt		1
App Radio Mech (Adm Eg)	30130	Cpl		1
			TOTAL	10 28

APPENDIX IV  
 CPFS PLAN 3-54  
 1 June 1954  
 HQ 32D AD(D)

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APPENDIX V

TO

ANNEX A

4711th Defense Wing T/D crew, operations and maintenance personnel requirements in ratio to aircraft as contained in paragraph #4, a. (1) Annex A EADF Ops Plan 3-53.

<u>TITLE</u>	<u>AFSC</u>	<u>GRADE</u>	<u>OFF</u>	<u>AMN</u>
<u>Command</u>				
Sr Pers Spec1	73250	Sgt		1
Sr Clerk	70250	Sgt		1
<u>Operations</u>				
Operations Officer	1435	Capt	1	
Air Opns Supvr	27170	T/Sgt		1
<u>Crews</u>				
Pilot, Two-engine	10440	Capt	4	
Pilot, Two-engine	10440	Lt.	4	
Flt Mech Tech	43171W	T/Sgt		4
<u>Material</u>				
Appren Clerk	70230	Cpl		1
Orgn Supply Supvr	64173	T/Sgt		1
Appren Orgn Supply Spec1	64131	Cpl		1
Sr. Metal Processing Spec1	53250	S/Sgt		1
A/C Maint Tech	43171D	M/Sgt		5

APPENDIX V  
OPRS PLAN 3-54  
1 June 1954  
HQ 32D AD(D)

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A/C Maint Tech	43171D	T/Sgt	1
A/C Maint Supvr	43170	M/Sgt	1
Sr A/C Electrician	43154	S/Sgt	1
Sr A/C Mechanic	43151D	S/Sgt	2
Sr A/C Mechanic	43151D	S/Sgt	2
A/C Instrument Mech	43136	Sgt	1
Appren A/C Mech	43131D	Cpl	3
Sr A/C Propeller Mech	42350	Sgt	1
Sr Radio Mech (Abn Eg)	30150	Sgt	1
<hr/>			
	TOTAL	9	29

APPENDIX V  
OPRS PLAN 3-54  
1 June 1954  
HQ 32D AD(D)

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ANNEX "B"

TO

32ND OPERATION PLAN 3-54

SUPPLY AND SERVICE RESPONSIBILITIES

1. Defense Wings will:

Perform supply and service responsibilities as outlined in

Annex B Hq. EADF Op's Plan No. 3-53 "Airlift Support for Continental  
Division MATS".

ANNEX B  
OPRS PLAN 3-54  
1 June 1954  
HQ 32D AD(D)

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0905

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# MEDICAL HISTORICAL REPORT of the 32d AIR DIVISION (DEFENSE)

ADC  
1-11  
1-11  
K-DIV-32-111  
JAN - JUN 1954  
V.8  
RETR: [unclear]  
Director [unclear] Institute  
[unclear] [unclear]  
[unclear] [unclear]  
[unclear] [unclear]  
[unclear] [unclear]



AN AIR DEFENSE MEDICAL FACILITY  
1 JANUARY - 30 JUNE 1954

PREPARED BY  
THE DIVISION MEDICAL AND DENTAL SECTIONS  
HEADQUARTERS 32d AIR DIVISION (DEFENSE)  
SYRACUSE AIR FORCE STATION, EASTWOOD STATION 6  
SYRACUSE, NEW YORK

1-11

3-2358-111A

Encl 12

MEDICAL HISTORICAL REPORT  
of the  
32D AIR DIVISION (DEFENSE)

RCS-1-AF-D2

AN AIR DEFENSE MEDICAL FACILITY

Headquarters, 32d Air Division (Defense)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

1 January 1954 - 30 June 1954

Historical Officer:

GEORGE K. REBERDY  
Major, USAF (MC)

Ass't to the Historical Officer:

NICKOLAS F. KOBYLK  
Captain, USAF (MSC)

CHAIN OF COMMAND

UNITED STATES AIR FORCE  
AIR DEFENSE COMMAND  
EASTERN AIR DEFENSE COMMAND  
32D AIR DIVISION (DEFENSE)

8-8359-11A

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FOREWORD

This history, covering the period January through July 1954, is presented with the hope that it may be of use in evaluating the Air Defense Command medical program of 1954.

The medical and dental sections endeavored to carry out the primary aims in protecting and maintaining the health of Air Force personnel. The medical support required was of two types: first, staff services for the division commander and second, medical services for members of the command which included both ground and flying personnel. The decrease in trained medical personnel had presented problems in maintaining good medical services. Some phases of the Medical service program previously offered on a broader scale of operation were curtailed by this staffing problem. However, steps have been taken to bring about greater effectiveness of medical service.

The medical historians wish to thank the many people who have aided in the compilation of this history. Special notes of gratitude are due S/Sgt. Gordon A. Wetherbee, Senior Medical Administrative Specialist. His understanding of the problems of the medical and dental sections greatly aided the historians in the writing of this report. Special thanks are due S/Sgt. Keith B. Berwick, Historian of the 32d Air Division(Defense), for his many helpful suggestions, Mrs. Betty Jayne Baranello, for typing this history, A/2c Bess Melvin, for taking the photographs and A/1c Elenor A. Metz and A/1c Robert D. Bergeron for their aid in compiling data.

CHAPTER I - BROAD OBSERVATIONS

HEALTH OF THE COMMAND

The usual seasonal incidences of upper respiratory infections and common colds were seen during the period of this report; especially tonsillitis, laryngitis, pharyngitis and bronchitis. During the six months of the previous historical report one case of influenza, two cases of pneumonia (primary) and one case of pneumonia (other) were reported. No incidences of the above were reported during this six month period although one case of broncho-pneumonia was reported in June 1954.

A stepped-up preventive medicine inspection program (more frequent visits to subordinate units by the Division Surgeon ) and timely and accurate diagnosis of diseases and injuries by all squadrons contributed to a stable health situation within the command.

MISSION OF COMMAND

The missions of the 32d Air Division (Defense) are as follows in order of general priority: To conduct the air defense of the United States within a sector of a region designated for the Eastern Air Defense Force. To support the operations of the Strategic Air Command, the Tactical Air Command and the Military Air Transport Service as directed

1. Preventive Medicine Inspection Chart. (s.d. A)
2. Eastern Air Defense Force Regulation 23-5, dated 24 November 1953.
3. This station, the Syracuse Air Force Station, is occupied by the 32d Air Division (Defense) Headquarters, the mission of which is the administrative and operational control of those air defense units which conduct the active air defense of its assigned geographical area in the northeastern United States. (See 32d Air Division (Defense) Area of Responsibility Chart. (s.d. B)

by Eastern Air Defense Force. To participate in the collateral mission of anti-submarine warfare as directed by Headquarters, Eastern Air Defense Force. To administer, equip, train and prepare for combat, in accordance with directives, policies and schedules issued by Headquarters, Eastern Air Defense Force, such units and combat crews of the United States Air Force as may be designated, assigned or attached to the 32d Air Division (Defense).

TYPE OF MEDICAL SUPPORT

Following is an outline of the types of medical support which were necessary to the 32d Air Division (Defense) during the months January through June 1954.

Staff services for the division commander (such services carried out by the division surgeon) included formulation and interpretation of policies regarding maintenance and improvement of health standards; conferring with commanders and staff members concerning established manning, equipping, and operating of medical facilities and units within the division; and informing the commander on matters affecting the health and physical welfare of personnel. The division surgeon also was responsible for planning and determining personnel, material and facility requirements necessary to the medical service mission, and supervising the expenditure of medical project funds.

Medical services for the command as a whole included monitoring and supervising medical service of subordinate units, including the clinical medicine, preventive medicine and air crew effectiveness programs. The organization of essential training and educational programs of a medical nature was also considered part of the necessary medical support.

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Although not considered necessary medical support, dependent care was conducted during this period at the Headquarters Squadron of the 32d Air Division (Defense) as it had proved to be an important morale factor in the past.

MEDICAL RELATIONSHIPS - COMMAND AND STAFF

Relations between the command and medical staff continued to be excellent. The Division Commander, Colonel Robert S. Israel, Jr., has constantly insisted that all sections of the Division Headquarters give full cooperation to the medical staff. Cooperation was asked of both military and dependent personnel in not abusing sick-call hours. Continued aid in effecting greater utilization of available medical personnel, by freeing medical officers from detailed administrative duties not specifically required by regulation, was also given by the command.

The command has also been responsible for assigning priority to military aircraft for the division surgeon in order that he might complete his necessary staff visits to *AC&W* Squadrons with expediency.

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CHAPTER II - PLANS AND HOSPITALIZATION

MEDICAL ORGANIZATION

The medical organization of the 32d Air Division (Defense), during the period of this report, was based upon the principle of providing medical care and accomplishing medical administrative duties for the Aircraft Control and Warning Squadrons and the personnel assigned to Headquarters, 32d Air Division (Defense).

The division surgeon advised the division commander on matters incident to the health of the command as a whole and carried out the medical administration of the AC&W squadrons assigned.

The operation of the squadron medical organization during this reporting period was considered as adequate as previously reported<sup>1</sup> with similar exceptions. Cases of minor illnesses and cases requiring medical observation could not be handled at the squadron dispensaries because no medical beds were authorized. (This is with the exception of the 654th AC&W Squadron at Brunswick Naval Air Station which had the use of the Naval Infirmary at its disposal.) Thus such cases had to be treated in quarters or evacuated to the nearest USAF hospitals, at distances from the squadrons ranging from eight to one hundred twenty miles.<sup>2</sup> Laboratory work necessary for physical examinations had to be accomplished at USAF hospitals due to lack of equipment and trained medical personnel at the squadrons. Such situations involved loss of

1. See Medical Historical Report - Medical and Dental Sections, Hq., 32d Air Division (Defense), Syracuse AF Station, Eastwood Station 6, Syracuse, New York, July 1953 - December 1953, Chapter II - Plans and Hospitalization.
2. Data on the distance of US Government Operated Medical Facilities that are nearest to Air Force Station of the 32d Air Division (Defense) (s.d. D)

an appreciable number of man hours.

Deficiencies also existed in the organization of medical facilities of the division as a whole. This current organization, however, as specified by higher headquarters, did not allow the administration of all medical facilities of the Division by the surgeon during this period. His authority was limited to direction of medical services in AC&W squadrons. Liaison and relations between the division surgeon and the various medical facilities were at times most inadequate as to authority and responsibility.

The AC&W squadrons of this division are located in the northeastern states of Maine, Vermont, Massachusetts and New York. To provide adequate medical care for these sites a dispensary is set up at each site with at least one independent duty technician on duty. With the exception of the 654th AC&W Squadron at Brunswick, Maine, the independent duty technicians perform their duties in small dispensaries consisting of one or two suites of rooms (usually located in BOQs). These rooms are considered adequate. In addition to their medical duties, the independent duty technicians at the AC&W squadrons also conducted, during the period January through June, preventive medicine programs for their sites and prepared medical reports for submission to the Division Surgeon at Syracuse Air Force Station.

Civilian physicians occupied two slots on the Division Medical

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1. No independent duty technician is stationed at the 654th AC&W Squadron which is a tenant of the Brunswick Naval Air Station, Brunswick, Maine. Since this Naval station has an Infirmary, the Air Force medic assigned at the 654th performs duties which are primarily administrative in nature and Air Force personnel have the use of the Naval Infirmary.

<sup>1</sup>  
T/D, with five one-quarter time civilian physicians at squadrons in  
the field <sup>2</sup> and one three-quarter time civilian physician at Headquarters,  
32d Air Division (Dr. Juda M. Katz of Syracuse, New York). The services  
of the civilian physicians at squadrons in the field were necessary be-  
cause of the distances of the sites from Federal medical facilities. <sup>3</sup>  
At the Headquarters Squadron, the services of the civilian physicians  
were necessary to provide for both military and dependent care.

At the Division Headquarters the medical installation included <sup>4</sup>  
the Office of the Division Surgeon and a dispensary.

The dispensary included an out-patient clinic and a small flight  
surgeon's office for the maintenance of health of flying personnel  
assigned or attached to this station. Because of the absence of the  
Division Surgeon during the months February through April (TDY for  
Primary Course in Aviation Medicine), physical examinations of flying  
personnel were conducted at an Air Force Hospital 45 miles distant.  
With the return of the division surgeon on 1 May 1954, a more complete  
flight surgeon's section was organized.

1. Non-T/O personnel Authorization Table, July 1953, Revised (s.d. C)
2. Five one-quarter time physicians were assigned to the following five squadrons: 655th AC&W Squadron, Watertown, New York - Dr. Louis C. Battista of Watertown. 656th AC&W Squadron, Saratoga Springs, New York - Dr. Charles Collins of Saratoga Springs, New York. 762d AC&W Squadron, North Truro, Massachusetts - Dr. James F. Perry of Provincetown, Massachusetts. 764th AC&W Squadron, St. Albans, Vermont - Dr. Carlton D. Marshall of St. Albans, Vermont. 765th AC&W Squadron, Charleston, Maine - Dr. Linus J. Stitham of Charleston, Maine.
3. Data on the Distance of US Government Operated Medical Facilities that are Nearest to Air Force Stations of the 32d Air Division (Defense). (s.d. D)
4. For relation to entire Medical-Dental Organization, see Medical-Dental Organizational Chart, 32d Air Division (Defense), months of January through July 1954. (s.d. E)

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Personnel of the dispensary conducted the preventive medicine program for the Headquarters Squadron. The Headquarters Squadron base surgeon, Captain Jacob M. Cronin had no previous experience in the Air Force preventive medicine program when assigned to this organization in November 1953. A program of training was undertaken which greatly increased his understanding of this field, but due to his transfer in early June 1954 to Norton Air Force Base, California, the results of such training were not readily apparent at the Headquarters Squadron Dispensary.

With Dr. Cronin's transfer, the division surgeon, Major George K. Reberdy, once again had to assume the additional duty of Base Surgeon. As of the end of June no replacement for the base surgeon at the Headquarters Squadron had been received.

#### MEDICAL ADMINISTRATION

A Medical Administrative Officer was not present for duty from September 1953 through 30 June 1954. Although medical administration of the Headquarters Squadron Section and its dispensary was satisfactory, the absence of a medical administrative officer and loss of other personnel in this section created a heavier work load for remaining administrative personnel and lessened the authority of the function at this level. It was anticipated that a Medical Administrative Officer would report for duty sometime in August 1954.

Medical administration reporting of AC&M squadrons of the division appeared to be lax during this period. It was felt that this laxity was due to the discharge and transfer of trained medical personnel at

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the squadron and the fact that their replacements were unfamiliar with the reporting system used. The Division Medical Administration Section maintained close liaison with the medical personnel at squadrons in an effort to improve Medical Reports submitted to the Division Headquarters. Unfortunately many reports from squadrons to the Division Medical Administrative Office still showed many discrepancies. Thus, much unnecessary work was ensued in correcting reports submitted and in contacting the squadrons for necessary information not entered on reports. A solution for bringing squadron personnel to a more efficient and effective level in medical reporting would be through the conducting of another Medical Administrative Course at Division Headquarters. This was not feasible during this time because of the lack of Administrative personnel at Division level.

The new report, Base Aircrew Effectiveness Report, had been initiated in May 1954. Insufficient time has elapsed to fully evaluate the effectiveness of this report.

The submission of the Professional Activities Report has not been required by the 32d Air Division. Although it had been realized that only certain portions of this report would be applicable to this type of organization, it was felt that the accomplishment of this report would have given us an opportunity to make pertinent remarks as to the extent and type of medical care rendered at the AC&W squadrons. Such type of report, it was felt, would call attention to the effectiveness and shortcomings of medical care at such squadrons.

MAN POWER

WAF personnel were given special training in dispensary technique. This was brought about due to the number of female airmen stationed on this base. This on-the-job training consisted of simple medical procedures which enabled the WAF personnel to assist the base surgeon. It was impossible to undertake a comprehensive training program because of the heavy work load both administrative and professional. Nevertheless, this limited on-the-job training was creditable in that without it the medical services rendered to WAF personnel and female dependents would necessarily have been reduced or eliminated.

Although some airmen were trained and completed on-the-job training, they were unable to take the Air Force Knowledge Test because none were available especially at the three (3) level. The Personnel Officer had difficulty in obtaining these tests. At the close of this period, one test (90651) was available.

Recent directives do not permit on-the-job training of medical personnel towards an AFSC of 90230 due to an overage which is Air Force wide. Only two 902 fields were authorized on the Revised July 1953 T/D.<sup>2</sup> It is felt that proper medical coverage cannot be provided under such an authorization. Since the request for increase in T/D allowances was not acted upon favorably, it was necessary to maintain medical services with overages in personnel to the extent that some personnel were not working in their career fields.

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2. Non-T/O Personnel Authorized Table, July 1953, Revised (s.d. C)

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FUNDS

Medical service funds allocated for the period January through June 1954 were approximately as follows:<sup>3</sup>

## a. Personnel:

Civilian doctors	\$ 2,372.00
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Medical and Dental (Military)	\$ 43,613.00
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b. Administrative TDY (Staff Visits)	\$ 1,335.00
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c. Operational TDY (Dental Vans)	\$ 4,847.00
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## d. Supplies

Medical	\$ 1,807.00
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Dental	\$ 1,809.00
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Local Purchases	\$ 510.00
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TOTAL	\$ 56,293.00
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It had been estimated that administrative and dental TDY funds allocated for the fiscal year 1954 were sufficient to carry out necessary travel.

HOSPITAL CONSTRUCTION

At present no building exists at this station which is devoted entirely to the housing of the medical facilities. The dispensary, Division Surgeon's office and Dental Clinic occupy space on part of the ground floor of a large BOQ building. Use of this building was necessary since no provisions were made for medical facilities during

3. The above breakdown of funds is not exact but is an approximation due to the unavailability of complete records; however, it is considered to be an approximate estimate.

4. Floor plan, Medical and Dental Section, 32d AD(D). (S.D. F)

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construction of buildings at this base. During this period no plans for additional medical construction have been undertaken. Fortunately, the design of the building lent itself to medical use although space could not entirely be used in an efficient manner.<sup>5</sup>

MEDICAL MATERIEL

The dispensary received a new Cadillac ambulance on 19 June 1954 as a replacement for a Field ambulance. Since there was inadequate and makeshift furniture in the waiting rooms of the dispensary, changes were requested on Medical UAI and submitted to higher headquarters for approval.

The assigned medical stock record account (number AF-4681750) has not been activated due to the shortage of building space and need of qualified personnel. All needed medical supplies have been obtained from Griffiss Air Force Base with no difficulty whatsoever. Excellent liaison was maintained with their Medical Supply Section.

Medical requisitioning, stock level requirements, and authorized requirements were on Column A, ECL 20-90-10.<sup>6</sup> Information was received that new Federal Supply Catalog and new stock procedures would be effective sometime in the future. Preparation, from information received, had been continually progressing in order to meet the date that turnover to the new system will become effective.

Difficulty was encountered in receiving certain blank forms from base supply, however, by initiating a system whereby a thirty (30)

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5. Photographs of various sections of the Medical Facilities. (s.d. G)  
6. Authority established by AF Pamphlet 160-8-901, dated 17 April 1953

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day level of forms would automatically be sent to us, the problem was solved.

AIR EVACUATION AND TRANSPORTATION OF THE SICK AND WOUNDED

Since two Air Force Hospitals were relatively in close proximity to this air field, air evacuation, although available, was not utilized. All evacuation of patients was accomplished by the ambulance assigned to this medical dispensary.

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CHAPTER III - MEDICAL STAFFING AND EDUCATION

RATIO OF MEDICAL PERSONNEL

The ratio of medical personnel to total command remained approxi-<sup>1</sup>  
mately the same during the months of January through June 1954.

Turnover of medical personnel diminished the effectiveness of the preventive medicine and staff visit programs, rendered the flight surgeon's office incapable of performing physical examinations of flying personnel and hampered, to a degree, the operation of aviation medicine activities. However, this condition had been eliminated to a large degree due to the presence of Major George F. Seberdy who had completed the Primary course in Aviation Medicine in April 1954.

Although operating on slim margins, the services of various medical programs have been maintained satisfactorily.

REPLACEMENTS

Difficulty was still experienced in the replacement of medical personnel lost to overseas and domestic assignments.<sup>2</sup> Still no MSC officer or Medical officer, general duty, had been assigned for replacement of officers who left in September 1953. One replacement, an airman 90250, medical Services Specialist, was received 10 May 1954. Two 90950, Senior Dental Specialists, were lost to the dental section without replacements. Evaluation of the 90250 replacement could not be

1. Chart-Ratio of Medical Personnel to total command strength.(s.d. H)
2. Medical and Dental Personnel strength, 1 January 1954 and 30 June 1954. (s.d. I)

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made because of a short period of assignment. Since 32.2% of the personnel from this station were WAFs, it became necessary to train female airmen as medical specialists. This on-the-job training of selected basic WAF personnel was not adequate to meet the needs of the dispensary.

CAREER FIELDS

The designation of career fields for medical service personnel proved to be adequate. All professional medical personnel were non-regular with the exception of Major Charles J. Hoga, USAF (DC). Personnel of the lower four grades generally did not favor the service as a career. However, highly qualified, top three grade airmen generally expressed the intention of continuing their careers in the service.

Estimate of medical requirements includes sufficient personnel to man each AC&W station with three (3) technicians. Since these stations operate on a 24 hour - 7 day week basis, so should medical coverage be on the same schedule. In spite of economy moves, this office does not feel it is economical to have medics with special training and skill working excessive duty hours constantly, nor is it to ADC's advantage to have these medics resign from the Air Force, or upon termination of their contract refuse re-enlistment with the specific comments that the constant long hours of duty (24 hours on and 24 hours off) are not only tedious and in excess to those worked by members of other sections but that serious marital and family problems arise due to their frequent and constant absence from their homes. These airmen realize that times of national

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emergency require such action but state that such does not exist at this time and since they are family men they cannot afford to deny their families the usual requirements of family life.

TRAINING AND EDUCATION

Excellent opportunities for further education in a variety of fields could be secured at the University of Syracuse, local vocational night schools and through the USAFI Office. One WAF, one airman and an assigned civilian registered and completed their respective subjects with high grades.

The division surgeon completed a ten (10) weeks Primary Course in Aviation Medicine at the School of Aviation Medicine, Randolph Field, Texas, 30 April 1954.

Permission was granted by the Surgeon at USAF Hospital, Presque Isle, Maine to rotate independent duty medics at AC&W sites within the 4711th Defense Wing for thirty days refresher training at the 528th USAF Hospital, Presque Isle, Maine. The training was started during January 1954. It was felt that the courses aided the medical personnel by increasing their medical knowledge and efficiency of medical operation at AC&W sites under their command.

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CHAPTER IV - PROFESSIONAL SERVICES

PHYSICAL STANDARDS

Problems which would reflect upon the inadequacy of physical standards for Air Force Personnel and the maintenance of physical fitness were not encountered at this dispensary.

An Aviation Medical Examiner had been present since May 1954 and had found that the physical standards set for flying personnel were adequate.

AVIATION MEDICINE

The aircrew effectiveness program at this station has been concerned primarily with the maintenance of proper physical condition of older pilots and indoctrination of pilots in safety measures.

The division surgeon, Major George K. Reberdy, completed the Primary Course in Aviation Medicine, 30 April 1954. Since then, an active aviation medicine program was put into effect. Annual flying physicals had been accomplished by this section except for x-rays which were done at the U. S. Army Dispensary, Syracuse, New York. No problems have been encountered which would entail changes in aircraft design or personnel equipment.

MEDICAL SPECIALTIES

Except for aviation medicine, no specialties were practiced due to non-availability of professional personnel with specialty classifications. Any specialty treatment that arose was referred to either USAF Hospital, Griffiss AFB, Rome, New York or USAF Hospital, Sampson AFB, Geneva, New York.

PREVENTIVE MEDICINE

Environmental Sanitation. As a whole, environmental sanitation problems encountered were satisfactorily solved. However, it was noted during staff visits by the Division Surgeon that practically all AC&W squadrons have been experiencing difficulty with the operation of their filter beds, settling tanks and/or sewage lines.<sup>1</sup> A recommendation for correction of this situation was deferred until the Sanitary Engineer, EADF, made an inspection of the sewage disposal plants at the squadrons.

Personnel Hygiene. Sanitary discipline and the physical condition of troops was satisfactory during this period. Bathing facilities remained adequate but of necessity were used to the maximum due to the increased number of personnel housed on the base. This was especially true in the WAF barracks. If personnel strength continues to grow, it will probably be necessary to increase the number of bathing facilities.

Communicable Diseases. Common respiratory diseases, showing the usual seasonal incidence, were the only types of communicable diseases requiring control.

Atomic, Biological and Chemical Warfare Activities. No further training of personnel was undertaken in defense against atomic, biological and chemical agents. Certain electronic vacuum tubes used in radar equipment contain radio active materials and necessitated special instructions on handling. These proved adequate and no undue hazard existed.

The Preventive Medicine Team. The preventive medicine program was hampered by lack of properly trained personnel. Although this station

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1. This situation was first noted in a monthly preventive medicine report dated 4 June 1954.

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is authorized a veterinary technician, AFSC 90870, T/Sgt., there has not been anyone assigned in the 908 career field. Because of this shortage in the 908 career field, the Division Surgeon has had to train and utilize a 90270 for the preventive medicine program. This is an additional duty for the only 90270 assigned.

#### OUTPATIENT CARE

With the aid of consulting services at two Air Force Hospitals within a range of 65 miles and with the aid of a local Army dispensary which furnished x-ray services, outpatient care for both military personnel and their dependents proved adequate and effective.

The Army dispensary facility mentioned above will no longer be available as of 1 July 1954 at which time it will be deactivated.

During the last month of this report period, due to the absence of the base surgeon, the civilian physician had been assisting the division surgeon in accomplishing required physical examinations for military personnel.

#### DEPENDENT CARE

A part-time civilian physician furnished daily outpatient care for dependents of all military personnel residing in this area. Dependent inpatient care was generally referred to the USAF Hospital, Griffiss AFB. This factor, in itself, has proven to be a potent one in the maintenance of good morale.

#### SUPPORT OF SPECIAL PROGRAMS

Blood Donor Program. A current file of potential blood donors among officers and airmen on this station was maintained to provide a source of blood for seriously ill or injured patients.

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CHAPTER V - DENTAL SERVICE

MISSION

The command dental service provided care for Headquarters, 32d Air Division(Defense) at Syracuse with a base dental clinic and for eight (8) AC&W squadrons with three(3) dental teams operating in three mobile dental trailers. In addition service was provided for attached ground observer squadrons<sup>1</sup> and other incidental units in the Syracuse area which were unable to obtain care in any other way.

It has been the policy of the division dental service that priority for definitive dental treatment be given in the following order:

- a. personnel in need of emergency treatment
- b. personnel requiring numerous extractions
- c. personnel in need of prosthetic appliances
- d. personnel needing extensive dental restorations and/or periodontal treatments.

In order to best carry out dental service to AC&W sites, it has been the policy of the division dental surgeon to prepare, whenever practicable, a schedule of visits for a period in advance of three months; coordinating this schedule with the division commander and division surgeon. Such schedules have been arranged to assure arrival of a mobile dental clinic at each AC&W site and ground observer detachment approximately every six months for a tour of duty lasting from six to eight weeks. Frequency of visits and length of stay have been determined by the dental health of personnel at other sites in the division as determined from the Report

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1. 32d AD Reg. 160-6, Dental Service for AC&W sites and GOS Det., dated 29 July 1953.

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of Dental Health Classification submitted by every squadron each month.<sup>2</sup> Dental examinations have been accomplished on all personnel at each site in a period of six months since the previous visit. As many oral prophylaxes as possible were accomplished during each visit.

#### ORGANIZATION

As has been noted in previous reports, experience continued to show that requirements, along personnel lines, were definitely beyond authorizations. An increase of dental officers from five to seven with a proportionable increase in dental airmen to fill out dental teams and provide administrative stability would have provided a more balanced workload. The uniqueness of being on a mobile dental team is seldom considered when personnel assignments are made.

Prosthetic service supplies to this command from larger installations has been most satisfactory particularly in fabrication of ticonium partial dentures. Time lag from impression taking to insertion continues to be the major difficulty in this operation.

#### PERSONNEL

The number of dental personnel was reduced to five dental officers and five airmen at the end of June 1954. Three airmen left this section during this period while one reported for duty. Two officers received promotions during these months.

On-the-job training progressed satisfactorily during the period January through June 1954. Duties of each enlisted man were increased

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2. 32d AD Reg 160-7, Report of Dental Health Classification, dated 11 Aug 53

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due to the lack of sufficient airmen to properly distribute the workload. Laboratory technicians served as chair assistants whenever needed as well as performing any laboratory duties required. Airmen were also required to operate and maintain other types of equipment installed in the dental trailers. In the past, soon after acquiring this knowledge, personnel were transferred or separated from service. Time loss in retraining replacements is inestimable. Inexperience in handling this equipment has been the major cause of any breakdowns encountered during these months.

#### RESEARCH

No research has been possible due to the heavy workload on all personnel of this command.

#### EQUIPMENT AND SUPPLIES

Three mobile dental trailers were available for furnishing dental service to AC&W Squadron and Ground Observer Detachments. Each trailer was equipped with a complete two-chair clinic with x-ray and prosthetic laboratory. One of the mobile trailers was reconditioned during this period by the auto maintenance shop at Griffiss AFB. Due to the large amount of work done on this trailer it would seem wise to have each van completely checked every six months, wherever practicable, to insure proper operation of all equipment, dental and otherwise. Space heaters functioned satisfactorily in cold weather although it has been wise to park trailers in motor pools at each site to avoid overworking of the heaters.

Only limited prosthetic service, such as minor repairs, gold casting,

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soldering, and set up of teeth, was possible due to the lack of proper facilities at division headquarters. Status as temporary occupants of the building now housing the dental clinic made remodeling to accommodate laboratory equipment impossible. Lack of running water in all rooms of dental clinic was a main difficulty.

A major problem in operation of dental equipment has been the difficulty in obtaining replacement parts for worn or broken equipment. It has taken from two to six months to obtain a replacement part through normal supply channels. Since it would be impractical to get replacement parts for every piece of dental equipment, it would be helpful if some arrangement could be made to obtain these parts more rapidly. As an example: latches for angle handpieces were unavailable for about four months.

The continued use of Vitac and Kadon<sup>3</sup> proved to be very helpful in furnishing more complete dental service to members of this command. Availability of these items through normal supply channels would be very helpful.

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3. Vitac, a pulp protecting cavity liner, is used for protecting exposed pulp of vital teeth; while Kadon, a synthetic acrylic filling material is used in restoration of anterior teeth.

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CHAPTER VI - VETERINARY SERVICE

Veterinary service during this period was provided to all units of this command by support bases.

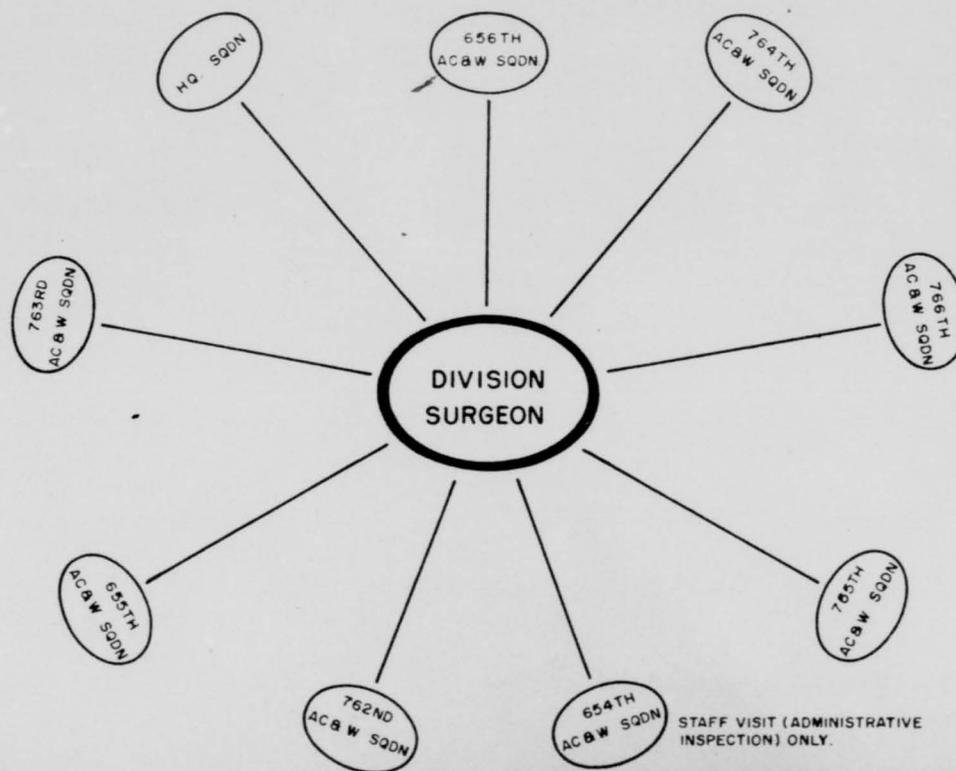
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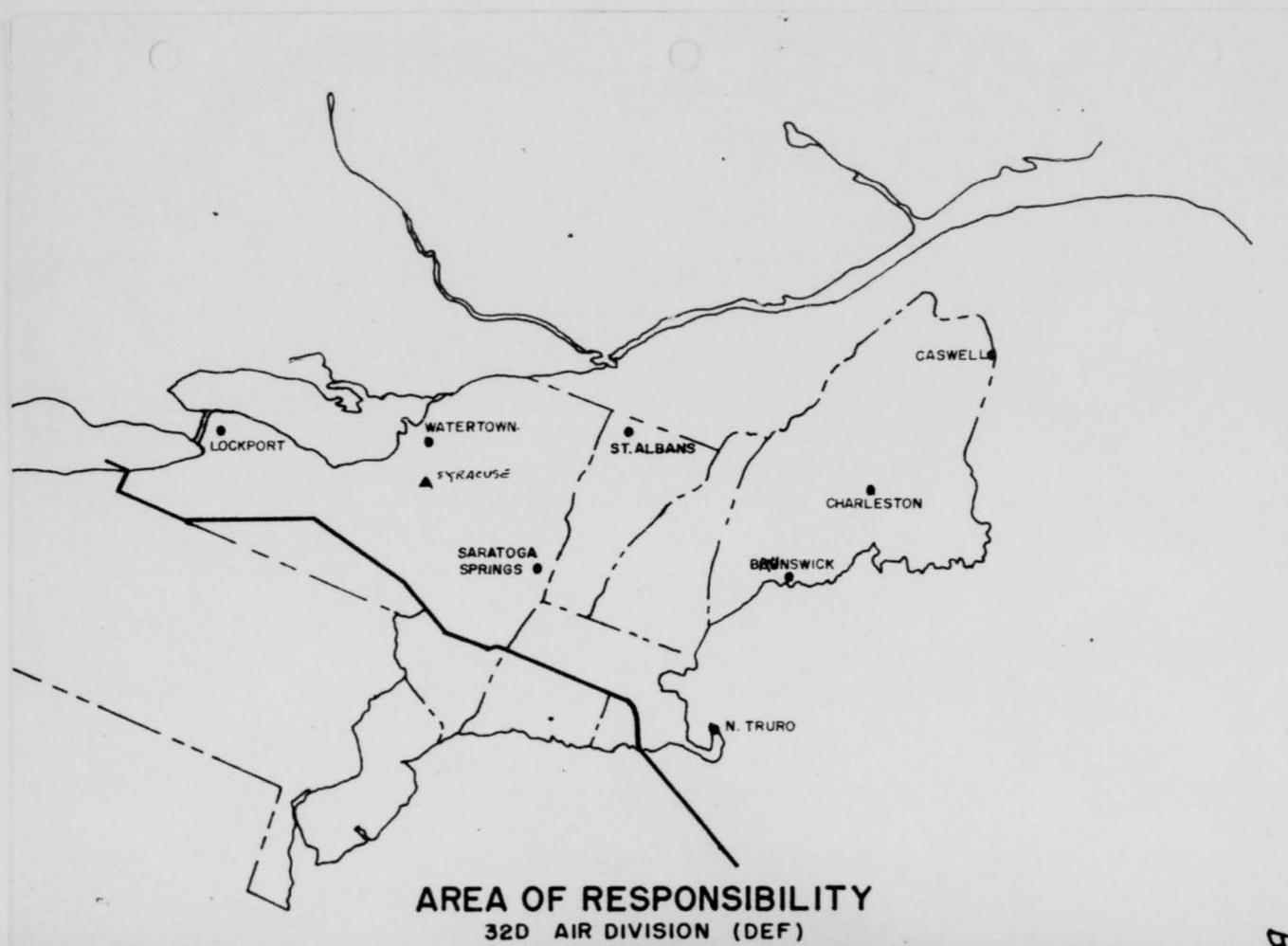
SUPPORTING DOCUMENTS

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STAFF VISITS AND  
PREVENTIVE MEDICINE INSPECTIONS  
CONDUCTED BY DIVISION SURGEON





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\*TD FOR MEDICAL - DENTAL SECTIONS

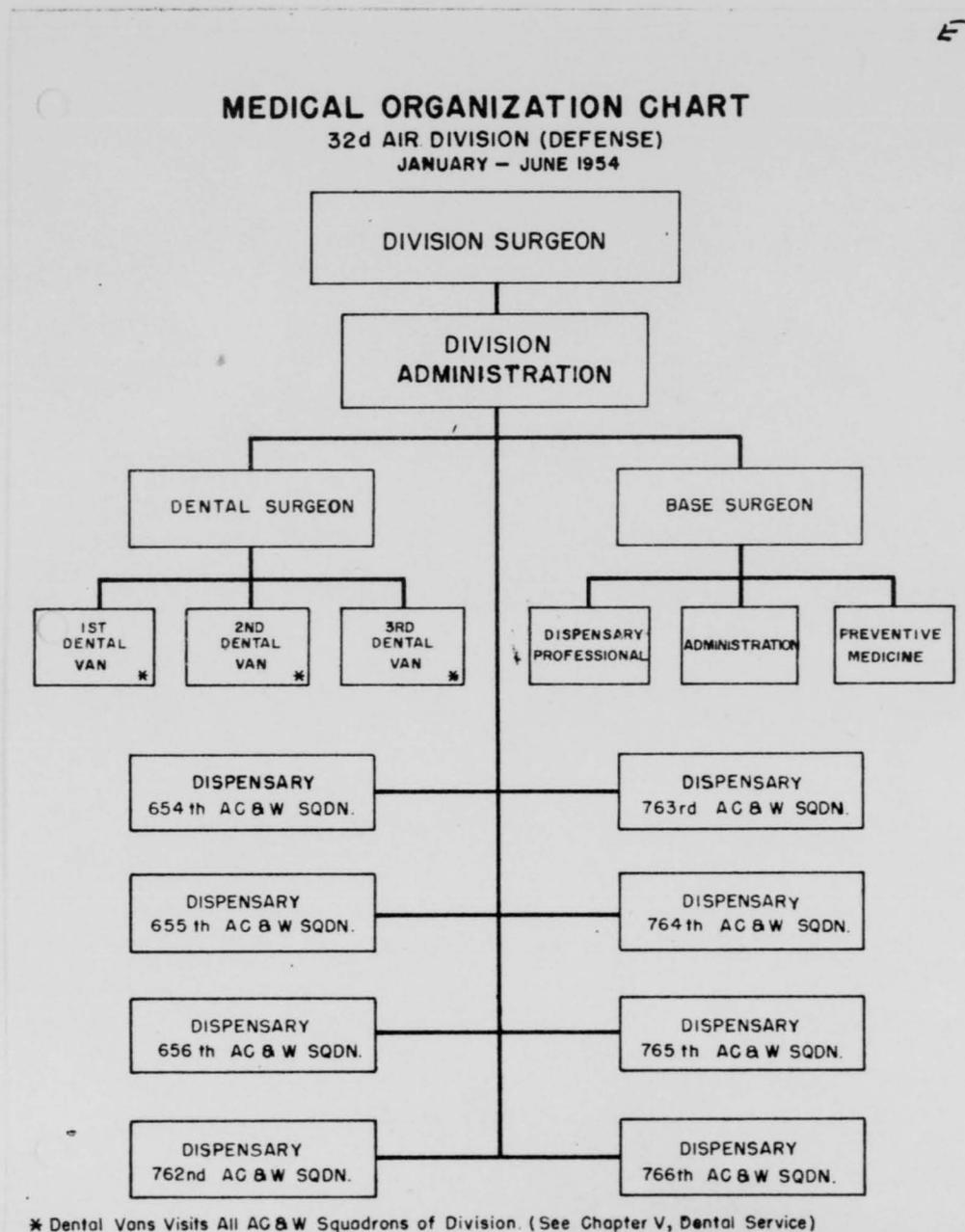
HEADQUARTERS, 32D AIR DIVISION (DEFENSE) AS OF JULY 1953

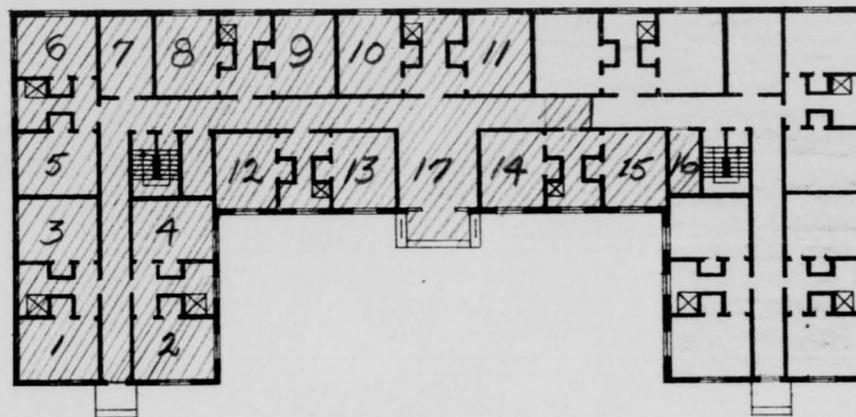
TITLE	AFSC	TOTAL CIVILIAN	TOT OFF		GEN		COL	LT COL	MAJ	CPT	LT
			TOT	ANN	MSG	TEG	SSG	SGT	CPL	PVT	
Med Svs Administrator	09025		1							1	
Medical Staff Officer	09316		1				1				
Medical Officer General	09326	2									
Dental Officer General	09826		5					1	4		
Senior Stenographer	70251	1									
Medical Service Specl	90250		1					1			
Medical Service Supv	90270		1			1					
Med Administrative Acrm	90631		1					1			
Senior Medical Adm Specl	90651		1				1				
Med Administrative Supv	90670		1		1						
Veterinary Technician	90870		1			1					
Dental Helper	90910		2								2
Dental Apprentice	90950		2							2	
Dental Specialist	90950		2					2			
Sr Dental Lab Specialist	90951		1				1				

\*Taken from Non T/O Personnel Authorization Table, P.A.V., July 1953

DATA ON THE DISTANCE OF US GOV'T OPERATED MEDICAL FACILITIES THAT ARE NEAREST TO AIR FORCE STATIONS OF  
THE 32D AIR DIVISION (DEFENSE)

AF STATION NUMBER	NAME OF AF STATION	LOCATION OF AF STATION	NAME OF NEAREST US GOV'T OPERATED MEDICAL FACILITY	TYPE OF FACILITY	DISTANCE FROM AF STATION
654th	Brunswick Air Force Station	Brunswick, Maine	U.S. Navy Station Infirmary	Infirmary	Located on Station
655th	Watertown Air Force Station	Watertown, New York	6530th USAF Hospital Griffiss AFB Rome, New York	Hospital	80 miles
656th	Saratoga Springs Air Force Station	Saratoga Springs, New York	USAF Hospital Westover AFB Springfield, Mass.	Hospital	120 miles
762d	North Truro Air Force Station	North Truro, Massachusetts	564th USAF Hospital Otis Air Force Base Falmouth, Massachusetts	Hospital	65 miles
763d	Lockport Air Force Station	Lockport, New York	USAF Infirmary Niagara Falls AFB Niagara Falls, New York	Infirmary	6 miles
764th	St. Albans Air Force Station	St. Albans, Vermont	517th USAF Infirmary Ethan Allen AFB Winooski, Vermont	Infirmary	30 miles
765th	Charleston Air Force Station	Charleston, Maine	506 Tac Hospital Dow AFB Bangor, Maine	Hospital	26 miles
766th	Caswell Air Force Station	Limestone, Maine	42 Tac Hospital Limestone AFB Limestone, Maine	Hospital	8 miles





1. Dental Operating Room
2. Dental Operating Room
3. Dental Laboratory
4. Dental Administrative Office
5. Dental Surgeons Office
6. Division Surgeon
7. Dental Supply Room
8. Medical Administrative Office
9. Medical Administrative Office

FLOOR PLAN  
**MEDICAL & DENTAL SECTION**  
32d A D (D)

10. Sick Call Office
11. Base Surgeons Office
12. Physical Examination Room
13. Physical Examination Room
14. Treatment Room
15. Treatment Room
16. Medical Supply Room
17. Waiting Room

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DISPENSARY ("U" SHAPED BUILDING ON RIGHT)

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DISPENSARY

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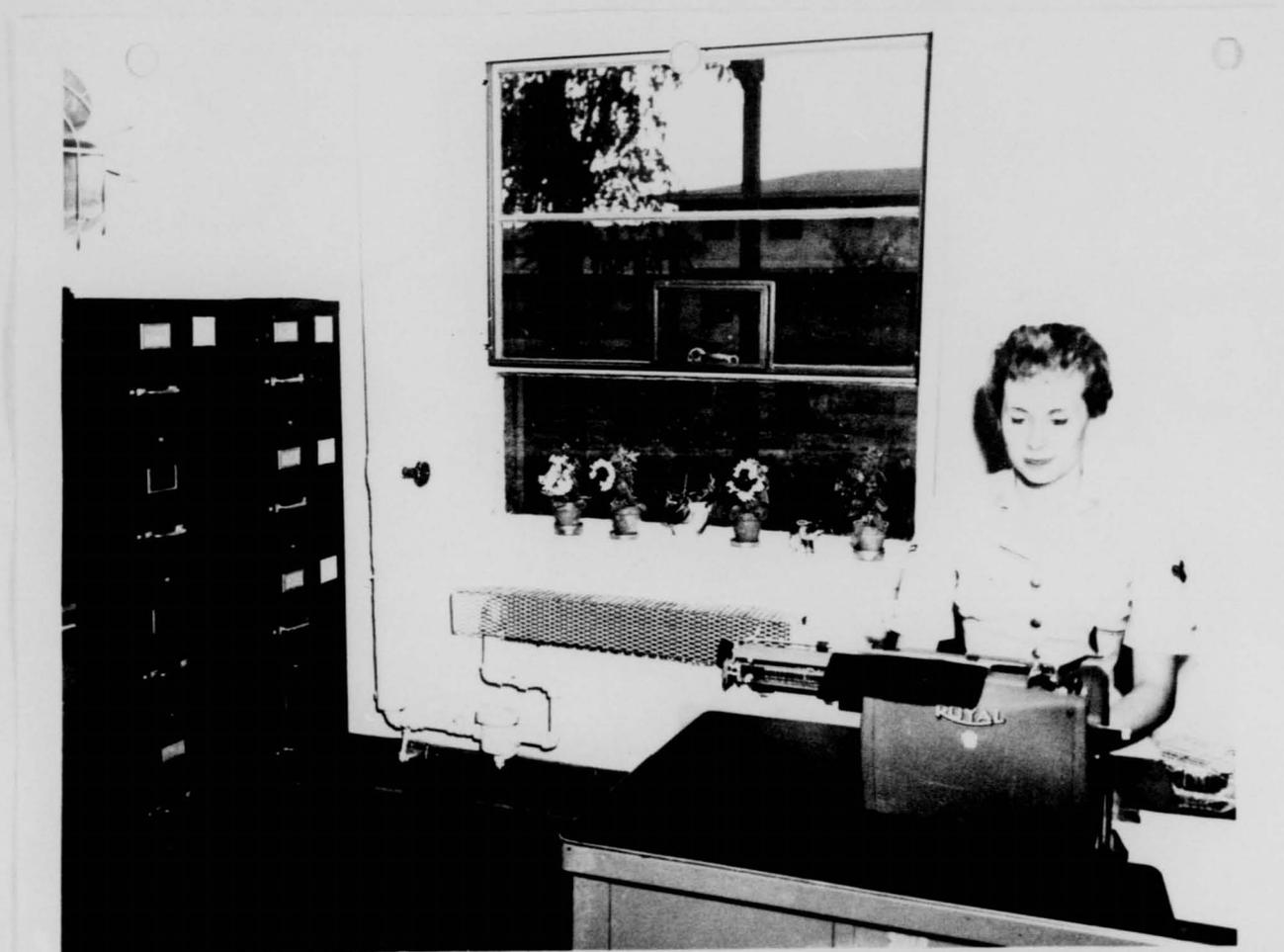


WAITING ROOM

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SICK CALL OFFICE

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TREATMENT ROOM

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TREATMENT ROOM

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PHYSICAL EXAMINATION ROOM

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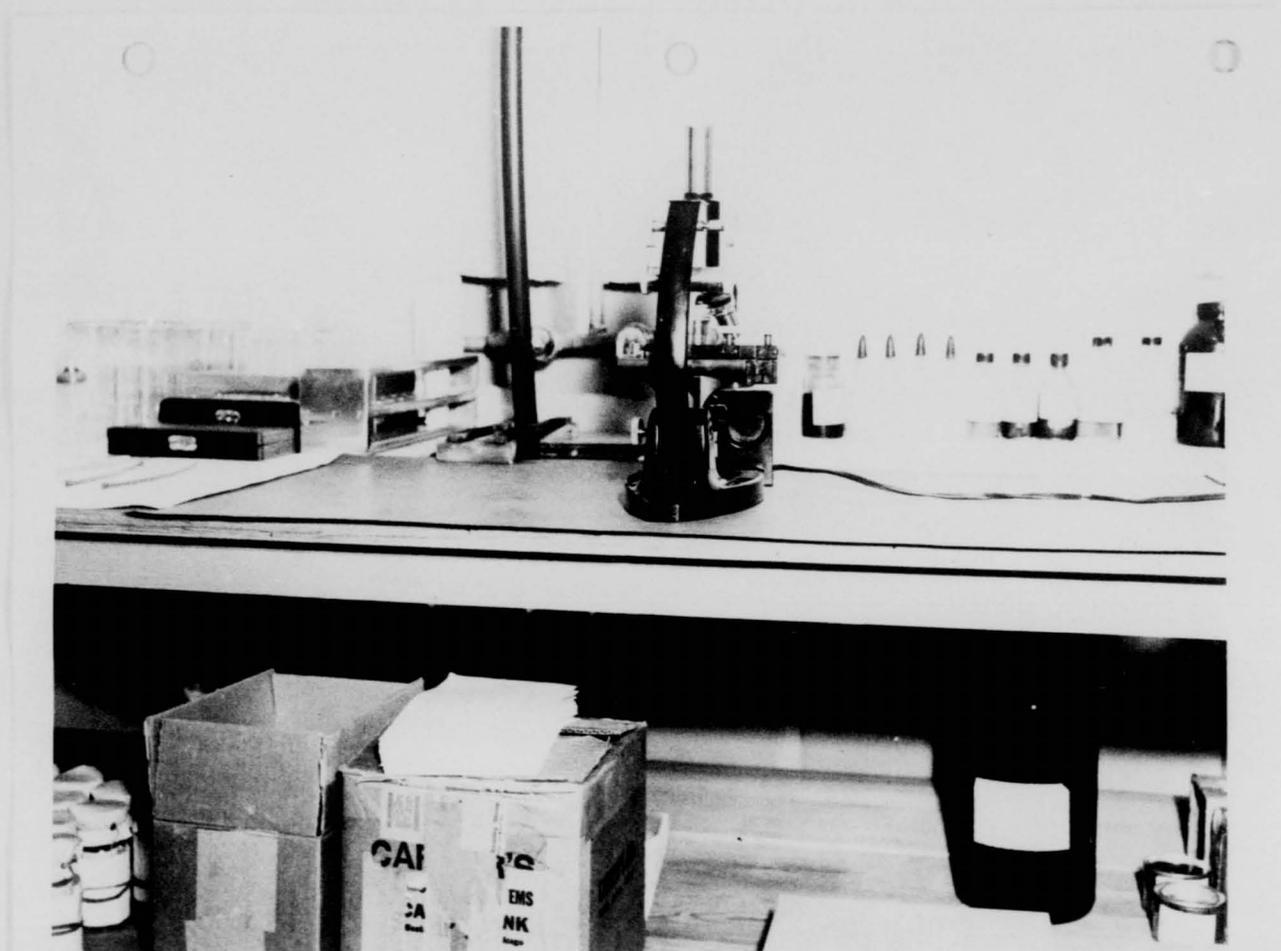
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LABORATORY

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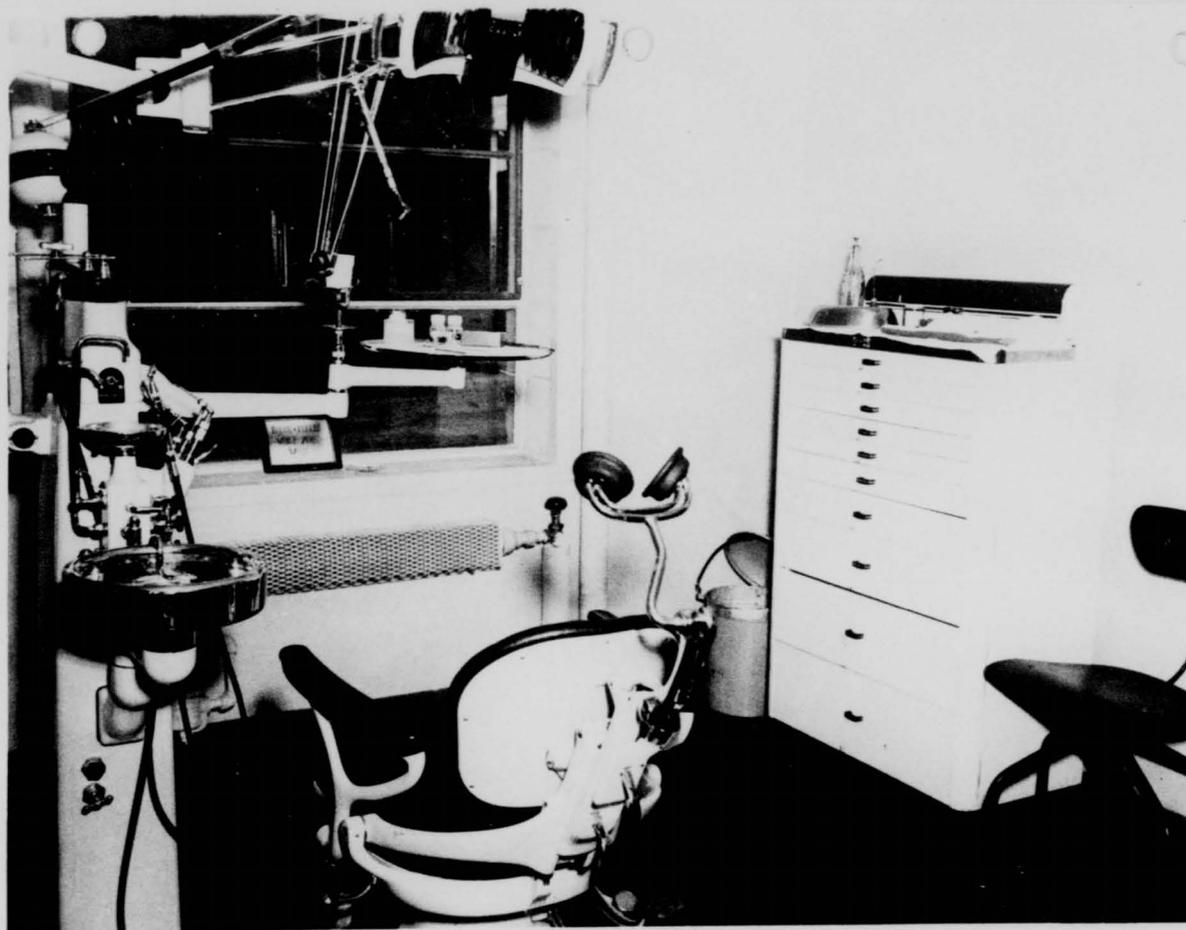
DENTAL ADMINISTRATIVE OFFICE

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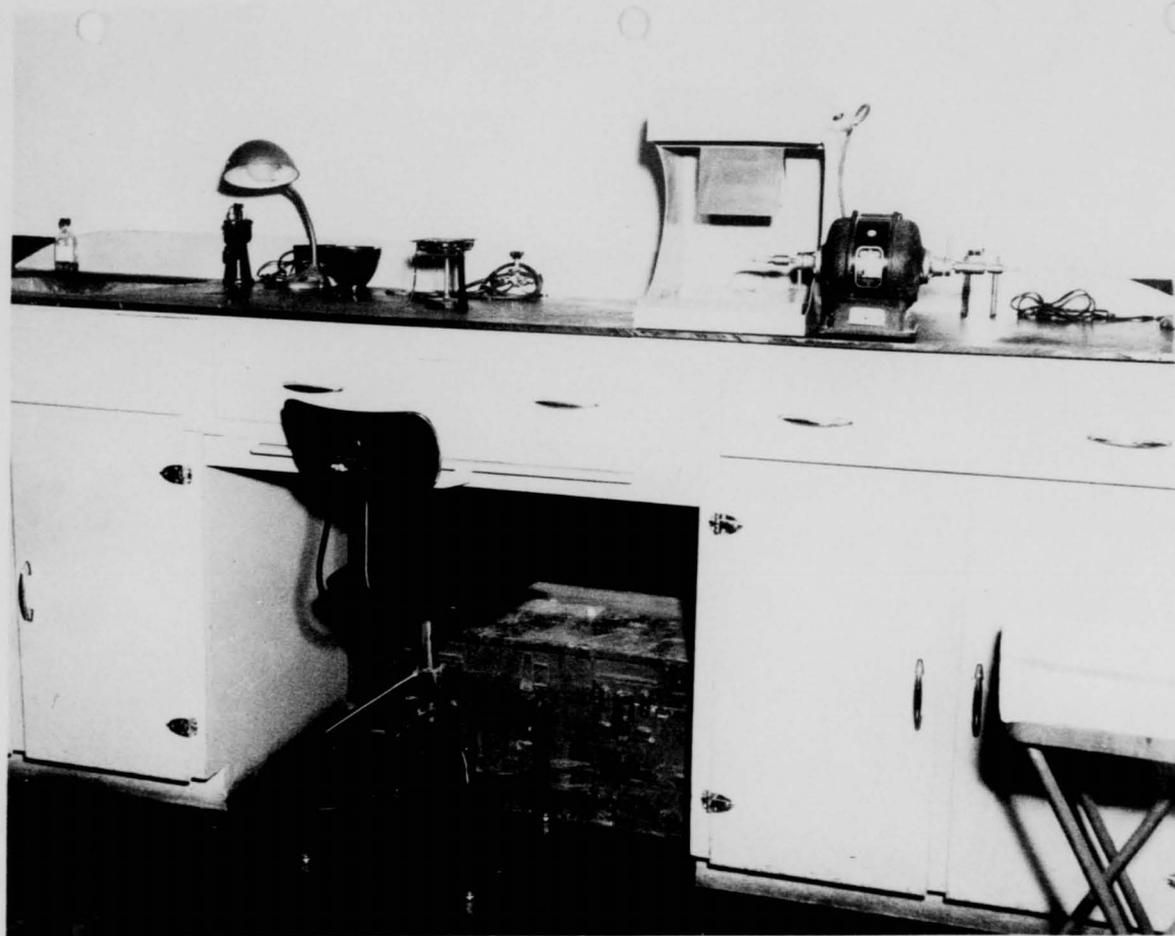
DENTAL OPERATING ROOM

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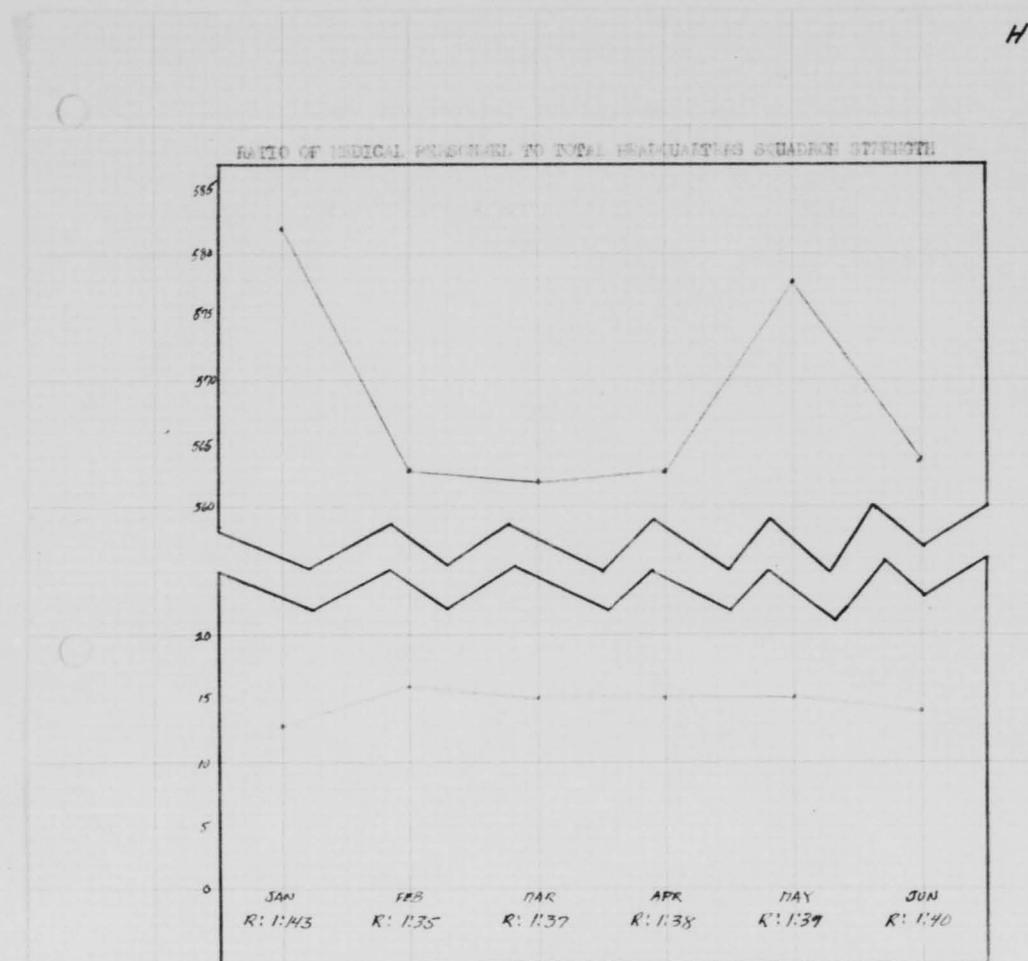
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DENTAL LABCRATOFY

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Headquarters Squadron Strength: \_\_\_\_\_

Medical Personnel\*: \_\_\_\_\_

R: Ratio

\*This includes dental personnel performing duty at Syracuse Air Force Station but does not include dental personnel assigned to this station and performing duty with mobile dental vans in the field.

MEDICAL AND DENTAL PERSONNEL STRENGTH  
1 JANUARY 1954 AND 30 JUNE 1954

1 JANUARY 1954			30 JUNE 1954		
NAME	PRINCIPAL DUTY TITLE	AFSC	NAME	PRINCIPAL DUTY TITLE	AFSC
<u>OFFICE OF THE SURGEON AND DIVISION MEDICAL ADMINISTRATIVE SECTION AT HQ, 32D AD(D)</u>					
Major G. K. Heberdy	Med Off, General	9326	Major G. K. Heberdy	Med Off, Avn Med Med Staff Off	9356 9316
T/Sgt. A. W. McCoy	Med Adm'n Supv	90670	S/Sgt. G. A. Wetherbee	Sen Med Admin Spec1	90651
S/Sgt. G. A. Wetherbee	Sen Med Admin Spec1	90651	A/1c L. C. Dunson	Sen Med Admin Spec1	90651
A/1c L. C. Dunson	Sen Med Admin Spec1	90651	Miss E. E. Lynch	Clerk-Steno (Civ)	70251
Miss E. E. Lynch	Clerk-Steno (Civ)	70251			
<u>DENTAL SECTION AT HQ, 32D AD(D)</u>					
Major C. J. Noga	Dental Off, Gen	9826	Major C. J. Noga	Dental Off, Gen	9826
1/Lt. J. D. Herzog	Dental Off, Gen	9826	Capt. J. D. Herzog	Dental Off, Gen	9826
1/Lt. G. C. Lutfy	Dental Off, Gen	9826	1/Lt. G. C. Lutfy	Dental Off, Gen	9826
1/Lt. E. J. Marino	Dental Off, Gen	9826	Capt. E. J. Marino	Dental Off, Gen	9826
1/Lt. J. F. Principe	Dental Off, Gen	9826	1/Lt. J. F. Principe	Dental Off, Gen	9826
A/1c R. D. Bergeron	Sen Dental Spec1	90950	S/Sgt. L. H. Huls	Sen Dental Spec1	90950

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MEDICAL AND DENTAL PERSONNEL STRENGTH  
1 JANUARY 1954 and 30 JUNE 1954

<u>1 JANUARY 1954</u>			<u>30 JUNE 1954</u>		
<u>Name</u>	<u>Principal Duty Title</u>	<u>AFSC</u>	<u>Name</u>	<u>Principal Duty Title</u>	<u>AFSC</u>
<u>DENTAL SECTION (CONTINUED)</u>					
A/1c E. C. Bradshaw	Sen Dental Spec1	90950	A/1c R. D. Bergeron	Sen Dental Spec1	90950
A/1c F. P. Kwapniewski	Sen Den Lab Spec1	90951	A/1c F. P. Kwapniewski	Sen Den Lab Spec1	90951
A/1c R. D. Stroud	Sen Dental Spec1	90950	A/1c A. W. Zedella	Sen Dental Spec1	90950
A/1c A. W. Zedella	Sen Dental Spec1	90950	A/2c R. A. Callender	Den Lab Apr	90931
A/2c R. A. Callender	Den Lab Apr	90931			
A/2c E. Robinson	Den Lab Apr	90931			
<u>BASE DISPENSARY AT HQ, 32D AD(D)</u>					
Captain J. M. Cronin	Med Off Gen	9326	S/Sgt. C. Burgess	Med Sv Supv	90270
S/Sgt. H. B. Crocker	Med Sv Supv	90270	A/1c A. Munoz	Sen Med Sv Spec1	90250
A/2c J. E. DeMoranville	Med Sv Apr	90230	A/2c J. E. DeMoranville	Med Sv Apr	90230
A/2c E. A. Metz	Sen Med Sv Spec1	90250	A/2c E. A. Metz	Sen Med Sv Spec1	90250
A/3c M. E. Griffin	Med Helper	90010	A/3c M. E. Griffin	Med Helper	90010
Dr. J. M. Katz	3/4 Time Civ Phys	9326	Dr. J. M. Katz	3/4 Time Civ Phys	9326(MD)
<u>654TH SC&amp;W SQ, BRUNSWICK, ME.</u>					
S/Sgt. G. M. McNeil	Med Sv Supv	90270	S/Sgt. G. M. McNeil	Med Sv Supv	90270

MEDICAL AND DENTAL PERSONNEL STRENGTH  
1 JANUARY 1954 AND 30 JUNE 1954  
(CONTINUED)

<u>1 JANUARY 1954</u>			<u>30 JUNE 1954</u>		
<u>Name</u>	<u>Principal Duty Title</u>	<u>AFSC</u>	<u>Name</u>	<u>Principal Duty Title</u>	<u>AFSC</u>
<u>655TH AC&amp;W SQ, WATERTOWN, N.Y.</u>					
S/Sgt. A. A. Wickins	Med Sv Supv	90270	T/Sgt. A. A. Wickins	Med Sv Supv	90270
S/Sgt. W. F. Berard	Med Sv Supv	90270	S/Sgt. W. F. Berard	Med Sv Supv	90270
Dr. L. C. Battista	1/4 Time Civ Phys	9326(MD)	A/2c C. C. Roach	Sen Med Sv Spec1	90250
			Dr. L. C. Battista	1/4 Time Civ Phys	9326(MD)
<u>656TH AC&amp;W SQ, SARATOGA SPRINGS, N.Y.</u>					
T/Sgt. D. F. Brewer	Med Sv Supv	90270	T/Sgt. W. E. Clark	Med Sv Supv	90270
T/Sgt. W. E. Clark	Med Sv Supv	90270	S/Sgt. J. L. Colburn	Sen Med Sv Spec1	90250
A/1c J. L. Colburn	Sen Med Sv Spec1	90250	A/2c H. N. Galvin	Sen Med Sv Spec1	90250
Dr. C. Collins	1/4 Time Civ Phys	9326(MD)	Dr. C. Collins	1/4 Time Civ Phys	9326(MD)
<u>762D AC&amp;W SQ, NORTH TRURO, MASS.</u>					
S/Sgt. W. L. Leutzinger	Med Sv Supv	90270	T/Sgt. W. L. Leutzinger	Med Sv Supv	90270
S/Sgt. A. V. Poor	Med Sv Supv	90270	T/Sgt. A. V. Poor	Med Sv Supv	90270
Dr. T. F. Perry	1/4 Time Civ Phys	9326(MD)	A/2c J. W. Snyder	Med Sv Apr	90230
			Dr. T. F. Perry	1/4 Time Civ Phys	9326(MD)

MEDICAL AND DENTAL PERSONNEL STRENGTH  
1 JANUARY 1954 AND 30 JUNE 1954  
(CONTINUED)

<u>1 JANUARY 1954</u>			<u>30 JUNE 1954</u>		
<u>Name</u>	<u>Principal Duty Title</u>	<u>AFSC</u>	<u>Name</u>	<u>Principal Duty Title</u>	<u>AFSC</u>
<u>760TH ACAM SQ, LOCKPORT, N.Y.</u>					
N/Sgt. J. A. Wright	Med Sv Supv	90270	N/Sgt. J. A. Wright	Med Sv Supv	90270
S/Sgt. W. Ash	Med Sv Supv	90270	S/Sgt. W. Ash	Med Sv Supv	90270
S/Sgt. F. P. Yuele	Med Sv Supv	90270			
<u>764TH ACAM SQ, ST. ALBANS, VT.</u>					
T/Sgt. L. D. Mitchell, Jr.	Med Sv Supv	90270	T/Sgt. L. D. Mitchell, Jr.	Med Sv Supv	90270
S/Sgt. C. S. Smiley	Med Sv Supv	90270	S/Sgt. C. S. Smiley	Med Sv Supv	90270
Dr. C. D. Marshall	1/4 Time Civ Phys	9326(MD)	A/1c S. I. Levandoski	Sen Aero-Med Specl	90150
			Dr. C. D. Marshall	1/4 Time Civ Phys	9326(MD)
<u>765TH ACAM SQ, CHARLESTON, ME.</u>					
T/Sgt. I. Cohen	Med Sv Supv	90270	T/Sgt. R. A. Hubbert	Med Sv Supv	90270
S/Sgt. R. P. Hicks	Med Sv Supv	90270	A/1c R. P. Hicks	Sen Med Sv Specl	90250
S/Sgt. R. A. Hubbert	Med Sv Supv	90270	Dr. I. J. Stitham	1/4 Time Civ Phys	9326(MD)
Dr. I. J. Stitham	1/4 Time Civ Phys	9326(MD)			

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MEDICAL AND DENTAL PERSONNEL STRENGTH  
1 JANUARY 1954 AND 30 JUNE 1954  
(CONTINUED)

<u>1 JANUARY 1954</u>			<u>30 JUNE 1954</u>		
<u>Name</u>	<u>Principal Duty Title</u>	<u>AFSC</u>	<u>Name</u>	<u>Principal Duty Title</u>	<u>AFSC</u>
<u>766TH AC&amp;M SQ, LIMESTONE, ME.</u>					
T/Sgt. D. F. Humphreys	Med Sv Supv	90270	T/Sgt. D. F. Humphreys	Med Sv Supv	90270
S/Sgt. D. I. Green	Sen Med Sv Spec1	90250	S/Sgt. D. I. Green	Sen Med Sv Spec1	90250

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**HISTORICAL REPORT  
of the  
32d AIR DIVISION (DEFENSE)**

K-DIV - 32-HI  
July - Dec 1954  
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**THE AIR DEFENSE OF A SECTOR  
JULY through DECEMBER 1954**

NARRATIVE

**HISTORICAL OFFICE  
SYRACUSE AIR FORCE STATION, NEW YORK**

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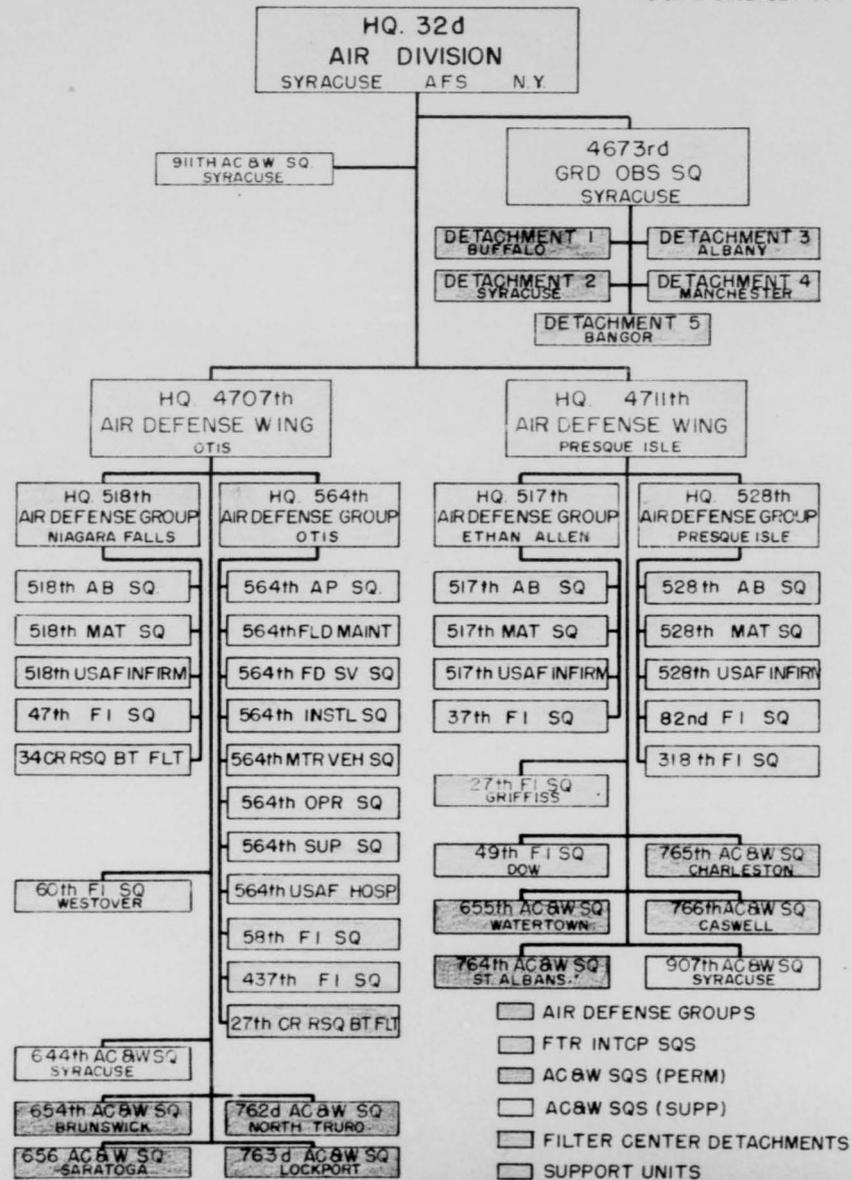
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ORGANIZATION OF THE 32d AIR DIVISION (DEFENSE)

AS OF 31 DECEMBER 1954



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HISTORICAL REPORT  
OF THE 32D AIR DIVISION (DEFENSE)  
Number Seventeen  
THE AIR DEFENSE OF A SECTOR  
July through December 1954

RCS: 1-AF-DE

Chain of Command  
Eastern Air Defense Force  
Air Defense Command  
United States Air Force

COMPILED BY:

*Keith B. Berwick*  
Keith B. Berwick  
S/Sgt, USAF  
Historian

APPROVED BY:

*Robert S. Israel, Jr.*  
ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

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FOREWORD

---

The present work appears in a form much abbreviated from what was planned originally, to the particular detriment of the chapters dealing with operational tactics and techniques--the important problems posed by the advent of the mid-term interceptors--and with training and exercise activity. The exclusions are unfortunate, for both were of extraordinary importance in the period under study.

The total work consists of a narrative and six separate volumes of supporting documents, the index to the latter being incorporated for convenience in the narrative. In some cases documents cited have not been reproduced, but in each case these are available at the Division historical archives or as supporting documents to the histories of the Eastern Air Defense Force and the Air Defense Command.

As always, willing assistance has been extended from a number of quarters, not all of which have been possible to acknowledge in footnote and text. Most notable are the collaborations of Second Lieutenant Edmund Egliniski, who wrote the study of Operation Check Point, and Second Lieutenant Nathaniel Higgins III, who prepared the appendix on headquarters organizational transitions. Additionally, members of the Division staff have submitted to questioning with their customary good grace, and have reviewed for accuracy of fact and validity of interpretation portions of the work dealing with the subjects in which they are expert.

The mechanics of production have been the dual concern of Mrs. Marion Magee, who typed both the manuscript and the vast bulk of documentation, and Mrs. Thelma Hamner, who collated and indexed the documents. Jean S. Berwick designed the covers, and Mr. Robert Horgan saw the volumes into final bound form.

Syracuse Air Force Station  
17 May 1955

Keith S. Berwick

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CHAPTER ONE: JOINT OPERATIONS AND THE AIR DEFENSE SYSTEM

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The joint operational character of the air defense effort had its practical basis in the facts of airpower development. In the face of a burgeoning strategic air and hydrogen-atomic bombpower the nation's traditional reliance upon the Navy as its first line of defense had become patently untenable. It was through the air that the most efficient blows could be struck at a country's industrial productivity, and it was through the air that a country's capacity and will to make war could be most readily compromised.

The truth of these assertions was amply demonstrated through the closing stages of World War II. The devastating B-29 assaults against Japan--of course including those against Hiroshima and Nagasaki--are widely credited with having dealt the ultimate blow to the Japanese will to continue the war. And, while the downfall of the Japanese could

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hardly be attributed solely to raids by the B-29s, their significance was certainly profound. Indeed, wartime Premier Kantaro Suzuki was willing to testify to his early conviction that Japan should sue for peace "merely on the basis of the B-29's alone."<sup>1</sup>

The air defenses of War II, such as they were, followed the joint operational precedent established in other forms of wartime military endeavor. In the embryonic continental systems of Panama, Alaska and the Zone of the Interior, no less than in vital areas to the rear of combat lines, air defense was conceived along British lines--a unitary mission calling for air control of available resources.<sup>2</sup> The earliest official expression of this philosophy is found in War Department Field Manual 100-20, 21 July 1943, which acknowledged as the normal composition of an air force "a strategic air force, a tactical air force, an air defense command, and an air service command."<sup>3</sup>

- 
1. W. F. Craven & J. L. Cate, ed, The Army Air Forces in World War II, Vol V: the Pacific--Matterhorn to Nagasaki, June 1944 to August 1945 (Chicago, 1953), p 756.
  2. Craven & Cate, Ibid, Vol I: Plans and Early Operations, January 1939 to August 1942, Chap 8. The British air defenses against the Luftwaffe early in World War II served as the prototype for air defense systems thereafter. In fact the first serious effort directed toward establishing a continental mechanism involved a thorough study of the British system. The chapter cited provides an excellent summary of air defense activities during the early stages of the war.
  3. WD FM 100-20, Command in Employment of Air Power, 21 Jul 54, p 4. Quoted in ADC Hist Rept 1, The Air Defense of the United States; a study of the Air Defense Command and its predecessors through June 1951, p 31, which volume see for a comprehensive discussion of the broad background of air defense development.

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Be this as it may, the dictates of logic and precedent were by no means sufficient to insure indefinite unanimity on the question of joint operations, let alone of joint control. In the immediate postwar period, in March 1946, an Air Defense Command was established as the first step toward creating a peacetime continental air defense system.<sup>4</sup> Then the Army Air Forces touched off a storm of protest by carrying wartime operational air defense control of antiaircraft artillery to its logical conclusion, proposing that antiaircraft be integrated into the newly formed command.<sup>5</sup> The Army Ground Forces were not only unwilling to bend to such a proposal, which they regarded as an attempt at usurpation of ground weapons resources and prerogatives, but challenged as well the fundamental suggestion that the air defense mission should be considered unitary. Instead they proposed a two-way partition of air defense responsibilities into "defense by air" and "antiaircraft defense,"<sup>6</sup> the provinces of air and ground forces respectively. Over the questions thus posed a doctrinal controversy waxed and waned indecisively

- 
4. Although no bona fide air defense system was to begin to come into being until late 1948, there had been one wartime and one postwar air defense organization by then. The history of air defense saw a total of three distinct Air Defense Commands, in the following sequence and chronology: (1) 26 Feb 40 to 2 Jul 41; (2) Mar 46 to Jul 50, this command having served as an operational headquarters under the Continental Air Command between December 1948 and its inactivation in 1950; (3) 1 Jan 51 through the period under study.
5. The background of this controversy is given full treatment in ADC Hist Study 4, Army Antiaircraft in Air Defense, 1946-1954, 30 Jun 54.
6. Ibid, p 6.

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for virtually four years--unification in mid-1947 having created a vacuum of decision with respect to antiaircraft employment--until in August 1950, under the impetus of the Korean unpleasantness, the Vandenberg-Collins agreement settled the major items in dispute.<sup>7</sup> Even so it was not until late in 1951 that antiaircraft units began to take their places on site,<sup>8</sup> and hence to provide a semblance of capability in being.

Growth of the Air Defense Structure:

Despite formidable obstacles blocking the way toward a smooth development of joint operational doctrine after the war, and the terms of antiaircraft participation constituted but a single area of controversy, the air defense mission remained fundamentally unitary; it was never successfully partitioned in the name of tradition or unit

- 
7. Memorandum of Agreement, signed by Air Force General Hoyt S. Vandenberg and Army General J. Lawton Collins, 1 Aug 50 (s.d. 182 to ADC Hist Rept 1). The agreement was actually promulgated in July, and is often referred to as the July Agreement, but was signed on 1 August.
  8. While preparations were underway in mid-1951 for long-range and interim deployment of antiaircraft batteries with minimum emergency facilities, the newly formed Army Antiaircraft Artillery Command adopted several devices to bring about immediate capability. A unilateral exercise between August and October 1951 brought batteries into the operational status utilizing field facilities. Following this, battalions situated within six hours of their sites were required to maintain one of four batteries on site. By the beginning of 1952, as interim housing facilities became available, it could be said that an antiaircraft capability was at last coming into being. This process is described in ADC Hist Study 4, pp 57-64.

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<sup>9</sup> prerogative. Yet neither were the logical components brought together into an integrated system, either in theory or in fact, nor were any significant strides taken in this direction until the unifying effects of external pressure manifested themselves somewhat later. This was true both of doctrine and resources. Air defense was a remote and abstract concept to a country tired of war and somehow sure it stood at the threshold of a new Age of Peace.

Almost imperceptibly the international picture darkened. The general optimism and concomitant indifference toward air defense of 1946 gave way to widespread misgivings and uncertainty a year later, until by the middle of 1948 international tension had reached so high a pitch that war was feared imminent: Czechoslovakia had fallen prey to a massive Communist coup early in the year, Berlin was in the grips of the Soviet blockade, and reports from a dozen spots around the globe portended ill for the cause of peace. Under these more ominous circumstances air defense became suddenly a matter of great urgency.

It was in March 1948 that the Key West conference of the Joint Chiefs of Staff staked out basic areas of authority: the Air Force was given jurisdiction over land-based air defense, the Navy over sea-based air defense, and the Army was charged to organize, equip and train anti-

---

9. Perhaps in the interval following the war, when the Army Ground Forces had voiced their objections to deployment of antiaircraft resources under air control, there had been thus a *de facto* partition of air defense responsibilities, but the only official dicta governing air defense activity were those War Department directives which recognized air control. Of course the question is academic inasmuch as there remained no system in being through this period.

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aircraft artillery units, and to provide forces "as required" under "joint doctrines and procedures approved by the Joint Chiefs of Staff."<sup>10</sup> While these delineations permitted of concentrated planning based on individual service interpretations, they left moot the specifics. Inasmuch as no approved joint doctrines and procedures were forthcoming from the Joint Chiefs, the services were left to arrive at such bilateral arrangements as the Vandenberg-Collins agreement and its lower-level counterparts. The Air Force's genial assertion that air defense resources should be integrated into a single air defense system was not only rejected, therefore, but there remained some doubt whether appropriate forces would be deployed to meet an air defense emergency on any terms whatever.

Negotiations with the Navy were productive of a number of agreements to coordinated activity, but the same absence of top-level doctrine robbed them of force; there was never any assurance that the resources involved would be available when needed.<sup>11</sup>

Important as these matters were, they formed but the academic superstructure to a more fundamental problem: the total absence of any air defense system in being. During the latter part of 1947 the Chief of Staff, USAF, had approved Plan Supremacy, which envisioned a massive ground radar network covering vast areas of the country and costing, in

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10. Functional agreement of the Key West Conference, Mar 48, pp 5,6, quoted and cited in ADC Hist Rept 1, p 220.

11. ADC Hist Study 5, Emergency Air Defense Forces, 1946-1954, 30 Jun 54, pp 11, 12.

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construction alone, an estimated \$317 million. Supremacy was fated to die without action in the 80th Congress, but it was evident at the outset that even favorable congressional action would not provide radar capability for some time to come. In April 1948, therefore, even as Supremacy was making its debut before Congress, the Air Defense Command was directed to erect aircraft control and warning facilities "with current means."<sup>12</sup> In the absence of ready funds the Air Force had decided, somewhat desperately, to resurrect War II radars to fill the breach, deploying them wherever there were government lands and facilities to provide interim accommodations.

As the stopgap project got underway in midsummer the congressional budgetary temper became clearer. Some few funds were needed to meet immediate minimal construction and rehabilitation costs; to get them the Air Force was reduced to the expedient of asking a diversion of monies from its regular appropriations. As an Air Defense Command historian put it, "this time USAF was to go to Congress not to demand hundreds of millions, but to ask for a pittance in order to establish a token network."<sup>13</sup> Thus inauspiciously did a hasty-pudding radar network begin to take its place in the Northeast and Northwest.

Meanwhile the stillbirth of Supremacy was assured, and air defense authorities were required to apply the principles of austerity

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12. Ltr, Hq USAF to CG ADC, "Air Defense of the Continental United States," 23 Apr 48 (s.d. 31 to ADC Hist Rept 1).

13. ADC Hist Rept 1, p 70.

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to their longer range plans as well. If for the time being Congress was unwilling to make leviathan appropriations for military purposes, air defense proposals would have to be tailored to fit the mold. In September 1948, therefore, the so-called "Interim" aircraft control and warning system was proposed.<sup>14</sup> This was conceived as a network of some 76 radar stations and ten control centers deployed in the Northeast, Northwest and California according to target priority--a far cry from Supremacy, the purport of which had been to blanket the country with radar.

The plan was presented to Congress by Major General Gordon P. Seville, longtime advocate of an air defense system in being, and approved as Public Law 30 in March 1949.<sup>15</sup> Only one radar station was deleted from the original plan as it was approved; but appropriations were another matter. USAF had to dip into some \$50 million in aircraft procurement funds--such was the urgency that attended the endeavor--to get going on the plan while awaiting an initial congressional appropriation of \$85.5 million in October.<sup>16</sup> This "Interim" system was to become operational gradually through 1952, by which time, with proper irony, it would be known as the Permanent AC&W System.

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14. M/G Gordon P. Seville's presentation to Secretary of Defense Forrestal on the Interim AC&W Program, 9 Sep 48 (s.d. 18 to ADC Hist Rept 1).
15. Public Law 30, 30 Mar 49. The Secretary of the Air Force was authorized to construct AC&W facilities in the Zone of the Interior and Alaska to the extent of \$85.5 million, with the priority and the lion's share of these funds going to Alaska.
16. ADC Hist Rept 1, pp 73, 74.

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What is known as the Lashup Era, then, that critical space of time when a skeletal net of obsolescent radars furnished the nation's sole source of day-to-day warning, extends roughly from the decision in August 1948 to deploy the War II radars, until the large majority of them were phased out in favor of permanent facilities in the latter part of 1952.<sup>17</sup> The Lashup mechanism was regarded mostly as a source of training at the outset, operating only during daylight hours, and then with barely satisfactory performance. Similarly the weapons. We have seen that antiaircraft artillery were not to begin appearing on site until 1951, and that virtually none were available on any sort of basis before the Vandenberg-Collins agreement in August 1950. The picture regarding fighter-interceptors was hardly more encouraging. What tactical resources there were--only 22 squadrons of predominantly conventional aircraft at the start of 1949--were assigned according to wing-base principles rather than dispersed in association with stations of

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17. There is no clear-cut beginning or end to the Lashup Era. War II radars had been brought out of retirement for air defense tests in the Northeast early in 1948, and some facilities had been installed in the Northeast by the time of the August decision. Then, when permanent facilities began to become operational in mid-1951, it was often the case that Lashup electronics equipment was superimposed on the permanent station facilities in lieu of the progressed equipment, creating the hybrid Lashup/Permanent station. Only a handful of key stations, e.g., North Truro, Brunswick, Ethan Allen and Lockport in the 32d sector, was fully operational by the end of 1951. But generally the end of the Lashup Era is identified with the fully operational phase-in of the majority permanent facilities late in 1952. The last of the eight stations in the 32d sector, F-30 at Caswell, Me., became fully operational in December 1952. For a discussion of the details attendant on the phase-in of stations in the 32d sector see 32d ADiv Hist Rept 13, pp 104-113.

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the radar network. In the realm of doctrine and procedure, the system through this early period lacked either the authority to regulate commercial air traffic or, for that matter, the ability to distinguish between friend and enemy.

While it is acknowledged that in air defense history 1948 was a year of decision and 1949 a year of action, it was not until 1950, largely a result of the Korean hostilities, that the system could first be regarded as a serious military force. It might be said, therefore, that 1950 was a year of revolution, for under the impetus of Korean air areas of air defense activity felt the electrifying effects of necessity: it was no longer possible to regard the radars, however obsolescent, as training devices, or commercial and military air traffic as experimental <sup>18</sup> guinea pigs; the obsolete radars were the only warning devices available, and air traffic, so long as it remained unidentified or unidentified, inherently suspect. Neither was it possible to leave fighter-

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18. As token networks were established in the Northeast and Northwest through the spring and summer of 1948, the Air Defense Command addressed itself to the problem of identification, coming to the conclusion that "the cumbersome but workable system wherein position and course information on all friendly aircraft in flight is pre-plotted and compared visually with radar plots furnished the only immediately available solution". So it was that as early as September 1948 operating units were directed to set in motion the pre-plot method. This resulted in the establishment of air defense identification zones, military aircraft penetrations into which required prior filing of flight plans--a forerunner of the much more comprehensive identification zones to be established two years later. ADC Reg 100-5, 30 Jan 48 (a.d. 1 to ADC Hist Study 3).

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interceptor resources assigned in the wing-base arrangements so well-suited to tactical operations during War II, when they were valuable in air defense only insofar as they could operate in effective juxtaposition to the radar stations.

The fighter-interceptors were already in the process of being dispersed more effectively, and to greater administrative and tactical advantage, when the Korean unpleasantness erupted.<sup>19</sup> The Lashup radars were all deployed and operative by this time, and were able to assume around-the-clock responsibilities immediately; which is not to say full-time full-scale operations were then possible on a sustained basis. Full-scale operations were conducted during daylight hours and times of real, imagined or simulated emergency. Skeleton crews operated the stations at night, with additional personnel available for emergency conditions.<sup>20</sup>

Commercial air traffic control provisions were embodied in legislation passed in September,<sup>21</sup> as a result of which air defense identification zones, established already for flight plan control of military

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19. For example, the commanding general of EADF had recommended that the 4th Fighter Wing move from Washington, D.C., to either Rome or Pine Camp, New York to strengthen peripheral defenses in the Northeast. Ltr, Hq EADF to CG ConAC, "Effective Implementation of the 4th Fighter Wing in Active Defense," 11 Apr 40 (s.d. 87 to ADC Hist Rept 1).

20. This was the so-called USAF concept of operations which called for full capability 24 hours a day but full operation only 8 hours each day. For a discussion of how this worked out in the 32d sector see 32d ADiv Hist Rept 14, pp 6-9, and unit histories appended to 32d ADiv Hist Repts 6 and 7.

21. Chap 938, Public Law 778, 9 Sep 50.

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aircraft penetrating northern and coastal frontiers and extremely sensitive inland areas, were made applicable to commercial air traffic in December.

The growth of the fighter-interceptor resources is identified first with their development toward quantitative goals, and then with the more profoundly problematic business of achieving quality in logical proportion to the requirements of the mission. There is no point here in recounting the details of the halting process by which the fighters came to air defense, or by which the Air Defense Command arrived at its quantitative force requirements. Suffice it to say that fighter growth was subject to the same basic influences as the rest of the system. The crisis of 1948, which had brought about the formation of the Continental Air Command in December, brought about as well the immediate expansion of fighter resources from ten squadrons to 22--still a long way from a respectable weapons complement in being. Yet the air defense mission by now carried with it the expectation that additional resources would be deployed in the event of a national emergency: so it was that Korea brought about federalization of 21 Air National Guard units during the

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22. By "extremely sensitive inland areas" were meant the installations of the Atomic Energy Commission at Oak Ridge, Sandia-Los Alamos and Hanford, for a discussion of the build up of defenses for which see ADC Hist Study 1, The Air Defense of Atomic Energy Installations, Mar 46 - Dec 52, 5 Aug 53.
23. The instrumentation of Public Law 778 was brought about in Executive Order No. 10197, 20 Dec 50, the specifics of which were incorporated in a revision of CAA Regulations of the Administrator, Part 620, 27 Dec 50. These are discussed at length in the context of the full background of identification in air defense in ADC Hist Study 3, The Identification Problem in the Air Defense of the United States, 1946-1954, 30 Jun 54, pp 30-40.

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<sup>24</sup>  
 first six months of 1951. Thereafter, while quantitatively the fighter resources receded during the latter part of 1951 and the beginning of 1952 when some of them were diverted to fulfill overseas commitments, qualitatively there began the arduous process of converting from conventional propellor-driven and day-jet aircraft to interceptors of all-weather capabilities. The last of the conventional aircraft had not disappeared until the end of 1953, and not all the day-jet fighters would at last be retired for more than another year. But in practical terms substantial all-weather capability--from a standpoint of basic resources--had been achieved by the beginning of 1954.<sup>25</sup> It was then,<sup>26</sup> at the conclusion of the emergency training period known as Balloon Pump,

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24. ADC Hist Rept 1, pp 129-133, Of course the great majority of these forces were propellor-driven F-51s and F-47s. Moreover, the Air National Guard units were unable to assume immediate air defense operations, having to go through a period of indoctrination and training before they could be of practical value.
25. The fighter-interceptor forces at the start of 1954 comprised largely all-weather airborne-intercept equipped aircraft. As well, operational authorities had arrived at a means of employing what day-jet fighters there were in association with all-weather machines during the hours of darkness. For a discussion of the utilization of day-jet interceptors see 32d ADiv Hist Rept 14, pp 137-159.
26. Balloon Pump was the Eastern Air Defense Force name for an Air Defense Command-wide crash training program made necessary late in 1953 by the alarming rate of accidents brought on by the combination of conversion and an influx of recently graduated Air Training Command pilots. The program is discussed at some length in 32d ADiv Hist Repts 15 and 16, pp 115-119 and pp 62-66, respectively.

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that the emphasis could be shifted to tactical doctrine and the techniques of employing the advanced weapons.<sup>27</sup>

While the permanent ACW resources were in sum total far from adequate to the needs of air defense, their gradual phase-in through the course of 1952 provided a tangible nucleus around which to construct a more comprehensive system. In long-range prospect this would mean a push-button mechanism, or largely so, in which the human element would be reduced to the minimum. But more immediately it hinged on the necessity to expand existing resources--to augment the permanent system and extend warning facilities to the north and seaward, to improve communications, and to achieve more efficient procedures for carrying out the air defense process. All of this was the great concern of air defense authorities through the course of the period under study.

Augmentation and Coordinating Components:

Beyond Air Force resources assigned to the Air Defense Command, the system was dependent upon a wide variety of agencies for its responsive capabilities. These were of two sorts: day-to-day partners in the enterprise, and emergency designates. Both were of vast significance, but it was the former category--notwithstanding the niceties

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27. The new fire control systems, involving a 90 degree beam (so-called collision course) attack, represented the first major departure from the traditional tail-chase and quarter attacks that had served well virtually through the whole history of fighter employment. The chapter of the present volume dealing with operational tactics and techniques devotes some attention to this area.

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of military usage that insisted on terming them "coordinated" rather than "integrated" --that constituted the well nigh indispensable components of the continental mechanism. Of what value an air defense system without antiaircraft artillery? or depth of warning resources? or the means to distinguish between friend and enemy? Indeed, of what value an air defense system comprising no more than interior radars and their associated fighter-interceptors, even if logistically self-supporting? The answer is of course that it would be of next to no value at all.

The four fundamentals of the air defense process--detection, identification, interception and destruction--required the intimate collaboration of a large and comprehensive array of agencies. Nor is it of value to explore the intricacies of their participation here; to do so would be to survey the whole field of air defense activity, so inextricably interwoven were the basic and coordinating strands that

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28. This point was made late in 1953 by B/G George F. Smith, Vice-Commander of EADP, who advised this headquarters that the association between Canadian and American air defense resources was "coordinated" rather than "integrated" as sector operations personnel had come to call it. If the term denoting the more intimate association had achieved currency, however, it was because the association was itself more intimate than the more correct term implied. Ltr, B/G George F. Smith to Comdr 32d ADiv, "Incorrect Phraseology," 1 Oct 53, (s.d. 134 to 32d ADiv Hist Rept 14).
29. The earliest post-war air defense maneuvers in the Northwest during the first part of 1948 provide ample testimony to this, as do the token defenses erected later the same year in the Northwest and Northeast. With only the basic radars and fighter-interceptors the system was not a system at all, for verification of which see ARC Hist Study 1, pp 64-74.

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comprised the whole cloth. Antiaircraft artillery, albeit yet assigned to the Army, was a weapon designed solely to the purposes of air defense. The Canadian system, and the American resources of Alaska, the Polar Northeast and Iceland, furnished the wherewithal of defense in depth--crucial in permitting time to bring destructive resources to bear ahead of major target areas. The entire system of identification depended upon flight-plan correlation, to which the role of Civil Aeronautics Authority air route traffic control facilities was basic. Navy picket vessels and airborne early warning aircraft were still the only sources of offshore early warning through the period under study, and would continue to be important thereafter. These and many others--military, <sup>30</sup>paramilitary and civil--comprised the multiple fabric of air defense.

It is a mark of the importance of the second category, the emergency designates, and perhaps as well of the urgency that attended air defense endeavors generally, that no pure distinction could be drawn between day-to-day and emergency participants. In several cases emergency designates were able to make preliminary contributions to the system in being. In others the assignment of liaison representatives

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30. These resources are discussed in later portions of the present work as they affected the defense of the 3rd sector: facilities to the north and seaward are dealt with in Chapter 2; antiaircraft artillery resources are described in Chapter 4; the flight-plan correlation method of identification involving CAA facilities is discussed in Chapter 5. The way in which these resources were subjected to the stimulus of a full-scale simulated battle situation is described in the portion in Chapter 6 dealing with Operation Check Point, as are more routine tests and exercises involving various elements of the system.

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to active elements and the construction of streamlined emergency alert-  
 ing systems bespoke a virtual day-to-day participation.<sup>31</sup> In all cases  
 there were comprehensive plans and occasional test runs designed to  
 enhance the reflexive attributes of the resources involved.<sup>32</sup>

By way of providing a single key to emergency military forces  
 and the details of their employment, the Division in November drafted  
 a comprehensive emergency war mobilization plan.<sup>33</sup> While the document  
 failed to advance beyond the draft stage pending revisions to similar

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- 31/ 1. At Division headquarters there were regularly assigned liaison  
 representatives of the CAA, FCC, FCDA, AAA and the Navy. In  
 this connection, the Division was anxious to acquire a liaison  
 representative of the Strategic Air Command, since any attack  
 situations would necessitate the closest sort of coordination  
 between the two commands. For that matter, the frequency of SAC  
 penetrations for practice tracking and interceptions made it  
 highly desirable that a qualified coordinator be on hand from  
 day to day. Ltr, 32d ADiv to EAAF, "Request for Assignment of  
 SAC Liaison Officer," 16 Aug 54 (s.d. 31/1).
2. Additionally, operational units were in a position to profit  
 from the traditional officer exchange program in which, for  
 example, a Marine Corps major was assigned for a year as exec-  
 utive officer to the 57th Fighter-Interceptor Squadron at  
 Presque Isle. Indeed, this particular assignment was so  
 successful that the officer in question assumed acting command  
 of the 57th for a time. Ltr & Inds, Maj F. J. Watts to CWO  
 (Op-05A2B), "Report of Tour," 27 Sep 54 (s.d. 31/2).
32. An example of this sort of thing concerns the COMELRAD plan govern-  
 ing security control of electromagnetic radiations under battle  
 conditions. From time to time military and civil operators of  
 electromagnetic facilities were alerted in order to test their  
 reflexive capabilities. Ltr, 32d ADiv to EAAF, "COMELRAD Test,"  
 26 Nov 54 (s.d. 32).
33. Draft, 32d ADiv Emergency War Mobilization Plan, 1 Nov 54 (s.d.  
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plans of higher authority, and is therefore of purely historical interest, it provides an excellent indication of the combat potential represented by these sources. <sup>34</sup> The 3550th Air Training Wing at Moody Air Force Base, Georgia was to deploy some seven or more F-94Bs and their aircraft to Griffiss within a matter of hours after declaration of an emergency. <sup>35</sup> The 506th Strategic Fighter Wing at Dow Air Force Base, Maine was meanwhile to have put all of its resources under Division operational control at the instant of assault or declaration of a military emergency. <sup>36</sup> These F-84Gs and F-84Fs were to operate from their home base under tactical control of the 765th AC&W Squadron at Charleston. Other portions of the plan dealt with National Guard anti-aircraft artillery, which were to bolster the point defenses of Boston and Niagara-Buffalo, <sup>37</sup> and Navy fighter-interceptors at South Weymouth, Mass., and Niagara Falls, which were to augment the active fighter

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34. EADW Emergency War Mobilization Plan 1-53 and its Top Secret counterpart at ADC were undergoing major revisions which were unlikely to be compiled until early 1955. Since the 32d plan depended upon their provisions, it was unlikely to make its debut until the middle of 1955.

35. Draft, 32d ADEWMP 2-54, 1 Nov 54, Annex B (s.d. 33).

36. Ibid, Annex C.

37. Ibid, Annex D.

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complement "as outlined in current operations plans, orders and joint agreements."<sup>38</sup>

One of the most impressive sources of M-day resources was the Air National Guard, which had three wings comprising eight squadrons representing a total of some 100 F-94As and F-94Bs and 18 F-51s available for emergency operations in the Division sector.<sup>39</sup> The great number

<sup>38/</sup> Ibid, Annex E. As frequently as possible training was carried on involving direction center control of Navy fighter-interceptors and picket vessel control of Air Force fighter-interceptors. But the strong possibility was that under actual hostilities, while working in cooperation with one another, elements of the Navy and Air Force systems would be pursuing their own missions. Thus it was unlikely that Navy fighter-interceptors would be available in any quantity to augment the air defense system as such.

1. Ltr, 32d ADiv to EADF, "Report of Naval/Marine Corps Participation in Air Defense Training (RCS: EADF-T1)," 10 Aug 54 (s.d. 38/1).
2. Ltr, 32d ADiv to EADF, "Report of Naval/Marine Corps Participation in Air Defense Training (RCS: EADF-T1)," 8 Sep 54 (s.d. 38/2).
3. Ltr, 32d ADiv to EADF, "Report of Naval/Marine Corps Participation in Air Defense (RCS: EADF-T1)," undated (s.d. 38/3).
4. Ltr & Ind, EADF to 32d ADiv, "Report of Naval/Marine Corps Participation in Air Defense (RCS: EADF-T1)," 1 Oct 54 (s.d. 38/4).

39. During the current period the ANG units, their locations and equipment were as follows:

<u>Unit</u>	<u>Location</u>	<u>Acft Avail</u>	<u>Type Acft</u>
101st Ftr Intep Wg	Dow AFB, Me.		
132d Ftr Intep Sq	Dow AFB, Me.	12	F-94
133d Ftr Intep Sq	Greiner AFB, N.H.	12	F-94
134th Ftr Intep Sq	Burlington Aprt, Vt.	11	F-94
102d Ftr Intep Wg	Logan Aprt, Mass.		
101st Ftr Intep Sq	Logan Aprt, Mass.	12	F-94
131st Ftr Intep Sq	Barnes Aprt, Mass.	15	F-94

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of F-94s had been converted to directly from F-51s during the spring and summer, and the AAF units found themselves without anything like a sufficiency of qualified radar observers. <sup>40</sup> They were hampered as well by a paucity of test equipment for the B-1 fire control systems, and a general low level of aircrew training--roughly the same defects that had beset the active complement in its initial conversions. Division advisory representatives to the Guard summer encampments, when the units were at the height of their conversion schedules, predicted it would be "at least a year" before the units would be able to carry on effective all-weather <sup>41</sup> operations.

Meanwhile a plan that had been hatched in 1952 and found plausible in 1953 was at long last coming to fruition. This was a scheme whereby Air National Guard aircrews assumed active alerts in Air

(Continued from Preceding Page)

107th Ftr Intep Sq	Niagara AFB, N.Y.	14	F-94
136th Ftr Intep Sq	Niagara AFB, N.Y.	12	F-94
139th Ftr Intep Sq	Hamock Fld, N.Y.	18	F-51
139th Ftr Intep Sq	Schenectady AFB, N.Y.		

The 107th controlled also the 137th Fighter-Interceptor Squadron at Westchester Airport, N.Y., which had 12 F-94s assigned to it; this unit had a mobilization assignment to the 26th Air Division which had jurisdiction over the southeastern tip of New York State. EAWF Command Detn, 31 Dec 54 (s.d. 39).

40. Iar & Imels, 3rd ADW to EAWF, "Report of Annual Field Training of Air National Guard Fighter Wings (RCS: ABC-75)," 8 Sep 54 (s.d. 40).

41. Ibid. The F-94As and F-94Bs used an E-1 fire control system and, while capable of all-weather operations, were not capable of air-borne-intercept operations of the kind for which the fire control systems of the F-94Cs, F-94Ds, and F-94Es were designed. Thus they were very strictly limited with respect to night operations.

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National Guard fighter-interceptors to augment the active complement. Five pilots and two aircraft of the 138th Fighter-Interceptor Squadron at Syracuse had given the plan a 30-day trial run in mid-1953 with excellent results.<sup>42</sup> At the time the Division had recommended expansion of the idea, as had higher echelons, but problems unknown at this level--perhaps budgetary, or perhaps hinging on the impending conversion to F-94s--had delayed its implementation on a perpetual basis. Thus in September 1954 four of the eight ANG units with mobilization assignments to the 32d--the 131st at Westfield, the 101st at Boston, the 133d at Manchester and the 138th at Syracuse--were preparing to contribute two aircraft and five aircrews each to active operations.<sup>43</sup> The crews were to maintain alerts daily from one hour before sunrise to one hour after sunset,<sup>44</sup> the plan getting underway by the beginning of October. There

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42. This so-called Syracuse Test, which was duplicated as well by an ANG unit at Hayward, California, had been extremely promising. While it was not entirely possible to equate eagerness and enthusiasm with combat capability under circumstances in which the units were encumbered with conventional F-51Ds, the Division saw the great value to be derived from this source, once the units had converted to more advanced aircraft. For a discussion of the Syracuse Test and its results see 32d ADiv Hist Rept 14, pp 175-176.

43/ 1. DF, 32d ADiv OCO to OPR, "Augmentation and Support Forces in Our Division," 14 Sep 54 (s.d. 43/1).  
2. Ltr & Inel, 32d ADiv to EADP, "Air National Guard Operational Readiness Reports (1-AF-ANG-V1)," undated (s.d. 43/2).

44. Several of the units apparently were able after some delays to start operations by late September, but the 138th was unable to assume its commitments until 1 October. Ltr & Inel, 138th FIS to 32d ADiv, "Augmentation for Air Defense Mission," 3 Sep 54 (s.d. 44).

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were naturally a good many matters concerning weather and intelligence support, communications and electronics facilities and the like, which required attention during the first several months of operation, data relating to which are cited for further study.<sup>45</sup> The significant thing is, of course, that the aircrews were not only contributing actively to the air defense effort, but were getting invaluable experience preparatory to full mobilization under battle conditions.<sup>46</sup>

Another protracted negotiation for augmentation resources--this time involving experimental radars of the Lincoln Laboratory in the Boston-Cape Cod area--came to a successful conclusion during the period under study. Since early 1952 the Division had been interested in these

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- <sup>45/</sup> 1. Ltr & Inds, 138th FIS to HQ Bureaus, "SACDAL (SAC Daily Additive List)," 14 Oct 54 (s.d. 45/1).  
 2. Ltr, 32d ADiv to Dist List, "Status of Mark X IFF," 28 Oct 54 (s.d. 45/2).  
 3. Ltr, 32d ADiv to 101st, 102d & 107th FIWs, "Air National Guard Squadrons on Air Alert Plan," 10 Nov 54 (s.d. 45/3).  
 4. Ltr & Ind, EADW to 32d ADiv, "Assigned ANG Augmentation Units Intelligence Personnel," 2 Dec 54 (s.d. 45/4).  
 5. Ltr & Ind, EADW to 32d ADiv, "Weather Support to Air National Guard Squadrons Participating in the Air Alert Plan," 29 Nov 54 (s.d. 45/5).  
 6. Ltr, 32d ADiv to Adjutants General, States of New Hampshire, Massachusetts and New York, "Air National Guard Air Alert Plan," 17 Dec 54 (s.d. 45/6).  
 7. Ltr, EADW to ADC, "IFF Equipment for ANG Fighter Squadrons," 22 Dec 54 (s.d. 45/7).  
 8. Ltr & Ind, 138th FIS to 32d ADiv, "Personnel Participation in the Alert Program," 28 Dec 54 (s.d. 45/8).  
 9. Ltr, 32d ADiv to Dist List, "ADC Regulation 55-2," undated (s.d. 45/9).
- <sup>46.</sup> The responsibility of the eight ANG units with mobilization assignments, including provisions for combat control and alert operations, are set forth in 32d ADIVAMP 2-54, 1 Nov 54, Annex A (s.d. 33).

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extremely valuable radars, both for limited routine operations when the Lincoln test program would permit and for outright integration into the active network under emergency conditions. Early in 1954, although top-level agreements for emergency integration had been on the books since 1951, proceedings were delayed pending completion of the Lincoln Cape Cod experimental system. So it was that in September and October authorities of Lincoln and the 32d thrashed out the specifics of a plan whereby a Cape Cod AN/FPS-3 at South Truro would serve as gap-filler and back-up at North Truro, and the Cape Cod direction center at Cambridge would serve similarly as an alternate direction center and gap-filler for P-10. The plan was published on

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47. For a discussion of the early background of this situation see 32d ADiv Hist Rept 14, pp 130-132.
- 48/ 1. Ltr, Col E. F. Carey, Jr., to Col R. S. Israel, Jr., 32d ADiv, "Integration of M.I.T. FPS-3 at South Truro into the ADC System," 11 Sep 53 (s.d. 48/1).  
2. Excerpt from Ltr, Col E. F. Carey, Jr., to ADC, 10 Sep 53 (s.d. 48/2).
49. Mutual Training Agreement for the Air Defense of the Continental United States Between Headquarters Air Research and Development Command and Headquarters Air Defense Command, 23 Nov 51.
50. The Cape Cod experimental system incorporated facilities under test and development in connection with the Lincoln Transition System, later known more popularly, if incorrectly, as SAGE (Semi-Automatic Ground Environment). Ltr, 32d ADiv to EADP, "Utilization of Project Lincoln Equipment in Active Air Defense," 23 Mar 54 (s.d. 50).
- 51/ 1. WF, 32d ADiv OCO to ODO, "Report of Staff Visit," 14 Sep 54 (s.d. 51/1).  
2. WF, 32d ADiv OCO to ODO, "SOP's and Opns Plans for Lincoln Lab & 6520th TSW," 16 Sep 54 (s.d. 51/2).  
3. WF, 32d ADiv OCO to ADCC, "Lincoln Laboratories," 16 Sep 54 (s.d. 51/3).  
4. WF, 32d ADiv OFR to ODO, "Staff Visit to Lincoln Laboratories," 26 Oct 54 (s.d. 51/4).

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<sup>52</sup>  
26 October, and approved by Lincoln authorities before the close of the year, with only the matter of providing a microwave link for the facilities involved yet to be resolved.<sup>53</sup>

Under the same authority, and as a part of the same negotiations for emergency use of experimental resources, the Division published yet another augmentation plan during the period. Since early 1953 the Division and the Rome Air Development Center of the Air Research and Development Command had been agreed upon emergency utilization of an AN/FPS-3 test radar at Verona, New York.<sup>54</sup> Now the test support aircraft facilities at Hanscom Air Force Base, Mass.,--eight F-86Fs on two-hour availability, fourteen F-89Cs on four-hour availability, and nine transports--<sup>55</sup> were incorporated into a new plan published in November.<sup>56</sup>

52. 32d ADiv Opns Plan 7-54, Utilization of Lincoln Laboratories Experimental Radar, 26 Oct 54 (s.d. 52).

- 53/
1. IAr & Ind, 32d ADiv to Lincoln Lab, "Utilization of Lincoln Laboratories Experimental Radar," 23 Nov 54 (s.d. 53/1).
  2. Memo, Lincoln Lab, W. C. McDonald to H. W. Boehmer, "Microwave Relay Link," 10 Dec 54 (s.d. 53/2).
  3. Memo, Lincoln Lab, H. W. Boehmer to Col E. F. Carney, Jr., "Utilization of Lincoln Laboratory's Experimental Radars," 27 Dec 54 (s.d. 53/3).

54. 32d ADiv Opns Plan 3-52, 14 Oct 52 (plus Annex A, 17 Mar 53, and Annex B, 27 Mar 53). For a discussion of the Verona facilities and the plans for their emergency integration into the active network, see 32d ADiv Hist Rept 14, pp 130-133.

- 55/
1. EF, 32d ADiv OCO to OCO, "Report of Staff Visit," 14 Sep 54 (s.d. 51/1).
  2. EF, 32d ADiv OCO to OCO, "SOP's and Opns Plans for Lincoln Lab & 6520th TSW," 16 Sep 54 (s.d. 51/2).

56. 32d ADiv Opns Plan 6-54, Utilization of ARDC Fighter Aircraft & Radar, 1 Nov 54 (s.d. 56).

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The Advent of the Continental Air Defense Command:

It was inevitable, given progressive development toward its operational goals, that the air defense mission should come to be regarded technically, as well as in fact, as a joint endeavor organized along the lines of a War II theater command. The advent of the Continental Air Defense Command in September 1954, therefore--its superimposition upon the structure of the Air Defense Command itself-- came about as an eminently normal, distinctly non-revolutionary development.<sup>57</sup> The CONAD, as it was to be known, had its counterparts at lower levels--<sup>58</sup> the Joint Eastern Air Defense Force and the 32d Joint Air Defense Division<sup>59</sup> coming into being concurrently with parallel commands at the other defense force and division headquarters stations.<sup>60</sup>

Public information officials could be pardoned, and perhaps condoned, for making capital of the new command. Their dramatizations,

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57. CONAD GO 1, 1 Sep 54 (s.d. 57).

<sup>58/</sup> The command of JEADF was assumed initially by B/G Donald B. Smith during the temporary absence of M/G Morris R. Nelson. In December Gen Smith, who was vice commander of EADF, was appointed to the same position with JEADF, as were other key staff members of that headquarters.

1. JEADF GO 1, 1 Sep 54 (s.d. 58/1).
2. JEADF GO 2, 11 Sep 54 (s.d. 58/2).
3. JEADF GO 3, 14 Dec 54 (s.d. 58/3).

59. 32d JADDiv GO 1, 1 Sep 54 (s.d. 59).

60. The concurrent establishment of the several joint defense forces and divisions was actually directed by CONAD GO 1, 1 Sep 54 (s.d. 57). The lower level general orders simply reflected this action.

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if failing of accuracy, were at least good for an incalculable volume of publicity, which was possibly laudatory in some respect and certainly impressive from a standpoint of sheer avoirdupois. <sup>61</sup> The fact of the matter was, of course, that the new command was composed of the selfsame resources doing the same old business at the same old stand--the change was for the most part both technical and superficial. But what the advent of CONAD did, and did very successfully indeed, was make explicit what had been implicit, if by no means universally understood, all along: that the command of air defense resources had logically to be in the hands of a single commander; that if air defense was to be a joint enterprise it had as well to be a unitary one. The real import of CONAD was not, therefore, that it broadened the responsibilities of General Benjamin W. Chidlaw and his subordinate commanders, but that it made manifestly clear what those responsibilities were. <sup>62</sup>

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61. The public information releases and news stories about CONAD left the impression that a new mechanism was coming into being. But operational control of this multiplicity of resources had been vested in the ADC commander at least since the March 1948 decisions of the Joint Chiefs of Staff. Public Information Briefing on the Continental Air Defense Command, undated, (s.d. 61).

62/ The one item of genuine explicit significance was that as Commander-in-Chief of CONAD, Gen Chidlaw was under direct jurisdiction of the Joint Chiefs of Staff.

1. Ltr & Incls, USAF to ADC, "Continental Air Defense Command (CONAD)," 27 Aug 54 (s.d. 62/1).
2. Ltr, ADC to EAIWF, "Proposed Policies Governing Support to be Rendered by ADC to Headquarters CONAD and the Naval Elements Thereto," 27 Aug 54 (s.d. 62/2).

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It may be that CONAD had somehow streamlined the operational process in ways not evident to the naked eye. If so this would constitute another aspect of significance, for the air defense system stood at the threshold of a semi-automatic era in which its organizational structure would have to be tailored to fit the requirements of a streamlined mechanism. The system was prepared to convert to SAGE components beginning in Fiscal 1956, for which a major revision of its geographic subdivisions was underway.<sup>63</sup> Initially the system was to expand to sixteen air divisions and combat centers by the first quarter of Fiscal 1956, and ultimately to decrease to nine as equipmental advancements made possible a wider span of control.<sup>64</sup> Much was yet indefinite about the specifics of the arrangement,<sup>65</sup> but it was learned in September that

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63. It is not the province of the present work to speculate on the nature of future developments, although past histories have devoted some attention to the Lincoln Laboratories research program of which the SAGE components were products. For these discussions see 32d ADiv Hist Repts 14 and 15, pp 33-45 and 2-10, respectively. Additionally, ADC Hist Rept 7, Appendix VII, pp 119-131, constitutes an excellent summary of the whole Lincoln Transition System and the outlook for its implementation over a period of years.
64. This revisionary process had already begun during the period under study. The initial permanent network of 10 division command posts had increased to 12 by the end of 1954, and was to number 14 by mid-1955, 16 by the end of 1955. ADC Command Data, Sec I, p 1, 1 Jul 54.
- 65/
1. Ltr, EADF to 32d ADiv, "Reorganization of EADF," 24 Sep 54 (s.d. 65/1).
  2. Ltr & Ind, 4707th ADW to EADF, "Reorganization Plan for the 4707th Air Defense Wing," 18 Dec 54 (s.d. 65/2).
  3. Ltr, EADF to 32d ADiv, "Reorganization of Otis Air Force Base," 2 Feb 55 (s.d. 65/3).

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Syracuse was to continue as the site of the headquarters and combat center of the 32d, albeit with a substantial reduction in the size of its geographic area, and was to house one of five associated direction centers as well. Construction was to start the following spring, for which, therefore, installation planning got underway in November.

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66. The northeastern portion of the Division's geographical area was to make up the new sector. In terms of the existing network, although not with precise accuracy by any means, this amounted to deleting the sub-sectors of P-21 at Lockport, P-50 at Saratoga Springs and P-10 at North Truro. EADF Command Data, p 3, Dec 54.
67. Apparently the sector was to be divided into five sub-sectors, roughly comparable with the areas of the existing P-49 at Watertown, P-14 at St. Albans, P-13 at Brunswick, P-65 at Charleston and P-80 at Caswell. But the direction center for sub-sector 5, comparable with the existing P-49 sub-sector, was to be under the operational jurisdiction of a new direction center at Syracuse. TNX EAOFR-2 C985, EADF to 32d ADiv, 9 Sep 54 (s.d. 67).
68. An indication of some of the truly stupendous lower level problems incident to the process of constructing the new facilities is conveyed by the initial proceedings of the installation planning board at Syracuse. Ltr & Incls, 32d ADiv to ADC, EADF, AFIR and COE, "Installation Planning Board Meeting," 15 Nov 54 (s.d. 68).

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CHAPTER TWO: OPERATIONAL INTELLIGENCE RESOURCES

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Early in 1955 General Alfred M. Gruenther, Supreme Allied Commander in Europe, was to remark upon the "great advantage" offensive airpower enjoyed over the defense at that point in history.<sup>69</sup> It was certainly no secret that the advent of turbo-jet bombers--the Soviet Types 37 and 39 and the American B-47s and B-52s were well into production by now--had served to widen the already impressive gap separating offensive capabilities from those of the defense. The air defense mission was becoming increasingly problematic; and time, crucial commodity of the endeavor, was at a greater premium than ever before. Yet the fundamental conditions had not changed: air defense authorities were left to pursue their elusive goal along the same familiar avenues of expanded warning resources and improved equipment and procedure. In both

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69. Cited in APIS Ltr, Vol IX, No 5, 25 Mar 55.

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the end results were painfully slow to materialize--the watched pots that never seemed to boil.

Of course much of this was beyond the power of operational authorities to remedy. Theirs was the task of making do with what was available, and of smoothing the ground for what was on the way. If a day of automaticity or of fully expanded warning resources could be anticipated, that was of relatively little solace to an air division commander faced with the routine threat of air assault.

The system of the future was surely an intriguing thing to contemplate. So far as warning was concerned, the way had already been cleared for the construction of two advanced spans of intermingled self-alerting and manned radars--the mid-Canada early warning segment bridging the yawning gap of cover across the 55th parallel between British Columbia and Labrador, and the DEW (distant early warning) line crossing the polar frontier from Alaska to northern Greenland. Both systems of themselves

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70. The semantics of far-northern programing had varied at different stages of its development. A test segment of the DEW line running east for 180 miles from Barber Island had, in connection with associated Western Electric test facilities in Illinois, been known as Project CORRODE. The mid-Canada early warning segment was known popularly as the McGill Fence, a tribute to the Eaton Electronics Laboratory at McGill University which was responsible for devising the scheme and developing its alerting devices. As well, two spans of radar represented mutually conflicting concepts of early warning--proponents of the mid-Canada segment, which was to be contiguous to the northern limits of existing Canadian radar cover, holding that early warning without tracking capability was useless; and proponents of the DEW line holding that the earliest warning, regardless of tracking capability, was the best warning. One objection to the DEW line, when conceived as entirely automatic, was that it left itself open to "spoofing" raids by Soviet forces, which could nullify its value in a real emergency. It was proposed, therefore, to intersperse the automatical devices with manned radars capable of discerning between real assaults and "spoofing" assaults. For a discussion of both conceptions see 32d ADiv Hist Rept 16, pp 4-8.

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left open the question of flanking coverage. Facilities of the Northeast Air Command were not designed to be comprehensive or impenetrable, but rather to protect specific locations of strategic significance.<sup>71</sup> The Alaskan system was relatively comprehensive of its geography, including the Aleutian Chain, but could be circumnavigated to the south or west with relative ease.<sup>72</sup> A partial solution to the latter difficulty lay in a plan to extend a spur of the mid-Canada segment north along the Alcan Highway. For the rest, authorities had programmed picket vessels and airborne early warning aircraft to provide overwater far-northern flanking extensions, and were reported giving serious consideration to the idea of constructing buoy-mounted CW doppler fences overwater from Alaska to Hawaii and from Greenland to the Azores.<sup>73</sup>

But for the time being the system was confined largely to the resources deployed in what was becoming, somewhat ominously, to be known as the combat zone--roughly the continent below the 55th parallel and as

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71. The forces in the frigid Northeast consisted of three direction centers and seven surveillance stations reporting to two control centers in Newfoundland, Labrador and Baffin Island, five surveillance stations in Iceland. The stations in Iceland were organized under the Iceland Air Defense Force, the remainder under NEAC. For a portrayal of the specifics of these facilities--their locations, equipment, etc.--see 32d ADiv Hist Rept 15, pp 22-27.
72. Alaskan resources consisted of six direction centers and five surveillance stations reporting to two control centers and organized under two air divisions. These facilities are discussed in 32d ADiv Hist Rept 14, pp 68-70.
73. The outlook in far-northern programming is set forth in some detail in ABC Hist Rept 7, Appendix VI, pp 107-118.

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far seaward as the coverage of land-based radar.<sup>74</sup> A great part of the solution to the latter condition--the paucity of resources seaward--lay in equipmental expansions already in progress. The emphasis meanwhile was directed predominantly toward procedural refinements with the resources at hand.

Facilities in the Near North:

The Canadian system, which had been a skeletal force of dubious practical consequence at the start of 1953, had come into its own during the first part of 1954. Where in March 1953 only two permanent radars had operated around the clock, nine of 13 stations programed north of the sector had become fully operational a year later, and all were by this time operational to some degree.<sup>75</sup> Similarly, the fighter complement had burgeoned from a token force of conventional weapons to a five-squadron force of 60 CF-100s and 12 F-86Es by mid-1954.<sup>76</sup> During the course of the period under study this weapons resource made yet a significant qualitative advance, converting to 21 CF-100s with Mk III and 48 CF-100s with Mk IV, the latter the equivalent of the American E-5

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74. Ibid, p 113. The combat zone was to incorporate double perimeters of radar resources around the basic islands of defense, and its outer limits were to constitute the "initial main lines of resources" against air assault. Beyond its northern boundaries and flanking its northeastern and northwestern approaches were to be early warning zones, in which the system would endeavor to detect, and hence to prepare in advance for, the first penetrations of an assaulting force.

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Fire Control system. Moreover, where at mid-year no Canadian aircraft were customarily advanced beyond one-hour availability except under emergency or exercise conditions, by November there was at least a token force of from one to three fighters per sector on a day-to-day standby status.<sup>78</sup> Additionally, as in the case of American resources, the Canadian system counted on mobilizing a wide and impressive assortment of

75. The 13 radars north of the 32d sector in Canada were organized under three sectors and their control centers as follows:

Maritime, 2 ADCQ, Ste. Margaret, N.B.

C-5	Ste. Margaret, N.B.	DC/CC	FPS-3
C-11	Halifax, N.S.	EW	CPS-6B
C-34	Sydney, N.S.	EW	FPS-3
C-33	Moisie, P.Q.	EW	FPS-3

Eastern Sector, 1 ADCQ, Lac St. Denis, P.Q.

C-2	Lac St. Denis, P.Q.	DC/CC	CPS-6B
C-6	Ste. Marie, P.Q.	DC	CPS-6B
C-1	Mont Apica, P.Q.	DC	FPS-3
C-7	Parent, P.Q.	DC	FPS-3

Central Sector, 3 ADCQ, Edgar, Ont.

C-4	Edgar, Ont.	DC/CC	FPS-3
C-8	Senneterre, P.Q.	DC	FPS-3
C-3	Foymount, Ont.	DC	FPS-3
C-9	Falconbridge, Ont.	DC	FPS-3
C-10	Remore, Ont.	EW	FPS-3

C-10 at Remore was USAF-manned, and was under the operational control of the 30th ADiv. These resources are described in some detail and portrayed on a map in 32d ADiv Hist Rept 15, pp 12-16.

76. EADF General Commentary on State of Combat Readiness, 31 Aug 54, p9.
77. Thus for the first time the Canadian forces represented a series of all-weather AI-equipped interceptors. But of course it is likely that these resources had imposed upon them the same limitations of tactical doctrine as those which confronted the fighter forces of this command.
78. The remaining weapons available were placed on one- to three-hour availability. EADF General Commentary on State of Combat Readiness, 31 Oct 54, p 11.

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auxiliary facilities which, given the time to be brought to bear, could add importantly to its total defensive impact.<sup>79</sup>

All of this constituted a substantial barrier stop the 32d's northern frontier.<sup>80</sup> Yet, having constructed their basic facilities and put them in the business of air defense, it remained for the Canadians to develop procedures aimed at exploiting their optimum capabilities. The most obvious challenge, short of the basic problem of keeping the equipment in operation, concerned the very troublesome matter of cross-border coordination. This was relatively simple as it concerned NEAC resources of the 64th Air Division in Labrador, which were under RCAF Air Defence Command control, or USAF stations of the Pinetree chain, which were under operational control of the American air division adjacent

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79. RCAF reserve components included eight auxiliary day fighter squadrons composing a total of 32 Vampires and 36 F-51s, 10 auxiliary ACW squadrons minus equipment to bolster existing stations, and some 12 available day-jet fighters and a like number of all-weather aircraft, plus approximately 25 F-86s from operational training units and overseas ferrying resources. Additionally, the Canadian GCBC was to assume 24-hour operations, and three regular antiaircraft battalions and five reserve antiaircraft regiments were to deploy to gun defended areas. In other respects--security control procedures, for example--the Canadian system was operated also along the lines of its American counterpart. EADF General Commentary on State of Combat Readiness, 31 Nov 54, pp 9-10.
80. Ltr, 32d ADiv to Def Wgs, ACW Sq, and Ftr Intcp Sq, "Unit Tactical Call Signs," 9 Jul 54 (s.d. 80).

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to them. Such arrangements were possible when the forces of one country were deployed on the sovereign territory of another. But operations across the border between the discrete resources of Canada and the United States were another and much more complicated affair. The two systems were, as we have seen, "coordinated" rather than "integrated", wherein lay areas of profound difficulty.

It was well enough that the two systems could carry on extensive cross-training, and that every effort should be exploited to make the relationship between them progressively more intimate. Any enter-

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81/ Under Canadian rules of engagement, altered in mid-year, it was conceivable that USAF fighter interceptors would be directed to fire a warning burst across the nose of an unidentified aircraft if all other methods had failed--this on authority delegated out of expediency to the Canadian sector commanders.

1. Ltr & Inds, ADC to EADF, "Canadian Rules of Interception and Engagement," 17 Aug 54 (s.d. 81/1).
2. Ltr, RCAF to Sect Comdrs, 1, 2, 3 ADCU and Op Comdr, 12 ADOP, "Rules of Interception and Engagement." 22 Jul 54 (s.d. 81/2).

82. Ltr, B/C George F. Smith to Comdr 32d ADiv, "Incorrect Phraseology," 1 Oct 53, (s.d. 134 to 32d ADiv Hist Rept 14).

83. Not only were the two systems engaged in an extended cross-training program, but there were other means to achieving a closer relationship as well. In October, for example, this headquarters was notified that one of the intercept control positions in the Division control center was to be occupied by an RCAF officer under the provisions of the personnel exchange program. Additionally, comparisons of equipmental techniques were made whenever one system or the other brought about significant advances.

1. Ltr, 655th ACGW Sq to 32d ADiv, "Summary of RCAF-USAF Cross-Training," undated (s.d. 83/1).
2. Ltr, EADF to 32d ADiv, "Correlation of Air Defense Systems," 14 Oct 54 (s.d. 83/2).
3. Ltr & Ind, EADF to 32d ADiv, "Radar Evaluation AN/CPS-6B Early Warning Kit by RCAF Personnel," 4 Nov 54 (s.d. 83/3).
4. Ltr, 762d ACGW Sq to 4707th Air Def Wg, "Visit by RCAF Personnel," 30 Nov 54 (s.d. 83/4).

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prise that would facilitate closer coordination was of benefit, and in this regard higher headquarters moved to make necessary the daily cross-border exchange of aircraft control and warning and fighter-interceptor status, since border radar stations were dependent upon the Canadian facilities for preliminary intelligence of penetrating tracks.<sup>84</sup> Indeed, since early 1954, notwithstanding genuine misgivings in some quarters, the principle of accepting Canadian identifications penetrating the border through Central Ontario had been established in higher level directives, making more urgent than ever the day-to-day status and capabilities of Canadian resources.<sup>85</sup>

The problematic character of cross-border operations is easily illustrated by one of the routine operational difficulties of the country's northeasternmost radar station, P-80 at Caswell, Maine. Juxtaposed to Loring Air Force Base, a Strategic Air Command installation and one of the most probable targets of the sector, P-80 was acutely

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84. In May the ADIZ and CADIZ--the respective border identification zones of this country and Canada--were altered to create a so-called selective identification zone north of Lake Ontario. Ltr, EADF to ADC, "Cross Border Exchange of RCAF-USAF Fighter and Aircraft Control and Warning Capability Status," 25 Oct 54 (s.d. 84).
85. Col Robert S. Israel, Jr., Division commander, voiced pronounced misgivings over the advent of the SIZ and the implication that he should accept Canadian identifications. For a discussion of this situation and of Col Israel's views see 32d ADiv Hist Rept 16, pp 14-20.

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aware of its responsibilities with regard to scrambling on unknowns.<sup>86</sup>  
 Yet the station's coverage crossed Canadian airway Red One, on which  
 west-bound flights--almost invariably bound for Canadian cities--  
 assumed southwestward penetration headings, and were therefore ex-  
 tremely suspect if not identified by normal correlation.<sup>87</sup>

There was relatively little problem when Canadian correlation  
 and cross-telling procedures were functioning effectively, even if no  
 Canadian aircraft were available to scramble on unknowns. In such cases  
 C-1 at Mont Apica could indicate its inability to order scramble and  
 P-30 automatically assumed scramble responsibility.<sup>88</sup> The real problem  
 derived from the annoying, and ultimately wasteful, frequency with which  
 these procedures broke down, when P-30 found it necessary to scramble  
 because no correlation data was forthcoming from C-1. Neither was the  
 Division authorized direct contact with Canadian air route traffic con-  
 trol centers under such circumstances.<sup>89</sup>

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86. Under the provisions of ADCR 55-30, 22 Sep 54, units were required to scramble on any unknown within three minutes of detection. But the requirement was aggravated in the extreme when all logic pointed to the friendly character of the unknown aircraft under surveillance. Ltr & Lads, 766th ACMW Sq to EADF, "ACMW Operational Procedures over NS/Canadian Boundary," 8 Oct 54 (s.d. 86).

87. Ibid, 1st Ind.

88/ 1. ADCR 55-10, 28 May 54, and ADCR 10-A, 12 Aug 54.  
 2. Ltr, 32d ADiv to 4711th Air Def Wg, "ACMW Operational Problems," 8 Dec 54 (s.d. 88).

89/ As this headquarters pointed out, it was necessary "either to take tactical action against every warning told Canadian unknown or justify lack of action and in addition, resolve this with action or inaction with the RCAF ACMW site."

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As long as the two systems had for whatever reasons to remain discrete and mutually exclusive--which is to say, as long as they remained "coordinated" rather than "integrated" -- such problems would continue to hamper day-to-day operations across the northern border. <sup>90</sup> Come what might, caution would continue to form the better part of wisdom, and otherwise unnecessary scrambles would continue to be performed. As EADF pointed out, the basic principle regarding unknown penetrations was "that interception must be accomplished at the earliest possible time by either of the forces concerned," and this "regardless of source or anticipated pattern of flight." <sup>92</sup>

The Outlook Seaward:

Despite the problems of coordination across the Canadian border, we have seen that at least there was a Canadian system in being

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(Continued from Preceding Page)

1. TWX EACOT-OW 35779, EADF to 26th ADiv, 26 Oct 54 (s.d. 89/1).
  2. Ltr, 32d ADiv to EADF, "US-Canadian Cross Boundary Operational Coordination," 19 Nov 54 (s.d. 89/2).
90. As in fn 28.
91. The problem had existed since the advent of token capability in Canada, and has been discussed at length in earlier histories of this command. For the most recent exposition on the subject see 32d ADiv Hist Rept 16, pp 14-20.
92. 3d Ind, EADF to 32d ADiv, (to Ltr, 766th ACW Sq to EADF, "ACW Operational Procedures Over NS/Canadian Boundary," 8 Oct 54), 6 Dec 54 (s.d. 86).

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by the start of the period under study, and hence a measure of warning, if not by any means of invulnerability of defense, to the near north. The outlook seaward was less satisfactory, for although massive plans were afoot for the erection of offshore facilities, when the current period got underway the whole Eastern Seaboard was as yet serviced by only a single full-time picket vessel and another on 24-hour availability, plus the possible emergency utilization of Navy airborne early warning resources.<sup>93</sup> Moreover, at mid-year ADC was preparing to reduce the number of picket vessel stations to five, and to posit them 30 to 40 miles closer to shore.<sup>94</sup> In actuality, of course, the quantitative change was academic in a situation in which the system had never yet/honored by the simultaneous deployment and operation of two vessels in the Atlantic, even under exercise conditions. The point is made clearer still by the fact that as the number of stations decreased,<sup>95</sup> the number of vessels continuously assigned increased in September from one to two.<sup>96</sup> It was then that the business of training aircrews, directors and picket vessel

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93. A discussion of offshore resources and the outlook in offshore programming is set forth in 32d ADiv Hist Rept 16, pp 23-28.
94. The details of this arrangement are included in ADC Operational Plan for Picket Vessels, 15 Jun 54.
95. EADF Command Data, 30 Sep 54, p 5.39.
96. EADF Commentary on State of Combat Readiness, 31 Aug 54, p 8.

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in joint air defense operations could proceed apace.<sup>97</sup>

In the past one of the most profound problems concerning picket vessel operations, apart from their unavailability in the numbers thought necessary for minimal offshore coverage, had hinged on communications.<sup>98</sup> A series of testing and evaluation at once too cumbersome and unrewarding for repetition here had been carried on through mid-1954, until in September EADF felt it possible to announce that the problem in its most fundamental sense--the matter of determining what was the right equipment for point-to-point and air/ground communications--had "largely

<sup>97/</sup> There was relatively little problem with regard to the passage of control of Navy fighter-interceptors to land-based direction centers, apart from the normal difficulties one would expect of any joint operations. But the converse--picket vessel control of land-based fighter-interceptors--had proved extremely problematic in the past. The crux of the problem was the apparent unwillingness of USAF pilots to venture over water, with its attendant uncertainties, under the control of picket vessel facilities of dubious reliability. The situation is discussed at some length in 32d ADiv Hist Rept 15, pp 41-44, and the documents cited therein.

1. 32d ADiv Opns Order 38-54, 15 Nov 54.
2. Ltr, 32d ADiv to EADF, "Report of Naval/Marine Corps Participation in Air Defense Training (RCS: EADF-T1)," 10 Aug 54 (s.d. 38/1).
3. Ltr, 32d ADiv to EADF, "Report of Naval/Marine Corps Participation in Air Defense Training (RCS: EADF-T1)," 8 Sep 54 (s.d. 38/2).
4. Ltr, 32d ADiv to EADF, "Report of Naval/Marine Corps Participation in Air Defense (RCS: EADF-T1)," undated (s.d. 38/3).
5. Ltr & Ind, EADF to 32d ADiv, "Report of Naval/Marine Corps Participation in Air Defense (RCS: EADF-T1)," 1 Oct 54 (s.d. 38/4).

<sup>98.</sup> The background of communications difficulties is described briefly in 32d ADiv Hist Rept 14, p 86-88.

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been solved.<sup>99</sup> Two Air Force high frequency channels had been found satisfactory for point-to-point communications, and ultra high frequency equipment, of which the picket vessels had 19 crystals in common with Air Force fighter-interceptors during most of the period, for air/ground<sup>100</sup> communications.

Yet in a more advanced aspect, that of procedure, communications continued problematic, until in December Air Force and Navy operational authorities gathered for a fish fry at Newport, Rhode Island<sup>101</sup> designed to get to the root of their difficulties. The result was a confirmation of the earlier assertion that the facilities themselves were sound, save for the limiting radiation characteristics of existing UHF antennae, and that the sub-standard performance derived primarily from training and coordination deficiencies. As a throwback to the earlier reluctance of direction centers to pass control of fighter-interceptors to picket vessels at all, they were now apparently passing control incorrectly. The vessels in many cases either were not being notified that tactical aircraft were being passed to their control, or were not given the opportunity to report in advance on the effectiveness<sup>102</sup> of their communications for such operations.

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99. EADF Comd Data, 30 Sep 54, p 5.39.

100. EADF Comd Data, 30 Jun 54, p 5.33.

101. Ltr & Ind, EADF to 32d ADiv, "Operations With Picket Vessels," 9 Feb 55 (s.d. 101).

102. Ibid.

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The trouble with point-to-point communications appeared to stem primarily from a combination of poor communications discipline, the antipathy of direction center plotters to the questions of picket vessel controllers, and the absence of sufficient pre-planning to bring about a smooth flow of picket vessel intelligence. The remedy for these broad ills was obviously procedural. In the matter of air/ground facilities, authorities emphasized the need for adherence to the provisions of operational directives. Similarly, there was nothing hampering high frequency communications that would not be allayed very nicely by better pre-planning and tighter communications security. All of this, while by no means solving the essential problem--the absence of even the bare minimum of offshore early warning needed to extend land-based cover importantly--was nevertheless a necessary part of the process of exploiting to the fullest the meager resources available.

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103. It was not to be expected that a direction center plotter would be capable of answering queries on policies from the picket vessel controllers, for this was outside his functional scope. Moreover, picket vessel operations were only one phase of the operations in which the direction centers were involved. It was therefore up to the ADCC to anticipate the difficulties attendant on picket vessel identification and control, and to prepare for them.
104. Ltr & Ind, RANF to 32d ADiv, "Operations With Picket Vessels," 9 Feb 55 (a.d. 101).
105. The best coverage of which the land-based radars were capable offshore was an average of from 200 to 250 miles at high altitudes. Offshore tracking and identification was an extremely sensitive and complex affair involving multiple long distance overwater penetrations, in which flight plan correlation frequently broke down. For this situation the authorities had devised a multiple corridor system of screening penetrations to enable easier identification, for a discussion of which see the portion of Chapter 5 devoted to detection and identification.

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Programs for Offshore Surveillance Facilities:

There were probably two factors underlying the dual decision to move the Eastern Seaboard picket vessel stations some 30 to 40 miles inshore and at the same time reduce their number to five: their role in control of ground-based fighter-interceptors would be enhanced, while the brunt of initial warning responsibility could be borne by radar-laden RC-121s. These latter, long in prospect and several times delayed, were scheduled at last to make their Eastern Seaboard debut at Otis Air Force Base in March 1955. The initial complement of ten aircraft was programmed to grow gradually to a total of 30 by the latter part of 1956. Ultimately the 8th Air Division, charged with direct responsibility for the AEW&C resources, was to be groomed as a "mobile air defense task force." But for the time being the point-blank problem of augmenting offshore coverage was given full priority.

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- <sup>106/</sup> 1. The background of the airborne early warning program and its somewhat uncertain character as regards Otis Air Force Base is dealt with in past histories of this command, and most recently in 32d ADiv Hist Rept 16, pp 26-28.  
 2. 32d ADiv Program Bulletin, Jan 55 (s.d. 106).
- <sup>107.</sup> Ibid, p 2. By mid-1955 some 16 UE aircraft were to be operational; three months later this total was to have grown to 26; by January 1956 the process was to be complete. Otis was programmed for a buildup of ten additional RC-121s during the first half of 1956, but these were to deploy elsewhere during the second half of the year. ADC Program, 1 Jul 54, p 13.
- <sup>108.</sup> Ltr, EADP to 32d ADiv, "AEW&C Program," 14 Jul 54 (s.d. 108).
- <sup>109.</sup> The AEW&C radar barrier was to constitute the outer rim of the combat zone and hence the beginning of "the initial main lines of resistance" for defense of the Eastern Seaboard. Ltr, EADP to 32d ADiv, "AEW&C Program," 16 Dec 54 (s.d. 109).

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The East Coast facilities were to be organized under an airborne early warning and control wing of five units--three operational squadrons and two units for electronic and periodic maintenance--all assigned to Otis. This structure began taking shape according to plan in October, after an initial three-month gambit had seen the abortive assignment and reassignment of one unit during the first of the year. Effective 1 October the 4701st AEW&C Wing was established provisionally, with minimum manning, in advance of creation of the programmed squadrons. Then in December the 551st AEW&C Wing, along with its two associated maintenance squadrons and the 961st AEW&C Squadron, were assigned to Otis and attached for administrative and logistical support to the

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110. The 551st AEW&C Wing was to comprise the 551st Periodic Maintenance Squadron, the 551st Electronic Maintenance Squadron and the three operational units--the 960th, 961st, and 962d AEW&C Squadrons--, each with a total of ten UE aircraft. All were to be based at Otis. RAAF Command Data, 30 Sep 54.
111. The 4712th AEW&C Squadron had been organized at Otis in March only to be reassigned to McClellan on the West coast at the end of May. This boondoggle was a consequence of the change in planning referred to in fn 106. Fundamentally what had happened was that ADC had decided to build up its AEW&C forces at McClellan, where both weather conditions and base facilities were more conducive to training, rather than at Otis as planned originally.
- 112/
1. ADC GO 36, 28 Sep 54.
  2. DF, GPR to CCG, "Activation of 4701st AEW&CW," 4 Nov 54 (s.d. 112).

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<sup>113</sup>  
564th Air Defense Group. In March the 4701st AEW&C Squadron, which was undergoing operational training on the West Coast, was to deploy to Otis with its full complement of 10 UE aircraft, whereupon it would be redesignated the 960th AEW&C Squadron. <sup>114</sup> The 961st was to receive six aircraft by mid-1955 and four more shortly thereafter; the 962d was to activate in July 1955, and to be operational with its full complement <sup>115</sup> by the end of the year. Meantime higher headquarters had in preparation a comprehensive plan of communications designed to interconnect the several offshore facilities and their associated coastal direction <sup>116</sup> centers.

113/ Initial manning of the units was to be as follows:

Organization	Type	Off	WO	Ann
Hq, 551st AEW&C Wg	T/O	28	1	124
961st AEW&C Sq	T/O	158	-	268
551st Pd Maint Sq	T/D	9	3	360
551st Elec Maint Sq	T/D	7	3	369

1. Ltr, WAEF to 8th ADiv (AEW&C), "Activation of AEW&C Units," (s.d. 113/1).
  2. EADF GO 68, 15 Dec 54 (s.d. 113/2).
  3. EADF GO 71, 29 Dec 54 (s.d. 113/3).
114. EADF Command Date, 31 Dec 54, pp 3.05.
115. Ibid.
116. The aircraft were to orbit on four stations roughly opposite the direction centers at Brunswick, Me., North Truro, Mass., Palermo, N.J., and Cape Charles, Va. Their coverage was to parallel that provided by the five picket vessels. Ltr & Incl, EADF to ADC, "Operations Plan for Picket Vessel and AEW&C Communications," 16 Nov 54 (s.d. 116).

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Along with these heartening immediate prospects, operational authorities could anticipate several encouraging advances embodied in programs scheduled for Fiscal 1957 and beyond. The Air Force was preparing to construct five Texas Tower radar stations on Atlantic coastal shoals,<sup>117</sup> and the Navy was to build toward a total force of sixteen Liberty ships converted to YAG picket vessels and eight radar blimps<sup>118</sup> by mid-1959. Whether these latter resources were to operate under Air Force control or primarily in support of naval operations was not known. As the CONAD concept of joint operations came to be developed more fully a distinct formula would likely evolve.<sup>119</sup> But in the meanwhile such problems were abstract; the task was to get maximum benefit from the resources at hand. For the first time these were to amount in 1955 to the bare minimum necessary to provide any assurance that the system could discharge its responsibilities for air defense against over-water penetrations of the Eastern Seaboard.

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117. The Texas Towers, designed for oil-drilling operations off the Gulf Coast, were to be adapted to the offshore warning purposes of air defense beginning in July 1956. The five stations, which would be manned by Air Force personnel--presumably those with a fondness for deep-sea fishing--were all to be installed by the middle of 1957. ADC Program, 1 Jul 54, p 9.

118/ 1. DF, SACOT to EACOM, "Air Defense Capabilities of Atlantic Fleet, Destroyers and Submarines, 24 Jun 54 (s.d. 59 to 32d ADiv Hist Rept 16).  
2. Ltr & Ind, ESF to EADF, "Seaward Extension of Contiguous Radar Coverage," 12 Apr 54 (s.d. 60/1 to 32d ADiv Hist Rept 16).

119. Ltr, ADC to EADF, "Proposed Policies Governing Support to Be Rendered by ADC to Headquarters CONAD and the Naval Elements Thereof," 27 Aug 54 (s.d. 62/2).

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CHAPTER THREE: THE AIRCRAFT CONTROL AND WARNING SYSTEM

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We have seen that in 1954 the system was preparing to enter the realm of automaticity, albeit through the outskirts. In immediate prospect was a mid-term conversion to SAGE--semi-automatic ground environment--components to streamline the cumbersome business of data transmission and display. Farther afield there was to be the distant early warning line, that colossal arctic span of self-alerting devices designed to serve as a sort of continental alarm clock. Nor were the plans to buy time with space seaward any less intriguing; a radar-laden Cook's army of blimps, buoys, Liberty ships, RC-121s and Texas Towers

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120. The best available layman's sources on these matters during the period under study were the ADES Bulletin No. 3, undated, and the series of three articles by LaVerne E. Woods in the ADC C&E Digest--dealing with the whole Lincoln system in the January 1954 issue, the Cape Cod experimental system the following month, and with the major components of Lincoln in the March 1954 issue.

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was to be deployed in surveillance of the Atlantic skies.

In speculative composite, and when set against the standard of existing offensive capabilities, these impressive designs posed a strange and wonderful augury for the future of continental capability. Yet that was not their true measure. A more accurate mark of their import is the fact that in 1954 the system in-being was not a match for the sort of offense then capable of being launched against it--that this was likely to be true of the future as well. The truth is, of course, that the offense was growing too, perhaps faster than the defense. Far from auguring defensive impregnability, therefore, the system of the future was designed hopefully to the specifications of bare competence. Neither could it have been otherwise, for a substantial portion of defensive responsibility resided in the offense and in the degree to which the counter-biased offense and defense could command the respect of those notions whose policy conflicted diametrically with our own.

The Permanent Network:

Against a background of past and future change, the aircraft control and warning system of 1954 was abnormal in its stability. Indeed, the Division's ACM resources continued during this period to be fundamentally what they had been since November 1952, when the last of the permanent stations--F-90 at Caswell, Maine--had become operational.<sup>121</sup> But there were a number of modifications to the workiness of the system, the AM/CP-68 and the AM/FP-3 search radars, during the course of 1954.

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<sup>121</sup> on next page

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As reported in earlier histories, the early warning capabilities of the CPS-6B had been severely compromised by operation of the moving target indicators, a deficiency found remediable through installation of the OA/347 search modification kit. By mid-year the kits had been installed at four of the Division's five CPS-6Bs--at Lockport, Brunswick, North Truro and Caswell. Installation at St. Albans had been delayed by a shift in scheduling, but was completed before year's end.

121. The basic status of the permanent radar network at this time was as follows:

Site	Location	Unit	Search		Height	
			Redar	Finder	IFF	
P-10	North Truro, Mass	762d AC&W Sq	CPS-6B	FPS-4	GPX-6	
P-13	Brunswick NAS, Me	654th AC&W Sq	CPS-6B	FPS-4	GPX-6	
P-14	St Albans, Vt	764th AC&W Sq	CPS-6B		GPX-6	
P-21	Lockport, NY	763d AC&W Sq	CPS-6B		GPX-6	
P-49	Watertown, NY	655th AC&W Sq	FPS-3	FPS-5	GPX-7	
P-50	Saratoga Spgs, NY	656th AC&W Sq	FPS-3	FPS-5	GPX-7	
P-65	Charleston, Me	765th AC&W Sq	FPS-3	FPS-5	GPX-7	
P-80	Caswell, Me	766th AC&W Sq	FPS-10	FPS-4	GPX-7	

All eight stations had direction center capabilities and all were under operational control at the control center at Syracuse. For the specifics of programed emergency equipment and of UHF and VHF radio facilities see EADF Command Data, 31 Dec 54, p 5.06.

122. For the most recent discussion of the OA/347 and the QK-254B magnetron which gave some difficulty at mid-year, see 32d ADiv Hist Rept 16, pp 34-38.
123. The FPS-10 at Caswell was actually a modified CPS-6B with fewer scopes. EADF Command Data, 3 Jun 54, p 5.31.
- 124/ The P-14 had been dropped from the installation list early in the year, only to be reinstated, albeit with a relatively low priority, in July.
1. Ltr & Incls, 764th AC&W Sq to 4711th DW, 311.19, "Allocation of Radar Early Warning Kit," 12 Jun 53 (s.d. 185, 32d ADiv Hist Rept 15).
  2. EADF Command Data, 31 Dec 54, p 5.06.

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At the same time the CPS-6Bs underwent yet another modification--the substitution of one-tube modulator kits for the 5C22 thyratrons in use<sup>125</sup> theretofore.

The difficulty with the FPS-3s concerned excessive noise in their receiving mechanisms, a factor which tended to lower detection capability. ADC determined that the offending equipment was the Duplexer CU-238/FPS-3, which it was determined to replace with the CU-315. The modification was carried out at Charleston, Saratoga Springs<sup>126</sup> and Watertown during the second half of July.

With these basic modifications settled, this headquarters turned its attention next to another equipmental problem of vast importance--the numerical insufficiency of UFA/35 plan position indicators. In mid-year ADC had learned of the availability of a limited number of the universal-type facilities, and had solicited a list of requirements<sup>127</sup> and justifications. To this headquarters the question was germane to the whole problem of air battle control, in which the units were faced with the aggravating realization that the maximum weapons capability

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125. Ltr, EADF to ADiv & Def Wgs, "AN/CPS-6B One-Tube Modulator Modification," 15 Apr 54 (s.d. 96, 32d ADiv Hist Rept 16).

126. Ltr & Incls, ADC to EADF, "AN/FPS-3 Duplexer Modification Schedule," 21 Jun 54 (s.d. 126).

127. Ltr, Ind, & Incls, EADF to 32d ADiv, "Request for Additional Plan Position Indicators (QA/99-UFA-35)," 30 Jul 54 (s.d. 127).

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could not be achieved without saturating existing control positions.<sup>128</sup>  
 Indeed, the units had already been faced several times with the necessity of foregoing surveillance in favor of interceptor recovery. Such a situation was readily resolved under routine circumstances. Under assault conditions, however, the choice between surveillance and interceptor recovery would become a veritable Scylla and Charybdis. With these grave observations reinforced with statistics, the Division in August submitted a specific request for 12 additional plan position indicators: four for F-50, three for F-65, two each for F-14 and P-49, and one for P-10.<sup>129</sup>

Other ACMW activities during the period were more routine. In September the whole question of communications was reviewed with a view to future requirements, and the Division published a new version of the long-standing plan whereby this headquarters served as emergency alternate

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<sup>128/</sup> Ibid, 1st Ind. The problem came about as a result of the disparity E-scan scopes and planned position indicators. The difficulty is detailed in the documents following.

1. Ltr & Incls, 76th ACMW Sq to 4711th Def Wg, "Replacement PFI Scopes," 12 Jul 54 (s.d. 128/1).
2. WF, OOT to ODO, "Report of Informal Staff Visit," 15 Jul 54 (s.d. 128/2).
3. WF, OOT to OCO, "Report of Informal Staff Visit to 655th ACMW Sq," 15 Oct 54 (s.d. 128/3).

129. Ltr, Ind & Incls, EADW to 32d ADiv, "Request for Additional Plan Position Indicators (OA/99-UFA/35)," 30 Jul 54 (s.d. 127).

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1. EADW Report of Staff Visit to Hq, 32d ADiv, 29 Sep 54 (s.d. 130/1).
  2. Ltr, & Ind, EADW to 32d ADiv, "Approved Requirement for Additional ABEC-ADCC Circuit, Function Mission Data (MD)," undated (s.d. 130/2).

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<sup>131</sup> command post for EADF. Responsibility for the latter had been vested in the 32d commander since the Division had started operations at Syracuse in March 1952, <sup>132</sup> but the specifics of its instrumentation had been somewhat prolonged of development. <sup>133</sup> September saw also the initiation of the USAF Radar Advisory Service--an arrangement whereby the radar stations, whenever it would not interfere with their primary air defense responsibilities, were to provide intelligence of storms and weather hazards for civil air traffic purposes. <sup>134</sup> This was in keeping with the preoccupation of operational authorities with the limitations imposed upon the primary search radars by weather phenomena. <sup>135</sup> As for the question of extending the advisory service across the Canadian border, raised by the 764th at St. Albans, air route traffic control regulations prohibited it; the Canadian Department of Transport would

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131. 32d ADiv EADF Alternate Command Post Plan 4-54, 15 Sep 54 (s.d. 131).
132. Ltr, EADF to 32d ADiv, "Alternate Command Posts," 28 Mar 52 (s.d. 306 to 32d ADiv Hist Rept 13).
133. This background is set forth in 32d ADiv Hist Repts 13 and 14, pp 136-144 and 127-130, respectively.
134. Ltr & Incl, CAA to All Centers - Region 1, "USAF/CAA Radar Advisory Service," 31 Aug 54 (s.d. 134).
- 135/ 1. Ltr & Incls, ADC to EADF, "Additional Instructions for Radar Weather Photographs (IRCS: ADC-U15, dated 26 July 1954)," 12 Nov 54 (s.d. 135/1).
2. Ltr, 32d ADiv to Comdrs, All Air Def Ops, Wgs and Sqds, "Revision of Terminal Weather Forecast Code (TFAMS)," 6 Oct 54 (s.d. 135/2).

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have to make its own arrangements with the RCAF Air Defense Command.<sup>136</sup>

Thus the period closed with the same eight permanent stations operating with only relatively minor modifications to their basic equipment. In common with the rest of the permanent network, these stations as yet lacked the programmed primary FPS-6 height-finders, and were without their programmed emergency search and height-finding facilities.

When for brief periods a primary component was out of commission the station simply went off the air.<sup>137</sup> For scheduled overhauls, however, there was a single van-mounted AN/FPS-1C radar to serve the whole sector.<sup>138</sup>

Internally unit authorities sought to make the most of the facilities available, which took them into such disparate pursuits as the search for a better crayon for marking plotting and status boards,<sup>139</sup> a better finger eraser for removing the crayon from plotting and status boards,<sup>140</sup> and a more efficient floor arrangement of the equipment in the

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136. Ltr & Inds, 764th ACMW 3q to 4711th Air Def Wg, "USAF/CAA Radar Advisory Service," 5 Oct 54 (s.d. 136).

137/ 1. MEM Hist Rept, July 54 (s.d. 137/1).  
 2. MEM Hist Rept, Aug 54 (s.d. 137/2).  
 3. MEM Hist Rept, Sep 54 (s.d. 137/3).  
 4. MEM Hist Rept, Oct 54 (s.d. 137/4).  
 5. MEM Hist Rept, Nov 54 (s.d. 137/5).  
 6. MEM Hist Rept, Dec 54 (s.d. 137/6).

138. The background of the acquisition of this facility is set forth in 32d ADiv Hist Rept 14, pp 126-127.

139. Ltr & Inds, ADC to EADP, "Improved Crayons for Use on Vertical Plastic Edge Lighted Plotting Boards," 21 May 54 (s.d. 139).

140. Ltr & Inds, ADC to EADP, "Finger Eraser," 23 Sep 54 (s.d. 140).

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direction centers.

Supplemental and Gap-Filler Radars:

While air defense authorities had long since abandoned the Supremacy concept that would have blanketed the nation with radar, they were at the same time unwilling to acknowledge that the system could not without relative prudence be comprehensive of certain basic defense areas--the three major islands of population and industry, and the sensitive installations of the Strategic Air Command and the Atomic Energy Commission. This latter attitude was at the root of the so-called supplemental and gap-filler radar programs, both of which were in prospect during the period under study.

The supplemental program, known formerly as the mobile radar program and still labeled "semi-mobile" at Headquarters ADC, called for some 98 radar stations to be completed in three distinct phases:

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- 141/
1. Ltr, 32d ADiv to 4711th Def Wg, "Changes to ACMW Operations Room Equipment Component Location," 31 Jul 54 (s.d. 141/1).
  2. Ltr & Inds, 762d ACMW Sq to 32d ADiv, "Request for Relocation of Equipment," 13 Aug 54 (s.d. 141/2).
  3. Ltr & Inds, 762d ACMW Sq to 4707th Air Def Wg, "Request for Relocation of Equipment (Qualitative Operational Requirement)," 6 Oct 54 (s.d. 141/3).
  4. Ltr & Inds, 764th ACMW Sq to 4711th Def Wg, "Report of Disclosure of Classified Information to Foreign Nationals," 13 Apr 54 (s.d. 141/4).
142. This "mobility" of the supplemental radars was technically correct of the equipment but manifestly incorrect of the stations and of the purposes for which they were intended. The supplemental stations were as permanent as any of the permanent stations. It was understood that the term had first been used because the MPS-11s, MPS-7s and TPS-1Ds were capable of being broken down and moved elsewhere in the event that an emergency required it. Perhaps this argument had been used on Congressmen bent on getting the maximum value for their defense dollars.

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 44 were in the first phase, 25 in the second, and 33 in the third. Four  
 of these stations, all in the first phase and all scheduled for comple-  
 tion during 1955, were to suggest the capabilities of the 32d: M-104 at  
 Ft. Dearborn, New Hampshire was to be finished by February; M-110 at  
 Bucks Harbor, Maine by March; M-102 at Barrington, Nova Scotia by October;  
 and M-103 at North Concord, Vermont by December.<sup>144</sup>

In preparation for the supplemental program two ACSW Squadrons  
 had been activated at Syracuse during the first part of 1954--the 907th,  
 which was to occupy M-110, and the 911th, which was to occupy M-103.<sup>145</sup>  
 As a formality both units were attached to the Headquarters Squadron  
 Section at Syracuse in August,<sup>146</sup> and the 907th was further assigned with-  
 out change of strength or station to the 4711th Air Defense Wing.<sup>147</sup> Sim-  
 ilarly when the 644th, scheduled to occupy M-104, was activated at

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143. This total number had been lowered when it was found that certain  
 of the same requirements could be fulfilled first by remoted gap-  
 fillers. For a general discussion of this aspect of supplemental  
 radar programing see ADC Hist Rept 7, pp 73-76; for a discussion of  
 how this affected the program in the 32d sector see 32d ADiv Hist  
 Rept 16, pp 48-51.
144. Construction of M-103 had been delayed by the necessity that it be  
 re-sited. The mailing address of M-104 was to be changed from Fort  
 Dearborn to Portsmouth as the period closed. EADF Command Data, 31  
 Dec 54, pp 3.06, 3.07.
- 145/
1. The units were manned on a one-and-one basis while at Syracuse  
 EADF GO 33, "Activation and Assignment of Units," 23 May 53  
 (s.d. 145).
  2. Ltr, EADF to 4711th Def Wg, "Support of Mobile Radar Program,"  
 30 Apr 54 (s.d. 138/1, 32d ADiv Hist Rept 16).
146. 32d ADiv GO 25, "Unit Attachment," 3 Aug 54 (s.d. 146).
147. EADF GO 61, "Assignment of Unit," 4 Nov 54 (s.d. 147).

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Syracuse in September, it was further assigned to the jurisdiction of  
<sup>148</sup>  
 the 4707th Air Defense Wing, and attached for support purposes to the  
<sup>149</sup>  
 Headquarters Squadron Section at Syracuse in November. All three units  
 remained at Syracuse at record status through the end of the year. The  
 672d, which was to occupy M-102, had not been activated by year's end.

These actions of course constituted the mere paperwork preliminaries to the actual personnel and equipmental buildups scheduled for 1955. The 644th, whose station at Ft. Dearborn was programed for beneficial occupancy in January, was to move on-site on 1 February.  
<sup>150</sup>  
 The 907th, whose station at Bucks Harbor was scheduled for beneficial occupancy in February, was to move on-site on 15 February.  
<sup>151</sup>  
 Beneficial occupancy of the other two stations was not to come until later in the  
<sup>152</sup>  
 year.

With these developments in the immediate offing, some attention was devoted at year's end to the matter of logistics at the M-sites,

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148. EADF GO 55, "Activation and Assignment of Units," and "Reorganization of Unit," 29 Sep 54 (s.d. 148).

149. 32d ADiv GO 40, "Unit Attachment," 8 Nov 54 (s.d. 149).

150. Ltr, EADF to 4707th Air Def Wg, "Movement Orders, 644th ACMW Sq," 28 Jan 55 (s.d. 150).

151/ 1. Ltr, 32d ADiv to 4711th Air Def Wg, "907th ACMW Sq," 3 Feb 55 (s.d. 151/1).  
 2. Ltr, EADF to 4711th Air Def Wg, "Movement Orders, 907th ACMW Sq," 17 Feb 55 (s.d. 151/2).

152. TWX ACFOFR 12065, 32d ADiv to 4707th and 4711th Air Def Wgs, 20 Dec 54 (s.d. 152).

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since each was to be dependent upon a nearby station for logistical support.<sup>153</sup> Major General Morris R. Nelson, commander of EADF, called for a closer working relationship between each M-site commander and the commander of his support bases, experience having proved that of such stuff a smooth flow of supply items was made.<sup>154</sup> Colonel Israel sounded the same theme through the sector, setting forth several rules of play: each support commander was to be apprised of the M-site mission, and of the services the M-site could render to flight operations; support requisitions and work orders were to be prepared faultlessly, and any complaints submitted with ample portions of both tact and documentary evidence; on changes of command the new commander and the old were to visit the support base commander to perpetuate the relationship.<sup>155</sup>

Meanwhile the fulfillment of the gap-filler program was farther off. Calling for a total of 325 F3S-14s tied into selected permanent

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153. It was not yet known what agencies would support M-102. M-103 was to get normal support from Ethan Allen AFB, M-104 from Grenier AFB, and M-110 from Dow AFB. All three of these latter were to get their electronic support from Stewart AFB. Thus M-104 would be dealing for normal support with the Military Air Transport Service, and M-110 with the Strategic Air Command. EADF Command Data, 31 Dec 54, pp 3.06, 3.07.
154. Ltr, M/G M. R. Nelson to Col Robert S. Israel, Jr., 23 Dec 54 (s.d. 154).
- 155/ 1. Ltr, Col Robert S. Israel, Jr., to M/G M. R. Nelson, 30 Dec 54 (s.d. 155/1).
2. Ltr, 32d ADiv to 4707th Air Def Wing and 4711th Air Def Wing, "Command Liaison with Support Bases," 30 Dec 54 (s.d. 155/2).
3. Ltr & Incl, EADF to 32d ADiv, "Changes in ABC Radar Programs," 30 Dec 54 (s.d. 155/3).

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stations, the program was to be productive of some 125 radars in its second phase, and 113 in its third and final phase.<sup>156</sup> While siting was being carried on under the direct aegis of ADC, the only immediate knowledge available at this headquarters was that a Lincoln gap-filler Squibnocket (Martha's Vineyard) was to serve as a permanent facility.<sup>157</sup>

The Ground Observer Corps:

As yet another adjunct of the effort to make up for the manifold limitations of permanent radar cover, the Ground Observer Corps endeavored to provide the system with low-level detection capability. There was an essential irony to this activity--that human eyes and ears should be called upon to make up for the deficiencies of radar--, and it was often difficult for GOC authorities to convey their conviction that the effort was worthwhile. For example, GOC critics reasoned that the observation posts in key target complexes could not be of value in early warning, that after an attacker had reached his target it would require no ground observer to announce his presence.<sup>158</sup> To these kinds of points the GOC had often to agree, while asserting ever again the need for

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156. ADC Hist Rept 7, pp 84-87.

157/ 1. Ltr, 32d ADiv to ARDC, "Project Lincoln Gap-Filler Station, Squibnocket, Mass.," 31 Aug 54 (s.d. 157/1).  
2. TWX ADCMO 12460, ADC to EADP, 16 Apr 54 (s.d. 157/2).

158. Ltr & Inds, ADC to EADP, "Policy on Organization of Observation Posts in Critical Target Complexes," 14 Feb 55 (s.d. 158).

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every kind of initial warning. It was perfectly obvious that after an attack had got underway the GOC could be of relatively little value in the midst of key targets. Thus in this case the observation posts in key targets of the 3rd sector--Boston, Buffalo, Syracuse, Rochester, Albany, et al.--were to be unmanned after advanced states of warning had been declared.<sup>159</sup>

Other standard criticisms of the Corps were at once less constructive and more generally damning, ranging from indictments of method to assertions that the whole effort was worthless. Since the limitations of GOC capability were legion, and the paucity of encouraging statistical data pronounced, the Corps had often to defend itself with nebulous generalities, or, even worse, the tacit acknowledgment that much of the criticism was justified. Hence it was a serious advance for proponents of the GOC when the results of Operation Sky Scan, conducted nationwide in mid-year, furnished the first full-fledged tangible evidence that the Corps could contribute importantly to the air defense effort.<sup>160</sup> Operations analysts were able to report that the Corps' low-level detection capability, when coupled with effective direction center procedures, constituted "a highly valuable asset." Indeed, the GOC in its ability to report on the number of engines was determined to have "a daylight

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159. *Ibid.*, 1st Ind.

160. ABC Opns Analysis Tech Memo 15, GOC Exercise Sky Scan, 28 Dec 54 (s.d. 160).

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identification capability not possessed by radar."

Of course there were serious deficiencies as well. Most directly these hinged on the short average length of GOC tracks, due in part to errors of reporting and filtering and owing ultimately to the quantitative and qualitative limitations of the Corps at this particular juncture in its history. It was most difficult to bring about a successful interception on the basis of a track only  $\frac{3}{4}$  miles long. Yet such a track, if it constituted the only intelligence of a given penetration or an extension of a track plotted and subsequently lost by radar, would be an unbounded blessing.

Happily the weaknesses pointed up by Sky Scan were within the ability of GOC authorities to correct. Most importantly they concerned the recruitment and training of volunteers, the perpetual problems of the GOC endeavor. In this respect, more emphasis was to be put on systems training after the start of the new year.

One of the prevalent anomalies of the GOC endeavor--the disparity between military manning of the filter centers and the Air Force's oft-repeated assertion that it stood directly behind the Corps--was brought home very forcefully during the period by Mr. Harry A. Mapes,

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161. Ibid, p 1.

162. Ibid.

163/ 1. 4673d GOS Monthly Summation, Jul 54 (s.d. 163/1).  
2. 4673d GOS Monthly Summation, Aug 54 (s.d. 163/2).  
3. 4673d GOS Monthly Summation, Sep 54 (s.d. 163/3).  
4. 4673d GOS Monthly Summation, Oct 54 (s.d. 163/4).  
5. 4673d GOS Monthly Summation, Nov 54 (s.d. 163/5).  
6. 4673d GOS Monthly Summation, Dec 54 (s.d. 163/6).

164. 32d ADiv Ops Order 7-55, 14 Feb 55 (s.d. 164).

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Maine director of civil defense and public safety. Mr. Mapes had written of his concern to General Chidlaw in February, <sup>165</sup> and had got assurances that everything possible was being done by ADC to staff the filter centers with quality airmen and officers. <sup>166</sup> But in August, at an EADF conference of civil defense directors and GOC coordinators, it was announced that filter center manning was substantially below par, and that the outlook for the future, far from being encouraging, was more unsatisfactory than ever. Whereupon Mr. Mapes communicated his concern to Secretary of the Air Force Talbott, who had the same month signed a public letter relative to the urgent need for a vibrant GOC. Pointing to his own state's willingness to increase the tempo of GOC recruitment, he felt obliged to ask "...what is the Air Force ready to do about increasing its tempo of personnel in order to meet your demand?" <sup>167</sup>

The answer to Mr. Mapes' letter was forthcoming in September; <sup>168</sup> but the answer to his plea came in the form of action, when for the first time in their history the filter centers reached 100 per cent manning in <sup>169</sup> December.

With these personnel on hand the 4673d Ground Observer Squadron, which controlled the administration of GOC activities in the 32d

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165. Ltr, Mr. Harry A. Mapes to Gen Benjamin W. Chidlaw, 25 Feb 54 (s.d. 165).

166. Ltr, ADC to Harry A. Mapes, undated (s.d. 166).

167. Ltr, Harry A. Mapes to Hon. H. E. Talbott, 23 Aug 54 (s.d. 167).

168. Ltr, Col Owen F. Clarke to Mr. Harry A. Mapes, 2 Sep 54 (s.d. 168).

169. 4673d GOC Monthly Summary, Dec 54 (s.d. 163/6).

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sector, was prepared to embark on a decentralized plan of military manning known as the sector sergeant plan. This was simply a matter of deploying the recruitment and training personnel of the filter centers to the localities in which they operated, rather than centralizing them at the filter center as had been done previously. Designed at once to diminish traveling expenses and increase the effectiveness of field operations, the plan had worked well elsewhere in ADC.<sup>170</sup> Indeed, the 26th Air Division could point to a savings of some \$1400 and an increase of some 5100 volunteers during a 90-day trial period for the plan.<sup>171</sup>

With these happy results in view, the Division planned first to test the plan at one filter center,<sup>172</sup> and decided subsequently to implement it at all five detachments.<sup>173</sup> Detachment 2 at Syracuse, however, was to object to the plan on the grounds that its area of responsibility was compact enough to continue with centralized deployment, at least for the time being.<sup>174</sup>

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170. Ltr, Col Thomas C. Hollick to Lt Col Frederick York, 5 Nov 54 (s.d. 170).
171. Ltr, 26th ADiv to EADW, "Analysis of Ninety Day Test of Sector Plan," 13 Oct 54 (s.d. 171).
172. Ltr & Incls, Maj Howard L. Bickell to 4673d GOG, "SOC Sector Plan," 17 Sep 54 (s.d. 172).
173. 4673d GOG Sub-Sector Plan, 1 Jan 55 (s.d. 173).
174. Interview with Lt Col Frederick E. York, 32d ADiv Director of Civil Defense, 3 May 55.

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Meanwhile two advances were underway in the field of GOC operations. The first of these was known as Aircraft Flash Skylark, which made available to pilots of flights originating in the Bangor air defense identification zone an arrangement whereby they could report their plans of flight voluntarily in order to facilitate identification.<sup>175</sup> Given wide publicity amongst state aviation officials and at airdromes in the ADIZ, the plan was to be expanded after the first of the year to include all filter centers whose areas included portions of the ADIZ.<sup>176</sup> The second advance in operations, actually an extension of the first, was designed to exploit GOC identification capabilities to the fullest. This was to be brought about by coordinating the three basic methods of GOC identification--visual recognition, flight plan correlation, and flight information reporting--into a single function under the aegis of an air movements identification facility.<sup>177</sup>

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175. Ltr, Col Robert S. Israel, Jr., to Directors of State Aeronautics Commissions Me., N.H., N.Y. and Vt., "Identification of Air Movements - Bangor ADIZ," 16 Nov 54 (s.d. 175).
176. Ltr, 32d ADIV to 4707th Air Def Wg and 4711th Air Def Wg, "GOC Flight Movement Information Processing," 16 Nov 54 (s.d. 176).
177. The air movements identification sections scheduled to be implemented at the filter centers are not to be confused with the air movements identification sections, known as AMIS, at FAA air route traffic control centers. The former facility was of course confined to GOC Intelligence, while the latter was the basic to the whole system of identification through flight plan correlation. Ltr & Inds, ADC to EABF, "Air Movements Identification at Filter Centers," 5 Nov 54 (s.d. 177).

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In all, the trend of ground observer developments was promising for the future. It could be anticipated that in 1955 the Corps would be implanted more firmly than ever as an adjunct of the air defense system. At the very least the pattern of events was impressive of the value placed on the program by hard-headed military officials unused to indulging in overestimates of the capabilities of paramilitary agencies.<sup>178</sup> Despite the promised advent of gap-filler radars, therefore, the Corps had assured itself an important place in the structure for some time to come.<sup>179</sup>

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178. An interesting statistic in this respect is the fact that Gen Chidlaw was devoting an estimated 50% of his time to GOC problems. It matters not whether the statistic is completely accurate--the fact that it had achieved currency at all is testimony to the place of GOC in the business of air defense. Interview with Maj James A. Moberly, 4 May 54.

179. The gap-filler radars were for the most part to be deployed to sparsely populated areas where GOC coverage was extremely limited. ADC Hist Rept 7, pp 84-87.

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CHAPTER FOUR: THE WEAPONS

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If the second six months of 1954 were relatively uneventful in other respects, they were by no means uneventful or unimportant from a standpoint of weapons resources. On the contrary, the period under study saw the attainment of two long-cherished sector goals--completion of the mid-term conversion to AI-equipped fighter-interceptors, and the erection of the point defenses of Loring Air Force Base, thereby completing the primary weapons structure of the sector system.<sup>180</sup> The event had approximately the same significance from a weapons standpoint as had the phase-in of the last of the Division's permanent radars from a standpoint of aircraft control and warning.

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180. Loring housed bombers of the Strategic Air Command which, while deployed to offensive advantage, were extremely vulnerable from a standpoint of defense. The urgency with which sector authorities regarded this matter is discussed in one of its aspects, with regard to cross-border coordination concerning F-80, on pp 36, 37.

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This said, it is necessary to make serious qualifications in estimating its significance in terms either of capability or of potential capability. Was the system now impregnable, or nearly so? Were the sector's major targets now completely, or nearly completely, secure? Was any assault on the sector doomed to failure, or near failure? Or at the very least, was it now simply a matter of time until such capabilities could be achieved?

The answer is, of course, that none of these positives or near positives was true. Significant of itself as an advance in capability, completion of the basic weapons complement was more important historically than operationally: it marked the mere advent of the minimum basic structure thought necessary to put up a respectable battle against the sort of assault possible with the strategic offensive weapons of the day, granted warning enough to bring them to bear. But a respectable battle was not necessarily a successful one, and there was no guarantee that the appropriate degree of warning could be forthcoming.

The Fighter-Interceptors:

The fighter-interceptor resources came of age through the conversion of the 49th Fighter-Interceptor Squadron at Dow Air Force Base from F-86Fs to F-86Ds, and through the mutual exchange of two squadrons at Presque Isle Air Force Base--the 57th and 74th, which were equipped with F-89Cs--for one squadron each from Thule and Keflavik--the 318th and 88d, respectively, which were equipped with F-89Ds. Thus, where at the

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82d had F-94s when it  
left Iceland in Oct 54

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start of the period there were yet three of the Division's nine squadrons without the more advanced machines, all nine were AI-equipped by year's end: four with F-86Ds, three with F-94Cs, and two with F-89Ds. Further changes were to occur within the framework of the mid-term conversion--the 58th and 437th at Otis were to convert to F-89Ds in Fiscal

181. The background specifically of programming for Presque Isle and more generally of the conversion program as a whole is set forth in earlier histories of this command, and most recently in 32d ADiv Hist Rept 16, pp 52-62.
182. Advances toward the goal of a completely AI-equipped complement during the course of the year and its attainment at year's end are indicated by the status of the resources in January, June and December, as follows:

<u>4711th Defense Wing</u>	<u>Jan</u>	<u>Jun</u>	<u>Dec</u>
27th FIS, Griffiss AFB, NY	F-86A	F-94C	F-94C
37th FIS, Ethan Allen AFB, Vt	F-86D	F-86D	F-86D
49th FIS, Dow AFB, Me	F-86F	F-86F	F-86D
57th FIS, Presque Isle AFB, Me	F-89C	F-89C	Iceland
74th FIS, Presque Isle AFB, Me	F-89C	F-89C	Greenland
318th FIS, Presque Isle AFB, Me		Greenland	F-89D
82d FIS, Presque Isle AFB, Me		Iceland	F-89D
<u>4707th Defense Wing</u>			
47th FIS, Niagara Falls AFB, NY	F-86F	F-86D	F-86D
58th FIS, Otis AFB, Mass	F-94C	F-94C	F-94C
437th FIS, Otis AFB, Mass	F-94C	F-94C	F-94C
60th FIS, Westover AFB, Mass	F-86D	F-86D	F-86D

For a complete breakdown of the specifics of aircrew manning and equipment status on a quarterly basis see the section dealing with operations in EADW Command Data for Mar, Jun, Sep, and Dec 54. The geographical distribution of Division fighter-interceptors is portrayed geographically in 32d ADiv Map, "Fighter-Interceptor Resources," 31 Dec 53 (s.d. 143, 32d ADiv Hist Rept 16).

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1956 in preparation for overseas deployment--but the next development  
of really major proportions was to be the advent of the F-102 in 1957.<sup>184</sup>

The change of units at Presque Isle was not totally uncomplicated by any means. Before deploying overseas the aircraft of the 57th and 74th had been required to undergo so-called IRAN modification in mid-year, precisely when the need for fulfilling operational alert commitments was greatest.<sup>185</sup> At first it had been recommended that the alert commitments be scaled down to those of a one-squadron base,<sup>186</sup> but ultimately a more ingenious scheme was arrived at whereby aircraft of the 27th, 37th and 49th took up the slack.<sup>187</sup>

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- 183/ Progressing through Fiscal 1956 is portrayed in the EADF Command Data, 31 Dec 54, p 3.03.
1. TWX EAMAC-ACM 1763, EADF to 32d ADiv, 28 Dec 54 (s.d. 183/1).
  2. TWX EACOPR-4 40622, EADF to 4707th Air Def Wg, 7 Dec 54 (s.d. 183/2).
  3. TWX DWOMO D-787, 4707th Air Def Wg to 32d ADiv, 21 Dec 54 (s.d. 183/3).
  4. Ltr, Incl & End, EADF to 32d ADiv, "Radiation Effects of the AFS-20B Radar," 29 Jun 54 (s.d. 183/4).
184. ADC Program, 17 Jan 55 (s.d. 184).
- 185/ IRAN was the code designation for "Inspection and Repair as Necessary," a program in which aircraft were rebuilt completely on an assembly line basis. Interview with Capt David Smith, PO&R, 17 May 55.
1. TWX EAMAC-ACD 12789, EADF to 32d ADiv, 23 Apr 54 (s.d. 185/1).
  2. Ltr & Incls, 27th FIS to EADF, "Waiver of ADC UPD Requirements," 18 Aug 54 (s.d. 185/2).
  3. Ltr & Incls, Maj Frederic T. Watts to EADF, "Waiver of ADC UPD Requirements," 11 Aug 54 (s.d. 185/3).
186. Ltr & Incls, Col Frank Q. O'Connor to 4711th Air Def Wg, "Alert Requirements," 31 Mar 54 (s.d. 186).
- 187/
1. 4711th Def Wg Opus Order No. 5-54, 30 Jun 54 (s.d. 187/1).
  2. TWX EACOP-OW C-703, EADF to ADC, 2 Jul 54 (s.d. 187/2).

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On 8 August the 318th was assigned to Presque Isle from Thule,<sup>188</sup>  
 and on 25 October the 82d was assigned from Keflavik.<sup>189</sup> But it was not  
 until 9 November that the 318th could assume alert commitments from the  
 27th, which had carried the burden just before.<sup>190</sup> The 528th Air Defense  
 Group, which was charged with responsibility for Presque Isle, became  
 alarmed at year's end that a peculiarity of ADC programming had allotted  
 to Presque Isle only a single F-86D squadron beginning in the third  
 quarter of Fiscal 1957.<sup>191</sup> The 528th reviewed for ADC's edification the  
 strategic character of the Presque Isle area, pointed to the geographic  
 disparity of weapons resources that left a wide gap between Presque Isle  
 and the nearest other fighter-interceptors at Otis, Westover and Burling-  
 ton (the 49th was to deploy from Dow to Hanscom by then),<sup>192</sup> and urged that

188. EADF GO 49, 13 Aug 54 (s.d. 188).

189/ 1. EADF GO 60, 27 Oct 54 (s.d. 189/1).  
 2. EADF GO 66, 7 Dec 54 (s.d. 189/2).  
 3. TMX EACPR-4 35992, EADF to 4711th Air Def Wg, 27 Oct 54 (s.d. 189/3).

190. 32d ADiv Staff Meeting Minutes, 9 Nov 54. The full minutes of staff meetings for the second half of the year are included for review as s.d. 190. 32d ADiv Staff Meeting Minutes, Jul-Dec 54 (s.d. 190)

191. ADC program, 18 Jan 55, pp 146.

192/ The whole background of deployment of the 49th to Dow, which was the property of the Strategic Air Command, is somewhat disturbed. In January the unit had felt it necessary to complain of unsatisfactory reserivicing time and in mid-year the problem hinged on local runway construction, which it was felt would hamper air defense operations. Authorities here had suggested that the unit be deployed elsewhere pending the programmed permanent deployment to Hanscom scheduled for the end of 1955.

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the base be reprogrammed for two squadrons of longer-range aircraft such as the F-89Ds.<sup>193</sup>

This headquarters was under the impression that the reduction of fighter-interceptor capabilities was predicated on the anticipation of Nike facilities for the point defense of Loring, and that the allocation of F-86Ds was designed to facilitate the point defense mission. But the Division had always conceived of the mission at Presque Isle as dual, involving the extension of the defenses of the Boston-Niagara-Warfolk urban triangle as well as the point defense of Loring.<sup>194</sup> It was on this basis, and in consideration of the fact that with only a single squadron

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(Continued From Preceding Page)

1. Ltr & Inds, Maj Alfred L. Cummings to 4711th Def Wg, "Refueling Units," 13 Jan 54 (s.d. 192/1).
  2. TWI ACFOFR 6033, 32d ADiv to 4711th Def Wg, undated (s.d. 192/2).
  3. DF, OOT to OPR, "Conversion Plan for 49th FIS," 24 Sep 54 (s.d. 192/3).
  4. Ltr & Inel, 4711th Air Def Wg to 32d ADiv, "Conversion Plan for 49th Fighter-Interceptor Squadron," 22 Sep 54 (s.d. 192/4).
  5. Ltr & Inds, Maj John A. Bell to 4711th Def Wg, "Movement of 49th Fighter-Interceptor Squadron," 15 Dec 54 (s.d. 192/5).
  6. Ltr, Inel, & Inds, 517th Air Def Gp to 4711th Air Def Wg, "Survey of Ethan Allen Air Force Base," 19 Oct 54 (s.d. 192/6).
193. Ltr & Ind, Col Frank Q. O'Connor to 4711th Air Def Wg, "Permanent Allocation of Two (2) Fighter-Interceptor Squadrons (F-89D) to Presque Isle Air Force Base," 7 Dec 54 (s.d. 193).
194. Memo and draft of ltr on Presque Isle deployment, Col Robert S. Israel, Jr., undated (s.d. 194).

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available he would feel "reluctant to permit assigned aircraft to proceed further than the normal limits of the radius of action of fighters on local defense," that the Division commander, Colonel Robert S. Israel, Jr.,<sup>195</sup> urged a reversion to two-squadron deployment to Presque Isle.

EADF took up the matter informally with ADC headquarters, but to no avail. On the basis of whatever superior wisdom was available at Colorado Springs, ADC had made its arrangements according to a priority schedule that would not permit of two squadrons at Presque Isle. But at least the 318th, which was to remain at Presque Isle, was to convert to<sup>196</sup> F-89Ds and F-89Hs before the end of 1957.

In other respects the conduct of fighter-interceptor operations was routine. Having been triggered by ADC's admonition in January to develop plans for emergency airfields, both to alleviate the strain on facilities having two squadrons and to provide auxiliary facilities in cases of sabotage or bombing of primary facilities,<sup>197</sup> the Division<sup>198</sup> had forwarded its emergency deployment recommendations during March.

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195. Ltr & Incl, Col Robert S. Israel, Jr., to EADF, "Permanent Allocation of Two (2) Fighter-Interceptor Squadrons to Presque Isle Air Force Base," 29 Dec 54 (s.d. 195).

196. Ibid, 1st Ind.

197. Ltr, Incl & Ind, ADC to EADF, "Emergency Airfields for Fighter-Interceptor Operations," 9 Jan 54 (s.d. 197).

198/ 1. Ltr, 32d ADiv to EADF, "Emergency Airfield for Fighter-Interceptor Squadron," 15 Mar 54 (s.d. 198/1).  
2. Ltr, 32d ADiv to EADF, "Emergency Airfield for Fighter-Interceptor Squadrons," 23 Mar 54 (s.d. 198/2).

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These had been returned and given further refinement by mid-year. Mean-  
 while the newly converted units were involved in concerted training  
 endeavors to gain competence with their advanced weapons. Excellent,  
 if controversial, commentaries on the conversion process and on the  
 whole subject of air defense fighter-interception activity are afforded  
 by the reports of exchange tours of duty supplied by a Navy pilot assigned  
 to the 37th, which had converted to F-86Ds late in 1953, and Royal Air  
 Force officer attached to the 60th in mid-1953.

199. Ltr, EADF to 32d ADiv, "Emergency Airfields for Fighter-Interceptor  
 Operations," 5 Apr 54 (s.d. 199).

200/ It will be remembered that wholesale conversions during 1953 had  
 precipitated the crisis that resulted in Operation Balloon Pump,  
 the provisions and effects of which are discussed in 32d ADiv Hist  
 Rept 16, pp 62-68.

1. Ltr & Incl, EADF to 32d ADiv, "Utilization of Automatic Pilot  
 (F-86D)," 23 Jul 54 (s.d. 200/1).
  2. Ltr & Incls, Lt Col Rufus Woody, Jr., to 518th Air Def Gp, "F-  
 86D-7 Mobile Training Detachment, 23 Aug 54 (s.d. 200/2).
  3. Ltr & Incls, Col Frank Q. O'Connor to 4711th Air Def Wg, "Sim-  
 ulator and WED Schedules," undated (s.d. 200/3).
  4. Ltr, 32d ADiv to 4707th Def Wg, "Non-Utilization of Flight  
 Simulator," 23 Jul 54 (s.d. 200/4).
  5. Ltr & Incl, EADF to 32d ADiv, "Local Expenditure of 2.75 Prac-  
 tice Rockets," 29 Oct 54 (s.d. 200/5).
  6. Ltr, Incl & Incl, EADF to 32d ADiv, "Standardized Commentary  
 for Fighter-Interceptor Crews," 13 Sep 54 (s.d. 200/6).
201. Ltr, Incls & Incl, 37th FIS to Chief of Naval Operations, "Tour of  
 Duty with the U.S. Air Force, Report on," 16 Oct 54 (s.d. 201).
202. Ltr & Incls, RAF to 60th FIS, "RAF/USAF Exchange Scheme - End of  
 Tour Report," undated (s.d. 202).

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Supporting the Fighter-Interceptors:

The matter of weapons support was of course a major item of routine concern to air defense authorities, and one upon which considerable emphasis was placed during the period under study. A good part of this emphasis related to navigational aids, for which ILS, TACAN and RAPCON facilities were programmed for the seven bases under 32d jurisdiction. The activation of CPN-18/FPN-16 radar approach control equipment at Otis during the period, while a signal advance in navigational aid, raised a question concerning the division of authority between the CAA and the Air Force. Authorities at Otis found that they needed to be able to control all air traffic in a 35-mile radius to exploit the full capabilities of the RAPCON facilities, yet were unable to do so: some 50 per cent of IFR traffic in the area during the summer was commercial and hence under CAA jurisdiction. Local coordination had been unable to achieve a solution to the problem. Civil carriers were reluctant to put themselves under control of a military approach control facility as long as the Air Force was completely responsible for it. To EADF this

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- 203/ 1. The schedule of existing and programmed communications and navigational aids at all seven bases in the sector is included in the supporting documents for further study. "Communications Facilities and Navigational Aids Programmed and Installed at Bases Supporting 32d Air Division Flying Units" (Extracted from report of EADF facilities, August 1954), (s.d. 203/1).
2. Ltr & Ind, EADF to 32d Div, "OCA Approaches," 21 Sep 54

204. Ltr & Ind, EADF to ADC, "Radar Approach Control, Otis Air Force Base," 8 Dec 54 (s.d. 204).

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seemed to pose only two alternatives: either the CAA should be charged with operating the GPR-18, or the CAA should delegate some of its authority to the Air Force. ADC agreed, but suggested to USAF that the CAA station one supervisor at Otis to satisfy air route traffic control requirements. While USAF did not concur in the specific solution recommended by ADC, action was being taken to facilitate the control desired through one or the other of the alternatives proposed by EADF.

Another and extremely important aspect of fighter-interceptor support concerned weather facilities. Division authorities, having responsibility for air defense of a sector notorious for foul and hazardous weather, were very naturally preoccupied with providing up-to-the-minute data for the squadrons and aircrews. Whenever discrepancies appeared authorities were quick to ferret them out, for the safety of pilots rode in the balance. Pilots were briefed informally every three hours with additional data telephoned as needed, and if a given unit

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205. Ltr & Inds, EADF to ADC, "Radar Approach Control, Otis Air Force Base," 8 Dec 54 (s.d. 204)

206. Ibid, 1st Ind.

207. Ibid, 2nd Ind.

208/ 1. Ltr & Inds, EADF to 32d ADiv, "Staff Visit to Griffiss Air Force Base, Rome, New York," undated (s.d. 208/1).  
 2. Ltr & Ind, 4707th Air Def Wg to 32d ADiv, "Weather Dissemination," 30 Dec 54 (s.d. 208/2).  
 3. Ltr & Inds, EADF to 32d ADiv, "Weather Dissemination," 29 Nov 54 (s.d. 208/3).

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found this inconvenient or difficult of accomplishment, it was nevertheless thought necessary to effective operations.<sup>209</sup>

To facilitate immediate scramble action under inclement weather conditions, EADF in October categorized three runway surface conditions and the scramble principles for each: the first condition involved no undue hazard and hence scramble according to routine procedures; the second condition involved unusually hazardous runways, and under which the anticipation of scramble would have to be weighted against the necessity that the fighters be recovered at another base and against the extent to which the scramble was really necessary; the third condition involved such hazardous runways and taxiways that the success of the scramble would be in doubt, and hence only mandatory scrambles were to be attempted.<sup>210</sup> At the start of 1955 some attention<sup>211</sup> was devoted as well to survival equipment requirements. Additionally, by the end of the year a further aspect of weather responsibility-- forecasts with respect to the likelihood of attack--was being expited

209. Ltr & Inds, Col Luther H. Richmond to 4707th Air Def Wg, "Weather Briefing of Alert Pilots," 25 Oct 54 (s.d. 209).

210/ 1. Ltr, 32d ADiv to Dist List, "Scramble Action Under Adverse Runway Conditions," 23 Dec 54 (s.d. 210/1).  
2. Ltr, 32d ADiv to Dist List, "EADF Regulation 55-12," 9 Dec 54 (s.d. 210/2).  
3. Ltr, ADC to EADF, "Weather Observations for Landing Aircraft," 15 Dec 54 (s.d. 210/3).

211. Ltr, Col Robert S. Israel, Jr., to B/G Donald B. Smith, 14 Jan 55 (s.d. 211).

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through provision for day-to-day observations along the most probable  
<sup>212</sup>  
 routes of assault from the north.

The miscellany of support, ranging from the designation of danger areas for gunnery and rocketry training to tabulations of facilities available at each of the fighter-interceptor bases, got routine attention during the period: all a part of the business of keeping the  
<sup>213</sup>  
 fighter-interceptors flying.

Antiaircraft Artillery:

In October, when the 75-millimeter guns of the 540th Sky-sweeper Battalion took their places in defense of Loring Air Force Base, the Division attained for the first time to the antiaircraft defense of  
<sup>214</sup>  
 all three of its major targets--Loring, Boston and Niagara. The event had been long delayed by limitations of housing at Loring, and was far from implying a perfect or impregnable defense now that it had come. But at least it brought into being the minimum posture of defense deemed

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212. Ltr & Incl, 32d ADiv to Dist List, "ADC Route Weather Forecast," 30 Nov 54 (s.d. 212).

- 213/
1. Ltr, Inds & Incl, Lt Col Lawrence J. Bissette to 27th FIS, "Scheduling Agency for Oswego Danger Area," 15 Jun 54 (s.d. 213/1).
  2. Ltr, 32d ADiv to 4707th Def Wg and 4711th Def Wg, "Brief for Deployed Forces," 11 Aug 54 (s.d. 213/2).
  3. Ltr & Incl, EADP to 32d ADiv, "Radiation Effects of APS-20B Radar," 5 Aug 54 (s.d. 213/3).
  4. Ltr & Inds, Hq 1st Army to Comdg Officer, Otis AFB, "Control of Danger Area B-22," 6 Jul 54 (s.d. 213/4).

214. Narrative History of the 15th AAA Group since 30 June 1954, undated (s.d. 214).

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necessary for the sector's key targets. There remained the matter of bringing these resources up to the highest level of operational agility and reflexive capability; the matter of achieving a smooth integration of the Skysweepers with the rest of the air defenses at Loring.<sup>215</sup>

Meanwhile important developments were taking place at both Boston and Niagara. Nike, the Army missile which promised fair to expand the role of antiaircraft resources because of its respectable range and performance characteristics,<sup>216</sup> was being prepared for at both locations. Construction had been underway near Boston since early in the year, and in January the 514th AAA Gun Battalion was to be converted to guided missiles.<sup>217</sup> Similarly at Niagara, construction had got underway in July, and the 44th AAA Gun Battalion was to become a missile battalion in March 1955.<sup>218</sup>

The first phase of the Nike plans for Niagara would be completed when the Nike sites could be occupied, probably by mid-1955, giving the area a coordinated defense served by one battalion each of

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215. The Loring defenses now comprised the direction center at Caswell, the two fighter-interceptor squadrons at Presque Isle and the Skysweeper battalion at Loring.
216. For a discussion of the Nike system, its capabilities and its limitations see 32d ADiv Hist Rept 14, pp 167-171.
217. Ltr & Incl, 15th AAA Gp to 32d ADiv, "Narrative History of the 15th AAA Group since 30 June 1954," 27 Apr 55 (s.d. 214).
218. Ltr, 2d AAGp to Lt Col James H. Lewis, "AAA Defense Niagara Falls - Buffalo," 29 Apr 55 (s.d. 218).

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missiles and regular 90 millimeter guns.<sup>219</sup> The second phase of this plan involved the addition of two more Nike battalions and the expansion of these resources to provide a single coordinated defense for the entire Buffalo-Niagara complex. Then the two 90 millimeter battalions converting to Nike under the second phase would turn over their conventional weapons to National Guard battalions at Buffalo and Niagara.

Ultimately the same kinds of coordinated conventional and automatic antiaircraft defenses would be active at all three key targets of the sector. The conventional weapons were necessary to cover areas where the Nike missiles could not operate because of constrictions to their arcs of projection.<sup>220</sup>

Meanwhile the day-to-day efforts of antiaircraft authorities were, as always, to get the maximum training possible consistent with the demands of active air defense operations.<sup>221</sup> In this regard the 32d moved at year's end to bring about the assignment of additional AAA personnel--two non-commissioned officers--to Division headquarters. Pointing out that under existing conditions, in which the single AAA liaison representative was required to spend roughly half his time away

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219. Ltr, 2d AAAGp to Lt Col James H. Lewis, "AAA Defense Niagara Falls-Buffalo," 29 Apr 55 (s.d. 218).

220. As in fn 216.

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222  
 from Syracuse, the Division based its request on the operational necessity that the antiaircraft liaison position in the control center be covered constantly. 223  
 No action was forthcoming on the request by year's end.

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- 221/ The monthly reports of the Division's antiaircraft liaison representative and correspondence appended thereto are included in the supporting documents for further study.
1. Ltr, 515th AAAC Detachment to 515th AAA Opn Detachment, "Big Photo" Tracks, 19 Aug 54 (s.d. 221).
  2. Ltr, Lt Col James H. Lewis to EAAAC, "Monthly Activities Report (July)," 31 Jul 54 (s.d. 221/2).
  3. Ltr, Lt Col James H. Lewis to EAAAC, "Monthly Activities Report (August)," 31 Aug 54 (s.d. 221/3).
  4. Ltr, Lt Col James H. Lewis to EAAAC, "Monthly Activities Report (September)," 30 Sep 54 (s.d. 221/4).
  5. Ltr, Lt Col James H. Lewis to EAAAC, "Monthly Activities Report (October)," 1 Nov 54 (s.d. 221/5).
  6. EF, CPM to AAA Liaison Off, "Incident of Transportation of High Explosives," 30 Nov 54 (s.d. 221/6).
  7. Ltr, Lt Col James H. Lewis to EAAAC, "Monthly Activities Report (November)," 1 Dec 54 (s.d. 221/7).
  8. Ltr, Lt Col James H. Lewis to EAAAC, "Monthly Activities Report (December)," 4 Jan 55 (s.d. 221/8).
222. Excerpt from ADC-AAAC Mutual Agreement for the Defense of the United States, 15 Jul 52.
223. Ltr, 32d ADiv to EADP, "Procurement of Army Antiaircraft Personnel," 11 Dec 54 (s.d. 223).

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CHAPTER FIVE: OPERATIONAL TACTICS AND TECHNIQUES

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Naturally the erection of a massive complex of resources was not the end of air defense, nor was the attainment of resource goals the equivalent of attaining their optimum capabilities. Indeed, it had been the experience of the system that the more advanced the facilities to which it converted the more problematic the conversion, and hence the more difficult the exploitation of their inherent capabilities. Thus with the weapons in 1953. Mid-term conversion to AI-equipped fighter-interceptors had endowed the system too heavily too quickly. There were more and better aircraft on hand, and a greater number of aircrews as well, than ever before in air defense history. Yet there was famine in the midst of plenty, for the aircrews, many of them new to air defense and all of them new to the weapons, were simply not proficient enough to utilize the machines effectively. Of a sudden the accident rate began to climb, until at year's end the system had been forced to relieve the

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units of their customary alert burdens to embark on the crash training  
224  
program known as Operation Balloon Pump.

Admittedly this is an extreme example, but the essential anomaly was common to conversions to new equipment, and the differences were merely of degree. If the accident rate had not got out of hand with the conversions in 1954 it was because the conditions were different--there were not as many conversions, the influx of new pilots was not commanding, and air defense authorities had learned their lessons well in 1953. But 1954, and particularly the second half of 1954, was a period of reaction in which the system strove toward the elusive goal of capability through the realm of tactics and techniques. The advent of the mid-term interceptors had posed brand new doctrinal problems, not for the fighter units alone, but for the whole system. And these were simply superimposed upon problems of long standing--detection and identification, scramble and recovery, control of the air battle.

Detection and Identification:

The initial difficulty of the air defense process concerned the prerequisite necessity to detect and identify an attacker in time to bring the weapons to bear with maximum effect. We have seen that the answer to detection problems lay for the most part in a known formula of expansion of resources, whereas identification posed doctrinal and

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224. The operational crisis precipitated by large-scale conversion in 1953 is dealt with in 32d ADiv Hist Rept 15, pp 94-119.

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procedural problems of much greater magnitude. In time of hostilities, of course, the skies would be cleared of all but combative elements, and identification would be a relatively simple matter of distinguishing between combatant elements.<sup>225</sup> But in the meanwhile it was incumbent upon the system to screen all penetrating traffic, and to perfect a means of identifying as either friend or foe every aircraft that could logically be the latter. Neither was it possible to disrupt the flow of air commerce in the process.

A large part of the solution lay in the area of erecting passive measures of identifying friendly penetrations, partially by constricting the area of identification, and partially through imposing identification responsibilities upon the aircraft themselves. It was in the interest of the former that the air defense identification zones had<sup>226</sup> been established, as a part of the flight-plan correlation proce-

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<sup>225/</sup> COMELRAD, the FCC-Air Force plan governing the security control of electromagnetic radiations, and SCATER, governing security control of commercial air traffic, are described in earlier histories of this command, and most recently in 32d ADiv Hist Rept 16, pp 83-87.

1. Ltr, 32d ADiv to EADP, "Supplement to SCATER - Tactical Military Flights," 20 Aug 54 (s.d. 225/1).
2. Ltr, Incls, & Incls, USAF to EADP, "Air Traffic Control," 28 Jul 54 (s.d. 225/2).

<sup>226/</sup> 1. Memo, 32d ADiv to Boston ARTC Center, "Handling of ADIZ Flight Movement Information," 12 Nov 54 (s.d. 226/1).

2. Ltr, H. W. Albrecht to A.O.D. Facilities, Region 1, "Regulations of the Administrator, Part 620, Security Control of Air Traffic," 25 Oct 54 (s.d. 226/2).
3. Ltr, 32d ADiv to 4707th Air Def Wg and 4711th Air Def Wg, "Handling of ADIZ Flight Movement Information," 13 Nov 54 (s.d. 226/3).

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<sup>227</sup>  
 dure, and of the letter that such expedients as IFF, the Strategic Air  
 Command daily additive lists, and standard flight following procedures  
<sup>228</sup>  
 had been designed.

But even within the framework of these procedures there were  
 manifold problems. In the matter of cross-border operations, for example,  
 this headquarters was dependent to a great extent upon the Canadian sys-  
 tem and how effectively it could determine the character of inbound air  
 traffic. It will be recalled that in this regard, ADC had brought about  
 a revision in the ADIE and CADIE during the first of the year, and that  
 at first this headquarters had been loath to accept Canadian identifi-  
<sup>229</sup>  
 cations.

In September Colonel Israel, who continued to be concerned  
 over the possibility of complacency on the part of his own border stations

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227. Ltr & Incls, 32d ADiv to EADF, "Combat Readiness Reporting (RCS: 1-  
 ADC-V8)," 16 Nov 54 (s.d. 227).

- 228/
1. Ltr, H. W. Albrecht to A.O.D. Facilities, Region 1, "International Aircraft Markings," 23 Sep 54 (s.d. 228/1).
  2. Ltr, Incl & Ind, 32d ADiv to 4707th Air Def Wg, "Installation of Beacon in Civil Airline Aircraft," undated (s.d. 228/2).
  3. Ltr, 32d ADiv to Dist List, "SAC Daily Additive List," 3 Nov 54 (s.d. 228/3).
  4. Ltr & Incls, 766th AC&W Sq to 4711th Air Def Wg, "Identification of Strategic Air Command (SAC) Aircraft," 16 Nov 54 (s.d. 228/4).
  5. Ltr & Incls, ADC to EADF, "Misuse of Flight Following," 9 Dec 54 (s.d. 228/5).
  6. Ltr, 32d ADiv to 4707th Air Def Wg and 4711th Air Def Wg, "Route of Flight Information-Direct Flights," 27 Oct 54 (s.d. 228/6).
  7. Ltr, 32d ADiv to EADF, "Proposed ADC Standardization Regulations," undated (s.d. 228/7).

229. This matter is discussed in some detail in 32d ADiv Hist Rept 16, pp 14-20. Ltr, 32d ADiv to 4707th Def Wg and 4711th Def Wg, "Identification in Air Defense," 30 Jun 54 (s.d. 229).

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as a result of the assumption of identification responsibilities by the Canadians, bespoke his concern in a letter to the field. Pointing out that B-29s were known to be able to penetrate the Canadian system either without detection or being misidentified, he admonished the units to treat with deliberate suspicion every penetrating aircraft not positively identified as friendly.<sup>230</sup>

Colonel Israel at the same time addressed a letter to Major General Morris R. Nelson, commander of EADF, in which he observed that Canadian cover at low altitudes was particularly sparse, and that the Canadian Ground Observer Corps was on a standby status and therefore of no practical value in day-to-day lowlevel surveillance.<sup>231</sup> To this General Nelson replied that the NCAF was taking action to expand its ground observer program to the Great Lakes, that ADC had proved the matter of putting the GOCB on 24-hour alert in the security identification zone, and that, in any event, existing regulations had not usurped Colonel Israel's authority to identify within his own sector.<sup>232</sup> At the same time, however, General Nelson thought a command policy requiring re-identification "inappropriate" and indicative of "a lack of confidence not...

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230. Ltr, Col Robert S. Israel, Jr., to 4707th Air Def Wg and 4711th Air Def Wg, "Identification in Air Defense," 21 Sep 54 (s.d. 230).
231. Ltr, Col Robert S. Israel, Jr., to M/G M. R. Nelson, 21 Sep 54 (s.d. 231).
232. Ltr, M/G M. R. Nelson to Col Robert S. Israel, Jr., 3 Nov 54 (s.d. 232).

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<sup>233</sup> warranted by the circumstances." Soon after the first compilation of statistics on Canadian identifications in the security identification zone pointed to an over-all effectiveness of some 84 per cent, only <sup>234</sup> slightly less than that sustained in the American system.

Meanwhile a great deal remained to be done in achieving optimum coordination between the Division's own stations. Time and again P-13 and P-65 had been guilty of discrepancies of cooperation that had caused the tracking and identification process to break down. <sup>235</sup> And on a broader scale, the Division found it necessary to continue to place emphasis on warning-telling procedures, and upon ordering scrambles in time to catch unknowns at the outer edges of radar cover. <sup>236</sup> In a few instances these discrepancies owed directly to equipmental deficiencies,

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233. Ltr, W/G M. R. Nelson to Col Robert S. Israel, Jr., 3 Nov 54 (s.d. 232).

<sup>234/</sup> 1. Ltr, RCAF to EADF, "Security Identification Zone - Statistics," 9 Nov 54 (s.d. 234/1).  
 2. Ltr, EADF to 32d ADiv, "RCAF PIE and SIZ Identifications Statistics," 3 Dec 54 (s.d. 234/2).  
 3. DF, OOF to OCO, "Identification Effectiveness," 7 Dec 54 (s.d. 234/3).

<sup>235/</sup> Ltr & Inds, Col William H. Clark to 4707th Def Wg and 4711th Def Wg, "Cooperation between Adjacent AC&W Stations," 1 Sep 54 (s.d. 235).

236. Ltr, 32d ADiv to 4707th Air Def Wg and 4711th Air Def Wg, "Warning Telling Procedure," undated (s.d. 236).

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as in one case where coordination was hampered by a variance in the plotting boards of two stations,<sup>237</sup> But largely they derived from insufficient training and proficiency of operational personnel.<sup>238</sup>

The particular problems of identifying overwater penetrations of the Eastern Seaboard, coupled with their inherently suspicious character, had led to the development of the multiple corridor system of identification.<sup>239</sup> This involved a system of imaginary corridors marked off by homing beacons, into which friendly air traffic were channeled for ease of identification. The system had worked relatively well in its first months of operation, but had been far less effective than was known to be possible. This derived largely from the fact that participation for civil air carriers was voluntary, and hence a great many were not participating at all.<sup>240</sup> In mid-year, however, higher headquarters had moved to improve NCIS, first by establishing additional corridors for New York air traffic penetrations, and secondly by endeavoring to augment civil parti-

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237. Ltr & Incls, 32d ADiv to 4711th Air Def Wg, "Discrepancies in Plotting," 6 Oct 54 (s.d. 237).
238. Ltr & Incl, Col Robert S. Israel, Jr., to 4707th Air Def Wg and 4711th Air Def Wg, "Cooperation Between Adjacent ACMW Squadrons," 4 Feb 55 (s.d. 238).
239. For a discussion of the multiple corridor system see 32d ADiv Hist Rept 14, pp 195-197.
- 240/
1. Ltr & Incl, EADF to 32d ADiv, "Nantucket Multiple Corridor Identification System," 23 Dec 54 (s.d. 240/1).
  2. Ltr & Incl, EADF to 32d ADiv, "Nantucket Multiple Corridor Identification System," 28 Sep 54 (s.d. 240/2).

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icipation with mandatory participation for military aircraft. These<sup>241</sup>  
 measures had been helpful, but a further measure involving utilization<sup>242</sup>  
 of picket vessels to help facilitate MCIS identifications, had yet to  
 be perfected fully.<sup>243</sup>

Scramble and Recovery Procedures:

In order to achieve the greatest flexibility possible in  
 employing the fighter-interceptors, the air defense system required a  
 comprehensive set of ground rules governing the scramble and recovery of  
 the tactical aircraft, and this involved close coordination with the  
 Civil Aeronautics Authority. And it was only natural that in establish-  
 ing such rules, which had to be specific for each recovery installation,  
 the system was going to encounter the need for frequent revision as the  
 conditions of fighter deployment were altered. Thus weather minima were  
 changed to allow greater local prerogative for each squadron commander,<sup>244</sup>  
 local safety conditions were allowed for,<sup>245</sup> and letdown procedures were

<sup>241</sup>. See 32d ADiv Hist Rept 16, pp 81-83.

<sup>242</sup>. Ltr, 32d ADiv to 654th ACMW Sq, 762d ACMW Sq, & 765th ACMW Sq,  
 "ACMW Squadron Supplementary Operating Instructions-Bantucket  
 Multiple Corridor Identification System" 16 Aug 54 (s.d. 242).

<sup>243</sup>. Ltr & Inds, 654th ACMW Sq to 32d ADiv, Multiple Corridor Iden-  
 tification System, 8 Nov 54 (s.d. 243).

<sup>244</sup>/ 1. Ltr & Inds, Col Robert S. Israel, Jr., to EADF, "Emergency  
 Scrambles," 16 Apr 54 (s.d. 244/1).  
 2. Ltr, 32d ADiv to EADF, "Scramble and Recovery Weather Minima,"  
 10 Jun 54 (s.d. 244/2).

<sup>245</sup>. Ltr & Ind, Lt Col Joseph C. Irwin to 32d ADiv, "Low Flying Air-  
 craft," 19 Aug 54 (s.d. 245).

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altered to accommodate newly acquired tactical aircraft.<sup>246</sup>

In July, as a result of considerable coordination among the three divisions under EADF, a whole new set of procedures was published according to a standardized format common to all three.<sup>247</sup> Effective 1 August, the procedures were subject to a number of specific amendments during the course of the period.<sup>248</sup> Meanwhile ADC took action toward establishing a command-wide agreement, submitting a draft for operational scrutiny in September.<sup>249</sup> This headquarters made a number of specific recommendations in connection with the new plan, concluding that the new agreement would require that ACMW Directors and controllers be given

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- <sup>246/</sup> 1. Ltr & Incls, Lt Col W.J. Hollander to 4711th Air Def Wg, "Aircraft Letdown Separation," undated (s.d. 246/1).  
 2. Ltr, Incls & Incl, Col James C. Beckwith to 32d ADiv, "Proposed Jet LF Range and ILS Let-down Procedures for Burlington, Vermont," 10 Nov 54 (s.d. 246/2).  
 3. Ltr, Incls & Incls, EADF to 32d ADiv, "Jet Penetration and Instrument Approach Procedures," undated (s.d. 246/3).  
 4. Ltr & Incls, Lt Col Rufus Woody, Jr., to 4707th Def Wg, "Chase Aircraft for VFR Approaches," 13 Jul 54 (s.d. 246/4).  
 5. Ltr & Incls, Lt Col Rufus Woody, Jr. to 518th Air Def Op, "Minimum Fuel Restriction for Practice ILS and OCA (F-86D)," 3 Aug 54 (s.d. 246/5).  
 6. Ltr, 32d ADiv to EADF, "Interceptor Control Procedure," 14 Dec 54 (s.d. 246/6).
247. Ltr, 32d ADiv to Dist List, "Scramble and Recovery Procedures for Active Air Defense Missions - 32d Air Division (Defense) Sector," 16 Jul 54 (s.d. 247).
248. 32d ADiv/ESF/CAA---1st Region, Opns Agreement, "Scramble and Recovery Procedures for Active Air Defense Missions, 32d ADiv Sector," 1 Aug 54 (s.d. 248).
249. Ltr, Incls & Incl, ADC to 32d ADiv, "Joint CAA/ADC Operational Agreement," 2 Sep 54 (s.d. 249).

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formal instruction in CAA air route traffic control methods and procedures. Whether the ADC plan was to go into effect was not known as the period closed.

Tactical Doctrine and Air Battle Control:

It has been pointed out that the advent of the new mid-term interceptors imposed new requirements upon the air defense system. Naturally enough, since the new machines were employed in a completely different form of attack from their predecessors, the problems they created were nowhere more prominent or perplexing than in the matter of positioning and control for the attack. In this wise, after having

250. Ltr, Ind & Incl, ADC to 32d ADiv, "Joint CAA/ADC Operational Agreement," 2 Sep 54 (s.d. 249).

251. Whereas the traditional interceptor tactic had involved a tail pursuit, the new interceptors employed the 90 degree beam interceptor. Ltr & Inds, 763d ACMW Sq to EADP, "90° Beam Intercept Computer," undated (s.d. 251).

- 252/
1. Ltr, 32d ADiv to 4707th Air Def Wg & 4711th Air Def Wg, "Lead Collision Course Positioning," 28 Sep 54 (s.d. 252/1).
  2. Ltr, 656th ACMW Sq to 4707th Air Def Wg, "Collision Course (90° Beam) Interception Computation," 28 Jun 54 (s.d. 252/2).
  3. Ltr, 763d ACMW Sq to 4707th Def Wg, "Comments, Collision Course Interception Computation," 29 Jun 54 (s.d. 252/3).
  4. Ltr & Ind, 762d ACMW Sq to 4707th Def Wg, "Collision Course (90° Beam) Interception Computation," 29 Jun 54 (s.d. 252/4).
  5. Ltr, 654th ACMW Sq to 4707th Def Wg, "Collision Course (90° Beam) Interception Computation," 29 Jul 54 (s.d. 252/5).
  6. Ltr, 764th ACMW Sq to 32d ADiv, "Lead Collision Course Positioning 28 September 1954," 30 Nov 54 (s.d. 252/6).
  7. Ltr, 766th ACMW Sq to 4711th Air Def Wg, "Lead Collision Course Positioning," 3 Dec 54 (s.d. 252/7).

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published an initial tentative doctrine earlier in the year, and having<sup>253</sup>  
 found it wanting,<sup>254</sup> this headquarters called a conference on the subject  
 in August.<sup>255</sup> As a result a new doctrine, albeit to be followed by amend-  
 ments as practice yielded refinements,<sup>256</sup> was published in October.

The conference on doctrine had been productive as well of four  
 distinct items of almost universal concern in the field: the shortage of<sup>257</sup>  
 plan position indicators, which limited control capabilities, the in-  
 sufficiency of control frequencies, lack of accurate rocket site for  
 manual firing, and the shortages and instability of directors.<sup>258</sup> These  
 were not problems that could be solved overnight, and neither were they

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253. Ltr & Incl, 32d ADiv to Sub Units, "Transmittal of 32d ADiv Tactical Doctrine," 8 Apr 54 (s.d. 226, 32d ADiv Hist Rept 16).
254. Ltr & Incl, 4707th Def Wg to 32d ADiv, "Recommended Changes to 32d Air Division Tactical Doctrine," 6 Aug 54 (s.d. 254).
- 255/
1. Agenda, Conf: 32d ADiv, Tactical Doctrine, 4 Aug 54 (s.d. 255/1).
  2. DF, OOT to OCO, "Tactical Doctrine Conference," 7 Aug 54 (s.d. 255/2).
  3. DF, OCE to OPR, "Tactical Doctrine Conference," 11 Aug 54 (s.d. 255/3).
256. 32d ADiv Tactical Doctrine for the Employment of Interceptor Aircraft in Air Defense Operations, 20 Oct 54, and Amendments (s.d. 256).
- 257/
1. Ltr & Incl, EADP to 32d ADiv, "Proposed Tactics for Controlling AI Interceptors Against a Bomber Stream Within a Chaff Corridor," 12 Oct 54 (s.d. 257/1).
  2. Ltr, 655th ACMW Sq to 4711th Def Wg, "Evaluation of Air Mass Intercepts," 2 Dec 54 (s.d. 257/2).
- 258/
1. Ltr, Col Robert S. Israel, Jr., to M/G M. R. Nelson, 21 Aug 54 (s.d. 258/1).
  2. Ltr, Col Robert S. Israel, Jr., to M/G M. R. Nelson, 13 Aug 54 (s.d. 258/2).

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the only problems affecting employment of the interceptors adversely. In large part they owed to equipmental deficiency, but such was left to be done in the area of cross-training with directors and controllers, weapons training, and the basics of proficiency with the aircraft themselves.

Some attention was given to matters of emergency control of the weapons during this period. In cases of multiple penetrations, where direction and control facilities were likely to be saturated in the attempt to employ multiple formations of interceptors, remote control procedures had been devised. These amounted to a broadcast of essential air intelligence data using standard frequencies, and leaving navigation to the point of attack to the interceptors. As well, although it had been the Division policy to centralize control in the Syracuse control

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- 259/ 1. Ltr & Incls, 65th ACW Sq to 4707th Def Wg, "ADC Regulation 50-21 Dated 5 April 1954, Subject: "Controller/Director-Pilot Cross Training," 9 Jun 54 (s.d. 259/1).  
 2. Ltr & Incls, 65th ACW Sq to 4707th Def Wg, "ADC Regulation 50-21 Dated 5 April 1954, Subject: "Controller/Director-Pilot Cross Training," 9 Jun 54 (s.d. 259/2).  
 3. Ltr, 32d ADiv to 4707th Air Def Wg, "Cross-Training of ACW Directors and Fighter-Interceptor Crews," 31 Dec 54 (s.d. 259/3).
- 260/ 1. Ltr, 32d ADiv to EADF, "Bombing and Gunnery Range Utilization Report XI (RCS: AF-F11)," undated (s.d. 260/1).  
 2. Ltr & Incls, 4711th Air Def Wg to 32d ADiv, "Request for Authority to Utilize Service of the 2nd Tow Target Squadron, 22 Oct 54 (s.d. 260/2).  
 3. Ltr, Incls & Incl, Maj Alphonse J. Coleman to 4707th Air Def Wg, "Weapons Training Report," 29 Sep 54 (s.d. 260/3).
- 261/ 1. Ltr & Incls, USAF to ADC, "Military Jet Training Activity," 19 May 54 (s.d. 261/1).  
 2. Ltr, Incls & Incl, EADF to 32d ADiv, "Utilization of Special Training Devices," undated (s.d. 261/2).

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center during exercises, it was clear that control would likely need to be decentralized during a mass assault.<sup>263</sup> Thus this headquarters was admonished by EADF in November to provide for decentralization to the greatest extent possible, in order to acquaint the units in advance with the control responsibilities that would rebound to them if communications<sup>264.</sup> were disrupted or the system saturated.

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262. Ltr & Ind, EADF to 32d ADiv, "Remote Control of Fighter-Interceptors," 4 Nov 54 (s.d. 262).

263. Ltr, Col William H. Clark to 4707th Def Wg & 4711th Def Wg, "Review of Operational Procedure," 27 Jul 54 (s.d. 263).

264/ 1. Ltr, EADF to 32d ADiv, "Decentralization of Control," 1 Nov 54 (s.d. 264/1).  
2. Ltr & Ind, 32d ADiv to EADF, "COMAD IE, Annex G," 16 Dec 54 (s.d. 264/2).

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CHAPTER SIX: TRAINING AND EXERCISE ACTIVITY

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In active air defense operations there was always the threat of attack and the persistent necessity to believe that any penetrating unknown might be an attacker. Thus authorities were very much interested in their day-to-day batting averages against the usual run of friendly penetrations. It was of greater than mere passing interest to know how effectively the system was carrying out these routine operations. But by the same token these operations failed to give the system enough exercise, for it was necessary to work out against the types of adversaries to be met on the day of a real assault. And it

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- 265/
1. 32d ADiv Opns Summary, Aug 54 (s.d. 265/1).
  2. 32d ADiv Opns Summary, Sep 54 (s.d. 265/2).
  3. 32d ADiv Opns Summary, Oct 54 (s.d. 265/3).
  4. 32d ADiv Opns Summary, Nov 54 (s.d. 265/4).
  5. 32d ADiv Opns Summary, Dec 54 (s.d. 265/5).

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was to this basic purpose that systems training--a wide variety of kinds and sizes of exercises--was designed.<sup>266</sup>

At its lowest level systems training was concentrated upon a single aspect of capability, and at its most advanced, upon the massive task of exercising the system in all its aspects. The former are typified by electronic countermeasures missions, which were designed to pit elements of the system against the sorts of electronic warfare an enemy could be expected to employ to confuse the issue.<sup>267</sup> Of the latter Operation Check Point is a standard example--the 1954 edition of the annual ADC-wide maneuver, held on the 10th and 11th of July. Much more frequent were the routine missions: command post exercises designed to test the decision-making capabilities of operational authorities; Big Photo exercises designed to provide training against SAC bombers penetrating the defenses in their own pursuits; and the new phenomenon for exercising tactical control procedures, known locally as Think Fast and Pogo Stick exercises.

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266. Ltr, Col Robert S. Israel, Jr., to 4707th Air Def Wg & 4711th Air Def Wg, "Conduct and Objective of System Training," 20 Dec 54 (s.d. 266).

267. Ltr, 32d ADiv to EADP, "Inadequate Electronic Counter-measure Training," 5 Nov 54 (s.d. 267).

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Operation Check Point:

Check Point was designed primarily as a systems training exercise and only secondarily as an evaluation of the nation's defenses. In this primary purpose it could be regarded as a success, for it gave the diverse elements of the continental mechanism an opportunity to work out in a relatively good simulation of combat circumstances. Moreover, insofar as the exercise made crystal clear the most glaring deficiencies of the system--such things as the inadequacy of early warning, breakdown of communications, confusion of centralized control under saturation conditions and excessive turn-around times--it could be judged successful in the matter of evaluation.

Yet Check Point of necessity abounded in unrealistic situations, which may be more damning of the system's capabilities than ever, since

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269. ADC Final Report of Exercise Check Point, 15 Oct 54 (s.d. 269).

- 269/
1. Ltr & Incls, Col Aram S. Footelian to Maj Harold Hart, 32d ADiv, 25 Jun 54 (s.d. 269/1).
  2. Ltr & Incls, 32d ADiv to Dist List, "Air National Guard Participation in ADC Summer Exercise," 18 Jun 54 (s.d. 269/2).

270. Ltr, 32d ADiv to 4707th Air Def Wg & 4711th Air Def Wg, "Turn Around Time," 17 Sep 54 (s.d. 270).

- 271/
1. Ltr, 32d ADiv to 4707th Def Wg & 4711th Def Wg, "States of Preparedness and Conditions of Warning," 29 Jul 54 (s.d. 271/1).
  2. Ltr, 655th ADCW Sq to 32d ADiv, "Radar Performance for Operations Check Point," 13 Jul 54 (s.d. 271/2).
  3. Ltr, 762d ACW Sq to 32d ADiv, "Equipment Performance During Operations Check Point," 14 Jul 54 (s.d. 271/3).
  4. Ltr, 762d ACW Sq to 32d ADiv, "Report on OA 347 Performance During Operation Check Point," 13 Jul 54 (s.d. 271/4).
  5. Ltr, 766th ACW Sq to 32d ADiv, "Report of Radar Performance on ADX Check Point," undated (s.d. 271/5).

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it must be supposed that a genuine attack would prove more rigorous than the exercise penetrations of the Strategic Air Command. For example, the SAC "hostiles" flew at optimum altitude for early warning detection, and while it was planned to employ electronic countermeasures to the maximum, in reality its use was spotty and its effectiveness negligible. So the success of Check Point, beyond its ability to evaluate specific aspects of capability,<sup>272</sup> derived from the training it provided the several elements of the air defense system.<sup>273</sup>

The Check Point strike forces were half again as large as in any previous exercise: approximately 300 bombers participated.<sup>274</sup> And the defending forces--52 squadrons of ADC fighter-interceptors, plus those of the Canadian forces, the Air National Guard and other augmentation sources, and the antiaircraft artillery deployed to key targets--<sup>275</sup> were of course much larger and inherently more potent than ever before.

The exercise was broken into four phases, the first of which began with intelligence play the morning of July 9, the system being triggered into response by the detection of Faker aircraft penetrating

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- <sup>272/</sup> 1. Ltr, 32d ADiv to Dist List, "Exercise Check Point," 1 Jul 54 (s.d. 272/1).  
 2. 32d ADiv Opas Order 23-54 (s.d. 272/2).
- <sup>273.</sup> ADC Final Report of Exercise Check Point, 15 Oct 54, pp 6, 7 (s.d. 268).
- <sup>274.</sup> Ibid.
- <sup>275.</sup> Ibid, pp 17-23.

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the radar perimeter north of Maine. During this initial phase the 32d scrambled against some eleven penetrations, achieving some 80 per cent effectiveness on attempted intercepts.<sup>276</sup>

The fourth phase was designed as the "all-out go" of Check Point, involving saturation tactics and a massive buildup in advance, both of which served to confuse communications and hence the reflexive capabilities of the defenders.<sup>277</sup> In the 32d sector the confusion was manifest in control capabilities, which were of course compromised by the saturation of the system's facilities. In large part this headquarters determined that the difficulty stemmed from the inadequacy of plan position indicators, for which there seemed no satisfactory excuse.<sup>278</sup>

Routine Tests and Exercises:

All told Division resources participated in 34 separate exercises during the period under study.<sup>279</sup> Of these the great majority were of the Big Photo type, in which Strategic Air Command bombers gave elements of the system an opportunity to test detection, tracking and interception capabilities. Flight plans of the penetrating Fakers were withheld from the direction centers, and thus the resources were to

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- <sup>276/</sup> 1. Ltr, 32d ADiv to EADP, "Report of Exercise Check Point," 12 Aug 54 (s.d. 276/1).  
 2. Ltr, EADP to 32d ADiv, "Exercise Check Point - Comments and Recommendations," 8 Nov 54 (s.d. 276/2).
277. ADC Final Report of Exercise Check Point, 15 Oct 54, p 22 (s.d. 268).
278. Ltr, 32d ADiv to EADP, "Report of Exercise Check Point," 12 Aug 54 (s.d. 276/1).
279. 32d ADiv Exercise Activity 1954 (s.d. 279).

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the same reflexive capabilities as against any unknown.

A refinement of the Big Photo, labeled Think Fast when under EADF auspices and Foggy Stick when designed by the 32d, were the missions designed to exercise the mid-term interceptors against various categories of targets. These were used first in April, and by the beginning of this period were well established on the Division operational scene.

Additionally, there were the command post exercises which had first appeared in 1953. These were for the most part based on simulated intelligence data--although Brown Trout earlier in the year had involved cross-border procedures and actual penetrations--and were designed to exercise the decision-making capabilities of operational staff members and commanders.

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280. Ltr, S/L W.R. Tew to AOC, RCAF, ADC, Narrative Report - Exercise Brown Trout 1 ADCC, 7 Jun 54 (s.d. 280).

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APPENDIX: ORGANIZATIONAL TRANSITIONS

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Colonel Robert S. Israel, Jr., continued in command of the Division during the period under study, although on a number of occasions his place was taken during temporary absences by Colonels James O. Beckwith and Richard L. Legg, commanders of the 4711th and 4707th Air Defense Wings, respectively. The other three key staff positions remained unchanged as well: Colonel William H. Clark continued as Deputy Commander, Colonel William W. Ingenhutt as Deputy for operations,

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- 281/
1. 32d ADiv GO 22, 3 Jul 54 (s.d. 281/1).
  2. 32d ADiv GO 28, 8 Aug 54 (s.d. 281/2).
  3. 32d ADiv GO 29, 10 Aug 54 (s.d. 281/3).
  4. 32d ADiv GO 31, 14 Aug 54 (s.d. 281/4).
  5. 32d ADiv GO 32, 18 Aug 54 (s.d. 281/5).
  6. 32d ADiv GO 33, 7 Sep 54 (s.d. 281/6).
  7. 32d ADiv GO 34, 10 Sep 54 (s.d. 281/7).
  8. 32d ADiv GO 37, 25 Oct 54 (s.d. 281/8).
  9. 32d ADiv GO 38, 30 Oct 54 (s.d. 281/9).
  10. 32d ADiv GO 45, 22 Nov 54 (s.d. 281/10).
  11. 32d ADiv GO 46, 23 Nov 54 (s.d. 281/11).

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and Colonel Gordon F. Thomas as inspector general. During Colonel Clark's brief absence in November his post was assumed by Colonel Thomas.<sup>282</sup>

Colonel Leslie C. Hartz was appointed director of communications and electronics on 13 October.<sup>283</sup> Colonel Hartz' military career dated from the latter stages of World War I, when in 1918 he enlisted in the United States Naval Reserve Forces, subsequently spending the major portion of three years on active duty. After a brief return to civilian life he received a National Guard commission in 1927, later going to Fort Sill for training with the Field Artillery before being transferred to the Signal Corps in 1942. For his achievements during World War II he was decorated by the French and was awarded the Bronze Star. His subsequent post-war occupation as an engineer for the New England Bell Telephone Company, in common with his communications training with the Signal Corps, were consistent with the responsibilities he assumed with this headquarters.

The period saw a number of other adjustments to the Division staff. In July Lieutenant Colonel Frederick E. York, having been relieved of his position as adjutant by Major Henry R. Brown,<sup>284</sup> assumed duty as commander of the 4673d Ground Observer Squadron, with an additional duty as director of civilian defense.<sup>285</sup> Later, in November, Major

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- <sup>282/</sup> 1. 32d ADiv GO 39, 8 Nov 54 (s.d. 282/1).  
2. 32d ADiv GO 44, 20 Nov 54 (s.d. 282/2).

<sup>283.</sup> 32d ADiv PAM 105, 13 Oct 54

<sup>284.</sup> 32d ADiv GO 20, 30 Jun 54 (s.d. 284).

<sup>285.</sup> 32d ADiv GO 21, 1 Jul 54 (s.d. 285).

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James O. Moberly was to assume command of the 4673d, Colonel York  
<sup>286</sup> becoming director of civil defense full-time. Meanwhile Major Donald  
 R. Casety, formerly director of civil defense as an additional duty,  
<sup>287</sup> became director of information services full time.

Major Brown, who had assumed duties as adjutant only tem-  
<sup>288</sup> porarily, was replaced in August by Major Everitt W. Howe. Then in  
 November, in place of Lieutenant Colonel Harold C. Dawson, whose  
 duties as comptroller had been labeled "deputy chief of staff, comp-  
<sup>289</sup> troller" in August, Major Brown assumed yet another additional duty.  
<sup>290</sup>

In July Major Myles A. King returned to his command of the  
 Headquarters Squadron Section, relieving Lieutenant Colonel Frank L.  
<sup>291</sup> Fern, until he was himself relieved by Captain Philip A. Mancuso in  
 September, having been reassigned to duties as GOC coordinator for the

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286. 32d ADiv GO 13, 19 Nov 54 (s.d. 286).

287. 32d ADiv GO 21, 1 Jul 54 (s.d. 285).

288. 32d ADiv GO 26, 5 Aug 54 (s.d. 288).

289/ 1. 32d ADiv GO 27, 7 Aug 54 (s.d. 289/1).  
 2. 32d ADiv GO 30, 11 Aug 54 (s.d. 289/2).

290. 32d ADiv GO 41, 15 Nov 54 (s.d. 290).

291. 32d ADiv GO 23, 6 Jul 54 (s.d. 291).

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<sup>292</sup>State of Maine. There were two changes of weather staff assignment: in  
September Captain Garland H. Spicer, Jr., replaced Major James B. Plank,  
until assumption of weather staff responsibilities by Major Albert Tone  
<sup>293</sup>  
<sup>294</sup>in November.

Additionally, in July a general order was published making  
minor alterations to the Division staff agency structure: 16 offices  
and directorates were established, one reassigned, and nine discontin-  
ued by the measure. <sup>295</sup> But for the most part these were relatively super-  
ficial adjustments of structure that failed either to increase or  
decrease responsibilities overall. Attachments of units and reorganiza-  
tions attendant on the several operational programs are dealt with in  
the appropriate portions of the main body of the present work. <sup>296</sup>

As in the past, several miscellaneous agencies of other commands--  
Flight 3-B of the 4602d AISS, Det 16 of the 12th Weather Squadron, and

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292. 32d ADiv GO 36, 18 Sep 54 (s.d. 292).

293. 32d ADiv GO 35, 15 Sep 54 (s.d. 293).

294. 32d ADiv GO 42, 18 Nov 54 (s.d. 294).

295. 32d ADiv GO 24, 7 Jul 54 (s.d. 295).

296. See particularly the section dealing with the supplemental radar  
program and the fighter-interceptors, pp 54-58 and 66-73, respect-  
ively.

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<sup>297</sup>  
the Syracuse Rescue Coordination Center of the Air Rescue Service--  
provided important supporting services to the Division headquarters.

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- 297
1. Ltr, Maj Henry Schmalz to 5th Air Rescue Gp, "Monthly Activity Report of RCC Activities, 1-31 July 1954," 3 Aug 54 (s.d. 297/1).
  2. Ltr, Maj Henry Schmalz to 5th Air Rescue Gp, "Monthly Activity Report of RCC Activities, 1-31 August 1954," 7 Sep 54 (s.d. 297/2).
  3. Ltr, Maj Henry Schmalz to 5th Air Rescue Gp, "Monthly Activity Report of RCC Activities, 1-30 September 1954 (RCS: 5th ARG O-5)," 4 Oct 54 (s.d. 297/3).
  4. Ltr, Maj Henry Schmalz to 5th Air Rescue Gp, "Monthly Activity Report of RCC Activities, 1-31 October 1954," 3 Nov 54 (s.d. 297/4).
  5. Ltr, Maj Henry Schmalz to 5th Air Rescue Gp, "Monthly Activity Report of RCC Activities, 1-31 December 1954 (RCS: 5 ARG O-3)," 3 Jan 55 (s.d. 297/5).
  6. Ltr, Maj Henry Schmalz to 5th Air Rescue Gp, "Monthly Activity Report of RCC Activities, 1-30 November 1954 (RCS: 5 ARG O-3)," 3 Dec 54 (s.d. 297/6).
  7. Excerpt, The Post Standard, Syracuse, NY, Mon, 20 Dec 54, "Air Rescue Center on Constant Alert to Aid Distressed," by Joseph Morgenstern (s.d. 297/7).

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45/5 Ltr & Ind, EADF to 32d ADiv, "Weather Support to Air National Guard Squadrons Participating in the Air Alert Plan," 29 Nov 54

45/6 Ltr, 32d ADiv to Adjutants General, States of New Hampshire, Massachusetts and New York, "Air National Guard Air Alert Plan," 17 Dec 54

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53/1 Ltr & Inc, 32d ADiv to Lincoln Lab, "Utilization of Lincoln Laboratories Experimental Radar," 23 Nov 54

53/2 Memo, Lincoln Lab, W. C. McDonald to H. W. Boehmer, "Micro-wave Relay Link," 10 Dec 54

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189/2 EADF GO 66, 7 Dec 54

189/3 TWX EACPR-4 35992, EADF to 4711th Air Def Wg, 27 Oct 54

190 32d ADiv Staff Meeting Minutes, Jul-Dec 54

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- 192/1 Ltr & Inds, Maj Alfred L. Cummings to 4711th Def Wg, "Re-fueling Units," 13 Jan 54
- 192/2 TWX ACFOFH 6033, 32d ADiv to 4711th Def Wg, undated
- 192/3 DF, OOT to OPR, "Conversion Plan for 49th FIS," 23 Sep 54
- 192/4 Ltr & Incl, 4711th Air Def Wg to 32d ADiv, "Conversion Plan for 49th Fighter-Interceptor Squadron," 22 Sep 54
- 192/5 Ltr & Inds, Major John A. Bell to 4711th Def Wg, "Movement of 49th Fighter-Interceptor Squadron," 15 Dec 54
- 192/6 Ltr, Incl & Inds, 517th Air Def Gp to 4711th Air Def Wg, "Survey of Ethan Allen Air Force Base," 19 Oct 54
- 193 Ltr & Incl, Col Frank Q. O'Connor to 4711th Air Def Wg, "Permanent Allocation of Two (2) Fighter-Interceptor Squadrons (F-89D) to Presque Isle Air Force Base," 7 Dec 54
- 194 Memo and draft of ltr on Presque Isle deployment, Col Robert S. Israel, Jr., undated
- 195 Ltr & Ind, Col Robert S. Israel, Jr., to EADF, "Permanent Allocation of Two (2) Fighter-Interceptor Squadrons to Presque Isle Air Force Base," 29 Dec 54

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- 197 Ltr, Incl & Ind, ADC to EADF, "Emergency Airfields for Fighter-Interceptor Operations," 9 Jun 54
- 198/1 Ltr, 32d ADiv to EADF, "Emergency Airfield for Fighter-Interceptor Squadron," 15 Mar 54
- 198/2 Ltr, 32d ADiv to EADF, "Emergency Airfield for Fighter-Interceptor Squadrons," 23 Mar 54
- 199 Ltr, EADF to 32d ADiv, "Emergency Airfields for Fighter-Interceptor Operations," 5 Apr 54
- 200/1 Ltr & Ind, EADF to 32d ADiv, "Utilization of Automatic Pilot (F-86D)," 23 Jul 54
- 200/2 Ltr & Inds, Lt Col Rufus Woody, Jr., to 518th Air Def Gp, "F-86D-7 Mobile Training Detachment," 23 Aug 54
- 200/3 Ltr & Inds, Col Frank Q. O'Connor to 4711th Air Def Wg, "Simulator and MTD Schedules," undated

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200/6 Ltr, Ind & Incl, EADF to 32d ADiv, "Standardized Commentary for Fighter-Interceptor Crews," 13 Sep 54

201 Ltr, Inds & Incl, 37th FIS to Chief of Naval Operations, "Tour of Duty with the U.S. Air Force, Report on," 18 Oct 54

202. Ltr & Inds, RAF to 60th FIS, "RAF/USAF Exchange Scheme - End of Tour Report," undated

203/1 "Communications Facilities and Navigational Aids Programmed and Installed at Bases Supporting 32d Air Division Flying Units" (Extracted from report of EADF facilities, August 1954), (

203/2 Ltr & Incl, EADF to 32d ADiv, "GCA Approaches," 21 Sep 54

204 Ltr & Inds, EADF to ADC, "Radar Approach Control, Otis Air Force Base," 6 Dec 54

208/1 Ltr & Inds, EADF to 32d ADiv, "Staff Visit to Griffiss Air Force Base, Rome, New York," undated

208/2 Ltr & Ind, 4707th Air Def Wg to 32d ADiv, "Weather Dissemination," 30 Dec 54

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209 Ltr & Inds, Col Luther H. Richmond to 4707th Air Def Wg, "Weather Briefing of Alert Pilots," 25 Oct 54

210/1 Ltr, 32d ADiv to Dist List, "Scramble Action Under Adverse Runway Conditions," 23 Dec 54

210/2 Ltr, 32d ADiv to Dist List, "EADF Regulation 55-12," 9 Dec 54

210/3 Ltr, ADC to EADF, "Weather Observations for Landing Aircraft," 15 Dec 54

211 Ltr, Col Robert S. Israel, Jr., to B/G Donald B. Smith, 14 Jan 55

212 Ltr & Incl, 32d ADiv to Dist List, "ADC Route Weather Forecast," 30 Nov 54

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213/2 Ltr, 32d ADiv to 4707th Def Wg and 4711th Def Wg, "Brief for Deployed Forces," 11 Aug 54

213/3 Ltr & Incl, EADF to 32d ADiv, "Radiation Effects of APS-20B Radar," 5 Aug 54

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218 Ltr, 2d AAGp to Lt Col James H. Lewis, "AAA Defense Niagara Falls - Buffalo," 29 Apr 55

221/1 Ltr, 515th AAAC Detachment to 515th AAA Opa Detachment, "Big Photo Tracks," 19 Aug 54

221/2 Ltr, Lt Col James H. Lewis to EAAAC, "Monthly Activities Report (July)," 31 Jul 54

221/3 Ltr, Lt Col James H. Lewis to EAAAC, "Monthly Activities Report (August)," 31 Aug 54

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- 235 Ltr & Incls, Col William H. Clark to 4707th Def Wg and 4711th Def Wg, "Cooperation between Adjacent ACMW Stations," 1 Sep 54
- 236 Ltr, 32d ADiv to 4707th Air Def Wg and 4711th Air Def Wg, "Warning Telling Procedure," undated
- 237 Ltr & Incls, 32d ADiv to 4711th Air Def Wg, "Discrepancies in Flogging," 6 Oct 54
- 238 Ltr & Incl, Col Robert S. Israel, Jr., to 4707th Air Def Wg and 4711th Air Def Wg, "Cooperation Between Adjacent ACMW Squadrons," 4 Feb 55
- 240/1 Ltr & Incl, EADF to 32d ADiv, "Nantucket Multiple Corridor Identification System," 23 Dec 54
- 240/2 Ltr & Incl, EADF to 32d ADiv, "Nantucket Multiple Corridor Identification System 26 Sep 54
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256 32d ADiv Tactical Doctrine for the Employment of Interceptor Aircraft in Air Defense Operations, 20 Oct 54, and Amendments

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262 Ltr & Incl, EADW to 32d ADiv, "Remote Control of Fighter-Interceptors," 4 Nov 54

263 Ltr, Col William M. Clark to 4707th Def Wg & 4711th Def Wg, "Review of Operational Procedure," 27 Jul 54

264/1 Ltr, EADW to 32d ADiv, "Decentralization of Control," 1 Nov 54

264/2 Ltr & Incl, 32d ADiv to EADW, "COMAD IE, Annex G," 16 Dec 54

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265/2 32d ADiv Opns Summary, Sep 54

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266 Ltr, Col Robert S. Israel, Jr., to 4707th Air Def Wg & 4711th Air Def Wg, "Conduct and Objective of System Training," 20 Dec 54

267 Ltr, 32d ADiv to EADW, "Inadequate Electronic Countermeasure Training," 5 Nov 54

268 ADC Final Report of Exercise Check Point, 15 Oct 54

269/1 Ltr & Incls, Col Aron S. Tootelian To Maj Harold Hart, 32d ADiv, 25 Jun 54

269/2 Ltr & Incls, 32d ADiv to Dist List, "Air National Guard Participation in ADC Summer Exercise," 18 Jun 54

270 Ltr, 32d ADiv to 4707th Air Def Wg & 4711th Air Def Wg, "Turn Around Time," 17 Sep 54

271/1 Ltr, 32d ADiv to 4707th Def Wg & 4711th Def Wg, "States of Preparedness and Conditions of Warning," 29 Jul 54

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271/3 Ltr, 762d ACMW Sq to 32d ADiv, "Equipment Performance During Operations 'Check Point'," 14 Jul 54

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271/5 Ltr, 766th ACMW Sq to 32d ADiv, "Report of Radar Performance on ADC Check Point," undated

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276/1 Ltr, 32d ADiv to EAMF, "Report of Exercise Check Point," 12 Aug 54

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280 Ltr, S/L W. R. Tow to AOC, NCAF, ADC, "Narrative Report - Exercise Brown Trout 1 ADCC," 7 Jun 54

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283 32d ADiv PAM 105, 13 Oct 54

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285 32d ADiv GO 21, 1 Jul 54

286 32d ADiv GO 43, 19 Nov 54

288 32d ADiv GO 26, 5 Aug 54

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290 32d ADiv GO 41, 15 Nov 54

291 32d ADiv GO 23, 6 Jul 54

292 32d ADiv GO 36, 18 Sep 54

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297/1 Ltr, Maj Henry Schmalz to 5th Air Rescue Gp, "Monthly Activity Report of RCC Activities, 1-31 July 1954," 3 Aug 54

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297/3 Ltr, Maj Henry Schmalz to 5th Air Rescue Gp, "Monthly Activity Report of RCC Activities, 1-30 September 1954 (RCS: 5th ARG O-5)," 4 Oct 54

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**HISTORICAL REPORT  
of the  
32d AIR DIVISION (DEFENSE)**

K-DIV-32-111  
July-Dec 1954  
V.A.



**THE AIR DEFENSE OF A SECTOR**

**JULY through DECEMBER 1954**

SUPPORTING DOCUMENTS 1

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SYRACUSE AIR FORCE STATION, NEW YORK**

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HISTORICAL REPORT  
OF THE 32D AIR DIVISION (DEFENSE)  
Number Seventeen  
THE AIR DEFENSE OF A SECTOR  
July through December 1954

RCS: 1-AF-D2

SUPPORTING DOCUMENTS  
VOLUME I (Documents 31/1 thru 68)

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OPR

16 Aug 1954

SUBJECT: Request for Assignment of SAC Liaison Officer'

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. It is requested that necessary action be taken to have a liaison officer from the Strategic Air Command assigned to this headquarters. The increase in air activities conducted by units of SAC within the 32d Air Division (Defense) area of responsibility has made such an assignment desirable.
2. At the present time there are two SAC bases operating within this division area, Dow Air Force Base, Maine and Limestone Air Force Base, Maine, with two additional bases programmed at Portsmouth, New Hampshire and Plattsburg, New York. When these programmed bases are placed in operation it is anticipated that SAC traffic will be doubled.
3. If assigned, the SAC liaison officer would be utilized in coordinating the following:
  - a. Flight plan following of SAC aircraft.
  - b. Implementation of SCATER, as pertains to SAC.
  - c. Big Photo missions.
  - d. ECM missions.
  - e. SAC penetration routes.
  - f. Activities at the DeBlois Gunnery Range.
  - g. SAC activities during air defense missions.
  - h. SAC fighter-bomber activities in the event of an emergency.

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C O P Y

1. Joint training activities as outlined in ADCR 51-4 and SAC Regulation 51-4.

4. If approved, it is believed the increased efficiency obtained in training and operational activities will more than justify such an assignment.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

EACPR-4 (14 Aug 54)

1st Ind

29 Nov 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. Your request in basic letter is not favorably considered. It is believed that the justification for a SAC Liaison Officer, as outlined, consists of ADC functions which should be performed by air division personnel.

2. The requirement for a SAC Liaison Officer would require five (5) officers to man this position on a full time basis and after being assigned to this duty for a period of time, these officers would become indoctrinated in ADC operations and in reality become ADC officers. Assignment of a SAC Liaison Officer at air division headquarters with no increased means of obtaining information would be little, if any, help other than providing another officer to assist in current division workload. Real assistance in this respect would require the establishment at the air division headquarters of a SAC Sub-Control Center provided with current information, including enroute variations, on all SAC activities that affect air defense operations. However, establishment of a SAC Sub-Control Center at each air division headquarters is not considered feasible.

3. Your headquarters is encouraged to maintain close liaison with SAC units operating in or through your area and if the activities of your control center require additional personnel, these requirements should be included in your Unit Manning Document Worksheets with adequate justification.

DONALD B. SMITH  
Brigadier General, USAF  
Vice Commander

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C O P Y

57TH FIGHTER-INTERCEPTOR SQUADRON  
520TH AIR DEFENSE GROUP  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

57FIS

27 Sept 1954

SUBJECT: Report of Tour

THRU: Commander  
520th Air Defense Group  
Presque Isle Air Force Base  
Presque Isle, Maine

Commander  
471th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

Commander  
32d Air Division  
Syracuse Air Force Station  
Syracuse, New York

Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs  
Colorado

Headquarters  
United States Air Force  
Washington 25, D.C.

TO: Chief of Naval Operations (Op-05A2B)  
Washington 25, D.C.

1. Chronology

a. On 13 October 1953, I reported to the Commanding Officer,  
57th Fighter-Interceptor Squadron, Presque Isle Air Force Base, Presque  
Isle, Maine.

C O P Y

Ltr, 57FIS, Subj: Report of Tour, dtd 27 Sep 54

- (1) I was assigned as Executive Officer of the squadron and checked out in the F-89C type aircraft. The Squadron departed on 25 October 1953 for gunnery encampment at Yuma, Arizona and I followed on 3 November 1953.
- (2) We returned to Presque Isle during the first week of December and resumed our alert commitments.

## 2. Organization

a. At squadron level the difference in organization between the Air Force and the Marine Corps is not too apparent, with the exception that the Air Force does not have a T/O Billet for an Executive Officer. I have been informed that the proposed T/O for Air Defense Command Units has that billet. This discrepancy puts quite an administrative load on the Squadron Commander and leaves a gap in the Chain of Command, which in some instances results in the Commander not being up to date on what his operations section is accomplishing. The group takes over all legal work except Commanding Officer's punishment and does not even call on the squadron for officers for the Courts Martial boards. Administratively, this reduces the squadron work load, but there is no opportunity for the junior officers in the squadron to become familiar with Military Justice procedures.

- (1) The group in the Air Force is a very flexible unit, designed to perform housekeeping functions and it exercises a minimum of tactical control over the squadron. Its function compares with the Air Station in the Marine Corps. The Air Police and Food Service units are normally separate squadrons within the group, but on this station they were under the Air Base Squadron in the same manner as a Marine Air Group overseas. These two units have enough personnel assigned, so as not to require any TAD personnel for guard duty and a minimum of KP's. Our squadron averaged only 5 KP's per day for 270 men. In the Air Force the KP's are assigned daily as opposed to a thirty day term for Marines. This daily rotation, I feel, is less efficient than the longer period.
- (2) Directly above the group, in the Chain of Command, is the wing. In the Air Force the function of the wing lies somewhere between that of a group and a wing in the Marine Corps. In the Air Defense Command, the component units of the wing are more spread out physically than is generally the case in the Marine Corps. However, the command responsibility is not so general. The Division, next in the Chain of Command, has the tactical responsibility for a large, geographical area.

C O P Y

It is their decision which scrambles the fighters during an attack. They also coordinate logistical support for subordinate units. During normal operation the decision to scramble is delegated to the GCI Commander.

- (3) The Defense Force which has three to five divisions under its command, appears to have approximately the same command prerogatives as a Marine Air Wing, although it has a greater number of subordinate units under its control. The Defense Force has General-Courts-Martial jurisdiction and controls personnel transfers between its subordinate units.
- (4) The Defense Forces, of which there are three in the ZI and three overseas are under control of the Air Defense Command, a major air command of the United States Air Force. Air Defense Command is charged with the mission of protecting the United States and its interests from air attack. Besides their own interceptors and GCI stations they have the Ground Observers Corps and coordinate with Naval fighter and early warning units and AAA. There are also some National Guard units now equipped with AI capable aircraft which are available to ADC in time of national emergency.
- (5) The additional duty assignments of the rated personnel in the squadron (flying personnel) are held to a minimum. At one time I would have considered this desirable but with more complex aircraft resulting in a lower in-commission rate and less individual flying time, plus the unfavorable weather encountered in this area, the aircrews found themselves with a great amount of free time.
- (6) In the Air Force the Line Chief is directly under the Maintenance Officer responsible for all maintenance and has the line plus engineering and also most of the duties of a leading chief in the Marine Corps. This tends to place him under a high workload, although in this squadron it was magnified by the low number of NCO's that we had and especially of those familiar with the unit's aircraft.
- (7) The organization also includes a First Sergeant who has some of the duties of the leading chief and of the Sergeant-Major. In most cases the Air Force prefers to keep the Orderly Room completely separated from the operating area, with the result that the First Sergeant is becoming more and more an administrative overseer without necessarily having the background. This also throws more detail on the Line Chief.

C O P Y

3. Operational Techniques

a. In the operations department the Operations Officer is the supervisor, with all air-crews divided into flights of six (6) air-crews per flight. The leaders of these flights have this as a full time duty and are responsible for the ground and flight training of the aircrews within their flight. This system has many advantages but if not closely monitored by the operations officer, tend to result in divergent views and levels of training of the flight.

- (1) In my opinion the Air Force has a more realistic weather flying outlook. Normal training flying is accomplished during periods of low ceilings and visibilities as well as on VFR days. It is up to the Squadron Commander to set the minimums for his squadron based on their experience level. This unit had training minimums of 500 and 1 for day and 800 and 1 at night for pilots with more than 25 hours of actual weather time. For those with less than 25 hours of weather time, the minimums are 1000 and 3 day or night. It has been my experience, that except for overseas, it is difficult to get any actual weather flying in a fighter plane. Although you are required to maintain an instrument card, the fighter pilot was not encouraged to do any weather flying on cross country flights. In the Air Force you are expected to be able to fly weather and encouraged to practice during actual weather conditions.
- (2) Each squadron is assigned two (2) or three (3) instrument Trainers (T-33s) and a constant program of training is carried out. It is policy in ADC to have all interceptor pilots attend all-weather flight school, prior to their assignment to an all-weather squadron. Also interceptor pilots have to pass a semi-annual instrument flight check.
- (3) The minimum individual training requirements are the same for Air Force and Navy, and each crew member must be abreast of his pro-rated requirements when he is transferred or sent on temporary duty.
- (4) The F-89C is a twin jet, all weather interceptor, equipped with 20 MM cannon. I have had no previous experience as an all-weather or night fighter pilot, upon which to base my comparison with other aircraft, but the F-89 appears to be a good tool for the job. I am certain that it will outperform the F3D and the F2H3. It is a stable gun platform and instrument plane. It has omni-range equipment with IAS and also

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Ltr, 57FIS, Subj: Report of Tour, dtd 27 Sep 54

the standard ADF. While not equipped with an auto-pilot it has the Sperry Zero Reader which simplifies flying while making a night or IFR intercept. The omni-range receiver is far more dependable than the normal ADF during weather or night conditions. The newer model of the F-89, carries 104, air to air rockets and is equipped with an Auto-pilot which can be coupled to IAS for an automatic approach.

- (5) On all local flights we were in contact with, and tracked by, GCI, much the same as during shipboard operations.

4. I attended gunnery training with the squadron at Yuma, Arizona. The base there is set up to train units of ADC in air to air gunnery and rocketry. This squadron qualified all its pilots while averaging 13% hits for all sorties flown. A great stress was laid on gun camera film and the proper evaluation of the film. Film taken during the morning was available that same afternoon for evaluation and I credit this for a large part of our success. Qualification was based on an average of four consecutive sorties, two at high altitude (20,000) and two at low altitude (12,000). This squadron had four experts (30 or above) 7 sharpshooters (23-29%) and 8 marksmen (15-22%) and firing was done on radar ranging at 300 to 600 yards. We do not have a gunnery range readily available to our home base, but with gun camera film assessing equipment, it is possible to stay reasonably well qualified without firing the guns.

5. This section of the country is very short of recreational facilities with which to bolster the morale of the troops. The climate is rigorous with sub-zero weather and about 100 inches of snow fall per year, plus long rainy periods throughout the summer. As a result the reenlistment rate continues to be low. Off base housing is scarce and what is available is sub-standard. The on Base FHA housing project has very small units, the largest of which are barely adequate for a one child family. The units do not seem to be the type suited to this climate.

6. My reception by the Air Force was very gratifying as far as the professional aspects was concerned, but I was surprised that no prior arrangements had been made for housing for my family. I assumed that a unit would be set aside as was done by the Marine Corps for its exchange officer. The housing was civilian controlled and strictly a first come first served basis with only two persons living in some of the larger units and some larger families in the smaller units. Just prior to my arrival at Presque Isle a large base had opened a few miles away and off base civilian housing was practically non-existent.

Ltr, 57FIS, Subj: Report of Tour, dtd 27 Sep 54

7. Except for the housing situation, I enjoyed my exchange tour very much and was always treated as belonging. The Air Force appears to have a high regard for the capabilities of Marine Officers and pilots. Their pilots are very capable and are eager to understand how we operate. I attempted to arrange a short cruise on an aircraft carrier but we were unable to effect coordination. I feel that the exchange program is accomplishing its objectives and that better understanding of the problems and missions of the other services will prove itself in future joint operations.

F. T. WATTS JR.  
Major, USMC

57th Ftr-Intcp Sq, 528th Air Def Gp, Presque Isle AFB, Maine  
Subject: Report of Tour

CO (27 Sep 54) 1st Ind 6 Oct 1954

Hq 528TH AIR DEFENSE GROUP, Presque Isle AFB, Maine

TO: Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine

Noted.

FRANK Q. O'CONNOR  
Colonel, USAF  
Commander

C O P Y

57TH FIS Subject: Report of Tour

COMDR (27 Sep 54) 2nd Ind

HQ 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32d Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. The basic report is forwarded with the following comments:

a. Reference paragraph 2a. The policy has recently been changed whereby junior officers are utilized on Courts-Martial boards thereby enabling them to learn legal procedures.

b. Reference paragraph 6. This condition is regrettable; however, due to extremely limited base housing it is not practicable to set aside a set for our exchange officer. The quarters are of different sizes and all of inferior quality. The size of an incoming officer's family is unknown and only one set of the quarters (the Wing Commander's) is of sufficient size to adequately house a family with children. It would be insulting to set aside a set in the FHA housing area and indicate that an exchange officer would be expected to occupy it as the entire project is deplorable and degrading.

2. Major Watts is one of the finest officers it has ever been my pleasure to work with. He and his family are a glowing credit to the Marine Corps, militarily, morally and socially. On the basis of his qualities and capabilities I made him acting squadron commander pending arrival of a new commander. He executed this duty in a commendable manner. I would like very much to have Major Watts serve with me in the future and commend the Marine Corps for selecting a man of such calibre to represent that branch of the service as an exchange officer with the U. S. Air Force.

JAMES O. BECKWITH  
Colonel, USAF  
Commander

OOT-FO (27 Sep 54) 3rd Ind 22 Oct 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse, 6,  
New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1 Concur with the Report of Tour of Major F. T. Watts, Jr, USMC,  
and comments contained in preceding indorsements.

ROBERT S. ISRAEL, JR.  
Colonel, USAF, Cdr

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

26 Nov 1954

SUBJECT: ✓ CONELRAD TEST (Alerting Facilities)

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. In compliance with Headquarters Eastern Air Defense Force letter EAOOT-AF dated 10 November 1954, Subject, Department of Defense Conelrad Alerting test the following report is submitted.

2. The alert was received at Division Headquarters at .0100 Hours EST 18 November 1954 from Headquarters EADF by Hot Line. Dissemination was made as follows:

<u>TO</u>	<u>TIME</u>	<u>ACKNOWLEDGED</u>
P-10	0101	0103
P-13	0101	0103
P-14	0101	0103
P-21	0101	0103
P-49	0101	0103
P-50	0101	0103
P-65	0101	0103
P-80	0101	0103
TA (Teletype)	0101	0102 By Communications Center
MADW	0101	0103
HF Station	0102	0102 Base Transmitter Personnel
4702d AISS	0102	0104
4707th Wing	0103	0106
4711th Wing	0103	0105
60th F/I Sq	0106	0109
47th F/I Sq	0106	0108
27th F/I Sq	0107	0108
37th F/I Sq	0109	0113
49th F/I Sq	0109	0112

3. Total elapsed time to the last acknowledgment was thirteen minutes. It is apparent that the elapsed time would have been six minutes if the Fighter Squadron call could have been accelerated.

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Hq 32d AD(Def) OCE Subj: CONELRAD TEST (Alerting Facilities)

With this fact in mind it was discovered that the AC&W Squadrons had notified the F/I Squadrons in all instance prior to their being notified by the ADCC. The Division Conelrad SOP will be revised to exclude calling the F/I Squadrons from the division.

4. Reports from the field units verify the above times. The AC&W Squadrons notified all units connected to them by Hot Line in a minimum time of three minutes to a maximum time of five minutes.

5. A TA addressee flash teletype Conelrad message from this headquarters, as back-up, reached all units prior to twenty-two minutes after the hour.

6. Recommend that tests be conducted frequently to familiarize personnel with the Conelrad alerting procedures. This headquarters feels that the test was very successful.

FOR THE COMMANDER:

EVERITT W HOWE  
Major, USAF  
Adjutant

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32D AIR DIVISION (DEFENSE)

EMERGENCY WAR-MOBILIZATION PLAN 2-54

(SHORT TITLE: 32D ADEWMP 2-54)

HEADQUARTERS

32D AIR DIVISION (DEFENSE)

SYRACUSE AIR FORCE STATION, SYRACUSE 6, NEW YORK

1 NOV 54

32D AD(D) EWMP 2-54  
1 Nov 54

54-3701

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32D AIR DIVISION (DEFENSE)  
EMERGENCY MOBILIZATION PLAN 2-54

HEADQUARTERS 32D AIR DIVISION (DEF)  
Syracuse Air Force Station  
Syracuse 6, New York  
1 Nov 54

CHARTS AND REFERENCES:

As required

TASK ORGANIZATIONS:

4707th Air Defense Wing  
4711th Air Defense Wing  
4673d Ground Observer Corps

1. GENERAL SITUATION: This plan supports the Eastern Air Defense Force Emergency War-Mobilization Plan 1-53, and reflects the forces available for Air Defense as of 1 November 1954. From the point of view of military forces and economic potential, the Soviet Union can conduct a major war when desired, believing that the objective cannot be obtained without a total war. Soviet rulers may provoke such a war when it is considered that their economic and military strength is at a maximum. It is estimated that the critical period exists from the present and will continue to exist until such time as allied military power is sufficient to counter that of the Communist Bloc. If the Soviet Rulers resort to general war, it is expected that they would attempt a speedy neutralization of U.S. offensive power by a crippling air attack upon the United States.

a. Enemy Force: See Annex "I"

b. Friendly Forces:

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- (1) The 26th Air Division (Defense) will conduct the Air Defense of the region defined in EADF 23-3 dated 24 November 1953, and render such assistance to Commander, 32d Air Division (Defense) and Adjacent Air Divisions as deemed practical.
- (2) The 30th Air Division (Defense) will conduct the Air Defense of the region defined in EADF 23-4 dated 24 November 1953 and render such assistance to Commander, 32d Air Division and Adjacent Divisions as deemed practical.
- (3) Units of 4602nd Air Intelligence Service Squadron will:
  - (a) Collect and investigate Air Combat Intelligence information during and after an enemy assault.
  - (b) Investigate crashed enemy aircraft, guided missiles, and other airborne weapons.
  - (c) Interrogate enemy air crews.
  - (d) Translate enemy documents and report essential elements of Combat Intelligence Information.
  - (e) Provide limited bomb damage assessments.
- (4) Federal Liaison Agencies will:
  - (a) Civil Aeronautics Administration Representatives will, in accordance with existing procedures and policies, furnish aircraft identification and in case of military emergency, or simulated alert

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raids, implement SCATER upon receipt of instruction from Commander, 32d Air Division (Defense).

(b) Federal Civil Defense Administrator Representatives will implement existing policies and procedures pertaining to Civil Defense, and maintain Liaison between the 32d Air Division ADC and Civil Defense Agencies.

(c) Federal Communications Commission Representatives will, in accordance with existing procedures and policies, maintain appropriate liaison between the 32d Air Division ADC and the licensees of the various classes of radio; implement and periodically check the alerting system for radio stations within the Division, and by appropriate monitoring procedures assume that the CONELRAD Plan is functioning properly.

(5) Air Sea Rescue Service (MATS):

(a) Will coordinate and support operations of the 32d Air Division as directed by current directives and regulations.

(6) Units of the Canadian Air Defense:

(a) Provide interceptor aircraft, antiaircraft, and AC&W facilities for protection of those vital areas which are contiguous to the United States-Canadian border.

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- (b) Perform other operational responsibilities as established by "Operational Plan and Order of the Air Defense Command (RCAF)-Air Defense Command (USAF)" dated 21 July 1952.
- (7) Units of CommEASTSEAFROM: In accordance with "Joint Agreement For The Air Def of the Eastern and Central U. S." and ESP Op Plan 4-53 will:
  - (a) Provide support fighter type aircraft for the operational control 32d Air Division (Def).
  - (b) Provide radar support by the use of picket vessels, ground radar, and new aircraft Early Warning to 32d AD(D).
  - (c) Augmentate units of the 50th AAA Brigade in the Boston, Massachusetts area with Navy AA.
  - (d) See Annex "E".
- (8) Air Research and Development Command will:
  - (1) In accordance with ADC Ops Plan 4-53 and Joint Agreement ADC-ARDC 23 Nov 51. integrate experimental radar located at Verona, N. Y. into the 32d Air Division (Def), net.
  - (2) Place fighter aircraft stationed at Hanscom AFB, Mass. under operational control of Commander 32d Air Div.
  - (3) See 32d AD OPs Plan 6-54.

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(9) Air Training Command:

- (1) Provide augmentation fighter type aircraft as established by ADC Operation Plan 4-54 dated February 1954.
- (2) See Annex "B".

(10) Civil Air Patrol will, when made available:

- (1) Conduct search missions as requested by the 32d Air Division.
- (2) Participate in Anti-submarine Warfare (routes flown not to be more than 10 miles from shore line) as directed.
- (3) Provide courier service within its capabilities when directed.

(11) Hq, 1st Explosive Ordnance Disposal Squadron:

- (1) Provide teams and assist in the disposal of unexploded explosive weapons when requested by the Commander, 32d Air Division (Def).

(12) Strategic Air Command:

- (1)\* Provide available fighter units, assigned to the 506th Strategic Fighter Wing to be utilized in active air defense of the Continental U.S. as specified in EADFWMP-54.
- (2) See Annex "C".

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(13) U.S. Coast Guard:

- (1) Coordinate small boat "Flash Reports" on aircraft to Filter Centers.
- (2) Provide GOC reporting from Coast Guard shore stations.
- (3) Provide rescue service upon the request of the 32d Air Division Commander or by the Air Rescue Service.

(14) Commander, 1st Army area will:

- (1) Assist in base defense of vital military areas in accordance with "Joint Defense Plan Northeast United States" 14 Dec 53.

c. Assumptions:

- (1) The Soviets have the capability to launch one or more bombing attacks upon any target with the 32d Air Division (Def), area of responsibility at any time using atomic, biological, or chemical weapons with little or no warning.
- (2) Primary targets will be industrial, governmental and strategic military installations.
- (3) The Soviet Union has a known number of 100 long range submarines that may be efficiently used against the 32d Air Division area of responsibility. These would

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probably be used to land agents, to operate alone or with forces available within the United States, to commit acts of sabotage and espionage.

- (4) There are approximately 9,000 active communists within the area who have contact with the Soviet Union and approximately ten (10) times this number of communists sympathizers who may be induced to commit acts of sabotage within the Division area.

2. MISSION:

The units of the 32d Air Division (Defense) will conduct the Air Defense of the region defined in EADFR G.O. #54 dated 23 Sept 54 and will accomplish tasks defined in paragraph 3a and 3x EADFMP 1-53.

3. TASKS FOR SUBORDINATE UNITS:

a. The 4707th Defense Wing will:

- (1) Perform the mission and responsibilities as established in 32d ADR 20-2 dtd 7 Jan 54.  
(2) Additional responsibilities as described in par 3x.

b. The 4711th Defense Wing will:

- (1) Perform the mission and responsibilities as established in 32d ADR 20-2 dtd 7 Jan 54.  
(2) Additional responsibilities as described in par 3x.

c. The 56th AAA Brigade:

- (1) Perform the mission and responsibilities as established in AAA-OP-ERUS, Hq Eastern Army Anti-aircraft

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Command, 1 Apr 53.

d. Det #16, Weather Service:

- (1) Perform the mission and responsibilities as established in 12th Weather Squadron L.O. #20-161, dated April 1954.
- (2) Supply weather services to Air National Guard Fighter Units when requested.

e. Maine State National Guard:

- (1) The 101st Fighter-Interceptor Wing will provide three (3) Fighter Interceptor Squadron, and support units for the defense of the 3d Air Division (Defense) area of responsibility.  
See Annex "A".

f. Mass. State National Guard:

- (1) The 102nd Fighter-Interceptor Squadron and support units for defense of the 3d Air Division (Defense) area of responsibility. See Annex "A".
- (2) The 104th AAA Brigade will provide two (2) AAA Groups, one AAAOD, and support units for defense of the 3d Air Division (Defense) area of responsibility: See Annex (D).
- (3) The 101st AC&W Flight (AWg) will provide radar support for the 762nd AC&W Sqdn, N. Truro, Mass.  
See Annex "G".

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g. New York State National Guard:

- (1) The 107th Fighter-Interceptor Wing will provide three (3) fighter interceptor squadron and support units for the defense of the 32d Air Division (Def) area of responsibility. See Annex "A".
- (2) The 105th AAA Brigade will provide two (2) AAA Group, and support units for the defense of the 32d Air Division (Defense) area of responsibility. See Annex "D".
- (3) The 108th AC&W Sqdn (AWG) will provide radar support for the 655th AC&W Sqdn, Watertown, N.Y. See Annex "G".

h. Rhode Island National Guard:

- (1) The 102nd AC&W Squadron will provide radar support for the 762nd AC&W Sqdn, No Truro. See Annex "G".

X. Defense Wings will:

- (1) Provide for the security of any nuclear weapon ferrying aircraft which may, in an emergency, be forced to land at a base other than, that included in the flight plan.
- (2) Be prepared to participate in the protection of Coastal areas of the United States against seaborne attack, as directed by this headquarters.

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- (3) Coordinate with, advise, and assist appropriate regional, State, and Municipal Civil Defense Agencies in Air Defense matters.
- (4) Coordinate with CAA Regional Administrators concerned on the basis of mutually approved agreements for the identification and control of Air Traffic for Air Defense purposes.
- (5) Be prepared to implement plans for the control of electromagnetic radiations.
- (6) Participate in disaster relief and domestic emergencies in accordance with plans formulated by Comander, ConAC, consistent with the requirements of the primary mission.
- (7) Prepare units for overseas deployment as directed.
- (8) Coordinate necessary activities with AACS and MFS as directed.
- (9) Provide for the internal security and local ground defense of their respective installations.
- (10) Be prepared to participate in psychological warfare operations as directed.
- (11) Take necessary measures to insure that all personnel are trained in defense procedures necessary to minimize covert or overt attacks in which biological and toxic chemical weapons are employed.

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- (12) Provide support for the Commanders of adjacent divisions.
- (13) Submit intelligence reports on hot-line, TWX, or back-up, radio dependent on the urgency and nature of the report. In all cases, follow-up comprehensive reports will be furnished.
- (14) Conduct antisubmarine warfare as established in Annex "F".
- (15) Assume such other responsibilities as may be assigned by the Commander 32nd Air Division (Defense).

4. Administrative and Logistical Matters:

See EADFEWMP-54

5. COMMAND AND SIGNAL MATTERS:

- a. Communications as contained in Annex "H".
- b. Command.

- (1) The Commander, 32d Air Division (Defense) exercises:
  - (a) Normal command over all assigned forces.
  - (b) Operational control in accordance with mutually approved agreements over augmentation and subject forces assigned to the 32d Air Division (Defense) area of responsibility.
- (2) Command Posts:
  - (a) 32nd Air Div (Def)

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Primary Syracuse AFS, Eastwood  
Station 6, Syracuse, NY

Alternate 656th AC&W Squadron  
Saratoga Springs, NY

Chain of Command

Division Commander Col Robert S. Israel, Jr.

Deputy Commander Col. William H. Clark

Deputy of Operations Col William W. Ingenhutt

6. a. This plan is effective upon receipt for training and planning purposes.
- b. This plan will be implemented:
- (a) On the outbreak of war.
  - (b) On the order of proper higher authority.
  - (c) Upon the order of, or upon declaration of a military emergency by, the Commander, Air Defense Command.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

OFFICIAL

WILLIAM H. CLARK  
Colonel, USAF  
Deputy Commander

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ANNEX "A"

AIR NATIONAL GUARD

HEADQUARTERS, 32D AIR DIV (DEF)  
EMERGENCY WAR MOBILIZATION PLAN 2-54

HEADQUARTERS, 32D AIR DIVISION  
Syracuse Air Force Station  
Syracuse 6, New York

CHARTS AND MAPS-As Required

TASK ORGANIZATION

Hq 32nd Air Division (Defense)

4707th Defense Wing

654th AC&W Squadron

656th AC&W Squadron

762nd AC&W Squadron

763rd AC&W Squadron

4711th Defense Wing

655th AC&W Squadron

764th AC&W Squadron

765th AC&W Squadron

766th AC&W Squadron

101st Fighter-Interceptor Squadron

132d Fighter-Interceptor Squadron

133d Fighter-Interceptor Squadron

134th Fighter-Interceptor Squadron

102nd Fighter-Interceptor Wing

101st Fighter-Interceptor Squadron

131st Fighter-Interceptor Squadron

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107th Fighter-Interceptor Wing

136th Fighter-Interceptor Squadron

138th Fighter-Interceptor Squadron

139th Fighter-Interceptor Squadron

1. GENERAL SITUATIONS:

War with the USSR is not necessarily imminent, but tension in the world is such, and Russian capabilities are such, that war could occur at any time with little or no warning.

a. Enemy Forces  
See Annex "I"

b. Friendly Forces  
See Basic Plan

c. Assumptions:

- (1) Certain ANG units would be called to immediate active duty to aid in the defense of the North Eastern United States.
- (2) Air Defense Requirements will necessitate the utilization of all available ANG units with an Air Defense capability.
- (3) ANG units adequately briefed, in possession of all pertinent publications and periodically informed of procedural changes, can effectively contribute to the Air Defense potential immediately upon receipt of alert instructions.

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2. MISSION:

To provide an effective plan for immediate utilization of fighter aircraft of the National Guard, in the event of the declaration of a military emergency.

3. TASK FOR PARTICIPATING AND SUBORDINATE UNITS:

a. Commander, 32nd Air Division will:

- (1) Assume operational control of ANG units committed to the air defense of the United States in accordance with current plans and directives.
- (2) Furnish, on a continuous basis, pertinent air division directives and publications to those commanders of ANG units within the air division sector of responsibility.
- (3) Provide periodic briefing to all support units for indoctrination and continuation training of all personnel concerned.

b. TASK FOR COMMANDERS ANG UNITS:

- (1) Comply with applicable provisions of EADF Operation Plan 2-53, 31 May 1953, pertinent to the current situation.
- (2) Brief all crews on procedures outlined in this Operations Plan.
- (3) Fly Combat air patrol in accordance with Tab "A", this annex.

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(4) Upon implementation of this plan, furnish aircraft and crews in accordance with Appendix 1, this Annex.

c. COMMANDERS DEFENSE WINGS:

- (1) Commanders of Defense Wings of this command will establish a briefing team consisting of fighter and AC&W Operations and Communications personnel to perform briefing of units as directed by this headquarters.
- (2) A brief written report of briefing accomplished, subject matter covered and personnel and unit briefed will be forwarded to this headquarters immediately upon completion of this briefing.
- (3) Furnish available support and facilities to ANG Augmentation Forces.

X. GENERAL INSTRUCTIONS:

- (1) This plan will be implemented upon notification from Headquarters EADF, that EADF Operations Plan 2-53, 31 May 1953, is in effect.
- (2) Briefings of support units will be accomplished by fighter-interceptor and AC&W Squadron personnel of the USAF, as designated by this headquarters.
- (3) Commanders of all units will request required briefings on air defense procedures from this headquarters. These

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briefings will be arranged at times convenient to the requesting agencies.

- (4) Applicable portions of this plan will be implemented by units concerned which are participating in air defense training exercises to insure effective operation in emergencies.

4. ADMINISTRATIVE AND LOGISTICAL MATTERS:

- a. ANG units as outlined in EADF Operation Plan 2-53, 31

May 1953.

5. COMMAND AND SIGNAL MATTERS:

- a. Command.

- (1) Assumption of Command within the 32nd Air Division will be as follows:

Col Robert S. Israel - Commander

Col William H. Clark - Deputy Commander

Col William W. Inghutt - Deputy for Operations

- (2) The Commander, 32nd Air Division (Defense) will:

- (a) Assume normal command over all assigned forces.  
(b) Exercise operational control over other USAF, ANG, and Navy units when such forces are assigned.

- (3) Command Post.

Primary.

- (a) 32nd Air Division (Defense), Syracuse Air Force

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Station, Syracuse, New York.

Alternate: 655th AC&W Squadron, Saratoga Springs,  
New York.

- (b) 4711th Defense Wing                      Presque Isle, Maine
- (c) 4707th Defense Wing                      Otis AFB, Falmouth,  
Mass.
- (d) 101st Fighter-Interceptor Wing - Dow AFB, Maine
- (e) 102nd Fighter-Interceptor Wing-Logan Int Apt,  
Mass.
- (f) 107th Fighter-Interceptor Wing-Niagara Falls  
AFB, New York

b. COMMUNICATIONS:

See Appendix "4".

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Syracuse Air Force Station  
Syracuse 6, New York  
January 1954

APPENDIX 1

TO

ANNEX "A"

54

AIR OPERATIONS

CHART REFERENCES: As Required

TASK ORGANIZATION: As listed in basic plan

1. General Situation: As specified

2. Mission: As specified.

3. Tasks for subordinate units:

a. Air National Guard units which are assigned to the operational control of the 32nd Air Division, in the event of a national emergency will:

- (1) Provide maximum number of aircraft and crews to aid in the defense of the North Eastern United States.
- (2) Jet fighter units will initially provide maximum possible aircraft on readiness alert as defined in ADCR 55-5. Later states of alert will be directed by this headquarters in accordance with referenced regulation.
- (3) When ordered, fighter aircraft will fly continuous patrol, weather permitting, at 8000 feet from 30

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minutes before sunrise to 30 minutes after sunset  
over the routes indicated in Appendix "2".

b. GCI surveillance of forces furnished by ANG will be exercised through AC&W Squadrons designated in Appendix "3".

c. Changes in designated routes will be directed by the AC&W Squadron which has operational control of the ANG aircraft.

d. Status of combat-ready aircraft will be reported as outlined in ADCR 55-20 on the V-7 report. This report will be made as appropriate at any period a unit comes under the operational control of the 32nd Air Division during emergency or exercise conditions.

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APPENDIX "2"

TO

ANNEX "A"

COMBAT AIR PATROL ROUTES

Following routes will be flown by the unit indicated using conventional type aircraft. Units will assume routes designated immediately upon the outbreak of hostilities. Changes will be ordered by this headquarters through appropriate AC&W Squadron.

<u>UNIT</u>	<u>ROUTE</u>
132nd F/I Squadron	Bangor, Me. Airways Blue 50 to St. John Radio and return.
133rd F/I Squadron	Manchester, N.H. Airways Blue to Newburyport Amber 7 to Portland and return.
134th F/I Squadron	Burlington, Vt. Airways Blue 4 to Montreal Radio, Green 1 to Hawkesbury and return.
101st F/I Squadron	Boston, Mass. Airways Blue 4 to Nantucket and return.
131st F/I Squadron	Westfield, Mass. Airways Blue 41 to Greenfield Intercession Red 11 to Schenectady, NY and return.
136th F/I Squadron	Niagara Falls, NY, Red 23 to Toronto; Amber 6 to Kleinburgh; Red 1 to Oshawa and return
138th F/I Squadron	Syracuse Airways Green 2 to Rochester, NY and return
139th F/I Squadron	Schenectady, NY Airways Green 2 to Starkville Radio Red 22 to Utica, NY and return

Primary routes are to be assumed automatically, pending further instructions from the AC&W Squadron under whose control they are assigned.

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It is realized that in the event of an emergency that the radio range stations may be inoperative if CONELRAD and SCATER Plans are placed in effect. However, the routes as laid down can be flown by visual navigation.

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APPENDIX "3"

TO

ANNEX "A"

OPERATIONAL CONTROL OFFIGHTER INTERCEPTOR

Chart References: As Required

Task Organization: As listed in basic Plan

1. GENERAL SITUATION: As Specified
2. MISSION: As Specified
3. TASKS UNITS:

a. The ANG Fighter/Interceptor squadrons will be under the GCI surveillance of the AC&W Squadron indicated.

ANG F/I SQUADRON

ACW SQUADRON

132d F/I Squadron, Bangor, Me.	765th AC&W Sq, Charleston, Me
133d F/I Squadron, Manchester, NH	654th AC&W Sq, Brunswick, Me
134th F/I Squadron, Burlington, Vt	764th AC&W Sq, St Albans, Vt
101st F/I Squadron, Logan Int Aprt Mass	762a AC&W Sq, N Truro, Mass
131st F/I Squadron, Westfield, Mass	762d AC&W Sq, N Truro, Mass
136th F/I Squadron, Niagara Falls, NY	763d AC&W Sq, Lockport, NY
138th F/I Squadron, Syracuse, NY	655th AC&W Sq, Watertown, NY
139th F/I Squadron, Schenectady, NY	656th AC&W Sq, Schuylerville NY

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APPENDIX "4"

TO

ANNEX "A"

54

COMMUNICATIONS & ELECTRONICS

1. PURPOSE:

The purpose of this Annex is to provide the task organizations with sufficient information pertaining to Communications & Electronics to enable them to perform their mission as outlined in the basic plan.

2. AUTHORITY:

Forces listed in the basic plan have been assigned to the 32d Air Division (Defense) as support forces in accordance with EADF Operation Plan 2-53.

3. SCOPE:

To provide communications facilities necessary for alerting, scrambling, and controlling fighter aircraft assigned to augmentate the forces of the 32nd Air Division.

4. GENERAL:

The use of ANG fighters as supporting forces requires the establishment of communications plans, procedures, and facilities. It is the 32nd Air Divisions responsibility to assist support forces in developing these plans, procedures and facilities.

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5. RESPONSIBILITY:

The Commander, 32d Air Division is responsible for initialing Air Defense Warnings and implementing active Air Defense plans utilizing regularly assigned units and supporting forces, based within the 32nd Air Division sector of responsibility.

Communications & Electronics Systems and Facilities:

A. Air Surveillance and Control:

- (1) Normal Air Defense Operations will be performed by the established AC&W Net within the 32nd Air Div.

B. Identification and recognition:

- (1) Identification and recognition procedures will be as established in EADF SOP 55-3 and JANAP 150.
- (2) Brevity code words for operations of IFF are contained in JANAP 160 or ACP 165.

C. Navigational Aids:

- (1) Normal
  - (a) As established in Radio Facility Charts and Navigational Charts.
- (2) During periods of national emergency
  - (a) Radar Control: By direct communication the controller can give the plot vectors or steers to home base or other base within the division area.

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- (b) GCI-GCA: Letdowns can be accomplished with the GCI station monitoring the progress of the aircraft until it is over the holding point of the GCA. The base letdown is to be accomplished.
  - (c) SCATER Plans: During an emergency navigational aids may be turned on for brief periods of time, at the discretion of the Air Division Commander to effect fighter recovery.
  - (d) M/F Tactical Voice Facility: The pilot can request 10 second signals for homing. The director will transmit the tactical call sign of the station and will give the purpose of the transmission.
- d. Air-to-Ground and Air-to-Air Communications:
- (1) Call signs and call words will be in accordance with ADC CEI 2000 series for AC&W Stations and Air National Guard Units.
  - (2) Aircraft will observe strict circuit discipline but will not observe radio silence unless under broadcast control procedures.
  - (3) VHF frequencies will be in accordance with EADF COI 25 series and 1st Air Force CEI 2109.4d.
  - (4) Medium frequencies will be in accordance with EASA 2A/1/11.
  - (5) UHF frequencies will be in accordance with ADC COI 36 series and 1st Air Force CEI 2109.4d.

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e. Point-to-Point Radio:

Point-to-Point communications will be as established in EADF COI 24 series. Net assignment will be made by 32nd NCS.

f. Command and Operations Communications:

(1) Wire:

- (a) Existing facilities will be utilized insofar as pertains to switchboards, teletype machines etc., until additional facilities are authorized by higher headquarters.
- (b) Bell Telephone Co. will change engineered scramble and status circuits from engineered status to full period upon authorization by headquarters EADF. Installation of scramble and status circuits will be accomplished in the following priority:
  - (1) Scramble circuit to ADDC, changed from EMC to GFP.
  - (2) Operation and status circuit to ADDC, changed from tell terminal to GFP.
  - (3) Command and intelligence circuit to ADDC, to be installed upon direction of the Division Commander.
  - (4) Weather drop on operations and status circuit
    - (2) above will be installed as soon as possible.

g. General Information:

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- (1) All requirements for COIs, CEIs, directives, etc., will be submitted to Hq 32d Air Division (Def).
- (2) Technical Assistance will be made available upon request.
- (3) Logistical support for communications equipment crystal etc., will be the responsibility of the supporting base.
- (4) EADF COIs and ADC CEIs will apply for all Communications matters except where specifically stated.

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ANNEX "B"

32d AIR DIVISION (DEF) AUGMENTATION PLAN FOR UNITS OF ARTC & TAC

Headquarters, 32nd Air Division (Defense) Headquarters, 32d Air Div (Def)  
Emergency War Mobilization Plan -54 Syracuse Air Force Station  
Syracuse 6, New York

CHARTS AND REFERENCES: As Required

TASK ORGANIZATION:

/ Tactical Air Command	General Weyland
Air Training Command	
32d Air Division (Defense)	Colonel R. S. Israel
471st Air Defense Wing	Col J. O. Beckwith
517th Air Defense Group	Col H. L. Downing

1. GENERAL SITUATION:

The international political, economic, and military situation is such that war between the United States and the USSR may be precipitated at any time with little or no warning. War would increase the probability of an aerial attack upon the United States. In the event of an attack the assigned air defense forces will be augmented by all available forces and facilities in the United States possessing air defense capability.

- a. Enemy forces: See Annex "I"
- b. Friendly Forces: See Basic Plan

2. MISSION:

To prepare plans for the emergency integration and utilization of all available facilities and forces having an air defense capability to detect, intercept, and/or destroy enemy aircraft and missiles penetrating the continental limits of the United States.

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3. TASKS FOR PARTICIPATING AND SUBORDINATE UNITS:

a. Tactical Air Command will under any condition listed in paragraph 5b(1) of this Annex:

(1) Provide airlift of personnel, supplies & equipment of units assigned the 3550th Flying Training Wing, Moody AFB, to Griffiss AFB.

(a) Specific Airlift Requirements are listed below:

<u>FROM</u>	<u>TO</u>	<u>PASS</u>	<u>BAGG WT</u>	<u>CARGO WT</u>	<u>EV FT</u>
Moody AFB	Griffiss AFB	57	2350	8000	325

(b) First priority for airlift is allocated to ground crews, hand tools, APUs, and minor spares.

(c) Aircraft will be off-loaded immediately at deployment base and released for other tasks.

(d) Assume responsibility for the dispatch of post weapon strike impact evaluation assessment photo, utilizing ATRC T-33 couriers available at Hill AFB and Shaw AFB.

b. Air Training Command will under any condition listed in paragraph 5b(1) of this Annex.

(1) Deploy one-half of the F-94C aircraft, and aircrew (14) assigned to the 3550th Flying Training Wing, Moody AFB to Griffiss AFB via greater Pittsburgh Municipal Airport (Refuel) for operational control by the Commander, 32d Air Division (defense).

(2) Provide sufficient personnel, supplies, and equipment to support augmentation forces assigned Griffiss AFB for a five day period of sustained operations.

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- (3) Utilize available unit support airlift for priority personnel and/or equipment.
  - (4) Comply with operations instruction in Appendix Annex.
  - (5) Participate in active air defense as directed by Commander 32nd Air Division.
- c. 32nd Air Division will:
- (1) Provide at the home base of augmentation units a file of current pertinent operational procedures, regulations and directives particular to the mission of the Air Defense Command.
  - (2) Provide personnel for the briefing of augmentation units.
  - (3) Coordinate necessary supply action to provide required Logistical Support.
  - (4) Assume operational control of fighter-aircraft provided from the 3550th Flying Training Wing, Moody AFB.
  - (5) Alert necessary units upon implementation of this plan.
- d. 4711th Defense Wing Will:
- (1) Coordinate necessary supply actions.
  - (2) Provide personnel to assist in necessary periodic indoctrination of augmentation aircrews at their home base.
  - (3) Alert necessary units implementation of this plan.
- e. 517th Air Defense Group will:
- (1) Provide personnel from Griffiss AFB for the briefing of augmentation aircrews.

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- (2) Provide augmentations units with copies of scramble, recovery procedures, and communications procedures.
- (3) Provide liaison officers at Griffiss AFB acquainted with pertinent base facilities, such as parking, refueling, messing, transportation, etc. Liaison officers will expedite off-loading of airlift aircraft.
- (4) Make available, upon arrival of deployed augmentation units, individual flight cards giving letdown details, pertinent call signs and frequencies to be used in local operations.
- (5) Through coordination with Commander, Rome Air Development Center, develop plans for the parking, refueling, maintenance and re-arming of augmentation aircraft. Also, plans for the messing, housing, and transportation of augmentation aircrews.
- (6) Develop plans to utilize the augmentation Fighter-Interceptor aircraft to supplement the 27th F/I Sqdn in the mission of active air defense.

X. General Instructions:

- (1) The participating major commands will:
  - (a) Be prepared to implement this plan and alert the bases under their jurisdiction that deployment may be effected under the conditions outlined in paragraph 5b(1).

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- (b) Utilize available unit support airlift for priority personnel and/or equipment. If any unit or detachment airlift can be entirely assumed by unit support aircraft, the Commander, 18th Troop Carrier Air Force will be so notified by telephone.
  - (c) Direct all subordinate units to keep Headquarters Air Defense Command informed of aircraft and aircrew availability by means of the V-10 Report.
- (2) Implementation of the plan will be accomplished by direct notification from the Commander, EADF Defense Command, to the Commanders, Strategic Air Command, 18th Troop Carrier Air Force, and participating fighter and AC&W units of other commands with information to major commanders concerned.
- (3) Augmentation forces are invited to send small numbers of aircraft, when their primary mission will permit, to the base of deployment for training in air defense procedures. Action to deploy these aircraft will be initiated by the command deploying, and not by Air Defense Command agencies. Direct communication between the command deploying and Air Defense Command air division commanders is authorized for the purpose of coordinating deployment dates and other training details. Notification of such deployment should reach the air division commander at least twenty-four hours in advance of aircraft departure. Information copies of all correspondence with units of other commands will be furnished to the 32nd Air Division Headquarters, EADF headquarters, Headquarters Air Defense Command and the head-

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quarters of the major commands concerned. Requests by air defense forces for deployment of augmentation forces during air defense exercises will be to this headquarters.

4. LOGISTICAL MATTERS:

- a. See Annex \_\_\_\_\_

5. COMMUNICATIONS AND COMMAND MATTERS:

- a. COMMUNICATIONS: S Annex "H"

b. COMMAND:

- (1) The circumstances under which this plan may be implemented are:
- (a) Presidential proclamation and/or congressional declaration that a state of war exists, or
  - (b) A directive issued by the Joint Chiefs of Staff, or
  - (c) A declaration by the Commander, Air Defense Command, that an Air Defense Readiness, Military Emergency, or condition of Air Defense Warning Red or Yellow exists, or
  - (d) An enemy attack upon the continental United States, or
  - (e) By mutual agreement between the major air commanders concerned for training purposes.
- (2) The Air Defense Command will assume operational control of fighter aircraft and aircrews, and AC&W facilities at such time as notification is received that this plan is to be implemented, Operational control of 18th Troop Carrier units will remain with 18th Air Force.

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Operational control comprises those functions of command involving the composition of subordinate forces, the assignment of tasks, the designation of objectives and the authoritative direction necessary to accomplish the mission. It does not include such matters as administration or individual training. Assistance in training and support will be provided by the Air Defense Command. Release of such forces and facilities from air defense commitments shall be at the earliest time consistent with air defense versus primary requirements.

(3) ORGANIZATIONS AND COMMAND POSTS:

Hq Air Defense Command, Ent Air Force Base, Colorado  
Hq Tactical Air Command, Langley Air Force Base, Virginia  
Hq Air Training Command, Scott Air Force Base, Illinois  
Hq Air Research and Development Command, Post Office Box 1365, Baltimore 3, Maryland.  
Hq Eastern Air Defense Force, Stewart Air Force Base, New York  
Hq 32nd Air Division (Def), Syracuse AFB, Syracuse 6, N.Y.  
Hq 4711th Defense Group, Presque Isle AFB, Presque Isle, Me  
Hq 517th Defense Group, Ethan Allen AFB, Burlington, Vt.  
Hq 27th F/I Squadron, Griffiss AFB, N.Y.

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APPENDIX "I"

TO

ANNEX "B"

54

GENERAL INSTRUCTIONS

CHART REFERENCES: As Required

TASK ORGANIZATIONS: 3550th Flying Training Wing

1. GENERAL SITUATION: As specified
2. MISSION: As specified
3. TASK FOR SUBORDINATE UNITS:

a. 3550th Flying Training Wing will in addition to task listed in Annex "B" perform the following upon deployment of aircraft.

- (1) Squadroner like units will be organized for independent operation, including a commander, operations officer, flight commander, intelligence personnel, etc. (Advisory assistance will be provided by representatives of air defense forces at deployment).
- (2) Deploying forces will depart home station with the least possible delay after notification that the appendix has been implemented. Departures will be made as 4 A/C flights become available.
- (3) When possible, departing fighters will leave their home station with a combat load of ammunition aboard and guns charged hot.

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- (4) T-33 aircraft which are deployed to a base receiving fighter aircraft from the same unit will carry a crew chief or key personnel on the deployment flight.
- (5) In event the tactical situation or weather conditions require alternate refueling or stop-over bases, deviations from deployment routes specified in this annex may be made to expedite arrival at deployment bases. Unit Commanders concerned will advise the appropriate air defense force and refueling base immediately upon determining that a deviation will be made.
- (6) In order that sufficient navigational aids may be made available to deployment flights (fighter and support aircraft) during "Warning Red" and "Warning Yellow", the following procedures will apply to all deployment flights:
  - (a) All aircraft will file IFR clearance and will comply with IFR reporting procedures regardless of prevailing weather conditions.
  - (b) Section D of Form DD175 "Aircraft Clearance" will contain the prefix "Delta Alfa Union" to the aircraft identification number, instead of the prefix "AF". This prefix will be used in all air-ground communications. The use of "DFU" is intended for use only during conditions stated in paragraph 1 of basic plan and does not apply to exercise or training deployment.

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- (c) Section IV of Form DD 175 "Remarks" will contain a list of the minimum navigational aids required to accomplish the flight.
- (d) Aids selected will be located as far as possible from critical target areas.
- (e) ADDCs or GCI stations may be requested to furnish letdown assistance during IFR conditions.
- (f) Additional navigational aids may be made available to aircraft encountering in-flight emergencies. Under such conditions, the pilot of the distressed aircraft will contact the nearest CAA facility, stating type of emergency and the navigational aids desired. The CAA air route traffic control center will, in turn, relay the request to the appropriate air division. Commander who will determine the tactical feasibility of turning on such aids.

(7) The following instructions will apply to all deployment flights:

- (a) Normal CAA procedures will be followed.
- (b) Aircraft commanders will comply with AFR 60-22 and Civil Air Regulations part 620 when operating within ADIZs.
- (c) Frequencies shown in current radio facility charts will be used.

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- (8) Air Defense commanders, to whom a specific augmentation unit is allocated, may divert deploying aircraft enroute when necessary to repel those attacks that occur during the flights to the deployment bases, when weather conditions preclude deployment to the specified base, or when the tactical situation requires redeployment. Division of a fighter unit or detachment will be authority for similar diversion of the 18th Troop Carrier aircraft flying in support of the unit or detachment.

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ANNEX "C"  
TO

32D AIR DIVISION (DEF)

OP'S PLAN 2-54

AUGMENTATION PLAN FOR UNITS OF SAC

Charts and references: As required

Task Organization:

Strategic Air Command  
506th Strategic Fighter Wing  
32nd Air Division (Defense)  
4711th Defense Wing  
765th AC&W Squadron

1. General Situation:

The international political, economic, and military situation is such that war between the United States and the USSR may be precipitated at any time with little or no warning. In the event of an attack certain units of the Strategic Air Command will be used to augmentate forces of the Air Defense Command in accordance with ADC Operations Plan 4-54 (Revised) dated 15 June.

- a. Enemy forces: See ANNEX "1"
- b. Friendly forces: See Basic Plan \_\_\_\_\_

2. Mission:

To effectively utilize units of SAC, made available to the Commander, 32nd Air Division (Defense) area of responsibility.

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3. Tasks for Participating and Subordinate Units:

a. Strategic Air Command:

- (1) Will place all available aircraft and air crew assigned to the 406th Strategic Fighter Wing, Dow AFB, Me., under the operational control of Commander, 32nd Air Division (Defense) when one or more of the conditions listed in paragraph 5b(1) of this Annex.

b. 506th Strategic Fighter Wing:

- (1) Place all available fighter aircraft and air crews under the operational control of the 32nd Air Division (Defense) upon implementation of this plan.
- (2) Keep Headquarters, 32nd Air Division (Defense) informed as to aircraft and crew status by means of a copy of the V-10 Report.
- (3) Maintain and insure that air crews are familiar with current pertinent operational procedures, regulations, and directives pertaining to air defense operations.
- (4) When it does not impair the primary mission conduct air defense training missions under the GCI control of the 765th AC&W Squadron, Charleston, Me.
- (5) Publish necessary plans and directives to insure effective implementation of this plan.

c. 32nd Air Division will:

- (1) Upon implementation of this plan assume operational control of fighter aircraft and air crews assigned to the 506th Strategic Fighter Wing.

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- (2) Provide a current file of pertinent operational procedures, regulations, and directives covering air defense operations and procedures.
  - (3) Accomplish periodic indoctrination of augmentation air crews at their home base.
  - (4) Establish procedures of the 506th Strategic Fighter Wings participation in training exercises.
- d. 4711th Air Defense Wing will:
- (1) Schedule and supervise periodic briefing of the 506th Strategic Fighter Wing, by personnel with whom the augmentation forces would work in case of an emergency.
  - (2) Supply copies of "scramble" and "let-down" procedures to the augmentation units.
  - (3) Make available pertinent call signs and frequencies to be used in air defense operations.
  - (4) Supply liaison officers (both ACMW and Ftr Ops) in event the 506th Strategic Fighter Wing is placed under operational control of Commander 32nd Air Division (Defense).
- e. 765th ACMW Squadron:
- (1) Participate in training missions conducted by the 506th Strategic Fighter Wing to the greatest possible extent.
  - (2) Provide directional control for the fighter aircraft assigned to the 506th Strategic Fighter Wing.
4. Logistical Matters: Normal

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5. Communication and Command Matters:

a. Communication: See ANNEX \_\_\_\_\_

b. Command:

(1) The Commander, 32nd Air Division (Defense) will assume operational control of aircraft and air crews assigned to the 506th Strategic Fighter Wing under the following condition:

- (a) Presidential proclamation and/or congressional declaration that a state of war exists, or
- (b) A directive issued by the Joint Chiefs of Staff, or
- (c) A declaration by the Commander, Air Defense Command, that an Air Defense Readiness, or Military Emergency exist, or
- (d) An enemy attack upon the U.S., or
- (e) By mutual agreement between the Major Air Commander concerned for training purposes.

(2) Operational control comprises those functions of command involving the composition of subordinate forces, the assignment of task, and the designation of objectives and the authoritative direction necessary to accomplish the air defense mission.

(3) Organization and Command Post:

Strategic Air Command	Offutt Air Force Base, Neb.
506th Strategic Fighter Wing	Dow Air Force Base, Maine
32nd Air Division (Defense)	Syracuse Air Force Sta, N.Y.
4711th Defense Wing	Presque Isle AFB, Maine
765th AC&W Squadron	Charleton, Maine

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ANNEX "D"

TO  
32D AIR DIVISION (DEFENSE)

EWMP 2-54

HEADQUARTERS 32D AIR DIVISION (DEF)	HEADQUARTERS 32D AIR DIV (DEF)
Emergency War Mobilization Plan 2-54	Syracuse Air Force Station
	Syracuse 6, New York

CHARTS AND REFERENCE: As required

TASK ORGANIZATION:

32d Air Division (Defense) & Subordinate Units

104th AAA Brigade

105th AAA Brigade

56th AAA Brigade

1. GENERAL SITUATION:

In event of an enemy attack upon Continental United States it is anticipated that the "National Guard AAA Units M-Day assignees to EASTARAACOM" will be placed in active Air Defense within the 32d Air Div (Defense) area of responsibility by order of the President of the United States.

- a. Enemy Forces: See Annex "I"
- b. Friendly Forces: See Basic Plan

2. MISSION:

To prepare plans for the emergency integration and utilization of all available National Guard AAA Facilities and Forces having an Air Defense capability for interception and destruction of enemy aircraft and missiles penetrating the Continental limits of the United States.

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3. TASKS FOR PARTICIPATING UNITS:

a. 32d Air Division (Defense) and Subordinate Units:

- (1) Exercise operational control over units of National Guard AAA Units called to active duty in accordance with provisions of ADCR 55-1 and EADF SOP 355-1.
- (2) Assist in establishing required communications for National Guard AAA participation in Air Active Defense.
- (3) Coordinate plans, policies, and operation order's relative to National Guard AAA Air Defense.

b. 104th AAA Brigade will:

- (1) Upon being ordered to active military service, move to Fort Totten, N.Y. and assume the responsibility of AAA Defense for the Boston, Mass. and Limestone AFB, Me. areas when directed by Commanding General, EASTARAACOM.
- (2) Prepare movement plans and operation orders covering the defense of the assigned area of responsibility.

c. 105th AAA Brigade will:

- (1) Upon being ordered to active military service, move to Fort Niagara, N.Y. and assume the responsibility of AAA Defense of Niagara Falls, N.Y., Buffalo, N.Y. areas when directed by Commanding General, EASTARAACOM.
- (2) Prepare movement plans and operations orders covering the defense of the assigned areas of responsibility.

4. ADMINISTRATION AND LOGISTICS:

- A. Normal
- B. Reports: As required by Commanding General, EASTARAACOM.

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C. Logistics: Normal

5. COMMUNICATIONS AND COMMAND MATTERS:

a. Communications:

- (1) Commander of National Guard AAA Units assigned to the Air Defense of Niagara Falls and Buffalo, N.Y. areas will, with the assistance of Commander, 32d Air Division (Defense), establish engineered circuits between the AAA AAOC and the 763rd AC&W Squadron, Lockport, N.Y.
- (2) Commander of National Guard AAA Units assigned to the Air Defense of Boston, Mass. will, with the assistance of Commander, 32d Air Division (Defense), establish engineered circuits between the AAA AAOC and the 762nd AC&W Squadron, N. Truro, Mass.
- (3) Commander of National Guard AAA Units assigned to the Air Defense of Limestone AFB, Maine area will, with the assistance of Commander, 32d Air Division (Defense), establish engineered circuits between the AAA AAOC and the 766th AC&W Squadron, Maine.

b. Command:

- (1) The Commander, 32d Air Division (Defense), will assume operation/control over National Guard AAA Units in accordance with ADCR 55-1 and EADF SOP 255-1.

6. AUTHORITY: TAB "A" to Appendix III to Annex C of EADFEWMP 1-53.

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ANNEX "E"

TO

32D AIR DIVISION (DEFENSE) OPERATION PLAN

2-54

TASK FOR SUPPORT UNITS OF COMEASTSEAFROM

1. NAVAL FIGHTER-INTERCEPTOR SQUADRONS:

a. NAS S. Wymouth, Mass. will:

- (1) Provide available aircraft and crews, as outlined in current Operations Plans, Order and Joint Agreements, to be placed under the operational control of Commander, 32d Air Division (Defense).
- (2) Participate in joint training exercise under the radar surveillance of the 762d AC&W Squadron, N. Truro, Mass.
- (3) Perform responsibilities as outlined in par X.

b. NAS Niagara Falls, NY will:

- (1) Provide available aircraft and crews, as outlined in current Operations Plan, Order and Joint Agreement, to be placed under the Operational Control of Commander, 32d Air Division (Defense).
- (2) Participate in joint training exercise under the radar surveillance of the 763rd AC&W Squadron, Lockport, N. Y.
- (3) Perform responsibilities as outlined in par X.

X. Naval Fighter-Interceptor Squadrons will:

1. Maintain the maximum number of aircraft and crews assigned

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to the 32d Air Division (Defense) for air defense purposes in condition of alert as directed by the AC&W Squadron to which the Naval Force has been assigned by the Commander, 32d Air Division (Defense).

2. Coordinate all Planning and Tactical Operations with the AC&W Sq Commander to which the Naval Force has been assigned for operational control.

3. Maintain communications with the AC&W Squadron to which the Naval Force has been assigned for radar and surveillance. If normal wire communications fail, establish a courier service.

4. Submit summary reports of fighter-interceptor operations to the AC&W installation to which the force is assigned.

5. Insure complete understanding and compliance by all crew with current active air defense rules of engagement and interception.

6. Insure familiarity of all crews with scramble and recovery procedures for bases within the assigned sector of the 32d Air Division (Defense).

2. NAVY PICKET VESSELS WILL:

a. Continued operations under existing plans, agreements, and operations orders.

3. NAVAL GROUND RADAR AND AEW AIRCRAFT WILL:

a. Be utilized as emergency and back-up equipment as directed by the Commander, 32d Air Division (Defense).

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ANNEX "F"

ANTISUBMARINE WARFARE

HEADQUARTERS, 32ND AIR DIVISION (DEFENSE)  
EMERGENCY WAR MOBILIZATION PLAN 2-54

HEADQUARTERS, 32D AIR DIV(D)  
Syracuse Air Force Station  
Syracuse 6, New York

CHARTS AND MAPS-AS REQUIRED

TASK ORGANIZATION

4707th Defense Wing & Support Units  
4711th Defense Wing & Support Units  
102nd Fighter-Interceptor Wing (ANG)  
107th Fighter-Interceptor Wing (ANG)  
101st Fighter-Interceptor Wing (ANG)  
4673d Ground Observer Corps

1. GENERAL SITUATION: This plan supports CONAC-Eastern Sea Frontier agreement "Joint Operations for USAF support of Naval Anti-submarine Warfare". It defines responsibilities of this command in respect to the ASW Mission and states fundamental procedures by which these responsibilities are to be discharged.

The international political, economic, and military situation is such that war between the United States and the U.S.S.R. may be precipitated with little or no warning. War will result in, or increase the possibility of hostile submarine activity and attack along the east coast of the United States.

a. Enemy Forces.

Submarines may attack shipping and coastal areas with con-

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ventional weapon and/or guided missiles utilizing atomic, biological, or chemical warheads and, in addition, may:

- (1) Provide navigational aid to incoming enemy air formations.
- (2) Jam friendly electronic and communications equipment and radio aids.
- (3) Coordinate hostile air attacks.
- (4) Pick up hostile airmen who have "ditched" their aircraft at a predetermined rendezvous

b. Friendly Forces

- (1) U.S. Navy. The U.S. Navy is charged with the responsibility of conducting antisubmarine warfare.
  - (a) Eastern Sea Frontier is responsible for the control of antisubmarine activities within its assigned area and the EADF area.
  - (b) Training: As Required.
- (2) CONAC. Continental Air Command is charged with the responsibility of coordinating USAF participation in anti-submarine warfare.
  - (a) The Commander, First Air Force has been delegated by CONAC as the operating link between the units of EADF and ESF.

c. ASSUMPTIONS:

- (1) That major hostilities will commence with a coordinated attack, including submarine activities directed against shipping and major coastal objectives.

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- (2) That activities of aircraft furnished by 32nd Air Division (Defense) will be confined primarily to the role of search and suppression.
- (3) That attacking aircraft may be made available providing no special modifications are required and the primary mission of the task Organization Commanders or 32nd Air Division (Defense) is not effected.
- (4) That floatation and survival gear for participating crews will be made available by the Naval Station conducting the operational briefing of forces furnished by the 32nd Air Division (defense) Task Organizations.
- (5) That forces furnished by 32nd Air Division (Defense) will be dispatched for a specific mission and will return to parent organization immediately upon completion of specific mission.

2. MISSION: To provide forces and facilities for the accomplishment of the Air Force Collateral Mission of antisubmarine warfare as the Commander, 32d Air Division (Defense) may be able to provide without affecting the assigned primary Air Defense mission.

3. TASK FOR SUBORDINATE UNITS:

a. 4707th and 4711th Defense Wings and Support Forces.

- (1) Provide aircraft and crew within their capability for participation in the Joint Anti-submarine Mission.
- (2) Provide use of bases and logistic support for deployment of Navy Antisubmarine Aircraft for limited periods of time as an emergency measure.

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(3) Develop plans for/and anti-submarine patrol within their area of responsibility.

b. 4673d Ground Observer Corps will:

(1) Report and sighting of submarines or unidentifiable objects lying along the coastal waters of the 32d Air Division area of responsibility.

X. GENERAL INSTRUCTIONS:

(1) Each Defense Wing and ANG Fighter-Interceptor Wing will appoint an ASW Control Officer.

(2) The 32nd Air Division (Defense) will act as the coordinating agency between EADF and the Wings on all matters pertaining to ASW activities..

(3) All Wings will maintain a current status board of aircraft and crews tentatively available for ASW and furnish these figures to the 32nd Air Division (Defense) as requested.

(4) This plan will be implemented by the Commander, 32nd Air Division (Defense) upon request from Commander, EADF.

4. ADMINISTRATION AND LOGISTICS:

a. Administration

(1) Normal

(2) Reports

(a) Task organization will provide a narrative report on the mission flown to the EADF ASW Control Officer with information copy to this headquarters by operational priority message or telephone immediately upon return of aircraft from an ASW mission.

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b. Logistics

- (1) Navy ASW Aircraft operating from 32nd Air Division (Defense) bases will be self-supporting to the maximum extent possible. The base commander concerned will provide logistic and maintenance support when necessary to the extent of his capability. Problems of an urgent or emergency nature which cannot be handled locally will be referred to the next higher headquarters.

5. COMMUNICATIONS AND COMMAND MATTERS

a. Communications.

- (1) Normal 32nd Air Division (Defense) channels
- (2) Communication between headquarters 32nd Air Division
- (3) USAF Aircraft committed to ASW missions will normally have at least one channel of their radio set crystallized to the common Air Force-Navy frequency.
- (4) Any special crypto aids required will be furnished by the Navy.

b. Command.

- (1) Normal
- (2) 32nd Air Division (Defense) aircraft participating in an ASW mission will be under the operational control of the Navy while flying the mission.

6. AUTHORITY AND REFERENCE:

Annex D, Appendix I "Joint Operations for United States Air Force support of Naval Antisubmarine Warfare within Eastern Sea Frontier Atlantic and Gulf of Mexico Waters".

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ANNEX "I"

INTELLEGEENCE

Ref: ADC Periodic Intelligence  
Estimates

HEADQUARTERS, 32D AIR DIVISION (D)  
Syracuse Air Force Station  
Syracuse 6, New York

1. INTELLEGEENCE SUMMARY OF ENEMY SITUATION

a. General

The primary enemy of the United States and the 32d Air Division (Def) is the USSR with its Satellites and Communist China. Weapons that could be used against the 32d Air Div (Def) are the Soviet Long Range Aviation, the ocean patrol submarine component of the Soviet Navy, and the sabotage element of the Communist Party in the 32d Air Div (Def) area.

b. Enemy Air

Air weapons systems regarded as effective for attack against the 32d Air Div (Def) are the TU-4, Long range medium bomber, the submarine or surface vessel launched guided missile, and short range air-to-ground missiles. The possibility exists that a few type 31 turboprop medium bombers (4800 n.m. range: may be arriving in operational units.

(1) Aircraft

(a) Strength

Soviet Long Range Aviation is estimated to have approximately 1000 TU-4 aircraft in active units. A practical availability figure for sustained operations would be about 50 per cent of these on-hand aircraft.

(b) Logistics:

No logistical shortages or lags which would hinder

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initial attack against the 32d Air Div (Def) are known to exist. Soviet experience in Arctic operations and summer stockpiling may well increase their ability to operate from areas adjacent to and within the Arctic Ocean.

(c) Disposition:

Airfields capable of supporting TU-4 operations are concentrated south of the 60 degree latitude. There are only two airfields capable and seven potentially capable of supporting limited TU-4 operations north of 60 degrees latitude with the bulk of these located on the Kola Peninsula. It is possible for the Soviets to conduct limited medium bomber operations along the Arctic Circle using packed earth runways in summer and packed snow in winter.

(d) Technical Characteristics;

It is estimated that the technical characteristics of the TU-4 aircraft are essentially the same as those of the latest USAF B-29. Maximum combat range for the standard configuration, with a take-off weight of 140,000 pounds, is estimated to be 3900 n.m.; with one refueling, 5200 n.m. It is estimated further that by removing all turrents except the tail turrent, and adding 10,000 pounds of fuel, the maximum range may be

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may be increased to 5000 n.m.; with one refueling, a maximum range of 6800 n.m. No intelligence is available concerning Soviet in-flight refueling capabilities. However, they have had access to the know-how and the equipment, and it is considered within their capability to develop the equipment and techniques for operational use of in-flight refueling. It is evident that the Soviets have the capability of reaching potential 32d Air Div (Def) targets.

1. Armament

The standard TU-4 is armed with 12.7 mm guns in all turrets. However, intelligence indicates that some TU-4's may be armed with 23 mm guns. Fire control is probably a copy of the USAF B-29 fire control system.

2. Radar

Airborne radar, probably the Soviet version of APQ-13 or APS-15, operating in the SHF band, may be expected in bomber aircraft for navigation and blind bombing. It is possible that the Soviets have developed an electronic computer which would give them a capability equal to that of an AN/APQ-23 with a range of 120 miles at 35,000 feet altitude. It is also possible gunlaying radar has been developed.

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3. Bombing Equipment

The Soviets have a version of a Norden M-9 and probably the German LOTFE.

4. Radio

The Soviets may be expected to have the following radio aids:

Loren Receiver for low frequency reception.

Localizer Receiver.

Marker Beacon Receiver, MRP-48-F, operating in the 75 Mc/s band, Soviet version of the U.S. BC-357.

Radio Altimeter, low altitude, RV-2 similar to US Type AN/APN-1, frequency modulated, operating in the 420 to 460 Mc/s bands.

Radio Altimeter, high altitude, similar to US SCR-718. Radio Compass, ARK-5, similar to SCR-269, with an effective range of 250 to 300 miles, frequency ranges from the 150 to 1300 Kc/s in three bands with a bearing accuracy of  $\pm 2.5$  degrees.

IFF swept in frequency combinations and an approximate range of 200 miles at 20-30,000 feet, equivalent to SCR 695.

5. ECM

Electronic countermeasures represents a grave threat to the ADC system. The Soviets havemade rapid strides in electronics since 1946 and may be expected to bank

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heavily on ECM as a tactic in bombing. They will have the capability of jamming radio and radar frequencies from LF to SHF. The Soviets, also, have the capability for use of window and barrage jamming. Decoys and special ECM aircraft will probably be employed.

(2) Weapons

(a) Guided Missiles

Air-to-surface missiles estimated at or near an operational stage which could be used against the 32d Air Div (Def) are the FX-1400 type, guided aircraft rockets (HS-293 type), and the rocket powered glide torpedo (HS-294 type) and rocket powered missiles that could be carried by TU-4 aircraft. Aircraft ranges however, would be appreciably decreased. The horizontal ranges of these missiles vary from 2.5 to 10 n.m., with a circular error probability (CEP) of from 100 to 270 feet. Nuclear warheads and conventional warheads from 1100 to 3200 pounds of high explosives, or CW and BW, are estimated to be feasible. RW is not considered a factor at this time.

(b) Nuclear Warfare, Weapons, and Stockpiles

The Soviets have made several nuclear tests to date. It has been determined that one of these tests was of high yield and utilized thermonuclear reactions. In-

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formation is not available concerning the design or yield of the Soviet weapons. If they have chosen weapons with yields of from 30 to 100 kt, it is possible that they could have between 100 and 200 such weapons at the present time. It is estimated that the Soviets could have limited numbers of weapons with yields up to one megaton by this time, deliverable by TU-4's.

(c) Biological Warfare

A variety of BW agents and adaptable bombs are available to the USSR in the categories of anti-personnel, anti-animal and anti-crop. It is estimated that the Soviets would initiate BW covertly if they thought such action would give them a decisive military victory.

(d) Chemical Warfare

Chemical warfare production efforts are estimated to be concerned primarily with German nerve gases. Production and stockpiling of GA gas is estimated to be sufficient for sustained attacks against the 32d Air Div (Def). Disseminating equipment, for use by long range aircraft, have been field tested on an extensive scale. It is estimated that the Soviets would employ CW if they thought such action would give them a decisive military victory.

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(3) Fighting Effectiveness

The TU-4 aircraft is estimated to have a fighting effectiveness approximately the same as the latest USAF B-29. Soviet Long Range Aviation combat crews are regarded as the products of rigorous training and discipline. As members of an elite organization, a high level of morale may be expected, combined with a considerable skill of flying. Despite any defections, purges, or indications of discontent within the Air or Ground forces of the USSR, SIRA Personnel may be expected to remain loyal, press their attacks, and to fight aggressively. The Civil Air Fleet, operating throughout the USSR in all kinds of weather and over water offers a potential pool of experienced SIRA personnel for military operations.

(4) Tactics and Techniques

No specific intelligence is available to indicate tactics or techniques which might be employed by the SIRA in approaching and attacking targets in the 32d Air Div (Def). However, it is considered likely that tactics will be adapted to prevailing weather and selected objectives. Single aircraft or formations of aircraft could approach at maximum or minimum altitude with a maximum altitude in the target area of 42,000 feet. Aircraft could be expected to make maximum use of ECM, of USAF aircraft marking (especially SAC), and English speaking pilots for reporting in to ADIZ's and/or

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airways. Simultaneous penetration of the air defense system at multiple points at minimum altitude constitutes one of the dangerous threats against the 32d Air Div (Def).

c. Ground Forces

It is estimated that commando type airborne units might be dropped for the purpose of carrying out specific types of destructions against selected targets, or for seizing vital points in Alaska, Greenland and Newfoundland.

d. Naval Forces

The Soviet ocean patrol submarine component of about 100 units is the only known element of the Soviet Navy capable of directly threatening the 32d Air Div (Def). It is possible that a limited number of these submarines could launch surface-to-surface missiles against New England coastal targets. These submarines may also be used for providing navigational aids to attacking bomber forces, for barrage jamming and electronic interference with 32d Air Div (Def) air defenses, for propaganda and deception broadcasts to civilian radio frequencies, and for picking up detached bomber crews.

The surface-to-surface guided missile weapons would be the winged, single and double pulsejet (V-1 type) and one-stage ballistic rockets (V-2 and G-2 types). These missiles would be capable of speeds M-0.60 to 7550 feet per second, ranges from 190 to 350 nautical miles, warhead weights from 2000 to 3000 pounds, and a CEP of from 0.8 to 1 mile.

e. Subversive Forces

In the event of war between the United States and the USSR,

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Communist Party members and sympathizers in the 32nd Air Div (Def) area could constitute a potent weapon for subversion and sabotage against the air defense capabilities of the 32d Air Div (Def). U. S. communists could broadcast false and misleading information over 32d Air Div (Def) area radio networks in an effort to cause panic and riot. This subversion and sabotage capability would undoubtedly be exploited in conjunction with a general air attack.

f. Weather:

The USSR has adequate weather information for purposes of any attack planning.

(1) Staging Areas

(a) Kola

Cloudiness is extensive throughout this area with frequent overcast conditions. Most months have only one clear day. Except during periods of fog, snow and blowing snow, winter has the best visibilities. Summer visibility is often restricted by fog and haze. Precipitation is light throughout the year with temperatures characterized by mild summers and severe, cold winters. Surface winds remain fairly strong throughout the year.

(b) Arctic Rim

Weather conditions are marginal throughout these areas and characterized by long severe winters.

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However, the best flight conditions are found during the winter months when excellent visibilities prevail.

(2) Enroute

Specific routes cannot be known. However, general area routes can be surmised.

(a) Eastern Region (Kola)

Winds in this area are generally unfavorable to an attacking force with fairly strong headwinds found as high as 50 per cent of the time during fall and winter. Low cloudiness is extensive over this region throughout the year with frequent storms occurring mainly from May through September. Turbulence and icing are found in almost all storms, but have their maximum severity in the spring and fall.

(b) Central and Western Regions

These areas are characterized by strong favorable winds with tailwinds found 85 per cent of the time. Generally, summer storm conditions prevail.

(3) Terminal

Approximately 90 per cent of the storm tracks moving through the eastern United States can be expected to affect the 32d Air Div (Def) area, with considerable variation in day to day weather

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particularly during winter. Although little change in cloud cover is experienced throughout the year, from 55 to 60 per cent of the time from summer to winter, cloudiness is generally more predominate in winter with tops usually below 30,000 feet. Convective clouds are more significant during the summer months, particularly in the afternoon and evening, with individual tops well above 35,000 feet. An appreciable increase in cloudiness below 12,000-15,000 feet is experienced in winter in and west of the Appalachian Mountains.

2. INTELLIGENCE REQUIREMENTS

The following are considered primary essential elements of information and will be reported in accordance with the provisions of ADC Regulation 200-2.

- a. Type of enemy aircraft intercepted.
- b. The number of enemy aircraft by type cirrpled or destroyed.
- c. The escape and/or crash sites of enemy aircraft.
- d. Information obtained from captured enemy personnel, materiel and documents indicating take-offbases, tactics, numbers, future attacks, target systems.
- e. Targets attacked overtly and points of weapon impact, including types of weapons employed.
- f. Targets attacked covertly, including types of weapons employed.
- g. Overt action of the enemy's army, navy and agents.

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h. Operational factors:

- (1) Tactics.
- (2) Aircraft operating characteristics.
- (3) Effect of weather.
- (4) Use and effectiveness of electronic countermeasures.
- (5) Evidence of electromagnetic characteristics.
- (6) Use of evasive action and operational deception.
- (7) Aircraft armament.
- (8) Aircraft markings and identification.
- (9) Aircraft configuration (radomes, wing tanks, etc.)

3. INTELLIGENCE ACTIVITIES

a. Reconnaissance

Air reconnaissance within the 32d Air Division (Defense) is the responsibility of the Tactical Air Command.

b. Captured enemy personnel, materiel and documents are the responsibility of detachments of the 4602d Air Intelligence Service Squadron. Probabilities of enemy and evasion tactics have not been assessed.

c. Reports

Reports will be submitted to the 32d Air Division (Defense) in accordance with EADF Regulation 200-2 as supplemented by established "Bluejey" format form reporting procedures.

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-A

10 Aug 1954

SUBJECT: Report of Naval/Marine Corps Participation in Air Defense  
Training (RCS: EADF-T1)

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. In compliance with Joint Agreement, Headquarters Eastern Sea Frontier and Headquarters, Eastern Air Defense Force for the Training of Naval and Marine Corps Units in the Air Defense of the Eastern United States, dated 12 December 1951, the following report is submitted.

a. Mission conducted by station P-13.

(1) During this reporting period four (4) Naval Reserve Units were aboard Naval Air Station, Brunswick, for two weeks "Annual Cruise". The Units comprised VF671 "Eagle River", from Atlanta, Georgia; VF915 "Zebra" from South Weymouth, Massachusetts; VF665 "Able" from Anacostia NAS, Washington DC; and VF882 "King" from Platte, Kansas. All Squadrons were flying F4U aircraft. Supervisory personnel from the 654th AC&W Sq visited all Units for indoctrination and discussions on Air Defense procedure. During the reporting period this unit gave electronic communication and practice navigational assistance involving approximately thirty-five (35) man hours.

b. Mission conducted by station P-13.

(1) This Unit and US Navy units permanently located at the Brunswick Naval Air Station continued to conduct operations of mutual benefit. Such operations include communications and electronic checks, navigational practice and operations planning.

2. Negative report submitted for remaining units this Air Div.

FOR THE COMMANDER:

HENRY R. BROWN  
Major, USAF, Adj

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-A

8 Sep 1954

SUBJECT: Report of Naval/Marine Corps Participation in Air Defense  
Training (RCS: EADF-T1)

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. In compliance with Joint Agreement, Headquarters Eastern Sea Frontier and Headquarters Eastern Air Defense Force for the training of Naval and Marine Corps Units in the Air Defense of the Eastern United States, dated 12 November 1954, the following report is submitted:

a. Mission conducted by Station P-21.

- (1) 7 August 1954
- (2) WF 441
- (3) 4F4U's
- (4) Practice intercepts
- (5) Two practice intercepts completed
- (6) Aircraft under control of Station P-21 for 41 minutes

b. Mission conducted by Station P-21

- (1) 28 August 1954
- (2) VF852
- (3) 3F4U's
- (4) Practice Intercepts

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Hq 32d AD(D), OOT-A, Subject: Report of Naval/Marine Corps Participation in Air Defense Training (RCS: EADF-TL)

- (5) Three practice intercepts completed
- (6) Aircraft under control of station for one hour
- c. Mission conducted by Station F-10
  - (1) 12 August 1954
  - (2) Picket Vessel Toronto Fox
  - (3) Picket Vessel and 2 F66's
  - (4) Passing control of fighters for purpose of practice intercepts
  - (5) No practice intercepts completed
  - (6) Aircraft under control of PV Toronto Fox for 32 minutes
- d. Mission conducted by Station F-13
  - (1) During this reporting period, two (2) Naval Reserve units were aboard Naval Air Station, Brunswick for two weeks "Annual Cruise". The units comprised VF831 from Floyd Bennett, New York and VP 691 from Columbus, Ohio. VF831 were flying P4Y aircraft. Supervisory personnel from the 654th ACW Squadron visited all units for indoctrination and discussions on Air Defense procedures. A similar conference was held with VF26, A P2V squadron, stationed at Brunswick NAS. During this reporting period this unit gave electronic communication and practice navigational assistance involving approximately twelve (12) man hours.
- e. Mission conducted by Station F-13
  - (1) This unit and US Navy units permanently located at the Brunswick NAS continued to conduct operations of mutual benefit. Such operations include communications and electronic checks, navigational practice and operations planning.

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Hq 32d AD(D), OCT-A, Subject: Report of Naval/Marine Corps Participation in Air Defense Training (RCS: EADF-T1)

2. Negative report submitted for remaining units of this Air Division.

FOR THE COMMANDER:

HAROLD C. DAWSON  
Lt Colonel, USAF  
Ass't Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-A

SUBJECT: Report of Naval/Marine Corps Participation in Air Defense  
(RCS: EADF T-1)

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Reference letter your Headquarters, EAOOT-TS, Subject as above, dated 1 October 1954, following report is made of training of Navy, Marine and Air Force Units in the Air Defense of the Eastern United States.

DATE	UNIT PARTICIPATING	AIRCRAFT NR. TYPE	MISSION	NR OF INTCP	(HR & MIN)	REMARKS
a. 437th Fighter Intercept Squadron, Falmouth, Massachusetts						
5 Oct	437th FIS USN PV	2 F94C	Practice 90° Beam Intcps	0	0:30	90° beam intcp successful
26 Oct	437th FIS USN PV	2 F94C	Practice Intcps	0	0	Unable to make Radio contact
b. 763rd ACMW Squadron, Lockport, New York						
24 Oct	WFF441	7 F4U	Practice Intcps	7	1:35	NA
c. 762nd ACMW Squadron, North Truro, Massachusetts						
5 Oct	Picket Vessel #2	2 F94C	Practice Intcps	3	1:22	NA
5 Oct	Picket Vessel #2	2 F94C	Practice Intcps	0	0	Unable to make Radio contact
6 Oct	Picket Vessel #2		Practice Intcps	0	0	Cancelled due to Wx

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Hq 32D AD(D) OOT-A Subj: Report of Naval/Marine Corps Participation  
in Air Defense (RCS: EADFT-1) Cont'd...

DA DATE	UNIT PARTICIPATING	AIRCRAFT NR. TYPE	MISSION	NR OF INTCP	(HR & MIN)	REMARKS
7 Oct	Picket Vessel #2	2 F94C	Practice Intcps	4	0:24	N/A
11 Oct	Picket Vessel #2	2 F94C	Picket	0	0:04	N/A
12 Oct	Picket Vessel #2	2 F94C	Practice Intcps	2	0:24	N/A
13 Oct	Picket Vessel #2	3 F94C	Practice	1	0:45	3 Intcps Atte- mpted PV had to be reminded they were working s/c to far out.
18 Oct	Picket Vessel #2	2 F94C	Practice Intcps	4	0:35	N/A
23 Oct	Picket Vessel #2	3 F94C	Practice Intcps	4	0:25	N/A
23 Oct	Picket Vessel Toronto Fox	1 F94C	Active Air Defense	1	0:27	N/A
23 Oct	Picket Vessel Toronto Fox	1 F94C	Active Air Defense	0	0:10	Track faded prior to Intcp
25 Oct	Picket Vessel Toronto Fox	2 F94C	Practice Intcps	4	0:25	N/A
27 Oct	Unknown	1 ADYQ	Navigational Aid to a/c flying cross country	0	0:15	Control passed to tower

## d. 654th AC&amp;W Squadron, Brunswick, Maine

This unit assumed primary control of picket vessel station number #1 in accordance with EADF Regulation 55-27, dated 27 September 1954. Operations and communications procedures were maintained with assigned picket vessel until 19 October 1954 when it withdrew without a replacement.

This unit and US Navy units permanently located on the Brunswick Naval Air Station continued to conduct operations of mutual benefit. Such

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Hq 32d AD(D) OCT-A Subj: Report of Naval/Marine Corps Participation  
in Air Defense (RCS: EADF T-1) Cont'd

operations include communications and electronic checks, navigational,  
practice and operations planning.

2. Negative report submitted for remaining units this Air Division.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EACOT-TS

1 October 1954

SUBJECT: Report of Naval/Marine Corps Participation in Air Defense  
(RCS: EADF-T1)

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. Reference is made to paragraph 7 of the Joint Agreement for Training of Navy, Marine Corps and Air Force Units in Air Defense of Eastern United States, 1 November 1951, which requires subject report upon specific request of Eastern Air Defense Force. This headquarters desires submission of this report. Negative reports are required.

2. Pending publication of an EADF regulation and establishment of an appropriate EADF form, in order to standardize reporting procedures, the following instructions will govern the preparation and submission of this report:

- a. Reports Control Symbol: RCS: EADF-T1 is assigned this report.
- b. Title of Report: Report of Naval/Marine Corps Participation in Air Defense.
- c. Frequency: Monthly
- d. As of Date: Last day of each month
- e. Date Due at this headquarters: Tenth working day of each month.
- f. Means of Transmission: Mail.
- g. Number of Copies: Triplicate.
- h. Preparing Level: Air divisions (Defense) will consolidate these reports using information obtained from GCI stations and fighter-interceptor units.

C O P Y

EACOT-15 Subject: Report of Naval/Marine Corps Participation in  
Air Defense (RCS: EADF-T1) (Cont'd)

1. Information desired and format to be used:

REPORT OF NAVAL/MARINE CORPS PARTICIPATION IN AIR DEFENSE

(RCS: EADF-T1)

DATE	UNIT PARTICIPATING	AIRCRAFT NR TYPE	MISSION	NR OF INTCPS	TIME (HR &MIN)	REMARKS
a. 646th ACW Squadron, Highlands, New Jersey						
1Aug54	USN J-5082	1 F9F	Nav Assist	0	0:12	None
2Aug54	VO-4 NBS	2 F2H	Prac Intcp	10	1:45	None
3Aug54	USMC J-5197	3 F9F	Prac Intcp & Recovery	6	1:00	None
b. 647th ACW Squadron, Manassas, Virginia						
8Aug54	VF 661, NSF	4 P4U	Prac Intcp	2	0:27	None
11Aug 54	VF 662, NSF	4 P4U	Prac Intcp	3	1:10	None

3. This letter supersedes EADF letter, EACOT-PN 354.2, subject as above, 21 May 1953, and all other previous instructions regarding the preparation and submission of this report.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

Hq EADF EAOOT-TS Subject: Report of Naval/Marine Corps Participation  
in Air Defense (RC3: EADF-TL)

OOT-A (1 Oct 54) 1st Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, 4707th Air Defense Wing, Otis AFB, Falmouth, Mass.  
Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine.

1. Forwarded for your information and dissemination to all ACMW and fighter-Interceptor units.
2. Fighter-Interceptor Squadrons will report on all picket-vessel control flights and on any contact established with other Naval or Marine Corps facility.
3. ACMW Squadrons will report:
  - a. Each picket vessel control mission.
  - b. Each instance of navigational assistance or other service rendered Navy or Marine Corps aircraft.
  - c. Cross Training visits or other coordination between USAF and Navy and/or Marine Corps unit.
  - d. Each instance where intercepts control was passed to a picket vessel for active air defense interception.
  - e. Navy AEW and C aircraft missions.
4. Report format will be as specified in paragraph 21, basic ltr.
5. Reports will be forwarded direct to this headquarters, attention OOT-A to arrive not later than the sixth work day of the following month. Information copies will be furnished intermediate headquarters. Negative reports will be submitted by Routine electrical message.
6. Reports will be unclassified unless an item of a classified unusual nature is contained. In such event, report will be classified according to content of report.

BY ORDER OF THE COMMANDER:

ARCHIE T. SHERBERT, JR.  
2ndLt., USAF  
Asst Adjutant

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT

8 Sep 1954

SUBJECT: Report of Annual Field Training of Air National Guard  
Fighter Wings (RCS: ADC-T5)

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. In accordance with Air Defense Command Operations Plan 5-54, dated 20 April 1954, and letter, Headquarters, Eastern Air Defense Force EAOOT-TW, dated 19 April 1954, subject: Responsibilities in Regard to Annual Field Training of Air National Guard Fighter Wing, the following consolidated report is submitted.

2. The following Air National Guard Units were observed for the purpose of this report:

- a. 101st Fighter-Interceptor Wing
  - 132nd Fighter-Interceptor Squadron
  - 133rd Fighter-Interceptor Squadron
  - 134th Fighter-Interceptor Squadron
- b. 102nd Fighter-Interceptor Wing
  - 101st Fighter-Interceptor Squadron
  - 131st Fighter-Interceptor Squadron
- c. 107th Fighter-Interceptor Wing
  - 136th Fighter-Interceptor Squadron
  - 137th Fighter-Interceptor Squadron
  - 138th Fighter-Interceptor Squadron

3. All Air National Guard units are presently transitioning into F-94 A/B aircraft. Unit training is progressing satisfactorily with little or no exception. However, due to the transition from single seat day fighter aircraft (F51 and F84) to F-94 A/B aircraft, a pronounced lack of radar observers is evident. Definite plans are formulated within the squadrons to train radar observers through the media of formal schooling. Until this training is completed, and qualified radar observers are available, the All-weather intercept potential of Air National Guard units will be substandard. The potential of Air National Guard units as day fighters is relatively high in that the majority of pilots assigned are highly experienced.

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OCT Subject: Rept of Annual Fld Tng of ANG Ftr Wgs (RCS: ADC-T5)

4. The training of maintenance personnel is being hampered by the lack of test equipment and a mock-up for the E-1 Fire Control System. The lack of ground handling equipment was also evidenced. These problems were remedied during the annual Field training by pooling of equipment, however, due to the physical location of individual squadrons, this solution is not permanent in nature. A complete solution will not be possible until the squadron receive their necessary ground handling equipment, test sets and spare parts to maintain equipment.

5. Personnel of the Air National Guard units demonstrate the desired initiative to learn their jobs well. Necessary civilian technicians are assigned to instruct in the various phases of training. All personnel, both instructor and assigned, are handicapped by the lack of equipment, referred to in above paragraph, to accomplish completed training programs. As a result, training has been slowed and an exceptionally long time is required to complete phases of training.

6. The advisory teams assigned to Air National Guard units consisted of radar observers, AC&W Squadron directors and experienced all weather fighter pilots. Units were indoctrinated in the roll of the Air Defense Command, past and present, coordination between AC&W and Fighter-Interceptor squadrons and interpretation of regulations and directives. Presentations were in the form of lectures, visits to AC&W sites and flights by the radar observers with Air National Guard pilots for familiarization with E-1 Fire Control System operation and optimum utilization. Advisory personnel were present throughout the field training period to answer questions and instruct individuals and/or groups in certain aspects of training desired by the units.

7. The overall state of training within the Air National Guard units is at present limited to that necessary to day fighter units. All units have recently converted from single place aircraft to two place all weather interceptor aircraft and do not have qualified radar observers assigned, thus the aircraft cannot be utilized for its designed purpose. At least a year will be required before these units will be capable of performing their designated tasks, as all weather fighters, effectively.

FOR THE COMMANDER:

3 Incls:

1. Etr Team Rept 101 FIW
2. Ltr Team Rept 102 FIW
3. Ltr Team Rept 107 FIW

HAROLD C. DAWSON  
Lt Col, USAF  
Asst Adjutant

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C O P Y

AIR ADVISORY TEAM  
TO  
AIR NATIONAL GUARD  
Otis Air Force Base, Falmouth, Mass

30 August 1954

SUBJECT: Team Report (RCS: ADC T5)

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse, New York

1. The Advisory Team Report as required in Paragraph 3a, Annex C, Headquarters ADC Operations Plan 5-54, dated 20 April 1954, is submitted.

2. The 101st Fighter-Interceptor Wing, including the 132d Fighter Interceptor Squadron (Maine), 133d Fighter-Interceptor Squadron (New Hampshire) and 134th Fighter-Interceptor Squadron (Vermont), arrived at Otis Air Force Base for the period 31 July - 14 August for their annual summer encampment. General observations of the effectiveness and progress of the unit training and a resume of assistance rendered by the ADC Advisory Team are as follows:

a. Though primarily engaged in transition from conventional type day fighters to F-94B all-weather jet aircraft during this encampment period, the Wing was well versed in the air defense system. All the Squadrons had worked extensively with ground controlling agencies of the Air Defense Command, and the Vermont Squadron (134th) based on an active air defense airfield is able to keep current with the regulations and procedures governing all-weather operations.

b. The unity in purpose of this Wing is authenticated by the well-informed personnel and exemplified by the showing made by all Squadrons of the Wing in the recent air defense exercise ("CHECKPOINT"). Their high effectiveness is credited to their positive attitude toward the air defense operations, their extensive participation, and the nucleus of personnel experienced in all-weather fighter operations.

c. The problems that usually exist in a transition from conventional to jet aircraft were to a great degree lessened by the training accomplished with the mobile training detachment prior to encampment and its continued use while at camp. The training program initiated by the Wing not only kept the accident rate to a minimum but was paramount in accelerating the check-out program and allowing time for more participation in ADC training.

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Subject: Team Report (RCS: ADC T-5)

d. The ground training for mechanics and line personnel was also aided by the use of the mobile training detachment. It was noted that the ground crews had a high experience and skill level, the experience level averaging 10 years. The Wing is closer to T/O strength in airmen than in air crews. The ground work has been laid to bring into balance this situation, through the Wing's unique recruiting program.

e. The radar observer situation in the Wing, as in the other ANG Wings converting from day to all-weather two-place fighters, is acute. However, radar observers provided by the all-weather schools at Tyndall Air Force Base and Presque Isle Air Force Base have been invaluable during the summer camp training. At the present, the Wing cannot function as an all-weather augmentation force. The Wing, cognizant of the existing problem, is doing something about it through its recruiting program and has eight (8) radar observer cadets in school with seven (7) more on the waiting list.

f. The 133rd Fighter-Interceptor Squadron (New Hampshire), has an augmentation date of 15 October and plans to operate as a day VFR fighter squadron because of the radar observer shortage. There are numerous internal problems to be worked out. Their function as a day VFR fighter will increase the identification potential of the air defense system. All of their tactical pilots have flown air-to-air gunnery missions in the F-94B and are familiar with the E-1 FCS and control procedures.

g. The strength of the 101st Fighter-Interceptor Wing is its nucleus of combat-experienced air and ground crews. The Wing is cognizant of the importance of its part in the air defense system and is working arduously to train and equip the personnel to the degree of readiness desired by the Air Defense Command. The seriousness of the Wing's attitude is expressed in its training and recruiting program. These programs are designed to keep them not only abreast of the ADC's regulations, SOP's, and procedures, but to provide them with a trained reserve capable of carrying on their assigned mission to ADC.

3. The ADC Advisory Team assisted the 101st Fighter-Interceptor Wing as follows:

a. The Advisory Team coordinating with the Air Defense Group, presented indoctrination lectures covering base navigation aids, GCI/GCA letdowns, the capabilities of the primary ADDC, and the function of the ADCC.

b. By conducting a tour of the ACW site at North Truro, the Advisory Team was able to create a better understanding of the inherent problems of the pilot-R/O-director team.

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Subject: Team Report (RCS: ADC T-5)

c. Following up the initial lectures and visits to the ACW Squadron and being available at all times for matters concerning air defense, the team assisted the Wing further by setting up a flying safety program using the facilities of the three GCI stations in this area to perform close liaison with AAA for the safe joint use of the AA firing range.

4. The general observation made by this Advisory Team is that the 101st Fighter-Interceptor Wing has amassed a valuable knowledge of the air defense system on its own initiative. The spirit of all personnel in attaining and maintaining a high degree of effectiveness is exemplary.

ROY E. CLARK  
Major, USAF  
Team Captain

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**SECRET**  
AIR ADVISORY TEAM  
TO  
AIR NATIONAL GUARD  
Otis Air Force Base, Falmouth, Mass.

30 August 1954

SUBJECT: Team Report (RCS: ADC T-5)

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. The Advisory Team Report as required in Paragraph 3a, Annex C, Headquarters, Air Defense Command Operations Plan 5-54, dated 20 April 1954, is submitted.
2. The 102nd Fighter-Interceptor Wing including the 101st Fighter-Interceptor Squadron, Logan International Airport, Boston, Massachusetts, and the 131st Fighter-Interceptor Squadron, Westfield, Massachusetts, arrived at Otis Air Force Base for the period 10 - 24 July 1954 for their annual summer encampment. General observations of the effectiveness and progress of unit training are as follows:
  - a. The 101st Fighter-Interceptor Squadron was in the process of transitioning from F-51 and F-84 Fighter-Bomber type aircraft to F-94B all-weather interceptors. Since the Squadron has had jet experience, the transition was not the hurdle it was expected to be. A concentrated effort was made to familiarize all Squadron personnel with the air defense system and GCI. The Squadron, when equipped with F-51's, had done some Ground-Controlled Intercepts with P-10 and P-13. However, they had not worked to any extent GCI missions from scramble to recovery from their home base. They have expressed in both words and deeds their anxiety in getting their augmentation program under way so as to take an active part in airdefense.
  - b. The 131st Fighter-Interceptor Squadron, under the 102d Fighter-Interceptor Wing, was also undergoing a period of transition. They, however, are transitioning from F-51's to F-94B's and have had little or no experience as a jet-equipped fighter unit. The 131st had attained a high state of training as a day fighter unit in F-51's and was recognized as one of the country's outstanding ANG Fighter Squadrons. Their high fighter experience level has been a great aid during this transition period. The Squadron looks upon all-weather role as a challenge which they are anxious to conquer. They are anxious to complete

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Subject: Team Report (RCS: ADC T-5)

the transition period and participate in active air defense missions. Because no Radar Observer personnel are available to the 131st and the 101st, neither can operate immediately as an all-weather interceptor squadron. They can, however, operate as a day fighter without R/O's using the E-1 FCS, which will increase the identification potential of the airdefense system.

c. The Wing and Group have gone all-out in cementing Wing, Group, and Squadron relations. Through close liaison with members of the ADC Advisory Team, Wing personnel have checked their files on pertinent ADC, EADF, and 32d AD(D) Regulations, Operations Plans, Manuals, and directives and have used some of the 4707th Defense Wing SOP's to firm up their operating procedures for air defense operations. They have worked arduously with members of this Team and P-10 in effecting a workable SARPS Plan for the Squadron at Logan and Westfield. The Wing has endeavored to fulfill their unit training requirements. At the end of the encampment period approximately 70 per cent of their proposed training had been accomplished.

3. A resume of training problems and possible solutions is as follows:

a. The 101st Fighter-Interceptor Squadron has an operating problem for active air defense missions as they are based on a commercial airfield with heavy commercial traffic. Field conditions are conducive to jet operations, i.e., long runways, radio facilities, etc., but scramble and recovery under IFR conditions constitutes a problem. This problem is not pressing at the moment because the Squadron operates as a day VFR fighter unit. It is a problem, however, that is being worked on at the present by the Wing and the ADC Advisory Team, P-10 and CAA.

b. Current regulations, directives, and SOP's have not been reaching squadron level operations in the smooth flowing manner that is necessary to keep the squadrons abreast of Air Defense Command procedures, tactics, techniques, and doctrines. Though the Wing has a near complete file of current regulations and directives, closer liaison between Wing, Group, Squadron, and the Air Defense Command is necessary. This liaison will undoubtedly be effected when the augmentation plan is implemented.

c. The Group is now making progress in standardizing their training by using the ADC Unit Proficiency Directives as a guide. These directives, with the proposed assistance of a qualified GCI director and fighter-interceptor squadron pilot will help these Squadrons immeasurably in getting their program going.

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Subject: Team Report (RCS: ADC T-5)

4. General observations:

a. In general, the Wing, Group, and Squadrons are working united in an effort to fulfill their training requirements to attain a level of proficiency that will enable them to carry out successfully the augmentation program. They have effectively carried out a transition program and need only a minimum amount of additional training in this phase. Their training problems are minor in nature and can be worked out at group and squadron level. However, some assistance is necessary from GCI and the fighter squadrons. Their strength lies in their attitude toward the air defense mission and the fighter experience of their pilots. The pilot, R/O, director team will undoubtedly mold itself into an efficient unit as closer liaison, better understanding, and constant training are established.

5. The ADC Advisory Team assisted the 102nd ANG Fighter-Interceptor Wing as follows:

a. After making our presence and mission known to the Commanding General, Wing, Group, and Squadron personnel, the Team conducted a meeting in conjunction with base personnel to clarify facilities and aids available at Otis Air Force Base. The briefing on GCI, GCA procedures, SARPS, lost procedure, and a general picture of GCI operations was presented to all flying personnel of the Wing. The Advisory Team aided the Squadrons in setting up radio communications with the GCI agency and arranged lectures and graphic displays of the air defense system - its past and present operations. A tour of an ADDC was arranged to be given at the discretion and availability of the Squadrons. A tour through one of the first AEW aircraft (RC-121C) to visit the East Coast was also made available to the personnel of this Wing. Training films on the F-102, F-104, and XFV 1 were shown. By daily contact with the Group, the Team was able to aid and assist the 102nd Fighter-Interceptor Wing on many problems that arose on a day-to-day basis.

ROY E. CLARK  
Major, USAF  
Team Captain

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

12 August 1954

SUBJECT: Annual Field Training of ANG Fighter Wings'

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

In accordance with ADC Operations Plan 5-54, dated 20 April 1954, and letter from EADF, EAOOT-TW, dated 19 April 1954, subject: Responsibilities in regard to Annual Field Training of Air National Guard Fighter Wings, and subsequent indorsements, the following report is submitted.

I. INTRODUCTION: The undersigned, three radar observers and one AC&W Director were assigned to the 107th Fighter-Interceptor Wing for the period of summer encampment and annual field training exercise during the period 10-24 July 1954 for the purpose of assisting, advising and rendering overall evaluation of this wing for its M-Day assignment as augmentation force to Air Defense Command.

II. DESCRIPTION: The encampment consisted of the 107th Fighter-Interceptor Wing, 107th Fighter-Interceptor Group and three fighter-interceptor squadrons equipped with F-94A and B aircraft, each possessing two assigned T-33's for jet transition, either one or two B-25K's for use in radar training and T-6 aircraft.

III. OBJECT: To assist, advise and evaluate the 107th Fighter-Interceptor Wing for its augmentation role in the Air Defense Command system.

IV. CONCLUSION: At the end of the encampment, many weaknesses and problems present at first had been eliminated and/or resolved, the majority of assigned aircrews had been checked out and partially transitioned; however, the combat effectiveness of the 107th fighter-interceptor Wing for its designated AI augmentation role must at present be considered zero.

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C O P Y

Subject: Annual Field Training of ANG Fighter Wings

V. RECOMMENDATIONS:

A. That officer personnel, experienced in AI techniques and Air Defense Command systems, be periodically scheduled to the tactical units to assist the USAF Air Instructor in preparing these units for their designated AI M-Day assignment.

B. That CONAC and ADC training directives and guides for augmentation forces assigned to ADC (AI aircraft) be reconciled and standardized. In order to effect necessary practice in ADC tactics, techniques and procedures, it would appear mandatory that one standard set of directives be followed for these M-Day forces. Immediate liaison should be effected between CONAC and ADC to fulfill this requirement.

C. That a minimum of one well qualified radar observer be assigned to the Office of the USAF Air Instructor for each AI equipped squadron for the purpose of training pilots in AI intercept procedures and to train newly assigned radar observer personnel if and when they become available.

D. That each Air National Guard fighter-interceptor squadron be more actively teamed with the appropriate ADC AC&W squadron in its geographical area.

E. That a full-time wire circuit between the fighter-interceptor squadron and appropriate AC&W squadron be established for the purpose of accomplishing, when practicable, practice intercept missions, critiques after missions and securing aircraft and crew status, etc. (Available upon request by Air National Guard Units).

F. That an aircraft status report be initiated that will reflect a better picture of combat readiness. This should follow the format specified in AFR 55-83 (1-AF-VI4 Report) and would show aircraft in or out of commission, either combat ready or ANFE, the reasons why, etc.

G. To expedite the current (but delayed) plan to assign certain key ANG squadron pilot, maintenance personnel and aircraft into like units in Air Defense Command for training in current tactics and techniques.

DISCUSSION:

1. General. The 107th Fighter-Interceptor Wing, having only recently received its UE aircraft (94A's and B's), was primarily interested in the check-out and conversion of assigned pilots to jet-

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Subject: Annual Field Trainign of ANG Fighter Wings

type aircraft during the period 10-24 July. Immediately prior to the encampment, a request was made to the 32d Air Division (Defense) for three qualified radar observers to be furnished to the 107th Fighter-Interceptor Wing Commander for use of the individual squadrons. Three well qualified observers were subsequently furnished to the 136th, 137th and 138th Fighter-Interceptor Squadrons for approximately one and one-half weeks of the two-week encampment.

2. Results. At the end of the summer encampment (24 Jyly 1954), the check-out and transition portion of the desired objective was for the most part accomplished. The radar observer indoctrination of key squadron and other pilot personnel was only partially accomplished due to the more urgent need for check-out and transition.

a. Operations. With the exception of the 138th Fighter-Interceptor Squadron, action taken and maintained was highly successful toward transitioning and conversion to jet aircraft. The 138th Fighter-Interceptor Squadron was not able to either complete transition of assigned pilots or, to any great extent utilize the service of the assigned radar observer due to the lack of aircraft in-commission for the entire period of the encampment.

b. Training. Considering the normal work schedule (weekend training only, with the exception of the annual summer encampment) training was average to above average, with the glaring exception of training in the armament and fire control systems. Each fighter-interceptor squadron had assigned a Hughes Tech Representative, whose services had either not been fully utilized or could not be fully utilized. A representative from A. C. Spark Plug Company (AICM Sight) had only recently arrived.

c. Manpower and Organization. The 107th Fighter-Interceptor Wing is organized and operating under the following TO&E's, as modified:

107th Fighter-Interceptor Wing	TO&E 1-1021P
107th Fighter-Interceptor Group	TO&E 1-1222P
A.I. Tactical Squadrons	TO&E 1-1255P

d. Maintenance. With the exception of the 138th Fighter-Interceptor Squadron, maintenance was considered above average during the period of summer encampment. It is to be noted that the 136th Fighter-Interceptor Squadron from Niagara Falls, New York, and the 137th Fighter-Interceptor Squadron from Westchester County Airport, New York, having flown the aircraft and supplies to Hancock Field for this encampment, maintained all aircraft with approximately 60% in-commission rate. The 138th Fighter-Interceptor Squadron, with permanent home station at Hancock Field, started summer encampment with

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Subject: Annual Field Training of ANG Fighter Wings (Cont'd)

approximately 25% in-commission and, with the exception of one day only, never improved on this in-commission rate. All squadrons were partially handicapped with lack of jet engine and tail dollies; however, this lack did not seem to handicap the 136th and 137th Fighter-Interceptor Squadrons to any great extent.

e. Supply. Supply appeared to be efficiently run and in some cases, more successful in obtaining urgently needed items than its counterpart in Air Defense Command.

3. Tactics and Techniques:

a. General. No valid observations could be made during this period on tactics and techniques due to:

- (1) Low experience level of pilot personnel. (Check-out and transition requirement.)
- (2) Lack of suitable test equipment to properly check and maintain the armament and E-1 Fire Control Systems.

b. Squadrons' Limitations. As in a above, no useful comment can be made on the squadrons' limitations due to this wing's lack of experience and practice with the UE aircraft, except to state that at present they are definitely limited.

c. Tactics currently Employed. Not applicable, see a and b above.

d. Tactics Involved: Same as c above.

4. Capabilities and Limitations. Until such time as (1) adequate maintenance personnel and test equipment for the armament and E-1 Fire Control System is available and (2) until such time as qualified radar observers are available, either on a permanent or temporary basis to the tactical squadrons, combat capabilities of the tactical squadrons will remain zero.

a. Availability of Combat Ready Aircraft. None. Although observation was for only a two-week period among the three tactical squadrons, it is considered that with an aggressive Armament and Fire Control System Training Program the Air National Guard would be able to maintain combat ready aircraft at an acceptable rate in approximately one year.

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Subject: Annual Field Training of ANG Fighter Wings

b. Abort Rate. For the period of the summer encampment, the abort rate was negligible.

c. Intercept Performance. Intercept performance could not be evaluated due to the lack of scheduled intercept missions. Several practice missions were locally set up between UE aircraft for the purpose of indoctrinating squadron pilot personnel in the use of AI aircraft with a radar observer aboard.

d. Reservice. Reservicing in both fuel and oxygen was accomplished at all times in a most expeditious manner. It is to be noted that Air National Guard units are equipped with an adequate number of the latest fuel trucks and trailers, the lack of which has handicapped and is continuing to handicap numerous ADC squadrons.

e. AI detection and Lock-on Ranges. Not applicable.

f. Requirement for close Control and GCI Work. It is strongly recommended that all Fighter squadrons of this wing take action to practice daytime intercept missions in UE aircraft with the appropriate ADCC.

g. Capacity for sustained Operations. With the exception, at present, of combat ready crews and aircraft, this wing, logistically speaking, would appear to be capable of sustained operations.

5. Overall Analysis.

a. General Observations of Effect and Progress of Unit Training. As noted previously, with the exception of a lack of comprehensive E-1 Fire Control Systems Training, programmed unit training appeared to be both effective and practical.

b. Resume of Training Problems and Recommended Solutions. The major problem would appear to be lack of test equipment for the Armament and E-1 Fire Control System in each tactical squadron. A temporary solution to this problem was evolved during the period of summer encampment by the 107th Fighter-Interceptor Group Armament Officer, Captain Robichon, whereby test equipment from each of the tactical squadrons was pooled into one complete fire control shop set up and located at Hancock Field. Under present planning, UE aircraft of the tactical squadrons, together with armament and fire control maintenance personnel, will be periodically scheduled to the central location at Hancock Field for the purpose of harmonization and firing in of each aircraft. At the same time, the E-1 equipment in each aircraft will be inspected, tested, repaired and made combat ready as necessary.

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C O P Y

Subject: Annual Field Training of ANG Fighter Wings

c. Strength and Weakness of Training Program.

(1) Strength of Program:

- (a) Spirit and desire to learn is definitely present in the majority of personnel.
- (b) Adequate skilled instructor personnel are present to instruct ANG technicians. (Lockheed, Hughes and A. C. Spark Plug Co.) An Allison Tech Representative periodically visits the squadrons every two or three weeks and is available on call when needed.

(2) Weaknesses of the Training Program.

- (a) The skilled instructor personnel mentioned above have not been fully utilized due to various factors. (Lack of suitable test equipment and need for aircraft to be utilized for transitioning pilot personnel, lack of completed firing in butt, etc.)
- (b) Lack of E-1 mock-up for individual squadrons and spare radar components.
- (c) Lack of adequate distribution of ADC Regulations, Training Guides, or Manuals, Brevity Code, COI's, UPD's, etc.
- (d) No qualified radar observers to assist and help train pilot personnel in full and proper operation of F-94 aircraft.

d. Resume' of Assistance Accomplished by Advisory Team.

(1) Radar observers' activities and accomplishments by squadron:

- (a) Lt. Joseph W. Burt - 138th Fighter-Interceptor Squadron. Radar training in this particular squadron was, for the most part, necessarily confined to lectures on radar and radar techniques rather than actual radar missions due to lack of aircraft in-commission with functioning radar. Formal and information "group" discussions were utilized at every opportunity, with emphasis being placed on Pilot Radar Scoper

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Subject: Annual Field Training of ANG Fighter Wings

Operation in order to increase pilot knowledge and to aid pilots in utilizing radar equipment when no radar observer was available.

- (b) Lt. Daniel T. Kelley - 136th Fighter-Interceptor Squadron. Radar observer flew thirteen missions with squadron personnel which included one ride with each of the eleven pilots present, emphasizing the basic ideas of scope interpretation, pilot/radar observer team-work and operation of the E-1 Fire Control System from the front seat. In lectures to the pilots the following topics were covered briefly:
1. Principles and design of the E-1 Fire Control System (assisted by the Highes Tech Representative, Mr. Selinger).
  2. Scope presentation (radar observer indicator and pilot's scope).
  3. Scope interpretation (radar observer indicator and pilot's scope).
  4. Turn on and turn off procedures of APG-33.
  5. Operation of system from pilot's cockpit.
  6. Standard directive and descriptive commentary.
  7. Questionnaire on pilot's scope.
- (c) Lt Carl E. Wisser - 137th Fighter-Interceptor Squadron. Eight pilots out of thirteen (five or more F-94 hours) were given a familiarization ride which consisted of a simulated intercept demonstrated by the radar observer commands (no action by pilot) and live intercepts when target was available. A formal one-hour lecture was given covering the same topics mentioned in 4 above, plus numerous informal discussions.
- (d) Lt. Glenn E. Torrey - AC&W Director. One thirty minute lecture was given to all available pilots in the 107th Fighter-Interceptor Group on a typical ADDC and the coordination necessary between director and pilot. Daily informal talks and "group" discussions were conducted among the

Incl #3

7

CONFIDENTIAL

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CONFIDENTIAL

C O P Y

Subject: Annual Field Training of ANG Fighter Wings

(d) Cont'd

three tactical squadrons which will provide a basis for GCI operations when the program is able to get going.

(e) Each squadron received copies of the following information:

- 1 Pilot's scope questionnaire (with master copy).
- 2 Radar Observer AFG-33 Questionnaire.
- 3 Ten mission crew training program.
- 4 A pilot's turn on procedure.
- 5 A radar observer's turn on procedure.
- 6 A radar observer's walk around check.
- 7 A radar observer's F-94 knowledge questionnaire.
- 8 List of commands commentary.
- 9 Operational Brevity Code.

e. Comments concerning the State of Training and Other Information Considered Appropriate.

- (1) Airframe and engine maintenance personnel experience level appears generally satisfactory, considering the relatively short time that the units have possessed AI aircraft. Until such time as individual tactical units receive authorized test equipment, complete necessary mock-ups and intensify the E-1 Fire Control Training Program, these units will serve of no use to ADC in the event that they are needed. Pending receipt of this equipment and radar observers, an interim procedure would be to harmonize sight and guns, fire in the 50 cal. guns, and conduct air to air gunnery practice, thereby enabling these units to be used as day fighter-interceptors.

Incl #3

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C O P Y

Subject: Annual Field Training of ANG Fighter Wings

- (2) As an alternate solution to the radar observer and E-1 maintenance problem with AI interceptor aircraft assigned to Air National Guard squadrons, it is recommended that a study be conducted toward the possibility of equipping all ADC assigned Air National Guard squadrons with day fighter-interceptors, i.e., F-86A's, E's or F's.

Info Copy To:  
Comdr, 107th FIW  
Senior Air Instr,  
107th FIW

CHARLES F. MONSELL  
Major, USAF  
Senior Observer

CONFIDENTIAL

COPY

**SECRET**

DISPOSITION FORM

TO: OPR FROM: OCO SUBJECT: Augmentation and Support Forces in Our Division  
DATE: 14 Sep 54

1. Request you furnish the ODO, through me, a list of all augmentation and support forces in our division area. With this list of forces, list the applicable plans which apply to the respective units for their utilization during military emergency.

2. Also on this list should be included the M-sites, their date of beneficial occupancy and the date we can expect them to be operational.

FULLER/144

-----  
TO: OCO: Attn: Fuller FROM: OPR DURGIN/092 15 Sep 54 Comment No. 2

1. The 506th Strategic Fighter Wing in place at Dow AFB (F84G &F) is available to this headquarters as augmentation force under Annex "A" to ADC Operations Plan 4-54. (Minimum Warning).

2. Following units available this headquarters for deployment during military emergency: Annex "B" to ADC Operations Plan 4-54.

a. Sectional above.

b. One-half of Detachment Z and A from Moody AFB, 3550th Training Wing, F-94C, to Griffiss AFB. Number of aircraft unspecified.

3. Attached are extracts from EADF EWMP 1-53 which lists augmentation and support forces available to this headquarters.

4. M-sites, date of beneficial occupancy, and projected operational date are as follows:

54-2939

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**SECRET**

C O P Y

Dspo Fm, Aug & Spt Forces in our Div (Cont'd)

<u>SITE</u>	<u>LOCATION</u>	<u>BENEFICIAL OCCUPANCY</u>	<u>PROJECTED OPERATIONAL</u>
M-102	Barrington, Nova Scotia	September 55	4 March 55
M-110	Bucks Harbor, Maine	November 54	4 January 56
M-103	New Concord, New Hampshire	October 55	4 February 56
M-120	Peninsula, Ontario	September 55	4 March 55
M-104	Fort Dearborn, N. H.	January 55	4 January 55

NOTE: 12 Month slippage in above dates.

1 Incl: DURGEM/092  
 Annex "C", EADFEWMP 1-53,  
 1 Sep 53, pages 1 thru 6  
 Annex "E", EADFEWMP 1-53,  
 1 Mar 54, pages 1,2 & 4

-----  
 TO: FO&R FROM: DO DATE: 17 Sep Comment No. 3

Am also interested in all the ARDC Equipment (etc) around BOS  
 Truro, etc. Get together with C&E on this part.

Inginhutt

-----  
 TO: ODO FROM: OPR/Durgin/092 DATE: 28 Sep 54  
 Comment No 4

Information requested in comment #3 is as follows:

<u>SOUTH TRURO</u>	<u>S. WEYMOUTH (USN)</u>	<u>LINCOLN LABORATORIES</u>
FPS-3	1 Blimp )	Maintenance Support
FPS-4	3 RC-121D) AEW	Trouble Shooting
FPS-6	2 P2V )	
MK-X	8 Ftrs (Approx)	
UHF		
G/G		

**SECRET**

**SECRET**

C O P Y

Depo Form, Cont'g, "Augmentation & Spt Forces in our Div"

AFCRC, CAMBRIDGE, MASS

Radars  
People

HANSCOM

14 F-89C (4 hr)  
8 F-86F (2 hr)  
9 Transports (Approx)

LINCOLN SYSTEM

Low Alt Cover (Cape Cod System - Height Finder at Rockport and  
Martha's Vineyard)  
Few AC&W People (At Radars)  
Cape Cod Direction Center

DURGIN/092

-----  
O&T  
GOC  
C&E

Comment No5

Comment & info.

Ingenhutt

-----  
TO: COC FROM: OOT DATE: 28 Sep 53 Comment No 6

The division has four ANG Squadrons with 2 aircraft and five pilots on active duty indefinitely to augment the Air Defense mission. These four are 131st FIS, Westfield, Mass, 101st FIS, Boston, Mass, 133rd FS, Manchester, NH, 138th FIS, Syracuse, NY. Also eight ANG Squadrons have mobilization assignments with the 32d Air Division.

SHELTON/090

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**SECRET**

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-FO

SUBJECT: Air National Guard Operational Readiness Reports (1-AF-ANG-V1)

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Attached are operational readiness reports for Air National Guard tactical units as requested. These reports are as of 30 September 1954.
2. Reports of non-flying units of the 101st and 102nd Fighter-Interceptor Wings have been received and are on file at this headquarters.
3. No report has been received from the 133rd Fighter-Interceptor Squadron, Manchester, N H, subject report will be forwarded upon receipt.
4. When inclosure is withdrawn, the classification of CONFIDENTIAL on this correspondence will be cancelled.

FOR THE COMMANDER:

1 Incl:  
ANG Str Op Readiness Rept  
(1-AF-ANG-V1)

EVERITT W. HOWE  
Major, USAF  
Adjutant

2983-54

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AIR NATIONAL GUARD QUARTERLY OPERATIONAL READINESS REPORT  
AND/OR CHANGE REPORT

AS OF 30 September 1954

	132	133	134	101	131	136	138	139
2.	Bangor Maine	Manchester N.H.	Burlington Vermont	Boston, Mass	Westfield Mass	Niagara Falls New York	Syracuse NY	Schenectady, NY
3.	JG Benton Maj	R H Muck Maj	J W Mahoney Lt Col	JJ Stefanik Lt Col	P E Fite Capt NYANG	J C Irwin Lt Col	F J Zilly, Jr Lt Col	
4.	S W Farnham Lt Col	None Assgnd	W F Honey Lt Col	MSickelsteel Maj	H C Greer Maj	HB Ogiba Lt Col	C H Meier Maj	
5.	0	5	0	4	3	3	6	
6.	5	7	7	8	5	8	10	
7.	2	3	6	6	3	7	9	
8.	9	0	8	9	8	7	8	
9.	7	9	9	2	7	5	8	
10.	4 F94A 7 F94B	2 TB-25K 4 F94A 7 F94B 2 T33A 2 T-6 1 C47A	5 F94A 9 F94B 3 T33 4 T6 0 C47A 0 BC25K	4 F94A 9 F94B	2 F94A 4 F94B	2 T33 2 TB25 12 F94 2 T6 1 VC47	5 F94A 7 F94B 2 T33A 2 BC25K 4 T6 1 C47A 4 F94A 4 F94B	18 F51H 3 T6 1 C47A
11.	3 F94A 5 F94B	2 TB25K 4 F94A 4 F94B 2 T33A 1 T6 0 C47A	4 F94A 2 F94B 2 T33 4 T6 0 C47A 0 BC25K	2 F94A 4 F94B	0	0	4 F94A 4 F94B	13 F51H 2 T6 1 C47A
12.	0	15	2	2	0	0	23 Flts 1 RO	23
13.	0	0	0	0	0	0	0	0
14.	4	6	3	7	0	0	3	7
15.	5	6	8	4	3	3	4	6

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C O P Y

AIR NATIONAL GUARD QUARTERLY OPERATIONAL READINESS REPORT  
AND/OR CHANGE REPORT (CONT'D)

16. Remarks: 132 - (1) Lines 5, 12 and 13 reflect a lack of Radar Observers necessary to form complete tactical aircrews.  
(2) Recent acquisition of the present possessed aircraft has allowed a minimum of gunnery training to date.
- 134 - Item 9 - Aircraft Jacks and Engine Stands have been on requisition for a considerable length of time. These are considered items of major importance and could seriously effect the "Operational Readiness" of the unit.  
Item 13 - Summer Field Training was utilized by this unit for transition training and there was no opportunity for pilots to qualify as "marksman"; however, it is felt that the aircrew of this unit are familiar enough with the armament systems of tactical aircraft to carry out the unit mission.  
Item 15 - The three year training program established by ConAC has been rescinded; AFS is no longer recorded on an hourly basis. Item 15 is computed on the degree of skill in their AFS, possessed by personnel is authorized TO positions.
- 101 - The overall index of Operation Readiness is entered as zero in line 5 above because this unit as of the date of submission does not have assigned any fully qualified Observers, Radar Intercept.
- 131 - Entry in Line 12 limited by number of Radar Observers assigned.
- 136 - This unit is experiencing considerable difficulty in obtaining radar observers, item 12 therefore indicates no complete aircrew basing complete aircrew as a pilot and observer. However, there are on the unit rolls 15 fighter pilots.
- 138 - a. In addition to those indicated on line 12, there are 4 additional F-94 pilots holding other than tactical positions. None of these are combat qualified.  
b. Operational Index is rated low due to the new assignment of aircraft, the low proficiency of assigned crew personnel, and the unfamiliarity of ground crew personnel with the aircraft, and the lack of radar observers.  
c. Aircraft parts, ground handling equipment and personal flying equipment are in short supply and are badly needed in order to be operationally ready.

CONFIDENTIAL

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C O P Y

16. Remarks:(Cont'd)

139 - Reference paragraph 7 and 15. This unit has enlisted over one hundred (100) new recruits during the past six months, and is reflected in the Code 5 reported for paragraph 7 and the Code 6 reported in paragraph 15. Naturally these new recruits are not operationally ready nor have they had an opportunity to advance beyond basic training. Reference paragraph 11. Two (2) engine changes, two (2) ACCP's and two (2) periodic inspections account for the aircraft not operationally ready. Reference paragraph 12. It is to be noted that this figure is based on F-51 type aircraft which this unit possesses, although currently recruiting and operating under a Jet T/O. Reference paragraph 13. In accordance with the various directives and requirements, no aircrews are presently operationally ready; however, the majority are very close to being ready needing only the opportunity to fire air-to-air gunnery at high altitude. The squadron gunnery average at the recent summer encampment was twenty and eight tenths percent (20.8%). The majority of pilots have much experience and in the event of sudden mobilization the unit mission would be fulfilled.

17. Remarks: ANG Advisor's Remarks:

132 -Completion of facilities under construction will assist our recruiting thereby increasing overall strength figures.

101 -Combat readiness of this unit will only be improved after receipt of CONAC Training Directives and Training Directives and Training Manuals and the assignment of USAF Radar Observer Instructor Personnel.

136 -Concur with item 16.

138 -I concur with this report. Recommend a more intensified recruiting effort be directed toward obtaining radar observers and continuous "Follow-up" supply action be taken to insure procurement of authorized equipment as quickly as possible.

CONFIDENTIAL

C O P Y

138TH FIGHTER INTERCEPTOR SQUADRON  
NEW YORK AIR NATIONAL GUARD  
HANCOCK FIELD  
SYRACUSE 11, NEW YORK

3 September 1954

SUBJECT: Augmentation for Air Defense Mission

TO: Commander  
32d Air Division  
Hancock Field  
Syracuse 6, New York

1. It is advised that this unit is making plans to implement the Air National Guard Augmentation program for ADC 1 Oct 1954.

2. In order to facilitate setting up for the operation it is requested that the following be confirmed:

(a) Officer from EADF designated to assist in the training of Air Defense procedures of intercept. Request anticipated date of arrival.

(b) A liaison officer to aid in administrative procedures required by the respective Air Defense Group. Request anticipated date of arrival.

(c) Installation of communication facilities, to include a warning device to be installed in the Control Tower.

(d) Preparation of a SARPS for Hancock Field.

3. Confirmation of the above will aid in planning. Please advise if anything is desired from this unit to enhance preparation.

JOSEPH C IRWIN  
Lt Col, NYANG  
Commander

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C O P Y

138th FIS Subject: Augmentation for Air Defense Mission

OOT (3 Sep 54)

1st Ind

8 Sep 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, 138th Fighter-Interceptor Squadron, Hancock Field,  
Syracuse 11, New York

1. This headquarters is making plans for a 1 October 1954 implementation of the Air National Guard augmentation program for your squadron, the 138th Fighter-Interceptor Squadron.

2. In regards to your questions in basic letter, paragraph 2(a)(B), three officers will be placed on TDY to your organization for the purpose of aiding you in the plan. These officers will be in place two to five days before 1 October 1954 and remain for four or five days after 1 October 1954. However, you will be contacted and these dates may be changed at your request.

3. Reference Paragraph 2(c) basic letter, the communication facilities will be installed and ready for use 1 October 1954. Final arrangements will be made 9 Sep 1954 at a meeting between your headquarters and 32d Air Division communication people.

4. Reference paragraph 2(d), basic letter SARFS for your organization are in the planning stage at present and should be ready for use 1 October 1954.

5. This headquarters will be happy to aid you in any manner possible in carrying out the augmentation plan.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

138TH FIGHTER INTERCEPTOR SQUADRON  
New York Air National Guard  
Hancock Field  
Syracuse 11, New York

14 October 1954

SUBJECT: SACDAL (SAC Daily Additive List)

THRU: Commander  
107th Fighter-Inter Co, NYANG  
Hancock Field  
Syracuse, New York

TO: Headquarters  
New York Air National Guard  
State Armory  
White Plains, New York

1. In order to properly perform intercept missions on SAC Aircraft, a SACDAL (SAC Daily Additive List) is requested.
2. This item is classified. Information obtained from the Intelligence Officer Griffiss AFB indicates that these lists may be obtained from HQ, Strategic Air Command Offutt AFB, Omaha, Neb.
3. It is requested that this unit be furnished this item so that it may be incorporated into the Air Alert Program.

Info to Ops, 138th FIP

JOSIPH C. IRWIN  
Lt Col NYANG  
Commander

1st Ind

15 Oct 1954

HQS 107TH FTR INTCP CO NYANG, Hancock Field, Syracuse, New York

TO: Commander, 107th Fighter-Interceptor NYANG, Niagara Falls,  
New York

Recommend approval.

FOR THE COMMANDER:

EDGAR J. PRITCHARD  
1st Lt., NYANG  
Asst Adjutant

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BASIC: Ltr, 138th Ftr Intcn Sq, NYANG, Subj: SUTRAL (SAC Daily Additive List)

DO 373.2 (14 Oct 54) 2nd Ind 26 Oct 54

HQS, 107TH FTR INTCN SQ, NYANG, Muni Aprt, Niagara Falls, N. Y.

TO: Commander, New York Air National Guard, State Armory, White Plains, New York

1. Recommend approval.
2. Suggest that approval also be obtained for 136th and 137th Fighter Interceptor Squadrons.

FOR THE COMMANDER:

VINCENT M. WHITE  
Major, NYANG  
Adjutant

461 3rd Ind 8 Nov 1954

HQ, NEW YORK AIR NATIONAL GUARD, State Armory, White Plains, NY

TO: Chief, National Guard Bureau, Washington 25, D. C.

Request action be taken to furnish this item to the four (4) Ftr Intcn Squads of this State.

FOR THE COMMANDER:

JOSEPH P. CIBOWSKI  
CWO, NYANG  
Assistant Adjutant

C O P Y

SUBJECT: SACRAL (IAC Daily Additive List)

MC-APOTO 461.01 (Air) New York 4th Ind  
(14 Oct 54)

Hq, Depts of the Army and the Air Force, National Guard Bureau,  
Washington 25, D. C. 22 November 1954

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado  
Springs, Colorado

1. Your attention is invited to paragraph 1 of basic correspondence.
2. It is the understanding of National Guard Bureau that subject lists are frequently revised and already on distribution to Air Defense Command. Since coordination has already been established between Air Defense Command air divisions and air National Guard air alert units it is requested that all Air National Guard air alert units be provided with current SACRAL's to help them perform their intercept missions more effectively.
3. Request National Guard Bureau, attention: MC-APOTO, be informed at your earliest convenience if subject distribution can be established.

FOR THE CHIEF, NATIONAL GUARD BUREAU:

CLAYTON B. HUGHES  
COLONEL, USAF  
Chief, S&T Br., Air Force Div

C O P Y

130th FIS (ANG) Subj: SACDAL (SAC Daily Additive List)

ADCOOT-B3 (14 Oct 54) 3th Ind

Hq AIR DEFENSE COMMAND, East Air Force Base, Colorado Springs, Colorado

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. The National Guard Bureau and the 130th Fighter Interceptor Squadron have been informed that SACDAL has been rescinded. Therefore, it will not be necessary to return this correspondence to ANG channels.

2. A letter of this nature indicates a lack of coordination between advisory and divisions and ANG squadrons, especially in this case where the Guard squadron and the Air Division are on the same base.

3. Request your action to insure that air divisions establish adequate coordination and liaison with ANG squadrons, particularly those squadrons standing active air alert.

BY ORDER OF THE COMMANDER:

ROSMAN H. WRIGHT  
1st Lt., USAF  
Asst Command Adj

C O P Y

138th FIS (ANG) Subject: SACDAL (SAC Daily Additive List)

SACDT-OW (14 Oct 54) 6th Ind

BY EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh,  
New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. Forwarded for your appropriate action.
2. Notification concerning SACDAL rescission was forwarded to you by electrical message from this headquarters, SACDT-OW 36543, 2 November 1954.
3. Desire you advise this headquarters as to whether your initial or subsequent briefings for the 138th Fighter-Interceptor Squadron covered the SACDAL procedures.
4. The 138th Fighter-Interceptor Squadron's request was justified since it is dated 14 October 1954 and rescission of these procedures was effective 2 November 1954. However, proper indoctrination briefing should have included procedures for actual distribution of the SACDAL Additives.

BY ORDER OF THE COMMANDER:

J. W. FOUNEMIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

13th FIS (AWF) Subj: SACDAL (AWC Daily Additive List)

OUT-PO (14 Oct 54) 7th Ind 22 Dec 1954

HEADQUARTERS 3RD AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

Members of the 13th Fighter-Interceptor Squadron (FIWANG) were  
briefed on SACDAL procedures by a team of officers placed on temporary  
duty during the period 28 September - 5 October 1954. The purpose of  
this team was to assist the squadron in preparing for their role in  
the Air National Guard Air Alert Plan.

FOR THE COMMANDER:

EVERETT W. HASE  
Major, USAF  
Adjutant

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT

28 October 1954

SUBJECT: Status of Mark X IFF

TO: SEE DISTRIBUTION

1. Query has been received from Eastern Air Defense Force concerning the status of Mark X IFF in Air National Guard unit equipped aircraft.

2. Request this headquarters be furnished the following information as soon as practical:

- a. Number of aircraft assigned.
- b. Number of aircraft equipped with Mark X IFF.
- c. Any programming information concerning installation of Mark X IFF.

FOR THE COMMANDER:

*Everitt W. Howe*

EVERITT W HOWE  
Major, USAF  
Adjutant

DISTRIBUTION:

101st FIW, ME ANG ( 2 cys)  
102d FIW, MASS ANG ( 2 cys)  
107th FIW, NY ANG ( 2 cys)  
133d FIS, NH ANG ( 2 cys)  
134th FIS, VT ANG ( 2 cys)

INFO:

Adjutant General, State of Me,  
Augusta, Me ( 2 cys)  
Adjutant General, State of Mass,  
Boston, Mass ( 2 cys)  
Adjutant General, State of NY,  
Albany, NY ( 2 cys)  
Adjutant General, State of NH,  
Concord, NH ( 2 cys)  
Adjutant General, State of Vt,  
Montpelier, Vt ( 2 cys)

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-FO

10 November 1954

SUBJECT: Air National Guard Squadrons on Air Alert Plan

TO: SEE DISTRIBUTION

HAH  
The following EADF message is quoted for your information and dissemination to subordinate units: "UNCLASSIFIED/EACOT-OW 36902. The following ADC message is quoted in part for your information and necessary action: "ADCOOT-B2 33107. This message concerns those Air National Guard Squadrons participating in the ADC Air Alert Plan that are scheduled for conversion to different type aircraft. Squadrons scheduled for conversion will be released from all alert commitments for thirty days for training purposes following the date conversion begins." Request this headquarters be notified if additional time needed by individual Air National Guard Squadrons. ADC requested National Guard Bureau to insure that active duty pilots utilize this thirty day period for maximum training in order to become alert qualified as soon as possible. In order to encourage continuous intercept training, this headquarters interposes no objection to Air National Guard Squadrons concerned placing T-33 aircraft on alert for practice scrambles during conversion periods or when required UE air craft are not combat ready.

FOR THE COMMANDER:

*Everitt W. Howe*

DISTRIBUTION:  
101st FIW, ME ANG(5 cys)  
102d FIW, MASS ABG(4cys)  
107th FIW, NY ANG(5 cys)

EVERITT W HOWE  
Major, USAF  
Adjutant

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAEDI

SUBJECT: Assigned ANG Augmentation Units Intelligence Personnel

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. Request you contact all Air National Guard Augmentation Organizations of your headquarters to determine the name of the officer filling the intelligence slot.
2. Forward the officers name, rank, primary and secondary AFSC, and organization, to this headquarters not later than 17 December 1954. If no officer is filling the intelligence slot, negative reports are desired.

BY ORDER OF THE COMMANDER:

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

OIN (2 Dec 54) 1st Ind 5 Dec 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York, ATTN: D/I

In accordance with your letter EAEDI of 2 Dec 54, subject as  
above, the following information is submitted:

UNIT	NAME	PAFSC	SAFSC
101 FIG Dow AFB Bangor, Me	Capt Earl W. Carlow	2051	2051
101 FIG Muni Aprt Burlington, Me	None		

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C O P Y

Hq EADF, EAEDI, SbuJ: Assigned ANG Augmentation Units Intell Personnel

132 FIS Dow AFB Bangor, Me	None	.	.
133 FIS St Mil Reservation, Grenier AFB, Manchester, NH	None		
134 FIS Muni Aprt Burlington, Vt	Capt Chicking	1121B	2051
102 FIW Logan Intl Aprt., E Boston, Mass	Major John L. Brown	2016	2016
102 FIG Logen Intl Aprt, E Boston, Mass	1st Lt., Charles D. Crom	2054	2054
101 FIS Logan Intl Aprt., E Boston, Mass	2nd Lt. Robert Halstead	2051	2051
131 FIS Barnes Muni Aprt, Westfield, Mass	None		
107 FIW Muni Aprt Niagara Falls, NY	Capt Gilbert H. Nicklas	1435	0031C
107 FIG Hancock Field Syracuse, NY	Capt Bruce R Brumitt Jr	2051	2051
136 FIS Muni Aprt Niagara Falls, NY	1st Lt Paul L. Sprowl	1121	7341
138 FIS Hancock Fld Syracuse, NY	2nd Lt John E. Cornwell	2051	2051
139 FIS Schenectady County Muni Aprt Schenectady, NY	1st Lt William Crandell	2051	2051

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EACOT\_OW

SUBJECT: Weather Support to Air National Guard Squadrons Participating  
in the Air Alert Plan

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. Initial visits to Air National Guard squadrons participating in the Air Alert Plan revealed that very little weather information is available to the average squadron. This situation exists primarily due to a lack of weather stations and/or a lack of qualified weather personnel.

2. Air division (defense) commanders will determine the adequacy of weather information available to each ANG squadron. If the weather information available is deemed inadequate, in order to afford these squadrons available weather information utilizing existing facilities the following procedures will be initiated:

a. The ACW squadron that normally scrambles an ANG squadron will be designated the primary facility for providing weather data to that ANG squadron. Weather data necessary includes the following:

- (1) Current hourly or special weather observations at alternate recovery and emergency recovery bases selected by the ANG squadron.
- (2) The area forecast provided each 6 hours by ADCCs.
- (3) Twenty-four hour forecasting service by the ADCC weather station, if required.
- (4) Storm and severe weather warnings and any other meteorological services as necessary and upon request.

BY ORDER OF THE COMMANDER:

Info cy:  
Comdr 12th Weq Sq  
Stewart AFB

J. W. FOUNTAIN JR.  
Major, USAF  
Asst Adjutant

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C O P Y

Hq EADF, EACOT-0E, Subj: Weather Support to Air National Guard  
Squadrons Participating in the Air Alert Plan

OOT-FO (29 Nov 54) 1st Ind 27 Dec 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. With the exception of Westfield, Massachusetts, there is adequate weather information available to all Air National Guard units participating in the Air Alert Plan.

2. Weather information available to the 133D Fighter-Interceptor Squadron, Barnes Airport, Westfield, Massachusetts is completely inadequate. There is only one (1) CAA teletype circuit installed and no forecasting service except that received upon request from the forecaster at this headquarters. The division forecaster can provide weather forecasts for actual scrambles and recoveries, however, pre-scramble briefings and briefings for local flying is considered unsatisfactory and must be relayed through the controlling GCI station. This is not only time consuming, but ties up the communication lines between ACWRON and the ADCC.

3. Excellent forecasting service is available at Westover Air Force Base, Massachusetts which is approximately fourteen (14) miles from Westfield.

4. A request has been initiated by the 133D Fighter-Interceptor Squadron for installation of a hot line between Westover Approach Control and Barnes Airport to facilitate scramble clearances. This request was forwarded to Eastern Air Defense Force for consideration and/or approval. If installation of this circuit is approved, it is recommended that a drop be placed in the weather station at Westover Air Force Base. This drop would provide adequate weather communications to the 133D Fighter-Interceptor Squadron directly from the forecaster at Westover Air Force Base.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-FO

17 Dec '54

SUBJECT: Air National Guard Air Alert Plan

TO: Adjutant General  
State of New Hampshire  
Concord, New Hampshire

Adjutant General  
State of Massachusetts  
Boston, Massachusetts

Adjutant General  
State of New York  
Albany, New York

1. It is requested that you ascertain whether Air National Guard squadron commanders desire additional liaison help in accomplishing their air alert mission. If assistance is desired, an officer of flight commander caliber who is well versed on air defense directives and operational procedures will be placed on temporary duty for this purpose.

2. Request you advise this headquarters, as soon as practical, whether or not assistance is desired.

FOR THE COMMANDER:

*Everitt W. Howe*

EVERITT W. HOWE  
Major, USAF  
Adjutant

45 6

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CONFIDENTIAL

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOOT-OW

22 Dec 1954

SUBJECT: (Unclassified) IFF Equipment for ANG Fighter Squadrons

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. A recent survey of ANG Fighter Squadrons participating in the Air Alert Plan and/or having an M-Day assignment to EADF indicates that only 57% of the assigned fighter or T-33 aircraft are equipped with Mark X IFF. Information available to the ANG Fighter Squadrons and this command does not indicate that IFF equipment is programmed for installation in those ANG fighters and T-33s not presently equipped or whether aircraft programmed for ANG Fighter Squadrons will be equipped with IFF.

2. Request a requirement be established or that other appropriate action be taken to equip all ANG fighter and T-33 aircraft with suitable IFF.

3. The following justification for IFF equipment is submitted:

a. Provides a method of positive interceptor control which is not otherwise possible due to poor blip scan ratio for jet type interceptors.

b. Use of different modes offers a means of recognizing flight leaders, elements, or individual aircraft after interceptors have engaged targets or have become separated.

c. Provides immediate indication of an aircraft in distress.

d. Provides reliable indication for ascent and recovery purposes beyond that afforded by normal search radars operated by ADDCs.

4. This letter is classified Confidential in accordance with paragraph 24a(8), AFR 205-1.

FOR THE COMMANDER:

Info cya  
Comdrs 26,30,32AD

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

3434-54

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CONFIDENTIAL

C O P Y

135TH FIGHTER INTERCEPTOR SQUADRON  
New York Air National Guard  
Hancock Field  
Syracuse 11, New York

28 December 1954

SUBJECT: Personnel Participating In the Alert Program

TO: Commander  
32d Air Division  
Syracuse Air Force Station  
Syracuse 6, New York

1. Attached is a TWX received from the National Guard Bureau which authorizes this unit to place pilots on the Air Alert Program if they are not qualified in accordance with ADCR 55-2, if the appropriate Air Division gives written approval.

2. To date this unit has not placed any pilots on active duty status who has not been qualified in accordance with ADCR 55-2. However in the interest of furthering the proficiency of all pilots it is desired to place one of the five (5) authorized pilots per day on active duty but only for training. (He would not participate in active air defense missions). This unit would insure that at all committed hours of the alert, two fully qualified pilots are available for active Air Defense Missions.

3. It is therefore requested that consideration be given to authorizing this unit to place pilots on active duty on the alert program who do not meet the qualifications of ADCR 55-2 providing they do not participate in active Air Defense Missions.

JOSEPH C. IRWIN  
Lt Col, NYANG  
Commander

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C O P Y

138th Fighter Interceptor Squadron, NYANG, Subject: Personnel  
Participating in the Alert Program

OOT (28 Dec 54) 1st Ind 11 Jan 1955

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, 138th Fighter Interceptor Squadron, New York Air  
National Guard, Hancock Field, Syracuse 11, New York

1. Request disapproved.
2. I do not feel that the basic letter conforms with the intent of the Air National Guard Air Alert Plan. The purpose of authorizing five (5) crews per day is to allow for the rotation of crews standing alert.
3. Although the rotation of crews during the winter months, when the daylight hours are short, is not critical, the hours of daylight are now becoming longer and will require more frequent changes in alert crews. To allow for a change of crew, four crews are necessary to meet alert requirements. The fifth crew has been authorized as a spare, to insure that necessary alert crews are available at all times.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

HEADQUARTERS  
30D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-FO

15 DEC 1954

SUBJECT: ADC Regulation 55-2

TO: SEE DISTRIBUTION

The following SADF message is quoted for your information:

1/10/54 101st FFW, ANG, NY ANG. Folg msg from 101st FFW to TAG, Mich, Ind, SDAR, and Mass quoted FYI: "Bu 9417 from 101st FFW. It has come to the attn of this bureau that in certain instances pl't pers who are not qual in accord with ADC Reg 55-2 are participating in the Air Alert Program. Your attn is invited to per 3B of HQ AFOTO ltr dtd 7 Jul 54. Subj: "Use of ANG Pers for Air Def Augmentation." Deviation from this reg reqs the written approval of the comdr of the appropriate ADC Air Div."

FOR THE COMMANDER:

*Everitt W. Howe*

DISTRIBUTION:

EVERITT W HOWE  
Major, USAF  
Adjutant

- Comdr, 101st FFW, Me ANG
- Dow AFB, Bangor, Me (3cys)
- Comdr, 102d FFW, Mass ANG
- Logan Muni Aprt, Boston, Mass (3cys)
- Comdr, 107th FFW, NY ANG, Niagara Falls Muni Aprt, Niagara Falls, NY (3cys)
- Comdr, 101st FIS, Mass ANG Logan Muni Aprt, Boston, Mass
- Comdr, 131st FIS, Barnes Muni Aprt Westfield, Mass
- Comdr, 133d FIS, Grenier AFB, N. H.
- Comdr, 138th FIS, Hancock Field Syracuse 6, New York
- Adj Gen, St of Massachusetts Boston 15, Mass
- Adj Gen, St of New York Albany, New York
- Adj Gen, St of Me, Augusta, Maine
- Adj Gen, St of New Hampshire Concord, N. H.

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**SECRET**

C O P Y

MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
Lincoln Laboratory  
P.O. Box 390  
Cambridge 39, Massachusetts  
ADC Liaison Office

Operating Project Lincoln

11 September 1953

Subject: Integration of M.I.T. FFS-3 at South Truro into the ADC System

TO : Colonel Robert S. Israel, Jr., USAF  
32d Air Division  
Hancock Field  
Syracuse, New York

1. Attached are two paragraphs from a letter that I recently sent to ADC. It is my intention to have this equipment integrated into the system in order to supplement ADC capability. There also remains the task of producing a detailed plan for the use of Laboratory's air defense capability during an emergency.

2. I have arranged with Lincoln Laboratory to conduct a conference in the latter part of the week ending 19 September for the purpose of accomplishing the above objectives. A firm date has not been established yet, but I thought it appropriate to provide you this advance information so that your representatives will have an opportunity to study the matter. As soon as Lincoln has established the meeting date, you will be notified.

3. It appears that Lincoln is not at this time prepared to discuss firm details for the integration of a computer into the system on an emergency basis. Indications are that it would be better to hold this subject in abeyance until the erection of Whirlwind II in mid-'54. Your representatives should, however, be prepared to discuss this matter in general terms of that date.

4. It should be the objective of the meeting to determine the best means of integrating the presently operating Lincoln radars into the system on either a routine or emergency basis. The FFS-3 at South Truro could be operated on a 24-hour basis if EADF and CRC can provide the operational personnel. It must be understood, however, that during the normal 8-hour working day the primary mission of this equipment is Lincoln's test program.

C-9263

E. F. Carey, Jr.  
Colonel, USAF

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**SECRET**

C O P Y

Excerpt from letter to Headquarters, Air Defense Command, dated 10 Sept 1953, from E. F. Carey, Jr., Col, USAF.

"I have completely investigated the matter of the FFS-3 at South Truro about which I had spoken to you and General Berquist previously. The set is now operating and furnishing video data to the Lincoln control center. It was placed at South Truro four miles south of the present ADC site as an expediency since negotiations with ADC to put it at P-10 would probably have taken some time. M.I.T. owns the land and transmitter site to which an access road exists. I have spoken to all of the Lincoln people involved and find there is no tactical or operational reason why the equipment could not just as well be placed on the ADC site. Lincoln has constructed a \$12,000 building and put in a few communications. If the equipment were moved to North Truro, the present M.I.T. quick-fix building could be used and would more than adequately serve the requirements for this station. Lincoln is willing to discuss moving the station. This might involve ADC's paying the bill for tower footings and other minor work. I think this would be a small price to pay for having not only a back-up radar, but one which gives better performance than the 6B. The two operating together would be a great combination since the MTI on the 6B limits its full usage. There are several other approaches to the problem, any one of which Lincoln admits is feasible. Most desirable among these is to link the two present sites with wide-band microwave so that full station capability can be transmitted to the 6B site. I believe such equipment is now in Air Force stock. A second but less desirable solution is to put an SDV system between the two stations. This would only give one scope in the 6B site. There are many advantages to putting them together for personnel, operations, and security.

"In order to come up with a formal recommendation on this matter and to get Eastern and Lincoln together on a detailed plan for use of Lincoln potential in the emergency war plan, I have arranged a meeting between Eastern, CRC and the 32nd Air Division here at Lincoln late next week."

C-9263

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**SECRET**

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

PO&R

23 March 1954

SECRET: (SECRET) Utilization of Project Lincoln Equipment in  
Active Air Defense

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. In reference, with telephone conversation between Major Randle, this headquarters, and Captain Lewis, Headquarters, Eastern Air Defense Force, the following information pertaining to the integration of Lincoln Laboratory experimental radar equipment into the active air defense is submitted:

a. In accordance with Mutual Agreement for the Air Defense of the Continental United States dated 23 November 1951, all forces and facilities possessing an air defense capability that belongs to the Air Research and Development Command will be integrated into the air defense of continental United States in case of emergency.

b. As the results of a conference convened at Lincoln Laboratory on 17 September 1953, and staff visits conducted on 8 September 1953 and 19 January 1954, it was determined that the utilization of low-altitude radars and computer would be impractical at this time since their data could not be assimilated and integrated by the 32nd Air Division (Defense). However, it was agreed that this matter would be reopened for discussion with the completion of the Cape Cod System.

c. The only real potential available at the present time is the FPS-3 located at North Truro. Minor modification at P-10 would permit this equipment to act very efficiently as back-up radar.

2. A 32nd Air Division (Defense) Operation Plan for utilization of the FPS-3 at North Truro will be published in the near future and copies forwarded your headquarters for approval.

FOR THE COMMANDER:

FREDERICK E. YORK  
Major, USAF, Adjutant

54-235

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C O P Y

DISPOSITION FORM

SUBJECT: Report of Staff Visit

TO: ODO

FROM: OCO

DATE: 14 Sep 54

1. On 13 September 1954 an informal staff visit was conducted by the following personnel:

Colonel William H. Clark, Deputy Commander  
Lt Colonel Edwin W. Fuller, Director of Combat Operations  
Captain William H. Pate, C&E

2. Units visited:

Lincoln Laboratories, Cambridge, Mass  
Headquarters, 6520th Test Support Wing

3. Lincoln Laboratories

A conference was held with the following in attendance:

Colonel E. F. Carey, Jr., Lincoln Laboratories  
Liaison Officer for ADC  
Dr. H. W. Boehmer, Lincoln Laboratories  
Captain Sullivan, 6520th AC&W Squadron (Experimental)  
Colonel William H. Clark, Deputy Commander,  
32d Air Division (Defense)  
Lt Colonel Edwin W. Fuller, Director of Combat Operations,  
32d Air Division (defense)  
Two other engineers from Lincoln Laboratories

The purpose of this meeting was to discuss plans for the integration of the radar equipment presently being utilized in the Cape Cod System during a military emergency. The following is a list of radar equipment which could be made available to the 32d Air Division to augment our present radar net.

SOUTH TRURO

FPS-3  
FPS-4  
FPS-6  
MK-X  
VHF  
UHF  
G/G

S. WEYMOUTH (USN)

1 Blimp )  
3 RC-121D ) AEW  
2 P2V )  
8 Ftrs (Approximately)

C O P Y

LINCOLN LABORATORIES

Maintenance Support  
Trouble Shooting

HANSCOM

14 F-89C (4 hr)  
8 F-86F (2 hr)  
9 Transports (Approx)

AFCRC, CAMBRIDGE, MASS

Radars  
People

LINCOLN SYSTEM

Low Alt Cover (Cape Cod System - Height Finder at Rockport and  
Martha's Vineyard)  
Few AC&W People (At Radars)  
Cape Cod Direction Center

It was decided that the best method of integration of this equipment would be to have the Cape Cod direction center located in the Barta Building at 230 Albany Street, Cambridge, Massachusetts report directly to P-10 at North Truro. There were two methods discussed as to how this would be accomplished.

a. It was proposed by Dr. Boehmer that a micro-wave system be installed between South Truro (who has land lines to the Cape Cod Direction Center) and P-10 at North Truro. It would be the responsibility of the 32d Air Division (Defense) to obtain this equipment. With this micro-wave link the scope presentation from South Truro could be remoted to the scopes at North Truro by means of slowed down video.

b. The second method discussed was to move personnel from P-10 to South Truro (a distance of four miles) to operate the FPS-3 at South Truro as a back-up for P-10.

NOTE: It should be realized that the Cape Cod Direction Center is entirely capable of GCI, identification and surveillance. This information could be transmitted to P-10 and from P-10 to our Control Center at Division. In other words, we would have in effect from the Cape Cod Direction Center complete information on all tracks reported into P-10.

It was also recommended that engineered circuits be requested from the Cape Cod Direction Center direct to the 32d Air Division Control Center for alternate communication back-up.

C O P Y

OCO Subject: Report of Staff Visit (Cont'd)

The Air Force Cambridge Research Center (AFCRC), which is a separate organization from Lincoln Laboratories, has additional radar equipment in this area. However, it was decided that very limited use could be made of this radar by our division since it is used primarily for experimental purposes and is not tied in presently to any net.

It was decided that the following action was required by the 32d Air Division:

- a. Have our AC&W Officers, the operations officer from P-10 and Captain Sullivan, the operations officer from the 6520th AC&W Squadron, get together in the very near future and work out operational SOP's for the Cape Cod Direction Center and South Truro.
- b. Have Captain Pate, this headquarters, in conjunction with P-10 and the 6520th AC&W Squadron work up a C&E annex for the basic plan for the utilization of the Lincoln Laboratories radar. After plans are completed and operational SOP's prepared, a scheduled test should be conducted with the Lincoln Laboratories radar. Also this radar equipment should be tested in future ADC exercises on a pre-planned basis.

6520th Test Support Wing

A general discussion was held with the wing commander concerning the utilization of fighter and transport aircraft located at Hanscom. The wing commander agreed to work out the details of the utilization of his aircraft with representatives from this headquarters in the near future. It should be noted that Hanscom possesses a number of large cargo-type aircraft which heretofore have not been included in any of our plans and could probably be made available.

The wing commander requested that we take action to establish scramble and recovery procedures for Hanscom, which would eventually be used by the 49th FIS, so that his people could be briefed on these procedures and also trained on the SARPS.

Attached is a schedule of the construction at Hanscom and the forecasted completion dates. Indications on this schedule show that it will probably be at least 18 months before we can utilize this base.

A discussion was held with Mr. A. P. Hilar, Lincoln Laboratories Operations Officer. He requested that he be put on the distribution list for any training missions which were conducted within the Cape Cod area. They were also interested in any Big Photo or Big Crater flights which come through their area. Mr. Hilar agreed to

C O P Y

OCO Subject: Report of Staff Visit

furnish us with their weekly schedule of training flights in the Cape Cod area which consists of up to ten B-29's in formation penetrating the Boston area and weekly B-47 flights also penetrating the Boston area.

Mr. Hilar stated that any aircraft flying in the Cape Cod area on which they could receive prior information on would be greatly appreciated.

The contents of the draft operations plan which was presented by the undersigned was accepted in substance with a few minor changes. The plan will be re-written and published in the very near future.

PO&R is carrying the ball on this entire project.

FULLER/144

C O P Y

DISPOSITION FORM

SUBJECT: SOP's and Ops Plans for Lincoln Lab &  
6520th TSW

TO: ODO

FROM: OCO

DATE: 16 Sep 54

1. As a result of the conference held at Lincoln Laboratories and the 6520th Test Support Wing, it is recommended personnel be sent to these units for the purpose of preparing operational SOP's and operations plans for Lincoln Laboratories and the 6520th Test Support Wing.

2. Personnel to be contacted areas follows:

Colonel E. H. Carey, Lincoln Laboratories  
Lt Colonel John S. Rogers, Operations Officer, 6520th Test  
Support Wing, Hanscom AFB, Bedford, Mass.

3. It is recommended that someone from O&T-A, PO&R and CE& make up the team to work out the details of these plans.

FULLER/144

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TO: O&T  
CE&  
PO&R

Comment No. 2

Desire that all interested officers make at least one trip to  
BOS.

Ingenhutt

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C O P Y

DISPOSITION FORM

SUBJECT: Lincoln Laboratories

To: Major Mack  
ADCC

From: OCO

16 Sep 1954

1. It is requested that any information we receive concerning BIG PHOTO flights which P-10 is involved in, the Senior Controller or COC Duty Officer will advise P-10 to forward this information to Mr. A. P. Hilar, Lincoln Laboratories Operations Office, 6520th Test Support Wing, Hanscom Air Force Base, Bedford, Mass.

2. If P-10 cannot contact this office through existing communications facilities, they should call Lincoln Laboratories at Lexington 9, Extension 240, 358, 374 or 231.

FULLER/144

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Memo Routing Slip

to: ODO  
DCE )  
PO&R ) A Family project - best you meet on this soon.  
O&T )  
COC )

Let's get moving on this now.

1. Hook Cape Cod System into here (Barta Bldg) as an back up ADCC.
2. Hook P-10 with S. Truro for transmission of radar data and for
3. scrambles for CCS (etc.).

RSI

51 3

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C O P Y

DISPOSITION FORM

SUBJECT: Staff Visit to Lincoln Laboratories

TO: ODO

FROM: OPER/Randle/092

26 Oct 54

1. On 22 Oct 54 an informal staff visit was conducted by the following personnel:

Col Heartz	OCE
Maj Randle	OPR
Capt McEachron,	O&T
Capt Reed	ADCC
Lt Jenson	ADCC

2. Place visited:

Lincoln Laboratories, Cambridge, Mass.

3. Purpose:

To further discuss the utilization of the Cape Cod System in the active air defense of U.S. in case of an emergency.

4. Discuss:

a. It was definitely recommended that the FPS-3 and other radars at S. Truro be used as a "back-up" or "Gap-filler" station for the 862d AC&W Sq. This equipment will be made available upon request for air defense exercises and also can be utilized during periods that the 762d AC&W Sq undergoes annual maintenance. Rather than waiting until the possibilities of using a micro-wave link between the two stations have been explored it is Recommended that a 5 pr cable be used between the two stations to expedite the program. Use of this cable would be pending the OK from the Bell Telephone system.

b. It was recommended that the Cape Cod Direction Center (Barta Building) would be used to furnish "gap-filler" information and in case of an emergency used as an alternate ADCC for the 762nd AC&W Squadron. Capt Leason is studying the Communication requirement for such an arrangement. This radar would not be made available to the air defense command except in case of an emergency.

c. The proposed plan for the utilization of this equipment has been changed to comply with recommendations.

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C O P Y

Dspo Form

Staff Visit to Lincoln Labs (Cont'd)

d. An attentive meeting, to be held on or about 1 Nov, has been set-up to complete SOP's, Directives, & etc. This will be a primary function of O&I, C&E and ADCC.

e. Col Carey, ADC Liaison Officer Lincoln Lab, recommends that the same personnel be assigned this project until its completion.

RANDLE/092

OCT 26 1954

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PLAN

32D AIR DIVISION (DEFENSE) OP'S PLAN 7-54  
UTILIZATION OF LINCOLN LABORATORIES EXPERIMENTAL RADAR

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
SYRACUSE AIR FORCE STATION  
SYRACUSE 6, NEW YORK

SECRET

54-35<sup>52</sup><sub>25</sub>

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32D AIR DIVISION (DEFENSE)  
OPERATIONS PLAN 7-54

HEADQUARTERS 32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, N. New York  
26 Oct 54

UTILIZATION OF LINCOLN LABORATORIES EXPERIMENTAL RADAR

CHARTS AND MAP REFERENCES: As Required

TASK ORGANIZATIONS:

Lincoln Laboratories

1. GENERAL SITUATION:

In view of the current international situation, there is a possibility of a surprise air attack on the United States by the Soviet Union. With the establishment of necessary communication lines and the passing of operational control to units of the Air Defense Command, facilities of the Lincoln Laboratories could be utilized to expand the air defense network.

a. Enemy Forces:

- (1) The Soviet Union has sufficient long range aircraft available to launch a surprise air attack on targets located in any part of the U.S.

b. Friendly Forces:

- (1) The Royal Canadian ground, naval and air forces will coordinate with and support the 32d Air Division (Defense) operations.
- (2) The United States Navy will provide fighter forces, AEW aircraft, picket vessels and ground control facilities in accordance with approved plans.
- (3) The Air Research and Development Command will make available to the Air Defense Command, radars and fighter aircraft for use in the air defense network.

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54-3522  
32D OPRS PLAN 7-54  
26 Oct 54

*SECRET*

- (4) The 26th Air Division (Defense) will coordinate with and support the 32d Air Division (Defense) in its air defense effort.
- (5) The 30th Air Division (Defense) will coordinate with and support the 32d Air Division (Defense) in its air defense effort.

c. Assumptions:

- (1) Elements of the Lincoln Laboratories adequately briefed, in possession of all pertinent publications, and periodically informed of changes can effectively contribute to air defense of the Boston, Mass. area upon receipt of alert instructions.
- (2) All units of the Lincoln Laboratories will be placed under operational control of the 32d Air Division (Defense) upon the declaration of a military emergency or air defense readiness by Headquarters ADC. These facilities will then be integrated into the air defense system.

2. MISSION:

Provide augmentation ground radar, forces and facilities for air defense within the 32d Air Division (Defense) area of responsibility.

3. Tasks for Augmentation and Support Forces:

- a. Lincoln Laboratories will: Upon notification by Headquarters ADC that a military emergency or air defense readiness exist:
  - (1) Make available to the Commander, 32d Air Division (Defense), all ground radar equipment and communications located at the S. Truro, Mass. radar site to be used as "gap-filler" and/or

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32D OPRS PLAN 7-54  
26 Oct 54

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"back-up" radar for the 762d AC&W Squadron, N. Truro, Mass.

- (2) Make available to the Commander, 32d Air Division (Defense), all ground radar equipment and communications located in and supporting the Cave Cod System (located at the Barta Building, 230 Albany Street, Cambridge, Mass.) to be used in transmitting "gap-filler" information to and act as a "back-up" ADDS for the 762d AC&W Squadron, N. Truro, Mass.
- (3) Supply available personnel (military and civilian) for the operation and maintenance of augmentation radar and communication.
- (4) Insure that key personnel have been made familiar with current regulations, policies, and SOP's pertaining to air defense operations and procedures.
- (5) Assist in establishing and maintaining communications between augmentation radars and the 762d AC&W Squadron, N. Truro, Mass.
- (6) Assist in the development and coordination of plans, directives, and SOP's for the integration of experimental radars with Commander, 32d Air Division (Defense).
- (7) Submit radar status reports as requested by Commander, 32d Air Division (Defense).
- (8) When it does not interfere with the primary mission, take part in training missions and exercises.

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32D OPRS PLAN 7-54  
26 Oct 54

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- (9) Make available to the Commander, 32d Air Division (Defense), all radar and communications located at S. Truro, Mass. during the period the 762d AC&W Squadron is scheduled for annual maintenance.
- b. 32d Air Division (Defense) will:
- (1) In the event of a military emergency or air defense readiness, assume operational control of all ground radar, forces and facilities made available by the Lincoln Laboratories, Cambridge, Mass.
  - (2) Direct the installation of communication lines necessary to integrate the facilities of the Lincoln Laboratories in the air defense system.
  - (3) Supply augmentation ground radar units with regulations, directives, and SOP's pertaining to air defense operations and procedures.
  - (4) Conduct periodic briefings of augmentation personnel.
  - (5) Supply information necessary and participate in training missions conducted by augmentation radars.
- c. 762d AC&W Squadron will:
- (1) Be prepared to dispatch key personnel to the S. Truro site and the Cape Cod System to insure 24 hour operation, when ordered by the Commander, 32d Air Division (Defense).

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-4-

32D OPRS PLAN 7-54  
26 Oct 54

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SECRET

- (2) Be prepared to receive, display, and disseminate air surveillance information furnished by augmentation radars.
- (3) Assist in establishing and maintaining lines of communication between support radar and the 762d AC&W Squadron as directed.

4. LOGISTICAL MATTERS:

- a. Normal

5. COMMUNICATIONS AND COMMAND:

- a. Communications: See ANNEX "A"
- b. Command:

- (1) Commander, 32d Air Division (Defense), will assume operational control of units made available to the air defense network by the Lincoln Laboratories in the event of an emergency.

SECRET

*SECRET*

(2) 32d Air Division (Defense) Syracuse AFS, Syracuse 6, NY  
Lincoln Laboratories Cambridge 39, Mass.  
762d AC&W Squadron N. Truro, Mass.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

DISTRIBUTION

EADF -2  
Lincoln Laboratories -6  
4707th Air Def Wg. -2  
4711th Air Def Wg. -2  
6520th AC&W Sq. -2  
762d AC&W Sq. -2

OFFICIAL:

*William H. Clark*  
WILLIAM H. CLARK  
Colonel, USAF  
Deputy Commander

ANNEX: A. Communications

*SECRET*

32D OPRS PLAN 7-54  
26 Oct 54

*SECRET*

ANNEX A

TO

32D AIR DIVISION (DEFENSE)

OPERATIONS PLAN 7-54

To be added at later date.

*SECRET*

32D OPNS PLAN 7-54  
ANNEX A  
26 Oct 54

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OPR

23 Nov 1954

SUBJECT: Utilization of Lincoln Laboratories Experimental Radar

TO: ADC Liaison Officer  
Lincoln Laboratories  
Attn: Col Carey  
Cambridge, Massachusetts

1. Pursuant to conference held, 2 November 1954, between personnel of this headquarters and Major Burns and Baldwin, 6520th AC&W Squadron, the inclosed proposed plan for the utilization of Lincoln Laboratories experimental radar is being forwarded for your approval and/or suggestions. This plan was based upon the agreement between Air Research and Development Command and Air Defense Command, subject: "Mutual Agreement for the Air Defense of the Continental United States", dated 23 November 1951.

2. The 32d Air Division (Defense) plans to use all radar support made available by the Lincoln Laboratories, however, it is proposed that the utilization of the Lincoln Laboratory South Truro site as "back-up" radar for the 762d AC&W Squadron be the initial step in this program. Additional plans for the utilization of the "Cape Cod System" will be developed upon the completion of the tests being conducted in the Barta Building, 209 Mass., Cambridge, Massachusetts.

3. The use of Lincoln Laboratory radar equipment will not be requested without fourteen (14) days prior notification, except under one of the following conditions:

a. National Emergency.

b. A major breakdown of the primary equipment at the 762 AC&W Squadron, North Truro, Massachusetts, which would render that station inoperative for an extended period of time (approximately 14 days). Final decision for the use of this equipment in the air defense system will remain with the Lincoln Laboratories, Cambridge, Massachusetts.

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COPY

4. Upon your approval of the inclosed plan, this headquarters will take the necessary action to install additional communications between Lincoln Laboratories radar and the 762nd AC&W Squadron, North Truro, Massachusetts.

FOR THE COMMANDER:

1 Incl:  
32d AD(D) Oprs Plan  
7-54 (2 cys) dtd 26  
Oct 54

EVERITT W. HOWE  
Major, USAF  
Adjutant

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54-3923

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C O P Y

28 December 1954

1st Ind

Col E. F. Carey, Jr., Lincoln Laboratory, P.O. Box 73, Lexington 73,  
Mass.

TO: Commander, 32nd Air Division (Def), Syracuse Air Force Station,  
Syracuse 6, New York. Attn: Everitt W. Howe, Major, USAF, Adj

1. Lincoln Laboratory has approved the 32nd Air Division Plan 7-54.
2. I have attached as inclosure no. 1 the Lincoln laboratory internal memoranda on the subject.
3. It will be noted that Lincoln Laboratory is agreeable to the purchase of the necessary microwave link equipment between P-10 and South Truro. I will press for early action on this matter and will notify you of further developments.

E. F. Carey, Jr.  
Colonel, USAF

54-3923

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C O P Y

10 December 1954

TO: Howard W. Boehmer  
FROM: William C. McDonald  
SUBJECT: Microwave Relay Link

1. Problem: Relay radar information from South Truro to North Truro for back up and emergency use by North Truro personnel. Also possible similar arrangement between our Bath, Maine site and the USAF site at Brunswick. Perhaps this latter hook-up would be chiefly used for comparative flight testing.

2. Solution Recommended: Order, for approximately \$30,000, one Motorola MRR-3, Microwave Radar Relay System. This to be delivered in six months. In addition, try out, free of charge, a Raytheon TV link for same purpose. If we like the latter, we can get one for approximately \$9,500 in a few weeks, and use it either here or at Brunswick. If we do not like it, we would have one Motorola Link on order anyway.

The Motorola link has advantages over the Raytheon that make it worth the extra \$20,000, but the delivery is slow if on schedule. Experience has shown that electronic manufacturers seldom meet schedules. These advantages are discussed below:

3. Discussion of Raytheon Equipment: This equipment provides two one way communication channels, both of which are of interest to us. The first, which is 6 megacycles wide, would be used to carry the composite video from South Truro to North Truro. This channel is, of course, the channel normally used for the picture. The other channel, normally used for the audio, is good up to 15KC bandwidth, and would be used to carry the azimuth information.

\*The composite video is the mixture of lower beam, upper beam, MTI, etc., deemed best for the purpose.

There are various ways in which to send this azimuth information. The simplest would be for us to send our present azimuth change pulse via the audio channel, and use the usual SDV Scan Synchronizer (Azenheimer) to recover the azimuth. This would entail an initial orientation, and possibly occasional reorientation by a man even as in our display room. However, I believe that this readjustment would be needed very seldom because, (1) I believe that the absence of any need to separate the pulse from others with attendant lack of slicers will make the system more reliable and (2) It is hoped that there will be no noise on the channel, unlike some phone lines.\*

\*Pre H44 phone lines, that is.

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There is another way of sending the azimuth data which would obviate the necessity of the initial orientation. However, this would get us into a project since we do not have the equipment at hand. Incidentally, to forestall any questions, it would not be applicable to our SDV system since it alone would use quite a bit of a 15KV audio channel.

If we desired to transmit the various video signals, lower beam, upper beam, etc., separately, to North Truro, we could do it by using subcarriers. Since we have 6 megacycles available, and would need no more than 4 half megacycle channels, we could transmit both sidebands; and the subcarrier equipment we would have to make up would be simple. Nevertheless, it would take engineering time.

#### Discussion of the Motorola Equipment

The Motorola MRR-3 provides 3 video channels 2.5 mc wide, and facilities for transmission of 1 and 36 speed selsyn data. This gives us just about everything we need, including independent relay of the various video signals, if desired.

William C. McDonald

WCM: vg  
cc: Col Carey  
C. R. Whelan

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C O P Y

MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
Lincoln Laboratory

Operating Project Lincoln

TO: Col. E. F. Carey

FROM: H. W. Boehmer

SUBJECT: Utilization of Lincoln Laboratory's Experimental Radars

27 December 1954

I have read the 32nd Air Division OFS plan 7-54 relative to the utilization of the Lincoln Laboratory's experimental radars in the event of antional emergency.

The plan is one that we are in complete agreement with.

We have made a survey of equipment applicable to relaying the radar data from the Lincoln South Truro FPS-3 site to the Operations Room, 762nd AC&W Squadron, at P-10, North Truro. The most applicable equipment is a Motorola MRR-3 Microwave Radar Relay System. I am enclosing a note from W. C. McDonald describing this system. Also described is a Raytheon unit which is available at a lower price which would not give us as good a system and would require considerable Lincoln engineering time.

As I mentioned in our last meeting, I favor the installation of a microwave link because it would provide P-10 with normal video at all consoles and would also relieve the requirement of setting up facilities and S.O.P.'s for surveillance and controlling at our South Truro site.

In summary, it si our recommendation that a Motorola MRR-3 be procured for this job. This equipment costs \$25,900 without standby RF equipment and \$38,300 if complete RF standby is provided. If the 32nd Air Division cannot allocate the funds for this installation there is a good possibility that the Lincoln Laboratory would purchase and install the equipment. Dr. G. E. Valley supports this proposal but points out that expenditures of this amount must be considered and approved by the Laboratory Steering Committee. I am sending a copy of this memo to Dr. Valley so that he can obtain a reaction from the Steering Committee on this proposal.

HWB:nlb

H. W. BOEHMER

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NOV 1 1954

PLAN

32D AIR DIVISION (DEFENSE) OP'S PLAN 6-54  
UTILIZATION OF ARDC FIGHTER AIRCRAFT & RADAR

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
SYRACUSE AIR FORCE STATION  
SYRACUSE 6, NEW YORK

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32D AIR DIVISION (DEFENSE)  
OPERATIONS PLAN 6-54

HEADQUARTERS, 32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station,  
Syracuse 6, New York  
1 November 1954

(This plan supersedes 32d Air Division (Defense) Operation Plan 3-52,  
14 October 1952, which will be removed from files and destroyed in  
accordance with AFR 205-1, Safeguarding Military Information.)

UTILIZATION OF ARDC FIGHTER AIRCRAFT & RADAR

CHART AND MAP REFERENCES:

As Required

TASK ORGANIZATION:

Air Research and Development Command

Rome Air Development Center

6520th Test Support Wing

1. GENERAL SITUATION: In view of the current international situation, there is a possibility of a surprise air attack on the United States by the Soviet Union. In accordance with "Mutual Agreement for the Air Defense of the Continental United States between Headquarters, Air Research and Development Command, and Headquarters, Air Defense Command," dated 23 November 1951, forces and facilities of ARDC will be made available to units of ADC upon notification that a Red or Yellow Air Defense Warning exists or upon declaration of a Military Emergency or Air Defense Readiness by Headquarters ADC. With the establishment of communication lines and the passing of operational control to units of ADC, these facilities will be integrated into the air defense system.

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32D OPR PLAN 6-54  
1 Nov 54

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a. Friendly Forces:

(1) 32d Air Division (Defense) will:

- (a) Provide the 6520th Test Support Wing and the Verona radar site with a file of current pertinent operational procedures, regulations, and directives covering the air defense mission and operational procedures.
- (b) Accomplish periodic indoctrination of augmentation radar and air crews at their home base on operational procedures.
- (c) Assume operational control of fighter aircraft and aircrews in the event of emergencies.
- (d) In event of an emergency, call the Verona, NY, radar site and such other experimental radar equipment into the active air defense system as deemed necessary.
- (e) Furnish logistical support, transportation, and personnel, necessary to support the Air Research and Development Command, in the operation and maintenance of radar integrated into the active air defense system.
- (f) Assist in maintaining necessary communications.

(2) 4707th Air Defense Wing will:

- (a) Provide 6520th Test Support Wing with a file of current pertinent operational procedures, regulations, and directives published by the 4707th Air Defense Wing in reference to the air defense mission and operations procedures.
- (b) Schedule and supervise periodic briefings of the

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32D OPR PLAN 6-54  
1 Nov 54

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6520th Test Support Wing, by personnel with whom the Wing would work in event of an emergency.

- (c) Supply copies of scramble and let-down procedures to the augmentation unit.
  - (d) Supply liaison officers (both AC&W and Ftr Ops) in event 6520th Test Support Wing is placed under operational control of 32d Air Division (Defense).
  - (e) Make available pertinent call signs and frequencies to be used in air defense operations.
- (3) 762nd AC&W Squadron will:
- (a) Participate in training missions conducted by 6520th Test Support Wing to the greatest possible extent.
  - (b) Provide directional control for the fighter aircraft assignment to the 6520th Test Support Wing.
- (4) 655th AC&W Squadron:
- (a) Be prepared to dispatch key personnel to the Verona radar site necessary to insure 24 hours operation.
  - (b) Be prepared to assume operational control of the Verona radar site as an early warning site, if so ordered.
  - (c) Be prepared to display air surveillance information received from the Verona radar site as directed by this headquarters.
  - (d) Assist in establishing and maintaining lines of communication between 655th AC&W Squadron and the Verona radar site.
  - (e) Develop and coordinate plans for the integration and operations of the Verona radar site as an early warning

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32D OPR PLAN 6-54

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and/or "Gap-Filler" radars.

2. MISSION: To prepare for the integration and utilization of ARDC augmentation forces to provide a more effective defense against aerial aggression.

3. TASKS FOR AUGMENTATION FORCES:

A. Air Research and Development Command will:

- (1) Make available fighter aircraft and aircrews in support of the air defense of continental U.S. in accordance with "Mutual Agreement for the Air Defense of the Continental United States between Headquarters Air Research and Development Command and Headquarters Air Defense Command dated 23 November 1951".

B. 6520th Test Support Wing, Haysom AFB, Massachusetts will:

- (1) Place all available fighter aircraft and aircrews under the operational control of the 32d Air Division (Defense).
- (2) Keep Headquarters 32d Air Division (Defense) informed of aircraft and aircrews status by means of a copy of the V-10 Report.
- (3) Maintain and insure that aircrews are familiar with current pertinent operational procedures, regulations, and directives published by Headquarters Air Defense, Eastern Air Defense Forces, 32d Air Division (Defense), and 4707th Air Defense wing.
- (4) When it does not impair their primary mission, conduct air defense training missions in conjunction with the 762nd AG&W Squadron, N. Truro, Mass.

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32D OPR PLAN 6-54  
1 Nov 54

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- (5) Publish necessary plans and directives to insure effective implementation of this plan.

C. Rome Air Development Center:

- (1) Will, when ordered by Commander, 32d Air Division (Defense), integrate the ground radar located at Verona, NY into the active Air Defense System to act as early warning and/or "Gap-Filler" radar for the 655th AC&W Squadron, Watertown, N.Y.
- (2) Supply necessary military or civilian personnel for the operations and maintenance of support ground radar equipment on a sustained basis.
- (3) Supply transportation, messing, and billeting facilities for support personnel supplied by the Commander, 32d Air Division (Defense).
- (4) Assist in maintaining communication between support ground radar at Verona and 655th AC&W Squadron.
- (5) Insure that key personnel have been made familiar with current 32d Air Division (Defense) regulations, policies, and SOP's.

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- (6) Submit radar status reports as requested by Commander, 32d Air Division (Defense).
- (7) Aid in the development and coordination of plans, directives, and SOP's for the integration of radar located at Verona, NY with Commander, 32d Air Division (Defense).

4. LOGISTICAL: Normal

5. COMMUNICATION AND COMMAND:

a. Communication: See Annex "A"

b. Command:

- (1) Command of forces and facilities allocated will remain with the present organization. The 32d Air Division (Defense) will assume operational control of fighter aircraft and crews at such time as notification is received that this plan is to be implemented. Operational control compresses those functions involving the assignment of tasks, designation of objectives, and the authoritative direction necessary to accomplish the mission.

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(2) Organizations and Command Post:

32d Air Division (Defense)	Syracuse AFS, Syracuse 6, NY
4707th Air Defense Wing	Otis AFB, Falmouth, Mass.
762d AC&W Squadron	N. Truro, Mass.
655th AC&W Squadron	Watertown, N.Y.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

DISTRIBUTION:

ARDC	-2
EADF	-2
Home Air Development Center	-4
6520th Test Support Wing	-3
4711th Air Defense Wing	-2
4707th Air Defense Wing	-2
762d AC&W Squadron	-2
655th AC&W Squadron	-2

OFFICIAL:

*William H. Clark*  
WILLIAM H. CLARK  
Colonel, USAF  
Deputy Commander

*SECRET*

32D OPRS PLAN 6-54  
1 Nov 54

ANNEX: A. Communication

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ANNEX "A"

TO

32D AIR DIVISION (DEFENSE)

OPERATIONS PLAN 6-54

To be added at later date.

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32D OPRS PLAN 6-54  
ANNEX A  
1 Nov 54

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C O P Y

HEADQUARTERS  
CONTINENTAL AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

GENERAL ORDERS ) 1 September 1954  
NUMBER 1)

Section

ESTABLISHMENT OF CONTINENTAL AIR DEFENSE COMMAND.....I  
ESTABLISHMENT OF JOINT REGIONAL AIR DEFENSE FORCES.....II  
ESTABLISHMENT OF JOINT AIR DEFENSE DIVISIONS.....III

I. ESTABLISHMENT OF CONTINENTAL AIR DEFENSE COMMAND. - 1. Announcement is made of the establishment of the Continental Air Defense Command (abbreviation CONAD) effective 1 September 1954 as a Joint Command for the air defense of the continental United States, with headquarters at Ent Air Force Base, Colorado Springs, Colorado. The Secretary of Defense has designated the Department of the Air Force as the executive agency for this command.

2. Having been designated by the Joint Chiefs of Staff as Commander in Chief, Continental Air Defense Command (abbreviation CINCONAD), General Benjamin W. Chidlaw, 23A, USAF, assumes command concurrently with establishment of the command.

3. AUTHORITY: Headquarters USAF teletype message AFOOP-D 50279, 24 August 1954, to Commander, ADC, and SO 158, Dept of the AF, 16 August 1954.

II. ESTABLISHMENT OF JOINT REGIONAL AIR DEFENSE FORCES. - 1. Joint Regional Air Defense Forces are established and assigned to Continental Air Defense Command effective 1 September 1954 with headquarters at locations indicated:

<u>Establishment</u>	<u>Abbreviation</u>	<u>Location</u>
Joint Eastern Air Defense Force	JEADF	Stewart Air Force Base Newburgh, New York
Joint Central Air Defense Force	JCADF	Grandview Air Force Base Grandview, Missouri
Joint Western Air Defense Force	JWADF	Hamilton Air Force Base Hamilton, California

2. Commanders of the Joint Regional Air Defense Forces are designated as follows:

C O P Y

ConADC General Orders Number 1, 1 September 1954 (Continued)

Joint Eastern Air Defense Force - Major General Morris R. NELSON,  
277A, USAF  
Joint Central Air Defense Force - Major General Jarred V. CRABB,  
535A, USAF  
Joint Western Air Defense Force - Major General Walter E. TODD,  
361A, USAF

3 3. AUTHORITY: Headquarters USAF teletype message AFOOP-D 50279,  
24 August 1954, to Commander, ADC.

III. ESTABLISHMENT OF JOINT AIR DEFENSE DIVISIONS. - 1. Joint Air  
Defense Divisions are established with headquarters at locations and  
with command assignments indicated below. Effective date will be  
1 September 1954 for all divisions except the 9th Joint Air Defense  
Division which will be effective concurrent with activation of the 9th  
Air Division on or about 8 October 1954.

Establishment	Location	Command Assignment
9th Joint Air Defense Div	Geiger Field, Spokane, Wash	JWADF
25th Joint Air Defense Div	McChord AFB, Washington	JWADF
26th Joint Air Defense Div	Roslyn AFB, Roslyn, N. Y.	JWADF
27th Joint Air Defense Div	Norton AFB, California	JWADF
28th Joint Air Defense Div	Hamilton AFB, Hamilton, Calif	JWADF
29th Joint Air Defense Div	Great Falls AFB, Montana	JCADF
30th Joint Air Defense Div	Willow Run AFS, Belleville, Mich	JEADF
31st Joint Air Defense Div	Fort Snelling, St Paul 11, Minn.	JCADF
32d Joint Air Defense Div	Syracuse AFS, Syracuse, N.Y.	JEADF
33rd Joint Air Defense Div	Tinker AFB, Oklahoma	JCADF
34th Joint Air Defense Div	Kirtland AFB, Albuquerque, N.M.	JCADF
35th Joint Air Defense Div	Dobbins AFB, Marietta, Georgia	JCADF

2. Commanders of the USAF Air Divisions at each of the above lo-  
cations are additionally designated as Commander of the Joint Air Def-  
ense Division with the same numerical designator.

3. AUTHORITY: Headquarters USAF teletype message AFOOP-D 50279,  
24 August 1954, to Commander, ADC.

B. W. CHIDLAW  
General, USAF  
Commander in Chief

DISTRIBUTION:

A, plus  
Dept of Def - 35  
USA - 25  
USN (Including USMC) - 35  
Other Joint Commands - 4

C O P Y

HEADQUARTERS  
JOINT EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

GENERAL ORDERS)  
NUMBER 1)

1 September 1954

ASSUMPTION OF COMMAND

Under the provisions of paragraph 2, Section II, General Orders No. 1, Headquarters Continental Air Defense Command, dated 1 September 1954, the undersigned hereby assumes command of the Joint Eastern Air Defense Force during the temporary absence of MAJOR GENERAL MORRIS R. NELSON, 277A, United States Air Force.

DONALD B. SMITH  
Brigadier General, United States Air Force  
Commander

DISTRIBUTION:

A, plus  
USAF..... 2  
ComAD.....10  
ADC, Hq..... 5  
EAAAC.....50  
ESF.....10  
CinCenFlt.... 5  
COMDESLANT... 5  
CNATRA..... 5  
CNART.....5  
CNATE..... 5  
CADF.....10  
WABF.....10  
KCRC..... 5

C O P Y

HEADQUARTERS  
JOINT EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

GENERAL ORDERS)  
NUMBER 2)

11 September 1954

ASSUMPTION OF COMMAND

Under the provisions of paragraph 2, Section II, General Orders No. 1, Headquarters Continental Air Defense Command, dated 1 September 1954, the undersigned hereby assumes command of the Joint Eastern Air Defense Force.

M. R. NELSON  
Major General, United States Air Force  
Commander

DISTRIBUTION:

A, plus  
USAF.....2  
ComAD.....10  
ADC, Hq..... 5  
EAAAE.....50  
ESF.....10  
CinCinFlt..... 5  
COMDESLANT..... 5  
CNATRA..... 5  
CNART..... 5  
CNATE..... 5  
CADF.....10  
WADF.....10  
KCRC..... 5

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C O P Y

HEADQUARTERS  
JOINT EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, NY

GENERAL ORDERS)  
NUMBER 3)

14 December 1954

STAFF ASSIGNMENTS

1. BRIGADIER GENERAL DONALD B. SMITH, 355A, USAF, Headquarters Eastern Air Defense Force, is announced as Vice Commander, Joint Eastern Air Defense Force, effective 13 December 1954.

2. The following staff assignments for Headquarters Joint Eastern Air Defense Force are announced effective 13 December 1954:

Deputy for Personnel - COLONEL JOSEPH MYERS, 8661A, USAF

Deputy for Intelligence - COLONEL ARAM S. TOOTELIAN, 950A, USAF

Deputy for Operations - COLONEL ARTHUR C. AGAN, JR., 1759A, USAF

Deputy for Materiel - COLONEL LEON W. GRAY, 6589A, USAF

Deputy for Comptroller - LIEUTENANT COLONEL LESTER H. SHOWERS, AO 475368, USAF

Adjutant - COLONEL JOHN L. WARREN, AO310106, USAF

Staff Judge Advocate - COLONEL GEORGE O. HANFORD, 818A, USAF

Surgeon - COLONEL CHARLES C. SCAMAHORN, 19141A, USAF

Chaplain - LIEUTENANT COLONEL JOSEPH D. ANDREW, 18785A, USAF

Inspector General - COLONEL HANLON H. VAN AUKEN, 522A, USAF

Chief of Information Services - LIEUTENANT COLONEL MARGARET J. STEELE, 21311W, USAF

BY ORDER OF THE COMMANDER:

OFFICIAL:

JOHN L. WARREN  
Colonel, USAF  
Adjutant

DONALD B. SMITH  
Brigadier General, USAF  
Vice Commander

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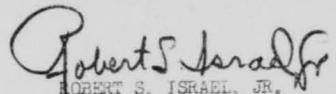
CORRECTED COPY - DESTROY ALL OTHERS.

HEADQUARTERS  
32D JOINT AIR DEFENSE DIVISION  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 1

1 September 1954

Under the provisions of Continental Air Defense Command (CONAD) General Order Number 1, Section III, dated 1 September 1954, and AFR 24-1, the undersigned hereby assumes command of the 32d Joint Air Defense Division, this date.

  
ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

DISTRIBUTION  
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C O P Y

PUBLIC INFORMATION BRIEFING ON  
CONTINENTAL AIR DEFENSE COMMAND

The mission of the nation's youngest military organization, the Continental Air Defense Command, is stated in a simple seven word sentence -- "Defend the United States against Air Attack."

Translated into action, however, it involves one of the largest construction jobs ever attempted by man. To accomplish its mission, CONAD, as it will soon be listed among military abbreviations, must build and maintain over America a fence that is ten thousand miles long around an area of three million square miles and make it ten to twelve miles high.

Moreover, this fence must be as nearly hole-proof, leak-proof and rat-proof as it is possible to build within the envelope of resources and manpower made available to CONAD for its air defense task.

It must be able to defend against the ever-increasing speeds and altitudes of the modern bomber and the accurate navigation and radar bombing devices which make distance and weather no longer deterrents to long-range bomber flights.

And it must be able to defend against an attack initiated by an enemy who will have almost unlimited avenues of approach available for selection if and when he decides to send his long-range bombers against this country.

In building this fence, CONAD needs first of all an adequate warning system that will provide a detection capability extending far enough outward from the nation's borders and coastal areas to allow the necessary time for interception and air battle by its fighter planes and for action by its antiaircraft forces.

"We must have the maximum early warning attainable," says General Benjamin W. Chidlaw, CONAD's commander-in-chief, "both in order to bring our military defense system up to its fullest effectiveness and to alert our civil defense system to the approaching danger."

Next -- the air defense system requires high performance fighter-interceptor aircraft capable of making interception in any kind of weather -- rain or shine -- day or night -- winter or summer.

It requires antiaircraft guns and "ground-to-air" guided missiles for the close in protection of specific targets against those hostile bombers or missiles which may have succeeded in penetrating outer fighter defenses.

C O P Y

It requires one of the most complex and reliable and foolproof control communications system ever devised by man.

It requires real estate -- often very valuable real estate -- on which to locate the fighter squadrons, and the radar bases and control centers, and the antiaircraft battalions and guided missile batteries.

Above all, it requires highly skilled people -- thousands upon thousands working around the clock, seven days a week, to operate and maintain this complex equipment, and still more people, less highly skilled perhaps to provide the essential logistic support for the air and the ground combat crews.

It was because of these exacting requirements that the Continental Air Defense Command came into being last September. This command, which answers directly to the joint chiefs of staff, brought under one management the full potential of Air Force, Army, Navy and Marine forces available and capable of participating in the air defense mission... of building and maintaining this fence in the sky, so to speak.

It is the first true "joint" command inside the United States in the history of the country. Defense officials feel it is a must because it is no longer possible to defend this country in the split-second world by trying to solve with the separate service chiefs, individual problems as they might occur in the event of an emergency.

General Chidlaw is flanked at his Colorado Springs headquarters by Lt General Stanley R. Mickelsen, chief of the Army's Antiaircraft Command, and Rear Admiral Albert K. Morehouse, who heads all Naval and Marine Forces allotted to the air defense mission.

As commander-in-chief of CONAD, General Chidlaw has operational control of all the forces assigned to CONAD. The CONAD concept of operations, however, is "decentralization of control". The very nature of its assigned mission, that of providing an adequate air defense at any unknown time, dictates this policy since the time factor involved is all-important.

Directly responsible to Headquarters CONAD, are three Joint Air Defense Forces: Eastern Air Defense Force with headquarters at Stewart Air Force Base, Newburgh, New York; Central Air Defense Force at Grandview Air Force Base, near Kansas City, Missouri; and Western Air Defense Force, Hamilton Air Force Base, Hamilton, California.

Air Force Commanders of these forces have a corresponding operational control of the Air Force, Army, Navy and Marine air defense forces within their areas that General Chidlaw exercises at his headquarters.

C O P Y

Eastern has responsibility for the greater northeastern part of the United States which might generally be defined as that area extending from the near-western border of Wisconsin and central Illinois eastward and from the northern border of Tennessee and North Carolina, north.

Central provides air defense for the midwestern and southeastern portions of the United States while Western Air Defense Force is responsible for the air defense of the states along the Pacific coast line, Idaho and Nevada, and the western-most parts of Montana and Arizona.

Under these three Air Defense Forces are twelve Air Divisions. The Divisions, of which there are several in each Air Defense Force region, exercise a direct operational control of all air defense units within their sector of responsibility.

The Divisions perform and supervise all measures necessary for adequate air defense--including the operation of radars and fighters, allocation of forces, implementation of security control plans, and activation of warning networks. Each Division has a Control Center where reports of hostile aircraft and interceptions are plotted on a large, vertical plastic plotting board.

Finally, within the Air Defense Structure are the Direction Centers which are strategically located within the Air Division areas.

The Direction Center is the radar facility from which the air battle is fought--where fighters are scrambled and directed to their targets. From these centers come the operational information on hostile aircraft around which the entire air defense mission is predicated.

Since CONAD cannot know what is in the mind of an intruder, or upon what basis he might decide to launch an air attack, it must be prepared to go into action seconds after it receives a warning of the approach of unidentified aircraft. Its operations are divided into four distinct phases: detection, identification, interception and destruction. A description of these functions gives a concise and comprehensive picture of the goal and workings of the air defense system.

For detection, CONAD relies mainly on radar and the voluntary services of the Ground Observer Corps. The construction of a main control and warning radar installation in the continental United States and the populated part of Canada (Pinetree Chain) has been completed. All of the radars in this network are now operating on a 24-hour per day schedule.

C O P Y

This net gives CONAD good high altitude coverage over a large portion of the country and its deployment was based upon many factors including location of likely critical targets, probable enemy routes of approach, and terrain features.

Under construction at the present time is the "Mid-Canadian Line," (McGill Fence) a radar system to the north of the settled territory of Canada, and planning is also underway between the Canadian and United States governments to initiate a distant early warning radar line (DEW) across the far northern part of North America.

Coastal picket ships providing seaward radar surveillance are presently operated off the East coast by the U. S. Navy.

Actually, the Continental Air Defense Command has plans for several hundred new radar sites, including a chain of so-called "Texas Towers", or sea platforms, extending 125 miles off the East coast, from Norfolk to Newfoundland.

These latter will give an extra margin of protection against seaward attack, adding to the Navy's radar picket ships and the radar-crammed Lockheed RC 121 Constellation patrol planes soon to be moving the fence further out over the Atlantic and the Pacific.

In addition to the continental network, the radar detection capability in Alaska, Greenland, and Iceland is of immense value to the continental air defense system, as well as for local air defense in those areas.

These contemplated and established radar systems are in keeping with a policy of the United States government for building outward from the likely target areas.

Another integral part of the existing detection system is the Ground Observer Corps. This system is organized into areas, each served by a filter center requiring approximately 12,000 civilian volunteers to man both the posts and the filter centers.

Currently there are 49 filter centers, some 16,000 observer posts and over 380,000 civilian volunteers in the system. CONAD expects to have 73 filter centers, 24,000 observer posts, and over a million volunteer spotters by 1956.

Ground observers in this system keep a lookout for aircraft flights and report them to the filter center. Volunteer workers in the filter center receive these reports, plot the information on a grid map, evaluate it, and when definite paths of unidentified aircraft have been established, report them to a Direction Center. The Direction Center will, in turn, take action to intercept and identify these aircraft.

C O P Y

Each filter center is manned permanently with a military detachment of officers and airmen, having a dual operational and training mission. Mobile training teams are organized and equipped to train the supervisory personnel of the observation posts. In addition, the detachment must train from 500 to 1,000 volunteers to operate each filter center.

The Ground Observer Corps is the only means available to permit detection of low flying aircraft, and its efficiency in this mission is in direct proportion to the manning achieved, the incentive provided to the volunteers, and amount of training that can be given.

The second function, that of identification, is probably the most difficult because of the tremendous amount of air traffic in the United States today. The only effective solution at this time is control of air traffic in certain areas which involves the matching of flight plans with radar tracks.

The first step in the identification system is the identification of aircraft penetrating the borders of the country, and certain critical interior areas. CONAD, in conjunction with the Civil Aeronautics Administration, established certain areas which are called Air Defense Identification Zones (ADIZ).

Three types of ADIZ were initially envisioned and subsequently established. Each of these has rules and regulations to be observed by aircraft operating in these areas. They include an international boundary ADIZ along the US-Canada border, coastal ADIZs along the Atlantic and Pacific Coasts, and Domestic ADIZs around critical target areas within the United States. Flights inside Air Defense Identification Zones below 4,000 feet do not require flight plans.

To perform the function of interception, CONAD has fast jet all-weather fighter interceptors designed for the air defense mission capable of interception and destruction of the target while flying on instruments.

When aircraft under observation cannot readily be identified by other means, these fighters are scrambled by the Direction Center to intercept the unknown aircraft and visually inspect it to determine its identity. This interception is being performed daily by the North American F-86D "Sabrejet", along with the Northrop F-89D "Scorpion", and Lockheed's F-94C "Starfire", all three all-weather fighter interceptors. Our interceptors are manned by combat-ready pilots and are directed to the target by combat-ready controllers. This team of controller and pilot is the backbone of the air defense system and requires that these men be of the highest professional caliber.

CONAD fighter squadrons are located on bases throughout the country for defense of critical areas, but they are spread thinly and there are

C O P Y

some important areas still unprotected. ADC's minimum requirement will not be met until completion of the Air Force 137 combat wing program.

CONAD's present fighter force demands the utmost efficiency in its utilization for air defense. Any increase in the capability of target detection, tracking and identification will result in a directly proportional increase in the efficiency of utilization of the fighter force available.

Fighters of other Air Force Commands, the Navy, and the Reserve Forces are available to the Continental Air Defense Command for emergency use. These would augment CONAD's fighter force to a considerable degree, if the demands of their primary mission and warning time will permit.

The USAF recently announced changes in mission and designation for many Air Force Reserve Wings. Under the new concept, the Reserve's fighter bomber wings will be assigned on M-Day to Continental Air Defense Command and then released to Tactical Air Command. This mission is similar to that already assigned to the Air Guard's fighter-bomber wings.

During an emergency, the Navy commander at CONAD will be able to bring into the picture Naval aircraft, Naval air stations, Aircraft carriers might be used effectively, too. Although the carrier is essentially an offensive weapon, its ability to launch jet fighters far off the nation's shores and intercept incoming raids before they can reach our borders might prove valuable in keeping the battle away from the continental United States itself.

The final phase of the four basic actions is destruction. The destruction of an enemy bomber is a function of either the armament carrier of the interceptor or the fire from the Army antiaircraft batteries.

In the past few years the interceptor tactics changed due to the use of aircraft with a new fire control system, the use of aerial rockets and refined radar control. This change of fighter tactics, with the improved armament and radar control, gives to the fighter a definite advantage over the bomber.

The newest production version of the Scorpion, for example, is armed with 10<sup>4</sup> air-to-air rockets and is the United States' most heavily armed fighter airplane. Designated the F-89D, this rocket-armed model of the Scorpion carries its giant punch in its wing tip pods. They are now on round-the-clock duty with squadrons of the Continental Air Defense Command.

C O P Y

The Army Antiaircraft Command supports the Continental Air Defense Command by providing final rings of defense against any enemy aircraft penetrating the screen of fighter-interceptors which would go out to meet the attacking bombers. In short, the Army has joined with the Air Force to develop what might be likened to a defense in depth.

The antiaircraft defense of the United States against air attack is, in fact, one of the Army's major responsibilities. Most defended zones are heavily populated or industrial areas. Many large cities do not have antiaircraft defenses at the present time. The Army -- like the Air Force -- can stretch a defense dollar only so far, and there simply are not enough guns and men to go around.

In this field, the development of the first operational antiaircraft guided missile, the Nike, was a great stride forward. The formation of NIKE battalions and the movement of these battalions to on-site locations in the United States is progressing steadily. For use against planes flying at low and medium altitudes, the antiaircraft troops have a new cannon -- the Skysweeper. It is electronically controlled and tracks the target automatically while firing 75mm shells at a rapid rate. These two new weapons supplement the old standbys of antiaircraft artillery, the 90mm and the 120mm guns.

The organization of CONAD and its operational concepts and functions have been based on the supposition that simultaneous, widely diversified air attacks can be directed against any or all of the major targets within the United States at any given time.

To counter this possible scheme of attack and to minimize the inherent advantages of surprise, alerting procedures and communication systems capable of passing warnings throughout the U.S. in a matter of minutes have been established.

The Division Control Center announces the condition of air defense warning to the Federal Civil Defense Administration. Dissemination beyond the key point is in accordance with procedures established by state or local civil defense agencies. The entire system, embracing some 160 key points, is at all times operational.

A similar but separate warning system has been established for the notification of key military installations.

For general use, three conditions of air defense warning, descriptive of the air situation, exist: Warning Red, Warning Yellow, and Warning White.

The broad definitions of these conditions of air defense warning are as follows:

C O P Y

Warning Red -- Attack by hostile aircraft is imminent.

Warning Yellow -- Attack by hostile aircraft is probable.

Warning White -- Attack by hostile aircraft is improbable. (All Clear)

An additional condition of warning, but applicable to the active Air Defense System, is Air Defense Readiness. It is a means of placing all forces available for air defense at maximum immediate operational capability. It is initiated normally as a result of suspicious patterns or actions of incoming unidentified aircraft or the evaluation of current intelligence which indicates the need for extra-precautionary measures. It is not announced to the public.

If a tense military situation should develop prior to actual hostile attacks, General Chidlaw has the authority to declare a "military emergency" and the various echelons of the Air Defense Command will further disseminate the fact that a military emergency exists and will simultaneously announce a Warning White to certain agencies. In addition to placing forces available for air defense at maximum combat potential, this will be the signal to initiate certain actions, one of which is the security control of air traffic. The Warning White will remain in effect as long as a military emergency or condition of war exists, except during periods when Warning Red or Warning Yellow are in effect. As for the general public, the Warning White is tantamount to the "all clear" signal.

Warning Yellow is disseminated to military and key civil agencies and is the tip-off for CONELRAD, the control of radio broadcast and other electrical aids to navigation. Warning Red is passed over the civil and military air raid warning nets and is the signal for public warnings as specified by civil defense authorities.

It is conceivable that the same condition of air defense warning will not be declared in all air divisions. The Air Division commander's evaluation of the tactical situation in his and adjacent sectors will determine the degree of air defense warning for his area of responsibility.

CONAD will also put into operation the "SCAT" plan which establishes procedures and general instructions for the security control of civil and non-tactical military air traffic during a military emergency. These procedures provide maximum utilization of aircraft and airspace by military and civil agencies engaged in essential operations.

The intermingling of friendly unknown tracks and hostile tracks which would exist without these security control measures would create a very undesirable, if not impossible, identification situation.

C O P Y

Another problem greatly affecting the need for security control of air traffic in all areas of the Continental United States during a military emergency is the employment of automatic and radar controlled air defense weapons. Modern all-weather interceptors, guided missiles and antiaircraft artillery are radar and electronically directed and guided. It is not necessary, nor should it be required in time of military emergency, that visual recognition of the target be obtained before the weapon is employed.

To complete the air defense picture, CONAD has the 4602nd Air Intelligence Service Squadron for the rapid wartime exploitation and field analysis of downed enemy equipment and uniformed personnel within the boundaries of the country. Detachments or flights of the squadron are strategically located throughout the United States to carry out this vital mission.

In the event of an air attack on the Continental United States, it can be anticipated that a considerable number of enemy aircraft will be downed by U. S. fighter-interceptor action, by antiaircraft artillery damage, by exhaustion of fuel, or by mechanical failure. The enemy aircraft, the aircrewmembers, and the documents in the aircraft or in possession of the aircrewmembers, represent significant sources of intelligence information. This information can be of inestimable value in the conduct of air defense operations but only if it is collected and rapidly transmitted to the combat units of the air defense system. The faster this is done the greater the value realized; hours and even minutes will count.

The 4602d AISS was created to provide CONAD with the physical capability of reaching downed enemy aircraft or crew members quickly, in order to conduct and report the results of immediate on-the-spot investigations and interrogations. Intelligence teams of the squadron are prepared to traverse all types of terrain regardless of weather, by land or air or by parachute to the scene of the crash of any enemy aircraft.

Thus, America's fence in the sky is going up fast. This year the Administration approved an added \$1 billion for air defense, and more increases are in prospect. With the money, General Chidlaw can give the U.S. a growing margin against calamity, but he cannot predict the kill rate if an attack force of 900 Soviet bombers strikes. "There are," he says, "too many intangible factors to consider."

However, top U.S. strategists believe that the Soviet Union may never make a successful attack -- or any kind of an attack -- so long as the U.S. keeps up its guard and, above all, its ability to strike back. A strong, alert air defense, by its very existence, can help to preserve both the peace and the United States.

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DEPARTMENT OF THE AIR FORCE  
Headquarters United States Air Force  
Washington 25, D.C.

27 Aug 1954

SUBJECT: Continental Air Defense Command (CONAD)

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. The Continental Air Defense Command (CONAD) is established, effective 1 September 1954, by JCS SM 688-54, dated 2 August 1954, as a joint Command for the air defense of the continental United States. Headquarters of this Command will be at Ent Air Force Base, Colorado Springs, Colorado. The Department of the Air Force has been designated as Executive Agency.
2. The Commander, Air Defense Command, is designated Commander-in-Chief, Continental Air Defense Command (CINCONAD).
3. The responsibilities of the Commander, Air Defense Command, are:
  - a. Serve as the Commander of the Air Force component command of the CONAD.
  - b. Command all Air Force forces assigned or otherwise made available for air defense of the continental United States.
  - c. Coordinate with the other Service component commanders on matters of mutual interest.
  - d. Organize, administer, equip, train, and prepare for combat, units and combat crews of the Air Force as may be designated, assigned or attached to the Air Defense Command.
  - e. Recommend plans and policies for the employment of the military reserve forces of the Air Force in the air defense of the United States.
  - f. Develop tactics, techniques, and recommend equipment employed by Air Force forces in defense against air attack.
  - g. Participate in disaster relief and other domestic emergencies as required.

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Ltr to ADC fr AFODC, Subj: "Continental Air Defense Command (CONAD)"

h. Prepare combat Air Force air defense units for overseas deployment as required, to include organizing, training, and equipping.

4. The mission of the Continental Air Defense Command and the terms of reference for the Commander are contained in Inclosure 1 to this letter. The responsibilities of the Commanding General, Army Anti-Aircraft Command, and the responsibilities of the Commander, Naval Forces, Air Defense Command, as outlined in SM 688-54 are listed in Inclosures 2 and 3 respectively. Command arrangements of CONAD have been included in Inclosure 4, and Inclosure 5 is the command and operational control chart.

5. This Headquarters is taking the action necessary to inform major air commands of the establishment of CONAD and to amend Air Force Regulation 23-9 and other related documents as required.

6. It is desired that you take necessary action to implement the provisions of this letter to insure compliance by 1 September 1954. This Headquarters will be advised immediately if difficulties are encountered which preclude compliance within the established time period in order that appropriate agencies may be informed.

5 Incls:

1. Terms of Ref and Mission
2. Responsibilities of AA Command
3. Responsibilities of Cmdr, Naval Forces
4. Command Arrangements
5. Command and Opnl Control Chart

C. LINDSAY  
Major General, USAF  
Actg Dep Chief of Staff  
Operations

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TERMS OF REFERENCE AND MISSION

1. The Continental Air Defense Command (CONAD) is established as a joint command for the defense of the continental United States against air attack. The Department of the Air Force has been designated as the executive agency therefor. Headquarters USAF Air Defense Command is additionally designated as Headquarters, CONAD, the staff of which will be augmented by appropriate representation from all Services.

2. The Commander-in-Chief (CINC) CONAD will exercise operational control # over all forces assigned or otherwise made available by the Joint Chiefs of Staff or other proper authority, for defense of the continental United States against air attack. The command will be established in accordance with the appropriate provisions of Joint Action Armed Forces (JAFF), and the directives contained herein. The command shall consist initially of the U. S. Air Force Air Defense Command, the U. S. Army Antiaircraft Command, and a Naval Command composed of the naval forces of the contiguous radar coverage system. During the periods that augmentation forces of the Army, Navy/Marine Corps, and Air Force are employed in air defense of the continental United States, operational control of such forces shall be temporarily vested in CINCONAD.

3. The CINCONAD will be a U. S. Air Force general officer who will be designated Commander, U. S. Air Force Air Defense Command. The Commanding General, Antiaircraft Command, will be the principal advisor to CINCONAD on Army matters pertaining to the CONAD. An appropriate Naval Command, under a flag officer, will be established with Headquarters at EWT Air Force Base and the Commander will also be the principal advisor to CINCONAD on Navy matters pertaining to the CONAD. An appropriate Marine Corps representative will be assigned to the Staff of CINCONAD as principal advisor on Marine Corps matters pertaining to the CONAD. In the absence of the Joint Commander, the Senior Component Commander will assume temporary command.

4. Forces and operations of the seaward extensions of the early warning system will continue under the Commander in Chief, Atlantic (CINCLANT), and the Commander-in-Chief, Pacific (CINCPAC), and early warning installations in Alaska and the Northeast Command under the Commander-in-Chief, Alaska (CINCAL) and the Commander-in-Chief, Northeast Command (CINCNE). However, the above commanders will support CINCONAD in accordance with plans approved by the Joint Chiefs of Staff and mutual agreements by the Commanders concerned, to insure that plans for, and the operations of, these elements of the early warning system will be responsive to the needs of CINCONAD.

5. The mission of the CINCONAD will be to:

- a. Defend the continental United States against air attack.

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C O P Y

"Terms of Reference and Mission" (Cont'd)

b. Support CINCPAC, CINCLANT, CINCARIB, COMSAC, CINCAL and CINCNE in their missions to the maximum extent consistent with the primary mission outlined in subparagraph a above.

6. In carrying out his mission, CINCONAD will:

a. Conduct operations to the limit of the capabilities of available forces in the defense of the continental United States against air attack.

b. Prepare joint plans and requirements for the defense of the continental United States against air attack and submit these plans and requirements to the Joint Chiefs of Staff for approval.

c. Implement JCS approved plans, through the appropriate component commands; and exercise such emergency powers as may be delegated to him by proper authority.

d. Coordinate plans, operations and exercises with appropriate United States Commanders and with Canadian and Mexican Commanders in accordance with agreed Canada-United States and Mexico-United States defense policies.

e. In coordination with # appropriate U.S. and Allied Commanders, plan for early warning systems and procedures which will provide early warning of air attack for the defense of the continental United States to insure that these systems are designed and operated in a manner responsive to continental air defense requirements and in consonance with national policy.

f. In coordination with commanders concerned, establish procedures and methods of operation for all forces allocated, attached or otherwise made available for the air defense of the continental United States.

g. In coordination with commanders concerned, prepare and submit to the Joint Chiefs of Staff for approval, plans for the full utilization of all military forces, including reserve forces, which have an air defense capability and which can temporarily augment the air defense forces in event of emergency.

h. When there exists an imminent threat of air attack upon the continental United States, or in case such an attack develops, assume operational control of those forces specifically having been made temporarily available from other commands (augmentation forces). Such operational control over forces having been made temporarily available from other commands, will be relinquished when the imminence of the threat has dissipated or when the attack is ended. In the event

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"Terms of Reference and Mission" (Cont'd)

that the Commander who made the forces available should consider that his primary mission requires their return to their permanent command assignments, he should first make appropriate requests to the Air Defense commander; if such request is not granted his next recourse is to the Joint Chiefs of Staff.

i. Plan for and conduct air defense exercises, including participation by augmentation forces, coordinating plans as appropriate with other U. S. commands and military agencies of Canada and Mexico.

j. Plan for, train, exercise and operate in coordination with appropriate authorities a Ground Observer Corps of necessary military personnel, and civilian volunteers.

k. Coordinate with appropriate military governmental and non-governmental agencies in the development of plans, policies, and procedures for the security control of air traffic, the control of electromagnetic radiations, and the control of illumination and, when appropriate, initiate implementing actions therefor in the defense of continental United States against air attack.

l. Coordinate with the Federal Civil Defense Administration, State Civil Defense agencies, and other non-military agencies on matters of participation in air defense.

7. Based on missions or tasks assigned by CINCONAD in consonance with JCS approved plans, detailed planning as to forces and their deployments will be accomplished by component commanders coordinated as necessary with other commanders of their Services.

8. In matters not covered by JCS approved joint plans, doctrines or procedures, interim directives, promulgated by CINCONAD will govern all Air Defense operations. These will be formulated in consonance with existing inter-Service and inter-Command agreements and decisions of the Joint Chiefs of Staff.

Incl 1

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C O P Y

RESPONSIBILITIES OF THE COMMANDING GENERAL  
ARMY ANTI-AIRCRAFT COMMAND

1. Serve as the Commander of the Army Component of the CONAD.
2. Command all Army forces assigned or otherwise made available for air defense of the continental United States.
3. Provide above forces for operational control by the CINCONAD, in accordance with Incl 4, on the basis of JCS approved plans, doctrines and procedures pertaining to the air defense of the continental United States.
4. Develop detailed plans for Army forces and their deployments allocated for the air defense of the United States based on missions or tasks assigned by the CINCONAD in consonance with approved JCS plans.
5. Organize and establish a suitable Headquarters and subordinate Headquarters and commands as deemed necessary to accomplish the assigned missions or tasks.
6. Participate in ground defense, harbor defense, disaster relief, and other domestic emergencies when such participation will not interfere with the air defense mission.
7. Coordinate with the Department of the Army and other Army agencies on matters pertaining to the support, administration, organization, and equipping of Army units assigned or otherwise made available for the air defense mission.
8. Prepare combat Army air defense units for overseas deployment as required, to include organizing, training and equipping.

Incl 2

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C O P Y

RESPONSIBILITIES OF THE COMMANDER, NAVAL FORCES  
AIR DEFENSE COMMAND

1. Organize a suitable command under a flag officer with appropriate headquarters necessary to meet the requirements set forth by higher authority.
2. Serve as the Commander of the Naval component command of the CONAD.
3. Coordinate with the other Service component commanders on matters of mutual interest.
4. Command all Naval forces assigned or otherwise allocated for employment in the contiguous radar coverage of the continental United States air defense system.
5. Coordinate with appropriate fleet and training command for provision of naval augmentation forces for continental air defense.
6. Provide above forces for operational control by the CINCONAD in accordance with Incl 4, on the basis of JCS approved plans, doctrines and procedures pertaining to the air defense of the United States.
7. Provide appropriate Air Defense Commanders with required information relative to the status and operating characteristics of all Naval forces allocated for the air defense of the continental United States, and Naval augmentation forces and facilities capable of emergency employment in air defense of the United States.
8. Provide for the control of fire of the Antiaircraft batteries of vessels in port by the Air Defense Commander through the local Army, Antiaircraft Control Center, if one is established, otherwise through a Navy AA Control Center.

Incl 3

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C O P Y

COMMAND ARRANGEMENTS

SECTION I

Operational Control

1. The operational control exercised by CINCOMNAV over all forces assigned or otherwise made available, will consist of the following:

- a. Direct the conduct of the tactical air battle including the engagement and disengagement of air defense weapons.
- b. Control of fighters.
- c. Specify the conditions of alert.
- d. Station the early warning elements of the command and their control elements.
- e. Locate and deploy the comate elements of the command in accordance with plans approved by the Joint Chiefs of Staff.

SECTION II

Implementation of Operational Control

2. Operational control as defined above will be implemented in accordance with the chart, shown in Incl 5, in the following manner:

- a. When reporting on station, naval forces in contiguous radar coverage system come under operational control of the appropriate regional headquarters through the appropriate naval regional component channel.
- b. Naval surface forces made available in case of emergency will report for operational control to the Commander-in-Chief through the appropriate Naval Regional Component Commander. Limitations on the deployments of these surface forces may be prescribed by the fleet commander making the forces available.
- c. Naval aviation augmentation forces, provided in case of emergency, will report for operational control to the appropriate Air Division Command. The Fleet or Naval Air Training Command Commander making the forces available will prescribe whether such forces may be deployed to other than home bases.

Incl 4

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"Command Arrangements, Section II" (Cont'd)

d. Operational control, as defined in paragraph 1 Section I, above, will be exercised by the joint air defense commanders in accordance with the chart in Incl 5.

e. Operational control will be exercised over all forces assigned or otherwise made available in a geographical area by the appropriate joint regional or sector air defense commander thereof.

f. Army antiaircraft units will pass to the operational control of the appropriate air defense commander upon deployment to tactical air defense positions.

SECTION III

Organization and Command Arrangements

1. The mission of air defense is a functional mission carried out on a geographical basis. Since time of reaction to the threat is all-important, successful Air Defense must be predicated upon decentralization of control. The United States is now divided into three Air Defense regions which are further subdivided into sectors; each region having an Air Defense Force Commander responsible for the defense of his area against air attack and utilizing all available forces of the military establishment which have an air defense capability.

2. The existing organization of the USAF Air Defense Command, with its air defense system for surveillance, warning and control, and combat is the basic structure which will be utilized for the Joint Command. Each USAF Headquarters from command down to air division level will be additionally designated as a joint headquarters commanded by an Air Force officer and with appropriate representation from each Service. The Army Antiaircraft Command and the Naval Command will parallel this organization through the regional level and with a Component Commander or staff representation below regional level as experience dictates. The numbers of personnel who will represent each component commander at the Joint Regional Air Defense Force level will be a matter for agreement between him and the Commander, Joint Regional Air Defense Force.

3. The Chart, Incl 5, shows the lines of operational control and command as set forth in Incl 4.

4. The Service component commanders at regional or lower levels, in addition to their uni-service functions, shall be Army Deputy and Navy Deputy, respectively, to the joint commanders for matters of concern to their Services.

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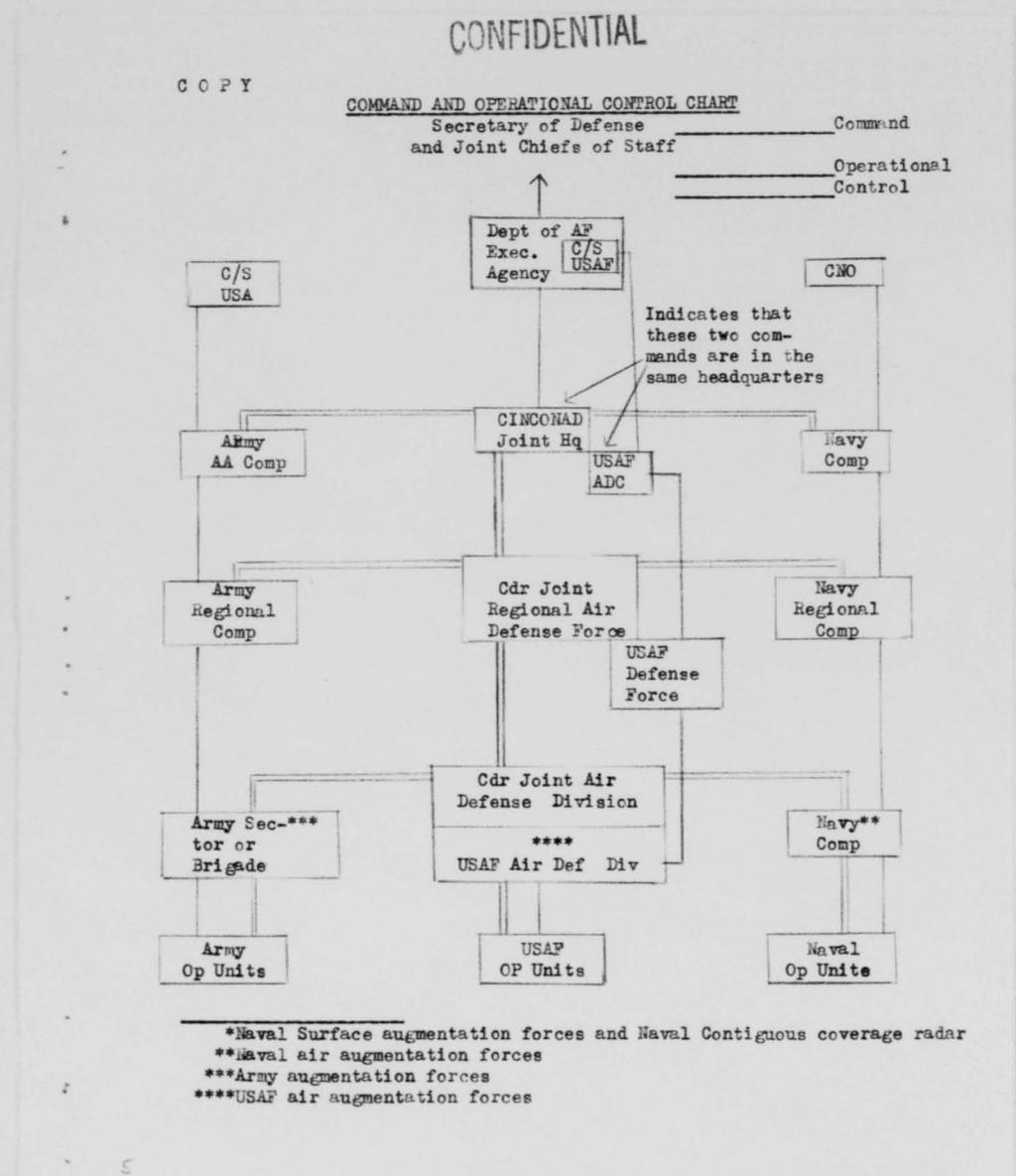
"Command Arrangements, Section III" (Cont'd)

5. The Component Commanders will be responsible for the military command of their components in accordance with directives and procedures of their Services. Logistic and administrative support of the Service components will be provided as directed by the Service concerned.

6. The Joint manning of the staff of the Commander-in-Chief, due to the proximity of the headquarters of the component commands should be kept to a minimum. Thus, augmentation of the Command will be approximately as follows:

	<u>ARMY</u>	<u>NAVY</u>	<u>MARINES</u>
Operations and Training	1	1	-
Operations Analysis	1	1	-
Communication and Electronics	1	1	-
Plans and Requirements	1	2	-
Assistant to the DCS/O	1	1	1
Intelligence	1	1	-
Materiel	-	1	-
Comptroller	-	1	-
Information Services	<u>1</u>	<u>1</u>	<u>-</u>
	7	10	1

7. The command of naval forces in the contiguous radar coverage system will be exercised at the regional (second echelon) level for the east and west coasts.



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HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADHCS

27 Aug 1954

SUBJECT: Proposed Policies Governing Support to be Rendered by  
ADC To Headquarters CONAD And the Naval Elements Thereto

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. This letter, and the attachments thereto, are purely informational in nature, and designed to give your headquarters preliminary information as to Headquarters Air Defense Command's current thinking on the concept and methodology by which we intend to integrate Army and Navy elements into the CONAD structure. The papers herewith submitted to your headquarters are, therefore, not directive in nature.

2. In the establishment of Continental Air Defense Command, it is the desire of the Commander-in-Chief to discuss with the commanders of the service components each of the items discussed in the attachment, and to arrive at solutions, where necessary, which will be in the best interests of the service components and the Continental Air Defense Command. Inasmuch as the Navy component commander has not yet reported for duty and, further, because it is General Lewis' desire that his replacement have the opportunity to express his thoughts on the many subjects which must be considered, CinCONAD is not ready to promulgate decisions.

3. The information contained herewith is not all-inclusive. Obviously, there will be many other problems not listed, the reconciliation of which will require further study as we progress. When integration problems generate within your headquarters or in the headquarters of your divisions, we would like to have them so that they can be brought to the attention of the component commanders in Headquarters CONAD, and decisions rendered.

4. The inclosed papers have, in some instances, proposed augmentationmanning. In your consideration of the problem of joint manning, no attempt should be made to standardize at defense force or division level. Manning should be based solely on workload requirements directly relating to joint operations.

5. Your attention is invited to Joint Chiefs of Staff SM-688-54, and to the statement contained in paragraph 1 of the Annex that, "Headquarters USAF ADC is additionally designated as Headquarters

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SUBJECT: Proposed Policies Governing Support to be Rendered by ADC to Headquarters CONAD and the Naval Elements Thereto

CONAD, the staff of which will be augmented by appropriate representation from all services," and to paragraphs 1 and 5 of Tab "B", and paragraph 1 of Tab "C". This is interpreted to mean that Air Force ADC staffs down to division level will be considered the Air Force component, and that Army and Navy commanders will organize and command Army and Navy components respectively. Further, that certain personnel from such components will be integrated into the ADC staffs, as required, and, when so integrated, the resulting staff will become the staff of CinCCONAD, and the joint staffs at Joint Air Defense Force and Joint Air Division level.

6. Headquarters CONAD General Order Number 1 will be published soon and will become effective as of 1 September 1954.

7. As much of this information as you believe applicable should be disseminated to division commanders.

BY ORDER OF THE COMMANDER:

2 Incls:  
1. SM-688-54  
2. Staff Study

MARSHALL S. ROTH  
Brigadier General, USAF  
Acting Chief of Staff

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOPR-2

24 Sep 1954

SUBJECT: (Unclassified) Reorganization of EADF

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station #6  
Syracuse, New York

1. Your attention is invited to the July 1954 ADC Program document which indicates that the reorganization of EADF, including changes in lines of communications, boundaries and operational control of unit, is programed to occur 1st quarter FY 1956.
2. This headquarters has purposely failed to publish information to subordinate units concerning the reorganization of EADF, or issue instructions pertaining to the implementation of the program which calls for the activation of three new air divisions and inactivation of two defense wings due to a lack of definite program information from Headquarters Air Defense Command. The reason for this lack of program information has been due to funding problems associated with the public works construction program which has resulted in a slippage in the construction of facilities required to support the new air divisions. It is considered that implementing instructions issued at this time would be subject to frequent revision which would be more confusing than helpful.
3. However, to assist you in planning for the programed reorganization, the following actions in regards to the activation of the new air divisions will generally apply:
  - a. From a personnel planning standpoint it is considered desirable to activate the new air divisions at least 6 months prior to the date when these divisions are expected to have an operational capability. The activation of the divisions will be on the site that the divisions will ultimately occupy, and the initial cadre will be furnished from normal requisition sources and/or from sources within EADF. Personnel buildup will be made on site and phased in accordance with personnel requirements to assure an operational capability as programed.

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EAOPR-2 Subject: (Unclassified) Reorganization of EADF (Cont'd)

b. Present planning envisions the withdrawal of a small number of experienced personnel from existing air divisions to form a training nucleus for the development of the new air divisions. Absorption of personnel from defense wings programed to be inactivated and a phased buildup of personnel from other sources should insure that a division will be capable of functioning as an operational unit when required.

4. This headquarters is presently attempting to obtain information relative to the proposed 1955 reorganization of EADF in order to permit timely planning by all headquarters concerned. Headquarters Air Defense Command has been queried as to whether the new air divisions will activate as programed and operate utilizing lashup facilities, or whether the re-organization of EADF will be delayed until a later date which will coincide with the availability of facilities. You will be advised when this information is received.

5. This letter is classified Secret in accordance with paragraph 23b, AFR 205-1.

BY ORDER OF THE COMMANDER:

JAMES R WORLINE  
Captain, USAF  
Asst Adjutant

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COPY

HEADQUARTERS  
4707TH AIR DEFENSE WING  
Otis Air Force Base, Falmouth, Mass.

DWOMO

18 Dec 54

SUBJECT: Reorganization Plan for the 4707th Air Defense Wing

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

THRU: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. It is felt at this headquarters that a reorganization of this Wing would greatly facilitate the performance of our mission.
2. Higher headquarters has confirmed this verbally and has requested that a study be forwarded incorporating our desired organizational structure. However, because of the limited time involved, a complete study showing detailed workload and work flow figures along with AFSC's and rank breakdown has not been possible. Therefore, the information contained herein and in the attachments is confined solely to command line features.
3. We have followed the objectives, principles, and policies as outlined in Air Force Regulation 20-1, dated 15 April 1953, in arriving at our desired structure.
  - a. Our first choice of command line structure as shown on attachment number one involves the creation of an Air Base Wing at Otis Air Force Base. With the number of wings throughout USAF being tightly controlled by Congress, it is not known at this level whether this is the most practical method or not. The mission of this Wing would be of a purely support type and subordinate directly to 32d Air Division (Defense).
  - b. The second choice, attachment number two, involves establishing an "Air Base Command" at Otis Air Force Base organized on the principal of an Air Base Wing. The nomenclature of this unit is open to discussion. The Army term "Regiment" most aptly fits the echelon level and mission it would hold. The mission of this Headquarters would be of a purely support type and subordinate to the 4707th Air Defense Wing.

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Ltr, 4707th Air Def Wg, DWOMO, Subj: Reorganization Plan for the 4707th Air Defense Wing

c. As will be noted on both attachments, management levels have been established below the 4707th Air Defense Wing and the Otis Base Command. We believe that this "team" type structure will give us the best possible operational capability under present conditions as well as provide for expansion capabilities during times of national emergency as outlined in Air Force Regulation 20-1, dated 15 April 1953.

4. The increase in personnel spaces remains the same under both methods and is confined primarily to the manning of the proposed group headquarters. The numbers of officers and airmen shown as required increases are arbitrary and have not yet been broken down by rank or AFSC.

2 Incls  
a/s

RICHARD A. LEGG  
Colonel, USAF  
Commander

C O P Y

HQ 4707TH AIR DEF WG DWOMO Subj: Reorganization Plan for the  
4707th Air Defense Wing

OPR 1st Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6  
New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base, New-  
burgh, New York

1. Inclosed proposed changes to the organizational structure of  
the 4707th Air Defense Wing forwarded for your comments and/or necessary  
action.

2. This headquarters recommends approval of proposal number two  
(2) with the following modifications:

a. The fighter-interceptor squadrons stationed at Otis AFB  
and the 762nd AC&W Squadron should be under the Base Commander. It is  
felt that by placing all base support units and active air defense  
units under one commander a more smooth operation would result. i.e.  
if a base is operated by an Air Base Group, all fighter-interceptor  
squadrons and the AC&W Squadron would be under the Group Commander.

3. This headquarters is of the opinion that when two or more units  
of this command are located on the same base they should be placed  
under the same commander. Such an organization will provide more  
centralized control without over-extending span of control.

4. It is further recommended that within this division the figh-  
ter-interceptor squadron and the AC&W squadron normally exercising  
GCI control be under one commander in the organizational structure.

2 Incls  
a/s

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAODO

2 Feb 55

SUBJECT: Reorganization of Otis Air Force Base

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. References:

a. Letter, Headquarters 4707th Air Defense Wing, DWOMO,  
Subject: Reorganization Plan for the 4707th Air Defense Wing, with  
1st Indorsement, your headquarters, OPR, dated 18 December 1954.

b. Letter, this headquarters, EAOPR-4, dated 22 January  
1955, Subject: Reorganization of Large Air Defense Groups, to 4707th  
Air Defense Wing, with information copy to your headquarters.

2. Your plan for reorganization of the 4707th Air Defense Wing  
has been reviewed and is being used in arriving at an Eastern Air  
Defense Force position concerning the problem of reorganization of the  
large Air Defense Command Bases. As you know, Air Defense Command  
has sent its proposal on this subject to USAR (enclosure #1 to refer-  
ence b above); however, we have received an information copy of a  
message from headquarters ADC to hq USAF requesting that the proposal  
be returned without action. At the present time, the reasons for this  
action are not known but you will be advised upon the receipt of  
additional information.

BY ORDER OF THE COMMANDER:

JOHN L. WARREN  
Colonel, USAF  
Adjutant

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FM HQ EADP STEWART AFB NY  
TO COMDR 32D ADIV /DEF/ SYRACUSE AFS NY  
INFO COMDR SYRACUSE AF STA NY

/S E C R E T/EAOPR-2 C985. FYI AND PLANNING PURPOSES. HQ ADC HAS ADVISED THAT SYRACUSE AF STA HAS BEEN SELECTED AS THE SITE FOR A DIR CENTER OF THE LINCOLN TRANSITION SYS IN SUB-SECTOR 5 AND ALSO SELECTED AS THE LOC OF A COMBAT CEN FOR THE REGION ENCOMPASSED BY SUB-SECTORS 1 THROUGH 5. INFO CONCERNING THE FAC RQMTS NEC TO SUP THE DIR AND COMBAT CENS AT SYRACUSE AF STA W/B FWDD TO THE COMDR CMM SYRACUSE AF STA APPROXIMATELY 15 SEP 54.  
09/2031Z SEP 5F1

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

MDM

15 November 1954

SUBJECT: Installation Planning Board Meeting

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado  
Commander, Eastern Air Defense Force, Stewart Air Force Base, Newburgh, New York  
Commander, Air Force Installation Representative, North Atlantic Division, 80 Lafayette Street, New York, New York  
Commander, Corps of Engineers, New York District, 80 Lafayette Street, New York, New York

1. A meeting of the Installation Planning Board of this station was held on 4 November 1954 for the purpose of preliminary planning of support facilities required for SAGE project.

2. The following members of the Planning Board were present:

- a. Colonel Robert S. Israel, Jr., Division Commander
- b. Colonel William H. Clark, President of Board
- c. Colonel Gordon F. Thomas, Member
- d. Colonel L. C. Heartz, Member
- e. Lt Colonel H. C. Dawson, Member
- f. Lt Colonel E. W. Fuller, Member
- g. Major R. C. Archer (Chaplain), Member
- h. Major William F. Daniels, Member
- i. Major F. E. Torr, AFIR NAR
- j. Lt Richard L. Bidwell, Member

3. The following non-members were present:

- a. Colonel M. C. Malone, NYANG
- b. Lt Colonel K. J. Ozment, 4707th Air Defense Wing

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Hq 32d AD(D), MDM, Subject: Installation Planning Board Meeting

- c. Lt Colonel L. J. Dissette, NYANG, Hancock Field
- d. Major Paul F. Austin, Installations, EADF
- e. Mr. Charles Robinson, City of Syracuse Water Department
- f. Mr. E. M. Baylord, County Superintendent of Highways
- g. Mr. John J. Donnelly, New York District Engineers
- h. Commissioner W. A. Barry, Dept of Parks, City of Syracuse (Hancock field comes under the Department of Parks).
- i. Mr. D. M. Bowes, Architect, New York Corps of Engineers
- j. Mr. R. W. Meyers, AFIR NAR.
- k. Mr. D. S. Wade, Installations, EADF

4. The minutes of the meeting are attached as Inclosure 1.

5. Since the discussion of relocation of Thompson Road could not be finalized as shown in the minutes, a meeting was held with the Onondaga County Highway Commission on 9 November 1954, the minutes of which are attached as Inclosure 2.

6. Since the proposal of the relocation of Thompson Road requires an overlay from the county showing their exact proposal, the proposed sitings of the requirements is being withheld until the whole proposal can be shown on the proposed master plan.

7. The County Engineer stated this will be forthcoming in two weeks, at which time the complete proposed plan will be forwarded to EADF as per telephone conversation with Mr. D. S. Wade, EADF, on 12 November 1954.

8. Upon removal of the inclosures this correspondence may be downgraded to UNCLASSIFIED in accordance with paragraph 25g, AFR 205-1, dated 15 December 1953.

FOR THE COMMANDER:

2 Incls:

- 1. Minutes of Meeting of  
Instl Planning Bd (6 cys)
- 2. Minutes of Meeting w/Onon  
County H'way Comm (6 cys)

*Everitt W. Howe*  
EVERITT W. HOWE  
Major, USAF  
Adjutant

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MINUTES OF MASTER PLANNING BOARD  
8 NOVEMBER 1954

Members present:

Charles Robinson	Syracuse Water
E. M. Baylard	County Supt. of Highways, Onondaga County
John J. Donnelly	N.Y. District Engineer, Corps of Engineers
W. A. Barry, Commissioner	Department of Parks, Syracuse, N.Y.
D. M. Bowes	Architect, N.Y. Engineering District
R. W. Myers	AFTR, NAR, USAP, New York, New York
Major F. E. Torr	USAP, IRO, NAR, New York, New York
D. S. Wade	Hq, EADP (Installations)
Major F. P. Austin	EADP (Installations)
Colonel M. C. Malone	Hq, NIANS, Commander, FPTS, Hancock Field
Lt Col L. J. Dissette	ANG Base, Hancock, 107th Fighter Group
Colonel Robert S. Israel, Jr.	Commander, 32d Air Division (Defense)
Colonel William E. Clark	Deputy Commander, 32d Air Division (Defense)
Colonel Gordon P. Thomas	32d Air Division (Defense)
Colonel L. C. Heartz	32d Air Division (Defense)
Lt Colonel H. C. Dawson	32d Air Division (Defense)
Lt Colonel E. W. Fuller	32d Air Division (Defense)
Major R. C. Archer	32d Air Division (Defense)
Major W. F. Daniels	32d Air Division (Defense)
Lt. Richard L. Bidwell	32d Air Division (Defense)
Lt Col K. J. Oment	4707th Air Defense Wing (Installations)

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*Encl 1*

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There was a meeting of the Master Planning Board in the Conference Room, 4 November 1954. The purpose of the meeting was to come up with a master plan to meet the future expansion at this station. Expansion involves city, county and various civilian representatives who are here. Major Daniels explained to the group that what was discussed here this afternoon was of a confidential nature and would not be repeated. The city and county officials were here to help determine if water and power requirements can be met.

Major Daniels explained the proposed plan. Discussion of the boundaries and relocation of Thompson Road was held. It would be preferred to close Thompson Road as this would split the base and require overwalks for foot passengers and lights for vehicular traffic.

As it presently stands, Thompson Road is planned to be relocated in such a way where it will be moved back from its present course.

Mr. Baylard, County Superintendent of Highways, Onondaga County, speaking from a civilian standpoint, said he didn't like it. He had no alternate suggestion even though Colonel Clark stated it would be preferred if the road did not run through the installation.

Mr. Barry from the Department of Parks and Colonel Malone, Air National Guard, wanted to get Thompson Road out of the jet approach area. Schuyler Road was used during the war when Thompson Road was closed. At the present time, the Air National Guard program is expanding and there is an extension to the runway which cannot be used because of the traffic on Thompson Road. Also, the safety of the people is in jeopardy inasmuch as people parking on the runway and driving past may involved in an accident with an aircraft one of these days. The argument on the runway is with the county and Air National Guard right now. We have no argument as we have only a few planes. The firing range of the National Guard unit is also located adjacent to the runway extension and Thompson Road is in a bad place just all the way around.

Colonel Clark felt that if the public could be made aware of the hazard of having Thompson Road open, they may be more agreeable to closing it down and using Schuyler Road. Colonel Israel suggested they be briefed on these points.

Before any further discussion can be had, or any decision reached, it was decided a meeting be held with the Department of Highways, either Monday or Tuesday (whichever date is convenient) if this was suitable between the group and the highway department. The final determination would be held up pending the outcome of this meeting. It was preferred the meeting be held at this station inasmuch as all maps and charts are of a classified nature and located here. Also, the physical aspects can be taken into consideration. When a conclusion is reached, tracings showing the county's proposal and the sitings agreed on here today can be filmed and sent to EADF. No signatures can be obtained on the plan today.

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If Thompson Road is closed and traffic diverted to Schuyler Road, this would involve road repairs and the question arose as to who would pay for the costs involved. As it presently stands, the National Guard has an allocation of \$66,000 set aside for the relocation of the road. Additional funds can be programmed. If the military has a requirement to close the road, the money should be spent to move the road entirely out of the way.

Major Torr stated the Air Force has special funds which provide for relocation of roads. In case of widening Schuyler Road, there may be a land acquisition involved.

The Air Force, if the county does not agree on closing Thompson Road, will consider relocating the proposed operations building. The site planned at the present time is across from the main gate. This was chosen as it was the highest ground and also a very firm foundation. Also taken into consideration is the fact, due to its height and size, it would have to be in such a location as not to interfere with the incline plans of the aircraft.

Major Torr advised Burns & Rowe were interested in getting test borings but could not say when they could be made. Test borings will be made in several locations to see if this building can be relocated. Sufficient room will have to be allowed for fencing, etc. Moving the building to this side of the road and leaving Thompson Road open would require double fencing, etc., because of the security nature of this building. A comparison of costs at each location will also have to be made. Major Torr felt we should not bind ourselves too closely as expansion should be considered.

After a comparison of the borings is made, the ADIS office will approve the final siting of the operations building.

Colonel Clark wanted the road department to understand that the military are willing to go along with the relocation of the road but this still would be objectional to our needs. If it could be agreed to close Thompson Road and use Schuyler Road, this would solve our problem of looking for new locations for the proposed building. Thompson Road is a direct route north and south but Schuyler Road parallels it.

Family Housing

At present, 196 units for airmen are proposed. These would be located along Thompson Road extending south of the base. Family housing for officers will consist of 141 units located west of the proposed operations building, together with a new mess and club and BOQ.

There are 11 units sited in the '54 program: 5 are allocated for officers and 6 for the NCO's.

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We were unable to determine from higher headquarters what type of units to plan for or what type of building will be erected. Present criteria is 3 units per acre.

Fuel Storage

Fuel storage is taken care of. Gasoline storage will be increased by 1,000 gallons. This will be added to the present storage facilities in front of the motor pool.

Communications Buildings

The requirement for the Radio Receivers building is 1,023 square feet. There are 686 sq. ft. in the existing facility. The addition of 338 sq. ft. will be placed on the present structure. Also, an addition of 339 sq. ft. to the radio transmitters building will increase the present facility of 687 sq. ft. to the required 1,023 sq. ft.

Water Supply

Major Torr explained that a dependable and sufficient source of water will have to be insured. There is a loss of about 250 gallons per minute due to evaporation in recirculating the water. The present water pressure is about 90 lbs.

During the war, the city supplied about one million gallons of water per day to the air base and national guard without cost. The city has no franchise. When the war ended, the state and federal housing came in and used the same system that was used by the troops. The city repaid the army in kind for water used by the city when the housing went out.

Water is supplied here from two sources; the New York Water Service and the city.

There is a 10" pipeline in the area. The New York Water Service is continually extending their mains down Taft Road. At present, there is an 8" main down as far as Church and Taft Roads. Continuation of the present line is to serve us.

The Onondaga County Water Authority is being set up to furnish water from all sources. It was suggested we contact this service and have them prepare for the future requirements for this installation. When this materializes, they will be in a position to give service. The Onondaga County Water Authority would take over any contract with the New York Water Service.

Colonel Clark said we should have our own water supply by the time this takes place.

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Major Torr advised we investigate the source of water and program a new waterline to supply us with sufficient water now and in case of further expansion. The new line would parallel the present pipeline so that during construction water service will be available. Two sources would be desirable.

The present waterline goes up Thompson Road, cuts across the taxiway and encircles the entire base.

Major Torr asked if it became necessary to run a new line would we be involved in private property owners or just the city. At the present time, the majority is government property. The easements run from Mattydale and south. From the north it is GSA. From there to Thompson Road it would be government. From there to the taxiway about 100' and along there it would be no difficulty at all. East of the boundary line there is no control or right of entry into this area. The city is in agreement to turn over the present easements or give right of use if it does not interfere with the use of the airport.

It is settled the Air Force will take over this area and provide easements to the city.

Mr. Donnelly brought up one real estate problem. Any move across Thompson Road would involve taking over the GSA property on the east side of Thompson Road by the Air Force and Air National Guard.

The piece of property at the corner of Thompson and Taft Roads (across from the Esso Station) is private property. A stop order can be put on any land in the process of going back to private owners. The boundary of the base can be irregular so as not to interfere with private property.

Airmen's Dormitory

Additional dormitory space will be required for airmen. The present facilities will not meet future requirements.

There are two proposals. The first is to convert the present BOQ's into an airmen's dormitory and build a BOQ in the officers' housing area. The second would be to build an additional dormitory to meet the airmen's criteria.

The first proposal is the suggested as Colonel Israel prefers having all the officers quartered together -- both family and bachelor officers' quarters.

There presently are 41 suites in the two BOQ buildings. Converted this would house 164 airmen, plus an additional 10 rooms in the Officers' Mess portion of the building.

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Major Torr stated the determining factor would be the cost per man involved as the cost per officer is higher than for an airman. The cost of a new BOQ will be compared to a two-story dormitory to house 133 airmen or a three-story dormitory which will house 198 airmen.

Colonel Israel further stated the prestige of the NCO's would be enhanced by providing them with the present BOQ's.

Power

The Niagara-Mohawk Electric Company presently supplies the electric power. It would be necessary to determine a dependable and sufficient source of electricity. This is no problem other than entering into a contract.

EADF will contact Burns & Rowe in New York City (the architects) who will contact the power company and get footage and easement requirements. This must be included in the program now. The main item of this discussion was to program the requirements rather than the actual siting of buildings and utilities.

Messing Facilities

The plan as shown requires a 400 man airman's mess. We now have provisions for feeding 230. There is no room for expanding the present mess hall. Our proposal is to build a combined NCO mess and club across from the airman's club. The existing mess hall will be for the lower four grade airmen. There is an established criteria for 4,400 square feet for our proposed strength of 170 NCO's for use as NCO club and mess.

Officers' Quarters

Based on officer strength and Air Force criteria facilities for 35 officers are presently authorized. Our present BOQ's allow for 41. No one can give us firm figures and actual figures may be higher. If we convert the present BOQ's for airmen, we would have to program quarters and messing facilities for 35 bachelor officers.

Major Torr again stressed the cost per man for officers as compared to airmen would present a problem. The new quarters will be located across the road in the officers' family housing area.

Heating Plant

The present plant is built up to 535 horsepower in previous programs. There is an addition for one more boiler and another boiler in the '56 Public Works Program, and one in the '55 M&O Program. There is sufficient room in the present boiler plant area for further expansion.

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The district engineer should make a study to see if this will be sufficient to carry the load of the known future requirement. The housing units will probably have individual heat plants.

Parking

Parking areas will be located with buildings, as required.

Access Roads

Buildings and housing units are located along existing taxiways as an advantage to the government to save building additional roads.

Infirmary

Based on the proposed strength, there is a provision for an 18 bed infirmary. This will be located in line with the present operations building and new administrative building (heading southwards).

Open Motor Pool Storage

The present motor pool storage area has a paved area which will suffice this requirement.

Warehouses

There is a 20,000 square feet requirement for base bulk supply warehousing. At the present time 4,202 square feet are in existence or in public works programs now.

Two general purpose warehouses, each containing 6,144 square feet, would be built near the existing warehouse. Also, one cold storage warehouse of 1,592 square feet would be erected across from the motor pool and a modified AIO warehouse of 2,000 square feet would be located in the AIO compound (back of the present volley ball court).

Airmen's Club

A quantity of 8,100 square feet is required. We presently have in the 56 plans, 3,000 square feet, which will leave us with a shortage of 5,100 square feet. We have not resolved what to do about it -- get by with the present one programmed or expand it.

Major Torr advised we hold out for the new club of 8,100 square feet. We can show the deficiency in the original request and say we want the new one. Inasmuch as this appears in the minutes, it will not require any further action.

PX and Sales Store

We have a requirement of 4,992 square feet. There is existing 1,627 square feet. The present post exchange would be expanded to meet

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the requirement and it would be left in its present location.

Recreation Facility - Multi-Purpose

The required quantity is 10,200 square feet. Presently we have available 3,287 square feet, leaving a deficiency of 6,913 square feet. This would not give us much of a gymnasium. It is proposed we convert the present recreation hall to a 150 seat chapel, applying this space against the chapel space, and constructing the combined gymnasium and recreation hall in the airmen's area. The present building cannot be expanded.

Major Torr advised the chief chaplain has the right to determine the site and the type of structure for chapels and this item would be decided by him.

AIO Administration

One thousand square feet are allocated for AIO administration. The AIO shop has a requirement of 3,000 square feet. All shops would be put in the one building in the AIO compound and the administration area would also be there.

Gate House

The gate house depends on the location of the entrance to the base. Two will be required, regardless of the location of the new operations building. One is required at each end of the present Thompson Road (if it is closed) or else one on each side of the road should it stay as it presently is.

Automotive Shop

Three thousand six hundred thirty eight square feet are required. We have 2,352 square feet, located at the present motor pool. The existing structure will be expanded by adding additional bays.

EADP did not give these facilities considerations, which we have added:

Fire House

There is not existing any structure for fire fighting facilities on this base. With the expansion we feel that it requires a two stall fire station located near the present gate house. This would be most centrally located and have access to all roads.

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Officers' Club

The bulk of personnel will be in the new operations building and the officers' club should be close by. The location will fluctuate whichever way the operations building goes. The area behind the airmen's club will be reserved for the baseball and softball field.

Sewage

There is existing an 8" sewage line which goes down Thompson Road to the lift station. This would be as undependable as the water system. It is presently on Government land. To utilize the present sewer, we must increase the sewage beds to go along with the increased housing, etc.

Major Austin concluded by saying a plan covering what we anticipate doing will have to go to EADP. We will have to wait for the meeting with the county. Based on the outcome, the sketch will be submitted.

He will always question three separate mess halls and asked what will happen to the existing operations building. Major Daniels stated it would be converted into administrative space.

The meeting adjourned approximately 1630 hours.

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MINUTES OF MEETING

WITH ONONDAGA COUNTY HIGHWAY COMMISSION

9 November 1954

The following group met, this date, in the Conference Room to discuss the matter of relocating Thompson Road in view of the proposed expansion of both this air base and the Air National Guard facilities:

Mr. E. M. Baylard, County Superintendent of Highways  
Mr. Roy A. Stewart, Supervisor  
Mr. Frank X. Costello, Supervisor  
Mr. Gerald W. Ladd, Supervisor  
Mr. Joseph Bernat, Supervisor  
Mr. Thomas H. Dyer, Supervisor  
Mr. Albert Crenstein, Supervisor  
Mr. H. A. Fisselbrand, Supervisor  
Mr. Byron E. Lee, Supervisor  
Mr. J. W. Edgcomb, County Attorney  
Colonel Robert S. Israel, Commander, 32d Air Division (Defense)  
Colonel M. C. Maione, Air National Guard  
Major William F. Daniels

Major Daniels explained the proposed expansion of the installation. He then pointed out the disadvantages of having Thompson Road divide the installation. He introduced Colonel Maione of the Air National Guard.

Colonel Maione spoke of the increased activity of the Air National Guard. At the present time money is allocated for the relocation of Thompson Road, but it would be preferred if this road could be taken out of the military area entirely. He stressed these conditions:

1. The Guard is expanding and with jets, civilian traffic on the road will be a hazard as these aircraft may land short of the runway and do not control as rapidly or as well as you would like to control them.
2. The East-West runway was extended but cannot be used as Thompson Road crosses it.
3. There is a taxiway which cannot be used as it becomes part of Thompson Road.
4. The firing butt of the Air National Guard is also located east of Thompson Road and is in a critical position.
5. As it stands now, the Air National Guard will ask the county if Thompson Road can be closed during the three summer months, starting June 1st, as there will be four wings in and the tactical flying will require use of the extended runway.

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*3142-54*

*Page 2*

*CONFIDENTIAL*

After some discussion, the following suggestions were made:

1. The road can be relocated from the taxiway to Totman Road.
2. All traffic could be diverted to Schuyler Road.
3. Fuller Road (which is presently a dead end) could be extended to meet Totman Road.

The last suggestion was considered the best. It is not as far as Schuyler Road but greater distance to be constructed than the first proposal. There is a distance of 6,092 feet from the dead end of Fuller Road to Totman road.

The question of who would pay for this new road was brought up by the Highway Department. At the present time the Air National Guard has \$66,000 allocated for the relocation of the road. If this could be used for building a road on government property it would not be as difficult a problem to use these funds as it would be if they were required to pay for a county road. Also additional funds could be programmed. The Highway Department felt, in all fairness to them, if they have to give up Thompson Road and rebuild a road elsewhere, they should be reimbursed.

Major Daniels explained that at this time we were trying to prepare a master plan and program money, however, a decision would be needed from the county on the road.

Plans drawn up at this echelon must go through channels through various headquarters to USAF showing in detail what is proposed to do. We have to justify each item. After review of the various comments, the plan is presented to Congress and that is where the money is appropriated. This would take about two years.

Colonel Israel told the group this is a very large program and is vital to the defense of the country. He felt sure for a small item as moving a road, if we could say the county concurs (and use it as a justification), money would be allocated. Construction on the expansion is expected to start some time in late 1957 or 1958.

Any plans prepared will be done under the supervision of the State Department of Public Works and the Corps of Engineers after a satisfactory survey is made on traffic checks, design and cost estimates.

Mr. Baylard, County Superintendent of Highways, said a decision will be given as soon as possible so that it can be put in the military program. A commitment will be made on rerouting Thompson Road on the basis of federal funds being provided to defray the cost of any land acquisition and construction. A satisfactory situation to both the military and the county will have to be agreed on.

*CONFIDENTIAL* 3142-54

*CONFIDENTIAL*

The committee asked if they would lose control of the road when it goes over government property. The answer to that is "No." The County would get title to the road and relinquish their present title to Thompson Road.

Colonel Israel asked the Highway Department if they could put NO PARKING signs up on the runway. This was requested for public safety. If cars park on there after the signs are posted, the sheriff or the State Police would be able to tag the offenders.

A representative of the Highway Department concluded by saying he hoped the military did not feel they were trying to be obstructionists, but they were representing taxpayers and any increase in the highway budget subjects them to criticism. They recognize the part we are going to play and do not want us to feel they stood in the way of developments of the future. It is felt an answer can be worked out that would be mutually satisfactory to both parties.

*LLH*

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*3142-54*

969.

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**HISTORICAL REPORT  
of the  
32d AIR DIVISION (DEFENSE)**

RETURN TO  
RESEARCH STUDIES  
INSTITUTE  
U.S. AIR FORCE  
HISTORICAL DIVISION  
WASHINGTON, D.C. 20330  
R-DIV-32-111  
July - Dec 1954  
V. 3



**THE AIR DEFENSE OF A SECTOR  
JULY through DECEMBER 1954**

SUPPORTING DOCUMENTS 11

**HISTORICAL OFFICE  
SYRACUSE AIR FORCE STATION, NEW YORK**

**SECRET**

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RSI Conti No  
**S12039**

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RSI Cont. No  
S12039

3-3844-3

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HISTORICAL REPORT  
OF THE 32D AIR DIVISION (DEFENSE)  
Number Seventeen

THE AIR DEFENSE OF A SECTOR  
July through December 1954

RCS: 1-AF-D2

SUPPORTING DOCUMENTS  
VOLUME II (Documents 80 thru 158)

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*C O N F I D E N T I A L*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OCE

9 July 1954

SUBJECT: Unit Tactical Call Signs

TO: Commanders, Defense Wings  
Commanders, AC&W Squadrons  
Commanders, Fighter Interceptor Squadrons

The following EADF message /CONFIDENTIAL/ COC 169 is quoted for your information and use " Plan 1, RCAF TSI-4-2, Unit Tactical Call Signs :

UNIT	R/T	S/T
Combat Operations Centre /ADCHQ/ ADCCS	Bagpipe	K08
1 ADCC St. Denis Que.	Larkspur	U9N
2 ADCC Chatham NB	Gigolo	MY1
3 ADCC Edgar Ont.	Picador	Y6K
5 ADCC Vancouver BC	Watchman	D2T
AC&W Squadrons		
11 AC&W Sq St Denis Que.	Cameo	D1M
12 AC&W Sq Mont Apica Que.	Sugarcane	NL2
13 AC&W Sq St Marie Que.	Tuxedo	Q1C
14 AC&W Sq Parent Que.	Crosscut	YY1
21 AC&W Sq St Margaret NB	Hailstone	WN8
22 AC&W Sq Halifax NS	Haystack	V2N
31 AC&W Sq Edgar Ont.	Scooter	JP2
32 AC&W Sq Foymount Ont.	Piker	L90
33 AC&W Sq Falconbridge Ont.	Lapdog	P8W
34 AC&W Sq Senneterre Que.	Redtape	Z3W
51 AC&W Sq Comox BC	Heatwave	BL1
52 AC&W Sq Tofino BC	Badger	V9X
912 AC&W Sq Ramore Ont.	Crystal	A2F
917 AC&W Sq Williams Lake BC	Deadeye	KTL
918 AC&W Sq Prince George BC	Anode	MG3
919 AC&W Sq Beaver Lodge BC	Eskimo	OV9
AW Squadrons		
211 AW Sq Moisie Que.	Blackbird	P2U
221 AW Sq Sydney NS	Trapdoor	B7C
226 AW Sq Gander Mfld	Tomboy	GD9
501 AW Sq Holberg BC	Bishop	WQ8
AC&W Squadrons /AUX/		
2400 AC&W Sq Toronto Ont.	Largo	OL9
2401 AC&W Sq Montreal Que.	Frostbite	NU8

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*C O N F I D E N T I A L*

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~~C O N F I D E N T I A L~~

Hq 32d AD (D) OCE Subject: Unit Tactical Call Signs

UNIT	R/T	S/T
2402 ACGW Sq Winnipeg Man	Potash	C9C
2403 ACGW Sq Calgary Alta	Barker	JY2
2405 ACGW Sq Halifax NS	Porpoise	QT9
2416 ACGW Sq Ottawa Ont.	Apex	RLG
2424 ACGW Sq Hamilton Ont.	Dartboard	YO2
2442 ACGW Sq Vancouver BC	Pelican	ZG1
2450 ACGW Sq Sherbrooke Que.	Scabherd	U2R
2452 ACGW Sq Quebec Que.	Batman	T2H
2453 ACGW Sq Three Rivers Que.	Gancan	K8F
2455 ACGW Sq Victoria BC	Fretsaw	MJ1
2451 ACGW Sq Windsor Ont.	Pitchfork	C8A
Stations		
St Hubert Que.	Redhot	WAB
Chatham NB	Budget	RLX
Bagotville Que.	Blackball	N10
Uplands Ont.	Fireboat	ALL
Northbay Ont.	Suitcase	XQ9
Comox BC	Mohawk	KZ1
Sea Island BC	Buckheat	TL9
Hamilton Ont.	Subway	L8K
Toronto Ont.	Redcoat	Q9Z
Val D'Or Que	Filbert	ZT8
Casey Que	Davenport	G2L
Calgary Alta	Cucumber	VO9
Miscellaneous		
1 Gp RCAF /AUX/ Hq Montreal Que.	Cupid	U9W
2 Gp RCAF /AUX/ Hq Toronto Ont.	Redcap	PT2
1 RACU Montreal Que.	Pepper	HY2
2 RACU Toronto Ont.	Paritan	K2P
Calibration Flight Ground Station	Lascar	CH8
ADC Hq FM Station	Fricasie	
GCI Arty Detachment St Denis Que	Turnkey	
AAOR Vancouver BC	Fireman	
AAOR Montreal Que.	Migraine	
Merinecraft 849 Chatham NB	Topaz	
321 Radio Unit Uplands Ont.	Umpire	
322 Radio Unit North Bay Ont.	Orchard	
RCSA /AA/ Picton Ont.	Twostep	
Aircraft Call Signs		
1 /F/ OTU Tactical Flight Chatham NB	Ukelele	
1 /F/ OTU Conversion Flight Chatham NB	Turnpike	
1 /F/ OTU Gunnery Flight Chatham NB	Trusty	
3 /AW/ OTU North Bay Ont.	Scarib	
3 /AW/ OTU Jet Instrument Flying School	Concrete	
3 /AW/ OTU Instrument Conversion Flight	Microbe	
104 /K/ Flt GCI Practice St Hubert Que.	Tomtom	
104 /E/ Flt Practice St Hubert Que.	Rhubarb	
104 /K/ Flt St Hubert Que.	Dandruff	GX2
121 C&R Flt Sea Island BC	Chopstick	Q9N

~~C O N F I D E N T I A L~~

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*C* O N F I D E N T I A L

Hq 32d AB(D) OCE Subject: Unit Tactical Call Signs

UNIT	R/T	S/T
Marine Sq /12 Gp Hq/	Soapsuds	O&C
400 /F/ Sq /AUX/ Toronto Ont.	Turban	
401 /F/ Sq /AUX/ St Hubert Que.	Consort	
402 /F/ Sq /AUX/ Winnipeg MB	Tycoon	
403 /F/ Sq /AUX/ Calgary Alta	Redskin	
407 /NR/ Sq Comox BC	Eyebrow	P&X
707 /NR/ Sq Comox BC /Training/	Waxwork	
411 /F/ Sq /AUX/ Toronto Ont.	Hairpin	
419 /AW/ Sq Comox BC	Midget	
420 /F/ Sq /AUX/ London Ont.	Gipsy	
423 /AW/ Sq St. Hubert Que.	Proctor	
424 /F/ Sq /AUX/ Hamilton Ont.	Avocals	
425 /AW/ Sq St. Hubert Que.	Midwife	
428 /AW/ Sq Uplands Ont.	Superman	
431 /F/ Sq Bagotville Que.	Waterfall	
432 /AW/ Sq Bagotville Que.	Antler	
433 /AW/ Sq North Bay Ont.	Frogman	
438 /F/ Sq /AUX/ St Hubert Que.	Freightcar	
440 /AW/ Sq Bagotville Que.	Scollop	
442 /F/ Sq /AUX/ Sea Island BC	Hallmark	
443 /F/ Sq /AUX/ Sea Island BC	Tomcat	
445 /AW/ Sq Uplands Ont.	Crossbow	
ADC ECM Flt St Hubert Que.	Bambino	
Ground Observer Corps		
Filter Center Vancouver BC	Hector	
Filter Center North Bay Ont.	Claypipe	
Filter Center Barrie Ont.	Moneybox	
Filter Center London Ont.	Crowbar	
Filter Center Brockville Ont.	Bathtub	
Filter Center St Jerome	Bulldog	
Filter Center Three Rivers Que.	Waterlog	
Filter Center Rimouski Que.	Rugbear	
Filter Center Monoton NB	Gizzard	
Filter Center Truro NS	Piper	
Filter Center Gander Nfld.	Frigid	
Filter Center Peterborough Ont.	Songster	

BY ORDER OF THE COMMANDER:

*Virginia L. Sweet*

VIRGINIA L SWEET  
1st Lt, USAF  
Assistant Adjutant

*C* O N F I D E N T I A L

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C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADCOOT-52

17 August 1954

SUBJECT: (Unclassified) Canadian Rules of Interception and Engagement

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Enclosed herewith are copies of a letter from the Air Officer Commanding, RCAF Air Defense Command, to his sector commanders concerning Canadian rules of interception and engagement. It is requested that particular note be given to paragraph 4 of the letter. Under the provisions of this paragraph, a pilot of this command could conceivably be given an order to fire a warning burst across the nose of an unidentified aircraft, if all other methods of forcing the aircraft to land fail. It is very unlikely that this authority will ever be exercised; nevertheless, it is necessary that all aircrews and other personnel of this command who operate near or over Canadian territory are thoroughly familiar with this authority.

2. It is requested that the enclosed letter be forwarded to the Air Divisions (Defense) whose sectors lie adjacent to Canada and that all personnel concerned with intercept operations, particularly aircrews, become completely familiar with the provisions of this letter.

BY ORDER OF THE COMMANDER:

1 Encl  
Clas Ltr Fr AOC RCAF ADC,  
Subj: Rules of Intercep-  
tion and Engagement, 22 Jul 54  
(2 cys)

C. F. HUMPHREYS  
Captain, USAF  
Asst Command Adj

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C O P Y

Hq ADC ADOOT-B2 Subject: (Uneld) Canadian Rules of Interception  
and Engagement (Cont'd)

EACOT-OS (17 Aug 1954) 1st Ind 7 Sep 1954

Hq EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 38d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Forwarded for compliance with paragraph 2 of basic letter.
2. Reference our electrical message, EACOT-CW 29381, 1 September 1954. This headquarters is taking action to obtain an additional copy of CANUSEADP 2-54, 1 March 1954, for further distribution to Commander, 26th Air Division.
3. Provisions of this indorsement are not classified.

BY ORDER OF THE COMMANDER:

1 Encl:  
n/c

BEN D. MOORHEAD  
1st Lt., USMP  
Asst Adjutant

OOT-FO (17 Aug 54) 2nd Ind

HEADQUARTERS, 38D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York, 24 Sep 1954

TO: Commander, 4707th Air Defense Wing, Otis Air Force Base, Falmouth,  
Mass  
Commander, 4711th Air Defense Wing, Presque Isle AFB, Presque Isle,  
Maine

1. Forwarded for compliance with paragraph 2 of basic letter.
2. Desire widest possible dissemination to operational personnel.

BY ORDER OF THE COMMANDER:

1 Incl  
n/c

EVERITT W. HOWE  
Major, USAF  
Adjutant  
2

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C O P Y

DEPARTMENT OF NATIONAL DEFENCE  
Royal Canadian Air Force

SECRET  
Nr TS4-2-0(ADC)

St Hubert, P.Q., 22 Jul 54

Sector Commander:  
1 ADCC, Lac St Denis  
2 ADCC, St Margarets  
3 ADCC, Edgar

Group Commander  
12 Air Defence Group.

Copies to:  
Commander, Air Defense Command, USAF  
Commander, in Chief, Northeast Command

Rules of Interception and Engagement

1. The rules of interception and engagement of unidentified aircraft over Canadian territory have been revised and will be issued shortly as Air Staff Instruction 2/5. The rules and procedures under which this command's fighter aircraft intercept and engage when over the territory of the USA will be promulgated as Air Staff Instruction 2/5/1.
2. The Commander, USAF Air Defense Command, and I have formally agreed to issue such instructions to the forces under our respective Commands and furthermore that such instructions will not be altered or amended without our prior notification or consultation. By formal agreement between Commander in Chief, Northeast Command and myself all air defence forces in the 64th A.D. Sector come under the operational control of the AOC, RCAF ADC and operate under Air Staff Instruction 2/5.
3. It is necessary that you know of these agreements. Moreover, it is imperative that all who may be concerned or involved at any time have full knowledge in detail of the rules and procedures in the instructions referred to at para 1. Will you please ensure by periodic check that this is so.
4. You will note that I have delegated considerably more responsibility and authority to Sector Commanders in the new Rules of Engagement. I consider this essential if you are to be prepared to meet situations which can develop with little or no notice. However, there is one authority, namely the power to order a fighter to fire ahead of an unidentified aircraft (which does not comply with other methods) designed to force the aircraft to land) which I would urge that you not consider except under the most serious and threatening circumstances. Under conditions pertaining as of this date, I would hesitate myself to order such action but rather would keep the unidentified aircraft

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under continuous close surveillance until his intentions were established. However, if international tension were high, then you might well be justified in the more severe action. You would, of course, render me a full account of all circumstances as soon as possible thereafterward.

A. L. JAMES  
A/V/M  
AGC,ADC

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CONFIDENTIAL

C O P Y

HEADQUARTERS  
655th AC&W Squadron  
Watertown Air Force Station  
Watertown, New York

SUBJECT: Summary of RCAF-USAF Cross-Training

TO: Commander  
32d Air Division (Defense)  
Hancock Field, Eastwood Sta 6  
Syracuse, New York

1. As requested by your message ACFOOT-A25, dated 12 February 1954, a short commentary and summary of results of RCAF-USAF AC&W Cross-Training Program is submitted.

2. General:

a. The warm reception which the first USAF Cross-Training team received at the 32d AC&W Squadron, Foymouth, Ontario, Canada, made it quite evident from the beginning that the mission would be a complete success. Arriving on the first day of a week-end gave personnel an opportunity for working relations which followed.

b. During the two week period, the USAF Cross-Training team worked in various positions within operations. While working in these positions, problems common to RCAF-USAF mutual defense of North America were discussed. As a result of this integration within operations crews, a working knowledge of the RCAF-ADC operational system was gained.

3. Accomplishments:

a. As a result of the RCAF-USAF Cross-Training, the following was accomplished:

- (1) Better understanding of the political, economic and social structure of Canada.
- (2) Better understanding of the structure, mission and problems of the RCAF.
- (3) Working knowlege of the RCAF Air Defense System.
- (4) Appreciation of the common bond between the United States and Canada.

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4. Effects on Coordination:

a. The effect of the Cross-Training Program on RCAF-USAF ADDC coordination to date is as follows:

- (1) An improved system for early warning telling and intelligence reporting was initiated.
- (2) A need for additional telephone circuits between stations was recognized.
- (3) Surveillance cross-telling and over-lap telling in areas of permanent echoes was begun.
- (4) Obtaining of necessary operational information over land lines is now accomplished with minimum effort.
- (5) Cross-telling of friendly fighters which are airborne, is aiding in identification of tracks.
- (6) A need for an RCAF-USAF ADDC high frequency radio backup system was recognized.
- (7) A better understanding of the procedures for passing control of friendly fighters was developed.
- (8) The urgent need for UHF radio equipment at Canadian stations was recognized.

5. Value of the Cross-Training Program:

a. The RCAF AC&W operations system is highly complex when compared to our own. Only through actually working in it, can it be understood and appreciated. As a result of this understanding, better coordination in mutual problems is possible.

b. Close friendly relations during duty and non-duty hours, discussion of National and Inter-National problems, and comparable discussion of the two Air Forces gave all present a better understanding of United States-Canadian relationship in World affairs, and a need for closer cooperation in mutual defense.

c. Through discussion of past experiences and problems, in Air Defense, Solutions to some current problems were found.

6. Recommendations:

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- a. Because of the valuable information obtained in the exchange of ideas and experiences and the ease with which problems were solved when discussed in forum style, it is recommended that the present Cross-Training Program be expanded to include a visit to the adjacent RCAF ADDC site, by each Director, for a period of two weeks, once each year.
- b. That two additional telephone circuits be established between stations P-49 and P-32.
- c. That an HF radio back-up system be established between adjacent U.S.-Canadian AC&W stations.
- d. That Headquarters, ADC, be asked to expedite installation of UHF radio equipment at Canadian AC&W sites to provide for control and emergency recovery of USAF fighter aircraft.
- e. That CPX similar to those conducted within EADF during the last year, be scheduled with RCAF ADC to provide practice in long range telling and marshaling of fighter forces. It was observed that RCAF personnel had not appreciated the value of long range telling to our stations.
- f. That the program to move the perimeter identification zone Northward above the Canadian East-West airways be expedited.
- g. That the Cross-Training Program be expanded to include communications and radar maintenance Officers.

FOR THE COMMANDER:

Info cy:  
Comdr, 4711th DW

THOMAS H. MYSLICKI  
Captain, USAF  
Adjutant

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOFR-6

14 Oct 54

SUBJECT: Correlation of Air Defense Systems

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Reference letter this headquarters, EAOFR-6, subject as above, 19 August 1954.
2. Headquarters ADC was requested to designate one Captain, Intercept Controller, AFSC 1644, Functional Code 27000, presently authorized your headquarters, as a RCAF exchange space. This request was concurred with and a request for assignment of the individual is being forwarded to Headquarters USAF.
3. The designation of this authorization as RCAF exchange position on the September 1954 UMD cannot be accomplished; however, it is anticipated that future publications will reflect the desired designation.

BY ORDER OF THE COMMANDER:

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOOT-TS

4 Nov 1954

SUBJECT: (Unclassified) Radar Evaluation ANOPS 6B Early Warning  
Kit by RCAF Personnel

TO: Commande,  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. Reference is made to our message EAEIR 1550, 12 October 1954,  
subject: Security Clearance of RCAF Personnel to Visit 762d Aircraft  
Control and Warning Squadron.

2. The RCAF Personnel will be carrying out trials to compare the  
azimuth discrimination of the Canadian and American manufactured Radar  
Set Group OA-347/CPS 6-B (Early Warning Modification Kit). The flight  
trials will require two F-94C (or similar aircraft) flying on a circular  
course around the radar station at a range of sixty miles, separated  
line astern by 2,000 yards with the rear aircraft falling back to 3,000  
and 4,000 yards on request. The separation range will be measured by  
the rear aircraft using the radar gunsight.

3. It is desired that two F-94C (or similar aircraft) be made  
available for control by 762d Aircraft Control and Warning Squadron to  
conduct the trails which are tentatively scheduled for 22 or 23 Nov 54.  
Selection of type aircraft and operating base is left to your discre-  
tion based on other commitments. RCAF Air Defense Command Headquarters  
has been advised the aircraft will be available in the Otis area. App-  
roximately two hours flying time will be required by each aircraft.

4. RCAF Air Defense Command Headquarters will advise 762d Aircraft  
Control and Warning Squadron direct confirming the security clearance of  
the civilians involved and the dates for the trials. Your headquarters  
will receive an information copy of this confirmation.

5. This correspondence is classified Confidential in accordance  
with par 24a(8), Air Force Regulation 205-1.

BY ORDER OF THE COMMANDER:

Info copy:  
Comdr, 762d ACWRON

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

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C O P Y

Hq EADF EACOT-TS Subject: (Uncl) Radar Evaluation AN/CPS 6B Early  
Warning Kit by RCADF Personnel

OOT-FO (4 Nov 54) 1st Ind 13 Nov 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, 4707th Air Defense Wing, Otis Air Force Base, Falmouth,  
Mass

1. Forwarded for your information and necessary action.
2. Desire that requested F-94-C aircraft be made available for  
subject trials scheduled for 22 or 23 November 1954.

BY ORDER OF THE COMMANDER:

ARCHIE T. SHERBERT, JR.  
2nd Lt., USAF  
Asst Adjutant

CONFIDENTIAL

C O P Y

762D AIRCRAFT CONTROL AND WARNING SQUADRON  
NORTH TRURO AIR FORCE STATION  
North Truro, Massachusetts

ACQOPS

30 Nov 1954

SUBJECT: Visit by RCAF Personnel

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. In accordance with Section VII, Par 66, AFR 205-1 and Par 10B ADCR 205-1 the following report is submitted:

2. The below listed Royal Canadian Air Force personnel visited this station on 22 November 1954:

a. F/L H. B. Robinson and F/O A. R. Taylor from the 12th AC&W Squadron, RCAF.

b. F/O J. R. Vance from Canadian Air Defense Command Headquarters.

c. Mr. J. R. Court and Mr. D. R. Orr, Canadian General Electric representatives.

d. Mr. D. H. Hand, Canadian Air Material Command representative.

3. The authority for the visit is Letter, Headquarters, EADF, EAOOT-TS, Subject: Radar Evaluation of Early Warning Kit by RCAF Personnel, dtd 4 November 1954.

4. The purpose of the visit was to evaluate the azimuth discrimination of the U.S. build Early Warning Kit, OA 347/CPS-6B against the Canadian built version of the same equipment.

5. The visitors signed in the operation visitor's log at 0820 on 22 November 1954. The RCAF personnel were specialists in their respective field of endeavor and as a team they knew exactly what information they desired. They were all Canadians, hence language presented no problem. The test to be run was discussed and set up for 1400 hours that afternoon. A tour of the sections was made and comparison made between the equipment of their station and the 762d Sq. It was found they have approximately the same equipment. The visitors then left the building for lunch.

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C O P Y

762d AC&W Sq, ACQOPS, Subject: Visit by RCAF Personnel

6. At 1400 hours they returned and proceeded to the operations room to observe the mission. They observed the azimuth discrimination between two (2) F-94C aircraft flying in a circle about the station at a range of 60 miles. The aircraft were in trail and were instructed to vary the distance between them so the visitors could compare the discrimination of our equipment against their own varying from 2,000 to 3,000 trail separation.

7. A critique of the mission was held and general type questions asked pertaining to maintenance problems and length of magnetron life of the early warning unit. A definite conclusion was that the U. S. built early warning kit has superior azimuth discrimination when compared to the Canadian built version.

8. From all appearances the real and the expressed object of the visit were one and the same.

9. The highest classification of information shown and discussed was secret on a need to know basis.

10. The visitors left the building for the last time at 1600 hours, 22 November 1954.

FOR THE COMMANDER:

JAMES J. DOUGHERTY  
Captain, USAF  
Adjutant

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOOT-TS

12<sup>th</sup> October 1954

SUBJECT: (Unclassified) Cross Border Exchange of RCAF-USAF Fighter  
and Aircraft Control and Warning Capability Status

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. A requirement exists to review the procedures and amount of cross border exchange of RCAF-USAF fighter and aircraft control and warning capability status. This subject was originally discussed and an agreement reached at the conference held at your headquarters between representatives of the two Air Defense Commands 2-4 December 1953. The exchange of fighter status has become more important with the revisions of the ADIZ and GADIZ 1 May 1954, issue of ADC Regulation 55-12 and recent amendments to ADC Regulation 55-10 and RCAF Air Staff Instruction 2/5.

2. The current regulations governing this exchange are:

- a. ADC Regulation 55-22, 23 January 1954, Aircraft Control and Warning Capability Status.
- b. RCAF Aircraft Control and Warning Instruction 9/2 which is identical to ADC Regulation 55-22.
- c. RCAF Air Staff Instruction 9/2 on fighter status reporting which requires their ADCCs and ADDCs to cross tell a fighter status report similar to that outlined in ADC Regulation 55-20.
- d. There is no regulation requiring our units to cross tell USAF fighter status.

3. Prior to Exercise Check Point, this headquarters requested 30th and 32nd Air Divisions (Defense) and RCAF Air Defense Command to conduct an intensive program to effect the procedures for the exchange of status information. The commands were requested to submit a report to this headquarters indicating any difficulties experienced and recommending any changes deemed necessary.

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EAOOT -TS Subject: (U<sub>nc</sub>l) Cross Border Exchange of RCAF-USAF Fighter and Aircraft Control and Warning Capability Status (Contd)

4. The following comments and recommendations were received:

a. ADCC to ADCC

- (1) Aircraft control and warning capability status - This is a duplication of the status exchanged by DCs and forwarded to the CC. Exchange should not be required as ADC Regulation 55-22 and RCAF Aircraft Control and Warning Instruction 9/2 requires the DC to forward the status of adjacent and cross border aircraft control and warning squadrons to the CC.
- (2) Interceptor status - Difficulty is being experienced in the exchange of this information as it is classified in consolidated form and must be passed by voice code due to the absence of teletype circuits and crypto facilities between USAF and RCAF ADCCs. In addition, this information is exchanged by the DCs. At present there is no regulation requiring ADC aircraft control and warning squadrons to forward RCAF fighter status they receive.

b. ADCC to ADCC

- (1) Aircraft control and warning capability status - Present directives and procedures are satisfactory for this exchange of information.
- (2) Interceptor status - ADC Regulation 55-20 does not require USAF aircraft control and warning squadrons to cross tell interceptor status to the adjacent RCAF unit as agreed to the 2 December 1952 conference. RCAF Air Staff Instruction 9/2 does require their units to cross tell the status, and the procedure is satisfactory.

c. The following recommendations were made:

- (1) The ADCCs should cease to exchange detailed aircraft control and warning and fighter capability status.
- (2) Both types of status should be exchanged as a consolidated division report on a daily basis by the ADCCs. This report should consist of the current operational

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C O P Y

EACOT-TS Subject: (Uncl) Cross Border Exchange of RCAF-USAF Fighter and Aircraft Control and Warning Capability Status (Contd)

capability of each aircraft control and warning squadron and the composite interceptor capability for the fighter interceptor squadrons adjacent to the United States-Canada border available for cross border overfly. Such a report would require a joint RCAF-USAF procedure and format.

5. It is requested that the exchange of RCAF-USAF aircraft control and warning capability and interceptor status be reviewed by the responsible commands and the existing procedures be modified as recommended. Also request ADC Regulation 55-20 be amended to require forwarding of RCAF interceptor status received by the direction centers.

6. This correspondence is classified Confidential in accordance with paragraph 24a(8), Air Force Regulation 205-1.

FOR THE COMMANDER:

Info Copies to:  
ADC, RCAF ADC  
Comdr, 30th AD  
Comdr, 32d AD

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

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C O P Y

HEADQUARTERS  
766TH AIRCRAFT CONTROL AND WARNING SQUADRON  
Caswell Air Force Station  
Limestone, Maine

ACU-OPS

8 Oct 1954

SUBJECT: AC&W Operational Procedures over NS/Canadian Boundary

THRU: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

THRU: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Due to the location of this station, it is faced with numerous situations regarding identification and other operational responsibilities.

2. Individual Directors at this Station and at 32d Air Division (Defense) and higher headquarters, have varied opinions on the method of handling and action to be taken under various circumstances.

3. It would be desirable if a general policy could be established. It is realized that a hard and fast rule cannot be made that would apply to all cases.

4. Some of the most common questions at hand are:

a. Are intercepts for routine identification to be performed over Canada beyond extended Sub-sector area?

(1) Interpretation -

(a) Out interpretation of ADCR 55-35, 55-10 and ADCL ADOOT-B2 authorizes interceptions over Canada.

(2) Recommendations -

(a) Intercepts for identification should be performed anywhere on aircraft that are on a penetrating heading for our area. Reasons for this are increased speeds of modern aircraft, and the close proximity of Loring Air Force Base to the ADIZ.

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C O P Y

Hq 766th AC&W Sq, Caswell AFSta, Limestone, Maine. Subj: AC&W  
Operational Procedures over NS/Canadian Boundary

b. Are all Canadian unknown tracks which are warning, or overlap, told to this Station, to be forwarded to the ADCC regardless of direction and position?

(1) Problem:

(a) On 26 Sep 54, Sugar Cane had an unknown track VL 12, which they were not crosstalling to us. We received this information from Amazon. We requested plots from Sugar Cane and received the following plots for 6 minutes and then were told to disregard by Sugar Cane. Plots were, CCL602, 2137Z-CC5101, 2138Z-CC5901, 2139Z-DC1501, 2140Z-DC1501, 2141Z-DB2059, 2142Z-DC 2302, 2143Z.

(2) Recommendation:

(a) Only Canadian unknown tracks that are on a penetration heading, and within 100 miles of the adiz should be forward told. The exception to this will be an A/C penetrating with a G/S of over 300 Kts. These should be forward told immediately. Any Canadian unknown over 400 Kts flying on a heading that could possibly penetrate the Adiz elsewhere, should be forward told to the ADCC and they should dictate the tactical action to the appropriate site.

c. Are unknowns carried by Canadian AC&W Units and warning or overlap told to this Station to be considered unknown by this Station, if the track heading is such that it will not penetrate that portion of EADF region displayed on the Vertical board at this Station?

(1) Problem:

(a) A/C heading South West on Canadian Red one.  
Possible point of penetration, Niagara Falls area.

(2) Recommendation:

(a) No Canadian unknown should be considered unknown by this station, unless they meet the requirements of b (2), (a).

d. Is tactical action required, or a reason for no tactical action required on unknown tracks carried by Canadian AC&W Units whose track behavior indicates it will not penetrate EADF regions within a reasonable distance? (100 to 200 miles forward of Track)

(1) Problem:

(a) Tactical action required on all unknowns.

C O P Y

Hq, 766th AC&W Sq, Caswell AF Sta, Limestone, Maine. Subj: AC&W  
Operational Procedures Over NS/Canadian Boundary

(2) Recommendation:

(a) No tactical action required unless the unknown  
meets the requirements of b (2) (a).

e. Are tracks on Canadian Airways Red #1 proceeding from  
Seven Islands to Mont Joli to be carried as an unknown by this Station  
if Canadians AC&W Units have no identification?

(1) Problem:

(a) A/C on Canadian Red #1 heading South West, carr-  
ied as unknown by Canadian AC&W Units.

(2) Recommendation:

(a) No action required unless A/C meets the require-  
ments of b (2) (a)

f. Same as four E, except for Mont Joli to Quebec?

(1) Problem:

(a) A/C going down Red #1 from Mont Joli to  
Quebec, called unknown by the Canadian Stations.

(2) Recommendation:

(a) No action required unless A/C meets the require-  
ments of b (2) (a).

g. Are any of the above tracks or action taken on them to  
be reported on operational records and/or ADC-V8 report, if so which one?

(1) Recommendation:

(a) No reports should be made unless the track meets  
the requirements of b (2) (a).

C O P Y

Hq, 766th AC&W Sq, Caswell AF Sta, Limestone, Maine. Subj: AC&W  
Operational Procedures over NS/Canadian Boundary

5. We believe that these recommendations can clear up the difficulties and confusion that we encounter here, and throughout the 32D Air Division (Defense), and EADF. Perhaps some of these questions on operational procedures appear elementary, however, many things of lesser importance are covered in directives from higher headquarters. I believe that cognizance of special situations of this type should be recognized and a definite operation policy furnished. The past policy of verbal instructions and queries at the time of occurrence together with the variations of interpretations by ADDC and ADCC Controllers does not appear to be a practical method.

BOLLING H. JONES  
Major, USAF  
Commander

C O P Y

Hq 766th AC&W Sq ACU-OPS Subject: AC&W Operational Procedures over  
NS/Canadian Boundary

DO/A/C (18 Oct 54) 1st Ind 28 Oct 54

HQ 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. Some of the problems noted in the basic letter indicate the reasons for discrepancies in the number of Canadian unknowns that are carried by EADF through private line teletype and yet are not forward told to 32d Air Division by the AC&W Squadron.
2. These same problems are not peculiar just to the 766th AC&W Squadron but to most of the sites near the Canadian Border.
3. It is felt that one of the major problems is; should our AC&W sites scramble and/or take tactical action against all Canadian cross told unknowns that are feasible to intercept and that cannot be intercepted by the Canadians due to a lack of actual air defense interceptors? For an example, as noted in paragraph 4c(1) basic letter, let us take a track that is heading South-West on Canadian Red One and is being carried as unknown by the Canadians. Almost without exception this track will continue on Red One and never penetrate the ADIZ. Should the 766th AC&W Squadron take tactical action against this track? They were criticized during a 32nd Air Division inspection because they did not take tactical action and yet they have been told just the opposite through verbal instructions from ADCC controllers. It depends on what controllers at ADCC are on duty as to what action should be taken.
4. Problems such as these should be resolved in a clear cut, written policy that would clarify many of the existing doubts that our AC&W sites have that are located adjacent to the Canadian border.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt, USAF  
Adjutant

C O P Y

Hq 766th AC&W Sq ACU-OPS Subject: AC&W Operational Procedures over  
NS/Canadian Boundary

OCT-A (18 Oct 54) 2nd Ind 10 Nov 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6, NY

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, N. Y.

1. Reply has been forwarded to 766th AC&W Squadron, outlining interpretation of each problem by this headquarters.
2. Request your headquarters review these questions and furnish a standard interpretation.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

Hq766th AC&W Sq, ACU-OPS, Subject: ACW Operational Procedures over NS/  
Canadian Boundary

EACOT-OS (18 Oct 54) 3rd Ind 6 Dec 54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. Reference paragraph 2, 2nd Indorsement, the following interpretation to situations posed in basic letter and 1st Indorsement are forwarded for your information and guidance:

a. General: The basic principle which must be observed in the handling of unknown penetration tracks, regardless of source or anticipated pattern of flight, is that interception must be accomplished at earliest possible time by either of the forces concerned. Should the detecting and/or responsible force indicate that tactical action cannot or will not be taken on a penetrating unknown for any reason, it becomes mandatory for the detecting and/or adjacent force to take appropriate tactical action. Extensive local coordination between cross-border or adjacent forces must be accomplished to ensure smooth and effective tactical action on unknowns penetrating the air defense system of the northern hemisphere.

b. Specific: Reference is made to situations listed in corresponding sub-paragraphs of basic letter as follows:

- (1) Paragraph 4a: Identification by use of USAF interceptors should be accomplished on every unknown penetration track, regardless of sub-sector boundaries, upon which RCAF declares "impossible to take tactical action."
- (2) Paragraph 4b: Those tracks which meet criteria for classification as unknown or suspicious in accordance with ADCR 55-12 and EADFR 55-1 will be reported regardless of position or distance from station.
- (3) Paragraph 4c: Unknown penetration tracks will be considered for tactical action regardless of what their position and/or projected pattern of flight might be.

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EACOT-OS, Subject: ACW Operational Procedures over NS/Canadian  
Boundary, (Cont'd)

- (4) Paragraph 4d: Tactical action is required on all unknown penetration tracks regardless of position. If RCAF declares tactical action "impossible", then 32d Air Division must take tactical action as appropriate.
- (5) Paragraph 4e: Affirmative. See paragraphs 1b(3) and (4) above.
- (6) Paragraph 4f: Same as 4e.
- (7) Paragraph 4g: Cross told tracks will not be included by the agency receiving such cross telling. Tracks which are originated and being cross told will be reported by the agency accomplishing such origination and cross telling. NOTE: This system of reporting is not designed to evaluate the effectiveness of a particular station but rather to evaluate the effectiveness of the system to detect and destroy targets prior to bomb release line.

BY ORDER OF THE COMMANDER:

INFO CY TO:  
Comdr, 30th AD(D)

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

COPY

Hq 766th AC&W Sq, ACU-OPS, Subject: AC&W Operational Procedures over NS/  
Canadian Boundary

OCT-A (18 Oct 54) 4th Ind 13 Dec 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, 4711th Air Defense Wing, Presque Isle AFB, Presque Isle,  
Maine

1. Forwarded for your information and guidance.
2. Referenced paragraph 1b(7), 3rd Indorsement, it should be noted that specific reference is made to cross told tracks. In this respect, attention is invited to Section IV, paragraphs 7 and 8, ADCM 55-6.

BY ORDER OF THE COMMANDER:

Info:  
Comdr, 4707th DW

EVERITT W. HOWE  
Major, USRF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-A

8 Dec 1954

SUBJECT: AC&W Operational Problems

TO: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. During the General Inspection of the 766th AC&W Squadron recently conducted by a team from this headquarters, there were a series of operational problems presented for interpretation. Following information is furnished:

a. Intercepts over Canadian territory may be conducted in the interest of active air defense at any time the appropriate RCAF AC&W Squadron is unable to effect scramble. Authority is contained in ADCR 55-10 and RCAF ADC Air Staff Instruction 2/5.

b. All unknown tracks warning told from the RCAF AC&W Net are to be forward told to the ADCC. These instructions are contained in 32d ADR 55-30.

c. Under the concept of identification contained in EADFR 55-1, primary identification is extended as far to the north as possible. To meet the criteria established for declaring a track is "unknown", it must, however, be on a heading toward the EA Region. Outbound targets, although considered "unknown" by the RCAF AC&W Net, need not be reported or acted upon as an unknown track by USAF AC&W Squadrons.

d. Scramble action should be initiated on every unknown track warning told by the RCAF AC&W Net which is progressing toward the EADF Region if such action is tactically sound. If track is crossing the perimeter of radar coverage or some other extenuating circumstances exists, scramble would be ill-advised, and; therefore, a "no scramble" with appropriate reason should be submitted.

e. Tracks progressing from Seven Islands to Mont Joli on which neither a flight plan is available nor identification made by an RCAF AC&W squadron, must be considered as "unknown". Scramble action must, therefore, be initiated if the RCAF AC&W Net has not initiated scramble.

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Hq 32d AD(D) OOT-A Subject: AC&W Operational Problems (Cont'd)...

This is, of course, when the target reaches reasonable distance and indicates probability of continuing inbound course.

f. All actual unknown tracks detected must be reported on the ADC Combat Readiness Report.

BY ORDER OF THE COMMANDER:

Info Cy:  
Comdr EADF

EVERITT W. HOWE  
Major USAF  
Adjutant

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FM HQ EADF STEWART AF B NY  
TO HQ3/COMDR 26 AD ROSLYN AFS NY  
D49/COMDR 30 ADD WILLOW RUN AFS MICH  
3 EOA/COMDR 32 ADD SYRACUSE AFS NY  
/UNCLASSIFIED/ EAOOT-OW 35779. THIS MSG IN 3 PARTS. PART 1 FOR COMDRS  
CMM 30 AND 32 AIR DIVS/DEF/. REFERENCE THE "NOT POSSIBLE" PORTION  
OF PARA 6K OF ADC REG 55-10. SINCE SCRAMBLES ON TRACKS CLASS UNKNOWN  
ARE REQUIRED IAW PARA 6 OF ADC REG 55-10 CMM DESIRE EA ADIV FWD 10  
ON ANY KNOWN POTENTIAL OR EXISTING PROBLEM AREAS RLTV TO THE  
DETERMINATION OF "NOT POSSIBLE" REFERRED TO ABOVE. PART 2 FOR ALL  
ADIVS. ADC IS REVISING ADC REG 55-35 TO CONFORM W/PROV OF ADC REG  
55-10. PART 3 FOR COMDR 26TH AIR DIV. HQ ADC IS MAKING DIRECT  
DISTRIBUTION OF ASI 2/5 TO YOUR HQ.  
26/2130Z OCT 5F1

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-A

19 Nov 1954

SUBJECT: US-Canadian Cross Boundary Operational Coordination

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. This letter is in reply to message your headquarters, Unclassified/EAOOT-OW 35770. Additional comment is made in compliance with your request for information concerning problem areas.

2. The basic difficulty stems from the fact that the RCAF and USAF AC&W Systems are coordinated rather than integrated. Although operational procedures and directives are homogeneous, there are influencing factors which have a direct and very definite bearing on the actual functioning of each system.

3. The RCAF system of protecting Canadian targets and providing warning for the USAF system does not impose the sense of urgency upon the individual as it stressed to USAF personnel. Attempt is not made to analyze the cause, but the results of such are reflected in recurring minor deficiencies which detract from our ability to perform our assigned mission.

4. Many problems could be resolved by simply adhering to established procedure for inter air division action in these actions involving air divisions and sectors of the RCAF Net. As example: Forwarding by tactical teletype reporting system of unknown track information is the responsibility of the air division in whose sector the track is located. Thus, if a track is in the 32d Air Division (Defense) sector and being warning-told to the 26th Air Division (Defense), it need not be reported by the 26th Air Division (Defense) and they need not either take tactical action or justify the lack of tactical action. However, a track in RCAF Sector 1 being warning-told to this division must be forward-told to your headquarters and Headquarters, ADC. In addition, we must either take tactical action or justify the lack thereof. In effect, we must necessarily either take tactical action against every warning told Canadian "unknown" or justify lack of action and in addition, resolve this with action or inaction by the RCAF AC&W site. With the present Canadian interceptor capability, it can be assumed that tactical action by the RCAF AC&W site is not possible.

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C O P Y

Hq 32d AD(D) OOT-A Subj: US-Canadian Cross Boundary Operational Coordination (Cont'd)....

5. Frequent adverse criticism is received when prerogative of exercising judgement in making a tactical decision results in decision not to scramble for tactical reasons. Although understandable that it is highly undesirable to make a standard practice of delaying scramble on unknown targets progressing down Canadian Red 1 Airway, this one item is a continual source of difficulty. Although one example only is presented, this problem is prevalent at all subsectors adjacent to the boundary. This headquarters has no control over identification procedures when incorrect identification occurs and is not authorized contact with Canadian ARTC Centers when delay occurs in processing of flight movement information. However, where this does occur, we are obligated to take tactical action when positive identification cannot be obtained, regardless of the fact that the track will not penetrate the Bangor ADIZ. It would be desirable to exercise judgement in these cases and withhold scramble until such time as the track may indicate a turn toward our sector.

6. As required, specific examples which detract from the operational capability of sites adjacent to the US-Canadian boundary are contained in inclosure 1. These examples were obtained by the Division Inspector, this headquarters.

7. These comments are not intended as derogatory or critical but are presented to indicate the continual dire necessity for greater coordination and cooperation if we are to achieve the optimum benefits of the two nets.

FOR THE COMMANDER:

1 Incl:  
Inspection Rept

EVERITT W. HOWE  
Major, USAF  
Adjutant

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OPERATIONS ORDER  
NUMBER 38-54

15 Nov 54

Chart and Map References: As required

Task Organizations:

Headquarters 32d Air Division (Defense)  
" 4707th Air Defense Wing  
" 4711th Air Defense Wing  
" 517th Air Defense Group  
" 518th Air Defense Group  
" 528th Air Defense Group  
" 564th Air Defense Group  
49th Fighter-Interceptor Squadron  
58th Fighter-Interceptor Squadron  
60th Fighter-Interceptor Squadron  
437th Fighter-Interceptor Squadron  
654th AC&W Squadron  
762nd AC&W Squadron  
101st Fighter-Interceptor Squadron, Mass. ANG  
133rd Fighter-Interceptor Squadron, N. H. ANG

1. General Situation: Units assigned or under operational control of this headquarters will participate in regularly scheduled training missions and joint training exercises with units of Escort Squadron 16, USN.

Friendly Forces:

COM FAIR Quonset Pt., R. I.  
CO NARTU, NAS, S. Weymouth, Mass  
COM FAIR DET, NAS Brunswick, Maine  
Escort Squadron 16, USN

2. Mission: To conduct joint operations for training of aircrews, directors and picket vessel controllers in conduct of air defense operations. To develop procedure for expeditious passing of interceptor aircraft control to picket vessels to increase control capability of the air defense system.

3. Tasks for participating units:

a. Commander 32d Air Division (Defense) Syracuse Air Force Station, Syracuse 6, New York will:

(1) Provide participating units with monthly schedule of picket vessels availability.

b. Commander 4707th Air Defense Wing, Otis AFB, Falmouth, Mass and  
Commander 4711th Air Defense Wing, Presque Isle AFB, Maine will

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provide interceptor aircraft to perform routine training missions as scheduled by this headquarters.

- c. Commander 49th FIS Bangor Maine will provide two interceptor aircraft or 1 interceptor aircraft and 1 T-33 each Monday on which a picket vessel is on station #1, for control by that station.
- d. Commander 101st FIS Boston, Mass Air National Guard will provide two interceptor aircraft each Wednesday on which a picket vessel is on station #1, for control by that station.
- e. Commander 133rd FIS, Grenier AFB, N.H. Air National Guard will provide two interceptor aircraft each Friday on which a picket vessel is on station #1, for control by that station.
- f. Commander 58th FIS Otis AFB, Falmouth, Mass will provide two interceptor aircraft or 1 interceptor aircraft and 1 T-33 each Monday on which a picket vessel is on station #2, for control by that station.
- g. Commander 60th FIS Westover AFB, Mass will provide 2 interceptor aircraft or one interceptor aircraft and 1 T-33 each Wednesday on which a picket vessel is on station #2, for control by that station.
- h. Commander 437th FIS Otis AFB, Falmouth, Mass will provide two interceptor aircraft or one interceptor aircraft and 1 T-33 each Friday on which a picket vessel is on station #2, for control by that station.
- i. Commander 654th AC&W Squadron, Brunswick NAS, Maine is designated as primary AC&W control station for Picket Vessel Station #1. Coordination will be effected between the 49th, 133rd and 101st FIS's and the picket vessel on Station #1. Prior to 1200Z on Monday, Wednesday and Friday, contact will be made with the fighter-interceptor squadron scheduled for that day's mission to obtain estimated airborne time and call sign of interceptors and

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with the picket vessel to determine capability to accept control. If the picket vessel is capable of accepting control, they will be advised of the call sign, estimated airborne time and frequency to be utilized for control.

- j. Commander 762nd AC&W Squadron, North Truro, Mass is designated as primary AC&W control station for Picket Vessel Station #2. Coordination will be effected between the 58th, 437th and 60th FIS's and the picket vessel on Station #2 in the same manner prescribed in paragraph 3i.
- k. In accordance with EADFP 55-27, following stations are designated as secondary (Alternate) AC&W Control stations:
  - (1) Picket Vessel Station #1 - 762nd AC&W Squadron, North Truro, Mass.
  - (2) Picket Vessel Station #2 - 773rd AC&W Squadron, Montauk, New York.
- l. Naval information addressees will be informed of monthly Picket Vessel station manning schedule and are invited to participate in picket vessel cross training when stations #1 and/or #2 are manned. Request for participation should be coordinated with the nearest primary AC&W control station.
- X. General:
  - (1) All UHF equipped interceptor aircraft possessed by fighter-interceptor squadrons listed under task organizations will channelize channel "9" with the appropriate picket vessel control frequency specified in paragraph 5b, "Signal Matters".
  - (2) In event of abort of one or both aircraft, the flight of two will return to home station and a second flight will be scrambled.

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- (3) In event that weather, ground radar failure or an air defense exercise scheduled by this or higher headquarters prevents compliance with the published schedule, the routine mission will be postponed until the following day. In event that a mission must be postponed for more than one day, it will be automatically cancelled and the normal schedule resumed the third day. (Example: 49th FIS mission for Monday is postponed until Tuesday due to weather. On Tuesday, if weather continues to prevent accomplishment, the mission will be cancelled and the 101st FIS will resume the schedule on Wednesday.)
- (4) All participating aircraft and crews will be equipped for over water flight.
- (5) Interceptor aircraft will be controlled within 60 nautical miles from the coast line within gliding distances to land.
- (6) 762nd AC&W Squadron must be operational and capable of emergency control when interceptors are under control of Picket Vessel Station #2.
- (7) 654th AC&W Squadron must be operational and capable of emergency control when interceptor aircraft are under control of picket vessel Station #1.
- (8) Initial contact for passing of control will be established on channel 10, 364.2mcs. After initial contact has been established, interceptor will switch to the designated control frequency when instructed by the picket vessel.
- (9) Emergency Procedure:
  - (a) In event of communications failure between airborne

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interceptors and the primary AC&W control station, interceptors will contact the alternate AC&W control station.

- (b) In event of radar failure at the primary AC&W control station, airborne interceptors will be advised to contact the secondary AC&W control station for recovery assistance.
- (c) In event of either radio or radar failure at the primary AC&W control station while interceptors are airborne, immediate notification will be given the secondary AC&W control station for their information and relay to the picket vessel.

4. Administration and Logistics:

a. Administration:

- (1) Accomplishment of each mission will be reported in the monthly EADF Report of Naval/Marine Corps Participation in Air Defense Training. (RCS: EADF T-1)

b. Logistics: As established.

5. Command and Signal

a. Command as established

b. Signal:

- (1) UHF frequencies to be utilized by picket vessels are:
  - Station #1 - 254.9, 262.4, 289.1 mcs
  - Station #2 - 260.7, 287.4, 292.4 mcs
- (2) Frequency assignments for fighter-interceptor squadrons to be installed in channel "9" and call signs and locations of primary and secondary AC&W control stations are as follows:

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<u>Unit</u>	<u>Call Sign</u>	<u>Base</u>	<u>Frequency</u>
49th FIS	McIntosh	Bangor AFB	254.9mcs
58th FIS	Ablaze	Otis AFB	260.7 "
60th FIS	Gilbert	Westover AFB	287.4 "
437th FIS	Mailbag	Otis AFB	292.4 "
101st FIS	Wood Birch	Logan Aprt	262.4 "
133rd FIS	Turnip Top	Grenier AFB	289.1 "
654th AC&W Sq	Wild Bill	NAS Brunswick, Me	
762nd AC&W Sq	Man	N. Truro, Mass	
773rd AC&W Sq	Powder	Montauk, N. Y.	

- (3) For those ANG squadrons possessing VHF equipment, contact and control will be on GCI common 133.20 mcs.
- (4) HF Communications will be in accordance with Attachment I to EADFR 55-27.
- (5) Voice call sign for Picket Vessel Station #1 is "Toronto".
- (6) Voice call sign for Picket Vessel Station #2 is "Toronto Able"

DISTRIBUTION

4707th ADW 2cys  
 4711th ADW 2cys  
 517th ADG 2cys  
 518th ADG 2cys  
 528th ADG 2cys  
 564th ADG 2cys  
 49th FIS 4cys  
 58th FIS 4cys  
 60th FIS 4cys  
 437th FIS 4cys  
 654th AC&W Sq 4cys  
 762nd AC&W Sq 4cys  
 101st FIS, Mass ANG 4cys  
 133rd FIS, N. H. ANG 4cys

ISRAEL  
 Colonel

*CONFIDENTIAL*

INFO:

EADF	3cys
26th Air Div (Def)	3cys
COMM NAV EAST CONAD	3cys
EASTERN SEA FRONTIER	3cys
COM FAIR Quonset Pt.	2cys
NAS Brunswick	2cys
NAS S. Weymouth	2cys
ESCORT SQ 16	12cys
765th AC&W Sq	4cys
773rd AC&W Sq	4cys

OFFICIAL:

*Wm W. Ingelhart*  
WILLIAM W. INGELHART  
Colonel, USAF  
Deputy Commander

*CONFIDENTIAL*

-7-

*3115-54*

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EACOT-OS

9 Feb 1955

SUBJECT: Operations With Picket Vessels

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. This headquarters has received numerous reports in past months which have indicated the existence of a problem area in the employment of picket vessels in the air defense system. This problem area appeared to be centered on communications difficulties experienced in UHF air ground and HF point-to-point contacts.
2. As a result of these reports, a meeting was held on 23 December 1954 at Newport, Rhode Island. Representatives of FAHF, COMNAVSTCONAD, 26th Air Division (Defense), and COMCORTRON 16 were in attendance.
3. The air ground communications difficulties apparently stem from two causes; the first cause appears to be the radiation characteristics of the picket vessel UHF antennas. A study is presently being conducted by the 26th Air Division (Defense) and COMCORTRON 16 to determine radiation patterns and their effect on air ground communications. The second cause of sub-standard air ground communications is the failure of ADDC directors to pass control of interceptors in accordance with applicable procedures, i.e. to notify the receiving agency that interceptors will be passed and to stand by to receive a report from the receiving agency as to the effectiveness of the communications for assuming control of, and the ability to conduct operations with, the interceptors. The remedy to this situation is adherence to established directives when passing control of interceptor aircraft for training or active air defense missions.
4. In regard to HF difficulties, the main point of contention centered about the apparent apathy of ADDC plotters on the telling net. This is not unexpected since picket vessel personnel are conducting communications with an airman at the ADDC who in most cases is unable to provide satisfactory answers to any questions which they pose or any situations that arise which are outside of his functional scope as a plotter. Coupled with this, is the fact that picket vessel oper-

C O P Y

ation is only one portion of the over-all ADDC operation. The attention the picket vessel rightly expects can be given only by complete and accurate pre-planning and co-ordination by directors and/or identification clerks. Such pre-planning is primarily concerned with anticipating picket vessel control and identification difficulties before the ADDC plotter has become involved in the situation, and the picket vessel has been told to stand by while the plotter attempts to contact the applicable section within the ADDC. A lack of radio discipline has increased these difficulties by magnifying them out of proportion to the actual occurrence. The remedy for this situation is obvious, i.e., increased emphasis on communications security.

5. In summary, the greatest purpose served by the meeting on 23 December 1954 was to indicate to all parties concerned the capabilities and limiting factors of applicable elements of the air defense system and to further explain the sequence of events which precipitate the majority of the difficulties which have arisen in the past. It is believed by this headquarters that many of the picket vessel AC&W difficulties can be eliminated by closer co-ordination and adherence to established procedures by functional elements of the ADDC when operations with picket vessels are being conducted.

6. It is desired that a copy of this correspondence be forwarded to each of the unit listed below:

654th ACWRON	49th FIS
762nd ACWRON	58th FIS
765th ACWRON	60th FIS

BY ORDER OF THE COMMANDER:

Info Copies:  
COMNAVSSTAFLRON  
COMNAVSTCONAD  
COMCORTRON 16

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

Hq EADF EA00T-OS Subject: Operations With Picket Vessels

OOT-4 (9 Feb 55) 1st Ind 12 Feb 1955

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, 4707th Air Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine

Forwarded for your information and compliance with paragraph 6,  
basic letter.

BY ORDER OF THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

SECRET

32d AIR DIVISION (DEF)  
PROGRAM BULLETIN  
for  
JANUARY 1955

108

SECRET

55-164

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SECRET

\* FIGHTER SQUADRON CONVERSION AND DEPLOYMENT PROGRAM

32D Air Division (Defense)

Unit Location	Type Aircraft	Conv Date	Deployment
27th (Griffiss)	F-94C	Conv F-89D/H 1 <sup>st</sup> Qtr, FY 57	No Deployment
37th (Burlington)	F-86D	No Conv	No Deployment
47th (Niagara)	F-86D	F-102 4th Qtr, 58	No Deployment
49th (Dow)	F-86D	F-89D 2 <sup>nd</sup> Qtr, 58 F-102 4th Qtr, 58	Hanscom 2d Qtr, 58
58th (Otis)	F-94C	18 F-89D April 55 10 F-89D/H May 56 F-102 2d Qtr, 57	No Deployment
60th (Westover)	F-86D	No Conv	No Deployment
61st (Griffiss)		F-102 2d Qtr, 58	Fr NEAC F-102
82d (Presque Isle)	F-89D	No Conv	Azores 2d Qtr 57
318th (Presque Isle)	F-89D	F-89D/H 3rd Qtr, 58	No Deployment
319th (Westover)	F-86D	No Conv	Fr FEAF 2 <sup>nd</sup> Qtr 58
437th (Otis)	F-94C	F-89D/H 2d Qtr, 57 F-89D 3rd Qtr, 56 F-102 1 <sup>st</sup> Qtr, 56 4 <sup>th</sup> Qtr, 57	No Deployment

\* Data includes information up to and including 4th Qtr FY 58

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SECRET

AEW&C PROGRAM

Organization	Headquarters Location	Program Data
551st AEW&C Wg*	Otis AFB	Activated 18 Dec 54 GO-62 WADC
4701st AEW&C Sq	Mc Clellan AFB	Deploy to Otis AFB 3rd Qtr FY 55
960th AEW&C Sq*	Otis AFB	Reorganize from 4701st 3rd Qtr FY 55. 10 UE acft
961st AEW&C Sq	Otis AFB	Activated 18 Dec 54 GO-62 WADC 6 UE acft 4th Qtr FY 55. 10 UE acft 1st Qtr FY 56.
962d AEW&C Sq	Otis AFB	Activate 1st Qtr FY 56, 6 UE. 10 UE acft 2d Qtr FY 56.
966th AEW&C Sq	Otis AFB	Activate 2d Qtr FY 56, 8 UE acft 3rd Qtr FY 56. 10 UE acft 4th Qtr FY 56. Reassigned out of Div area 1st half FY 57.
551st Electronics Maint Sq	Otis AFB	Activated 18 Dec 54 GO-66 WADC
552d Periodic Maint Sq	Otis AFB	Activated 18 Dec 54 GO-66 WADC

Note: UE Acft to be RC-121D Type  
 \*\* 551st AEW&C Wing asgd 8th Air Division (WADC)  
 Reassigned to EADP FY 56 (Jul)  
 4701st Provisional was activated at Otis AFB on 1 Oct. No information available on actual activation dates of subordinate units. Personnel will be furnished by WADC.

2. For your information the mission of the 8th Air Division (AEW&Con) is as follows:

"The mission of the air division (AEW&Con) is to provide airborne early warning and control in the air defense combat zones. This includes: station control under the operational control of the Air Division (Def) Commander in whose sector the aircraft is operating; emergency replacement duty for inactive land based and/or picket ship surveillance and control stations and augmentation for over saturated land based surveillance and control stations as directed by the Air Defense Force Commander

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SECRET

SUPPLEMENT RADAR PROGRAM

Site Number - M-102

AC&W Squadron Number - 672

Air Division - 32D

Present or Activation Location - Not Activated

Ultimate Location - Barrington, N.S.

Site Status - Sited XX Not Approved

Beneficial Occupancy Date - Sep 55

Normal Support Base - UNK

Elect Support Base - UNK

Material Build Up # - Upreal-120- B.O.  
Radar -B.O. + 30

Personnel - Auth: 12 Off  
147 Amn  
Asgd: 0 Off  
0 Off

Personnel Build Up # - Phase 1 - ACT-B.O.  
Phase 2 - B.O. + 30  
Phase 3 - B.O. + 60

Manning Responsibility - Current A DW-AD - UNK  
Ultimate AD - UNK

Site Function - Surveillance - V

Radar Equipment - Searches: MPS-11 \*  
TPS-1D \*\*

Height: TPS-10D \*  
-Finder: TPS-10D \*\*

#INDICATES PROGRAMMED COMPLETION OF ACTION IN NUMBER OF DAYS  
 PLUS OR MINUS BENEFICIAL OCCUPANCY DATE. NOTE: \* PRIMARY EQUIPMENT  
 \*\* EMERGENCY EQUIPMENT

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SUPPLEMENT RADAR PROGRAM

Site Number - M-103  
 AC&W Squadron Number - 911  
 Air Division - 32d  
 Present or Activation Location - Syracuse AFS  
 Ultimate Location - N. Concord, Vt  
 Site Status - Sited \* Approved  
 Beneficial Occupancy Date - Nov 55  
 Normal Support Base - Ethan Allen  
 Material Build Up # - Upreal-120- B.O.  
                           - Radar - B.O. +30  
 Personnel - Auth: 12 Off  
                           144 Amn  
                           Asgd: 1 Off  
                               1 Amn  
 Personnel Build Up # - Phase 1 - 120-0  
                                   Phase 2 - B.O. +30  
                                   Phase 3 - B.O. +60  
 Manning Responsibility  
 Site Function - Direction Center  
 Radar Equipment - Search : MPS-12  
                           Height : MPS-14  
                           Finder

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#INDICATES PROGRAMMED COMPLETION OF ACTION IN NUMBER OF DAYS PLUS OR  
 MINUS BENEFICIAL OCCUPANCY DATE.                   \* PRIMARY EQUIPMENT  
   \*\* EMERGENCY EQUIPMENT

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Page 4  
SECRET

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SECRET

SUPPLEMENT RADAR PROGRAM

Site Number - M-104  
 AC&W Squadron Number - 644  
 Air Division - 32d  
 Present or Activation Location - Syracuse AFS  
 Ultimate Location - Fort Dearborn, N.H.  
 Site Status - Sited\* Approved  
 Beneficial Occupancy Date - 1 Feb 55  
 Normal Support Base - Grenier  
 Elect Support Base - Stewart  
 Material Build Up # - Upgrade - Oct 54 UAL due on 1 Jan at 4707th support  
 - Radar - Feb 55 equipment being determined by assigned supply personnel at 4707th  
 Personnel - Auth: 4 Off  
 77 Amn  
 - Asgd: 0 Off  
 0 Amn  
 Personnel Build Up # - Phase 1 - 120-0 Sq 60 Off and 1 Amn duty sta  
 Phase 2 - B.O. -30 Syr. supply Off and 2 Amn  
 Phase 3 - B.O. -60 duty sta at 4707th  
 Manning Responsibility - 4707th  
 Site Function - Surveillance - V  
 Radar Equipment - Search: TPS-1D\*  
 TPS-1D\*\*  
 - Height  
 Finder: UNK (Assignment: 4707th ADW EADF G.O. 29 Sept 54)

# INDICATES PROGRAMMED COMPLETION OF ACTION IN NUMBER OF DAYS PLUS OR MINUS BENEFICIAL OCCUPANCY DATE.

NOTE: \* PRIMARY EQUIPMENT  
\*\* EMERGENCY EQUIPMENT

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SUPPLEMENT RADAR PROGRAM

Site Number - M-110

AC&W Squadron Number - 907

Air Division - 32d

Present or Activation Location - Syracuse AFS

Ultimate Location - Bucks Harbor, Me.

Site Status - Resited \* Approved

Beneficial Occupancy Date - 1 Mar 55 (pending water supply)

Normal Support Base - Stewart

Material Build Up # - Upreal - Oct 54 UAL (Mission equipt) Due fr EADP  
 - Radar - Feb 55 1 Jan Support equipt being deter  
 mined by unit supply personnel a  
 4707th

Personnel - Auth: 4 Off  
 Auth: 78 Ann  
 Asgd: 1 Off  
 Asgd: 1 Ann

Personnel Build Up # Phase 1 - 120-0 Sq 60 Off and 1 Ann duty sta  
 Phase 2 - B.O. +30 at Syr. supply Off and 2 Ann  
 Phase 3 - B.O. +60 duty sta at Presque Isle

Manning Responsibility - 4707th

Site Function - Surveillance - V

Radar Equipment - Search: MFS-11 \*  
 - Height (Assignment; 4711th Air Def Wg )  
 Finder: UNK (per 60, 61, EADP 4 Nov 54 )

#INDICATES PROGRAMMED COMPLETION OF ACTION IN NUMBER OF DAYS PLUS OR MINUS BENEFICIAL OCCUPANCY DATE.

NOTE: \* PRIMARY EQUIPMENT  
\*\* EMERGENCY EQUIPMENT

Page 6

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CONFIDENTIAL  
 NAVIGATIONAL AIDS

EQUIPMENT	DOW	ETHAN ALLEN	NIAGARA	OTIS	PRESQUE ISLE	WESTOVER	GRIFFISS
CONTROL TOWER	A	A	A	A	A	A	A
AN/MPN-1 MOBILE GCA	////	A	////	A	////	A	A
AN/CPN-4 MOBILE GCA	A	D	A	////	A	////	////
AN/FPN-16 PERMANENT GCA	////	////	////	A	////	AP	A
RADAR SURVEILLANCE	////	////	////	A	////	AP	A
ILS	B	A	A	A	B	A	B
VHF/DF	A	A	A	A	A	A	A
UHF/DF	A	A	A	A	D	D	A
LF RANGE	A	A	////	////	A	B	A
LF RADIO BEACON	A	////	////	B	////	A	B
RADAR BEACON	////	////	B	////	////	C	A
VOR OMNI RANGE	A	A	////	////	////	////	B
OMNI (OBD) RANGE	B	B	B	B	B	B	A

SOURCE: EAOCE

LEGEND: A - OPERATIONAL  
 B - EQUIPMENT PROGRAMMED  
 C - REQUIRED CONSTRUCTION COMPLETED  
 D - EQUIPMENT ON HAND AWAITING INSTALLATION,  
 ACTIVATION, OR CONSTRUCTION COMPLETION,  
 //// - EQUIPMENT NOT PROGRAMMED

\* OPERATIONAL TRAINING STATUS AWAITING UHF EQUIPMENT INSTALLATION

CONFIDENTIAL

CONFIDENTIAL

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart AFB, Newburgh, New York

EACPR-2

14 Jul 1954

SUBJECT: (Unclassified) AEW&Con Program

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station #6  
Syracuse, New York

1. Reference classified letter, your headquarters, MDM, Subject: AEW Support, 8 June 1954, the following information concerning the revised AEW&C Program which was received from Headquarters ADC is forwarded for your information and guidance:

a. The 551st AEW&C Wing Headquarters, the 551st Periodic Maintenance Squadron, and the 551st Electronics Maintenance Squadron will activate at Otis AFB in December 1954.

b. The 961st AEW&C Squadron will activate at Otis AFB in December 1954 and will begin receiving RC-121D aircraft at a rate of two aircraft per month beginning in April 1955 until an authorized strength of ten aircraft is attained.

c. The 4701st AEW&C Squadron which is currently located at McClellan AFB will be transferred to Otis AFB as an operational unit equipped with ten RC-121 aircraft in March 1955. Following the arrival of this unit at Otis AFB, it will be reorganized and will become the 960th AEW&C Squadron.

d. The 962d AEW&C Squadron will activate at Otis AFB in July 1955. This unit will receive two RC-121D aircraft in August 1955 and four additional aircraft in September 1955 and four aircraft in October 1955.

2. The 551st AEW&C Wing will be initially assigned to the Commander of the 8th Air Division (AEW&Control) which is currently assigned to WADF in order to expedite the implementation of the AEW&C Program. The 551st AEW&C Wing is programmed to be assigned to EADF in December 1955.

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C O P Y

EAOFR-2 Subject: (Unclassified) AEW&Con Program (Cont'd)

3. Headquarters ADC has advised that the AEW&Control Air Division Commander (8th Air Division) is responsible for the following:

- a. Command, organize, administer, train, and equip all personnel assigned in accordance with applicable directives.
- b. Develop techniques and procedures for the employment of AEW&Con units in the combat zone.
- c. Develop airborne intercept control procedures for the employment of interceptors in the combat zone.
- d. Conduct AEW&Con unit training for air defense operations.
- e. Coordinate AEW&Con operations with appropriate air division (defense) commanders.
- f. Participate in air defense exercises and maneuvers as directed.
- g. Make recommendations through WADF to this headquarters for the utilization of an Airborne Early Warning and Control Air Division as a mobile air defense task force.

4. In addition to the foregoing, direct communication between the Commander, EADF and the Commander, 8th Air Division (AEW&C) has been authorized. Every effort will be made to keep your headquarters apprised of all information pertaining to the AEW&C operations. At the present time there is little information available concerning the final plans for the logistical support of the AEW&C activity at Otis AFB; however, all information received will be forwarded to your headquarters as soon as possible after receipt to assist you and the Commander, 4707th Defense Wing. Close coordination and cooperation between all agencies will be required to resolve the many problems associated with this program particularly during the early phases.

5. This letter is classified Confidential in accordance with paragraph 24a(8), AFR 205-1.

BY ORDER OF THE COMMANDER:

Info cy to:  
Comdr, 4707th Def Wg

JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

CONFIDENTIAL

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOFR-2

16 December 1954

SUBJECT: (Uncl) AEW&Con Program

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. Reference Confidential letter this headquarters, EAOFR-2, Subject: (Uncl) AEW&Con Program, 14 July 1954. Headquarters ADC has advised that the responsibility outlined in paragraph 3g of above referenced letter has been deleted, since the concepts for operation and utilization of an AEW&Con Air Division as a mobile air defense task force have not been developed. In addition, it has been determined that the full capabilities of the 8th Air Division staff should be devoted to the solution of the short range problems involved in gaining an operational status at the earliest possible date.

2. For your information the mission of the 8th Air Division (AEW&Con) is as follows:

"The mission of the air division (AEW&Con) is to provide air-borne early warning and control in the air defense combat zone. This includes: station patrol under the operational control of the Air Division (Def) Commander in whose sector the aircraft is operating; emergency replacement duty for inactive land based and/or picket ship surveillance and control stations and augmentation for over saturated land based surveillance and control stations as directed by the Air Defense Force Commander."

3. This letter is classified Confidential in accordance with paragraph 24a(8), AFR 205-1.

BY ORDER OF THE COMMANDER:

Info cy to:  
Comdr, 4707th AD Wg

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

3413-54

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CONFIDENTIAL

C O P Y

DISPOSITION FORM

To: CCG Subject: Activation of 4701st AEW&CW  
From: OPR/DURG IN/092 4 Nov 54

1. 4701st AEW&CW, Otis AFB

a. The 4701st AEW&CW, provisional was set up at Otis AFB on a one and one basis by ADC General Order #36, dtd 28 September 54. Mission of the provisional unit is stated as follows: To develop plans, policies and procedures for the AEW&C units programmed for Otis AFB.

b. Personnel will be furnished by Commander, WADF.

c. Equipment will be furnished by Commander, EADF.

d. No information is available as to actual activation dates for units subordinate to the 4701st. Our command responsibilities will be apparently confined to supply matters. Action in this area will be the responsibility of 564th Air Defense Group.

2. 907th AC&W Sq

a. This office has been in contact with EAOPR on this matter. The following comments are in order:

(1) BOD dates in program documents are not considered as "firm" by EADF.

(2) When EADF feels the BOD has become concrete, a new General Order will be cut assigning the 907th to 4711th, who will be the action agency in all supply and personnel matters incident to activation of the unit. Pipe line personnel will be assigned by EADF as required.

(3) This office will initiate a weekly memorandum to the Deputy Chief of Staff noting any significant developments in programming for your information.

FULLER/142

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C O P Y

HEADQUARTERS WESTERN AIR DEFENSE FORCE  
HAMILTON AIR FORCE BASE  
HAMILTON, CALIFORNIA

In Reply Refer to:

2 November 1954

WDMSV\_3A

SUBJECT: Activation of AEW&CoN Units

TO: Commander  
8th Air Division (AEW&CON)  
McClellan Air Force Base  
California

The following extract from ADC Diary #200, dated 18 October 1954, is quoted for your information:

"1. Activation of AEW&CON Units: USAF advises AEW&CON units programmed for December 1954 will be activated as follows:

Unit	Type Orgn	Location	Activation Date	Approximate Strength		
				Off	WO	AMN
552d Pd Maint Sq T/O		McClellan AFB	18 Dec 54	10	6	594
552d Elct Maint Sq "		Mc Clellan AFB	18 Dec 54	8	3	430
551st AEW&Con Wg Hq"		Otis AFB	18 Dec 54	28	1	124
961st AEW&Con Sq "		Otis AFB	18 Dec 54	158	-	268
551st Pd Maint Sq T/D		Otis AFB	December	9	3	360
551st Elct Maint Sq T/D		Otis AFB	December	7	3	369

The maintenance squadrons at Otis AFB are being activated as T/D units due to the fact that certain portions of the AEW&Con maintenance is to be done by contract for an interim period. USAF letters effecting the above activations are expected in the near future."

BY ORDER OF THE COMMANDER:

A. D. FALLOWS  
Lt Col, USAF  
Adjutant

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, N.Y.

GENERAL ORDERS )  
NUMBER 68)

15 December 1954

ATTACHMENT OF UNITS

1. Effective 18 December 1954, the following units (having been attached to this command for administrative and logistic support, effective 18 November 1954, by WADFGeneral Orders Number 62, 18 November 1954) are further attached to the 4707th Air Defense Wing for the same purposes:

Hq 551st Airborne Early Warning and Control Wing

961st Airborne Early Warning and Control Squadron

2. Authority: AFR 20-27, 12 July 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

DONALD B. SMITH  
Brigadier General, USAF  
Vice Commander

DISTRIBUTION:

A plus  
10 - Comdr ADC ATTN: M&O (Unit CON BR)  
5 - AF Liaison Off Kansas City MO  
10 - WADF  
6 - EAOFR  
4 - EACST

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COPY

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, N.Y.

GENERAL ORDERS)  
NUMBER 71)

29 December 1954

REVOCATION OF GENERAL ORDER . . . . . SECTION I  
ATTACHMENT OF UNITS . . . . . SECTION II

SECTION I

1. EADF General Orders Number 68, 15 December 1954, is revoked.

SECTION II

1. Effective 18 December 1954, the following units are attached to the 564th Air Defense Group for administrative and logistic support:

HQ 551st Airborne Early Warning and Control Wing  
961st Airborne Early Warning and Control Squadron  
551st Electronics Maintenance Squadron  
551st Periodic Maintenance Squadron

2. AFR's 11-4 and 87-2 will be used as a guide in determining the administrative and logistic support to be rendered to these units.
3. Authority: AFR 20-27 and ADC message, ADOMO 41700, 23 December 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

DONALD B. SMITH  
Brigadier General, USAF  
Vice Commander

DISTRIBUTION:

A plus  
10 - COMDR ADC (ATTN: M&O (Unit CON BR))  
5 - AF Liaison OFF Kansas City MO  
10 - WADF  
6 - EAOPR  
4 - EACST

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COPY

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N.Y.

EAOCE-CR

16 Nov 1954

SUBJECT: (Uncl) Operations Plan for Picket Vessel and AEW&C  
Communications

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. Attached is an alternate plan to the Operational Plan for Picket Vessel and AEW&C Communications forwarded to your headquarters on 26 June 1954. The original plan provided two major communications stations, located at Fort Dix, New Jersey and Camp Edwards, Massachusetts, as shore terminals for all HF radio circuits seaward. Circuits were extended to direction centers by landline, and emergency facilities were provided by establishing a minimum number of radio circuits from the seaward units direct to the controlling direction center.

2. The original plan is still recommended by this headquarters for the following reasons:

- a. Increased efficiency since the functional units operating the central communications stations would be charged only with the responsibility of providing reliable communications.
- b. The trend towards seaward expansion of the air defense system may require additional communications facilities which can more economically and effectively be provided by the central stations rather than continual addition and construction to already overtaxed facilities.
- c. Additional construction of building space, cable facilities, and antenna farms must be performed to fulfill the present requirement at each of the five (5) direction centers concerned.
- d. Increased effectiveness of available personnel since technicians can be concentrated at two sites with standardization of equipment types and facilities.

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Hq EADF, EAOCE-CR, Subj: (Uncl) Operations Plan for Picket Vessel  
and AEW&C Communications

3. Emergency radio facilities at direction centers proposed under the previous plan could be provided by intercom equipment presently installed at those direction centers but scheduled for replacement by more modern types.

4. The attached revised plan utilizes the same number of frequencies as the original plan, and a like amount of equipment as previously required to operate the two central stations. However, the overall system is considered to be less reliable because of antenna site limitations and for the reasons outlined in Paragraph 2, above.

5. It is the understanding of this headquarters that twenty-five (25) each AN/FRT-15 type transmitters have been allocated to this program. Our review indicates that, while the transmitter as such is tunable over the frequency range 2-30 Mcs, each of the individual channels is restricted to a small band rather than the complete range. Since the frequencies currently in use for picket vessel operations range from 2.5 to 8.7 Mcs, and the most reliable are from 2.5 to 5.0 Mcs, it appears that only one or two of the channels available in this equipment could be pre-tuned to assigned frequencies. For this reason it is strongly recommended that a like quantity of Wilcox 96D type transmitters be programmed in lieu of the presently allocated AN/FRT-15 equipment.

6. It should be noted at this time that the estimated building, land, and power augmentation or expansion, as contained in the attached plan, is predicated only on the Picket Vessel AEW&C Program equipment requirement. Future requirements for the Texas Tower, SAGE, and 1 KW UHF Amplifier Programs have not been considered in this plan.

7. The contents of this letter are classified SECRET in accordance with Paragraph 23.c., AFR 205-1.

FOR THE COMMANDER:

1 Encl (dup)  
Alternate Plan to  
Opnl Plan for PV  
and AEW&C Comm 2/5 Atchmts  
in dup

/s/t/BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

Info cys to:  
Comdr, 26th ADiv w/Encl  
Comdr, 32nd ADiv w/Encl

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SUBJECT: Operations Plan for Picket Vessel and AEW&amp;C Communications

1. GENERAL. The effective utilization of picket vessels and AEW&C aircraft is completely dependent upon rapid and reliable communications.

2. OPERATIONAL CONCEPT. U. S. Naval units will operate five (5) picket vessel priority stations off the east coast of the United States to provide seaward extension of contiguous radar coverage. ADC AEW&C aircraft will operate four (4) designated stations to provide further extension. Three (3) channels of HF voice or CW will be required to each picket vessel station and two (2) channels HF voice, CW or RATT, will be required to each AEW&C aircraft from designated shore stations. Two (2) channels HF voice or CW will be required at Otis Air Force Base as in-flight communications with AEW&C aircraft enroute to and from their home station.

3. COMMUNICATIONS.

a. Picket vessel communications will be conducted directly between concerned picket vessels and ADDC's with netting as follows:

<u>Unit</u>	<u>Location</u>
Picket Vessel Station #1	42° 45' N - 68° 12' W
654th AC&W Squadron (P)	Brunswick NAS, Maine
762d AC&W Squadron (S)	North Truro, Mass.
Picket Vessel Station #2	41° 00' N - 68° 00' W
762d AC&W Squadron (P)	North Truro, Mass.
654th AC&W Squadron (S)	Brunswick NAS, Maine
Picket Vessel Station #3	40° 00' N - 70° 00' W
773d AC&W Squadron (P)	Montauk, L.I., N.Y.
770th AC&W Squadron (S)	Palermo, New Jersey
Picket Vessel Station #4	38° 56' N - 72° 05' W
770th AC&W Squadron (P)	Palermo, New Jersey
771st AC&W Squadron (S)	Cape Charles, Virginia

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<u>Unit</u>	<u>Location</u>
Picket Vessel Station #1	37° 41' N - 73° 00' W
771st AC&W Squadron (P)	Cape Charles, Virginia
770th AC&W Squadron (S)	Palermo, New Jersey

b. AEW&C communications will be conducted with netting as follows:

<u>Unit</u>	<u>Location</u>
AEW&C Station #1	42° 15' N - 64° 02' W
654th AC&W Squadron (P)	Brunswick NAS, Maine
762d AC&W Squadron (S)	North Truro, Mass.
AEW&C Station #2	39° 28' N - 66° 48' W
762d AC&W Squadron (P)	North Truro, Mass.
654th AC&W Squadron (S)	Brunswick NAS, Maine
AEW&C Station #3	47° 01' N - 69° 46' W
770th AC&W Squadron (P)	Palermo, New Jersey
771st AC&W Squadron (S)	Cape Charles, Virginia
AEW&C Station #4	35° 15' N - 73° 12' W
771st AC&W Squadron (P)	Cape Charles, Virginia
770th AC&W Squadron (S)	Palermo, N. J.

4. EQUIPMENT REQUIREMENTS: This headquarters has been advised that twenty-five (25) AN/FRT-15 transmitters have been allocated to meet these requirements. Distribution of this equipment to the ADDC's based on circuit requirements will be as follows:

<u>Unit</u>	<u>No. of Equipments</u>
654th AC&W Sq, Brunswick NAS, Me.	5
762d AC&W Sq, North Truro, Mass.	5
773d AC&W Sq, Montauk, L.I., NY	3
770th AC&W Sq, Palermo, New Jersey	5
771st AC&W Sq, Cape Charles, Va.	5
564th Air Def Gp, Otis AFB, Mass.	2

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5. SPECIAL MEASURES

a. Radio

- (1) Voice operation of all equipment will be from positions in the direction center. A CW operating and technical control position will be established at the remote receiver site.
- (2) Due to the flexibility required and the smaller land area required, the Engineering agency has recommended Discone transmitting antennas instead of Rhombics.

b. Wire

- (1) No additional cable will be required on base.
- (2) On-base cable for remote operation of the equipment will have to be augmented in all cases.

c. Frequencies

A total of 94 HF frequencies in the 2-11 Mc Band will be required to provide a primary day and primary night frequency with suitable secondary frequencies for each circuit. Since HF radio is the only means of communications available, secondary frequencies are considered essential. These frequencies will be utilized as follows:

<u>Service</u>	<u>Circuits</u>	<u>Day</u>	<u>Night</u>	<u>Total</u>
Picket Vessel	15	30	30	60
AEW&C	8	16	16	32
Enroute	<u>1</u>	<u>1</u>	<u>1</u>	<u>2</u>
	24	47	47	94

6. Additional building, land and power requirements for individual stations are listed in Attachment "A" - 5

7. This correspondence is classified SECRET in accordance with paragraph 23c, AFR 205-1.

5 Atchmts

1. Palermo AFS
2. Montauk AFS
3. North Truro AFS
4. Brunswick NAS
5. Cape Charles AFS

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Palermo Air Force Station

1. TRANSMITTER SITE.

a. Antenna Farm. Area approximately 500' by 750' must be procured to provide sufficient space. Area southwest of existing property boundary is considered suitable. Site cannot be extended to the south, since Garden State Parkway runs by that end of site.

b. Building Requirements. Transmitter building must be extended minimum of twenty (20) feet in lengthwise direction toward fence. This will provide only sufficient space for five (5) each AN/FRT-15 transmitters and four (4) control racks (72" racks).

c. Power Requirements. Present high line transformers and low line transformer load at 45 KVA. This system must be expanded to carry minimum of 112.5 KVA (3 each 37.5 KVA transformers). Existing main circuit breaker must be replaced as well.

d. Control Cable. Present 51 pair telephone cable from transmitter building to main frame in Operations Center cannot carry additional control requirements. Approximately nine (9) pairs are available. It will be necessary to install minimum of eleven (11) additional (26 preferred) cable pairs to carry additional circuit requirements. This figure only approximate. Type of transmitting equipment utilized will determine actual cable requirement.

2. RECEIVER SITE.

a. Antenna Farm. Area approximately 300' by 1000' must be procured to provide sufficient space for receiving antennas, installed for space diversity reception. Area to the Northwest of the site was considered suitable for the antenna farm.

b. Building Requirements. Present receiver building must be extended a minimum of 15' to provide space for radio control consoles. This extension should be sound-proofed. This will provide space for seven (7) HF radio control positions. The VHF-UHF monitoring position should be relocated to this room. There will be sufficient space in the present equipment room for the additional receiving equipment.

c. Power Requirements. Present power system capable of carrying 22.5 KVA load (3 each 7.5 KVA transformers). No additional power will be required for radio equipment.

d. Control Cable. Present 51 pair telephone cable to the main frame, at the Operations Center, nearly saturated. Will require minimum 26 additional cable pairs to satisfy control requirements.

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Montauk Air Force Station

1. TRANSMITTER SITE.

- a. Antenna Farm. No additional space required.
- b. Building Requirements. Additional transmitting equipment can be installed in present building, however, this will utilize all available floor space, and make further expansion impossible. It is recommended that transmitter building equipment room be extended (approximately 20 feet) to provide for suitable installation.
- c. Power Requirements. Same as Paragraph 1.c., Attachment #1.
- d. Control Cable. Same as Paragraph 1.d., Attachment #1.

2. RECEIVER SITE.

- a. Antenna Farm. No additional space required.
- b. Building Requirements. Present building must be extended minimum of 10-15 feet to provide space for radio control room. This room should be sound-proofed. The additional space will be utilized for the installation of five (5) HF radio control positions. The VHF/UHF monitoring position should be placed in this room. There will be sufficient space in the equipment room for the additional receiving equipment.
- c. Power Requirements. Same as Paragraph 2.c., Attachment #1.
- d. Control Cable. Same as Paragraph 2.d., Attachment #1.

Atchmt #2

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North Truro Air Force Station

1. TRANSMITTER SITE.

a. Antenna Farm. Additional area must be acquired. The only area suitable would be directly west of the existing transmitter site boundary. The main access road and high tension lines to the installation run diagonally across this area.

b. Building Requirements. The transmitter building must be expanded approximately 400 square feet to accommodate the necessary equipment for this plan.

c. Power Requirements. Power is being increased sufficiently to take care of this requirements.

d. Control Cable. Additional on-base cable (26 pair minimum) must be furnished.

2. RECEIVER SITE.

a. Antenna Farm. The only possible expansion is in a southerly direction. The land is not particularly suited for this purpose, however, as it is heavily wooded and very irregular, covered with prominent knolls and deep gullies.

b. Building Requirements. The receiver building must be extended approximately twenty (20) feet to provide a technical control and operating room separate from the equipment room.

c. Power Requirements. Power is adequate.

d. Control Cable. Additional control cable (26 pair minimum) must be provided.

3. REMARKS. In view of the considerable expansion foreseen at this station (in support of this plan, SAGE, and Texas Towers), it is recommended that an off-base transmitter site be constructed of a size necessary to fill all requirements. Upon approval of such action, it is further proposed to relocate the receiver facilities to the vacated transmitter site to gain the receiver space required without additional construction.

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Atchmt #3

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Brunswick NAS

1. TRANSMITTER SITE.

a. Antenna Farm. Sufficient space is available for expansion of the transmitter antenna farm only in the direction of the receiver antenna farm. This area is on base, but very heavily wooded.

b. Building Requirements. The existing transmitter building is not satisfactory. The foundation of this building is sinking and it has been necessary to brace to roof in several places to prevent sagging.

c. Power Requirements. Power is adequate.

d. Control Cable. Control cables (26 pair minimum) will be required.

2. RECEIVER SITE.

a. Antenna Farm. The same problem exists as in Paragraph 1.a., above. Expansion is limited to the direction of the transmitter site. The area is very heavily wooded.

b. Building Requirements. The existing building must be extended approximately twenty (20) feet to provide sufficient space for technical control and operating positions.

c. Power Requirements. Power is adequate.

d. Control Cable. Additional control cable (26 pair minimum) will be required.

3. REMARKS. It is recommended that a new transmitter building be erected with adequate space to support all foreseen communications requirements at this station (in support of this plan, SAGE, and Texas Towers). This base is very small however, and an off-base site is recommended.

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Cape Charles Air Force Station

1. TRANSMITTER SITE.

- a. Antenna Farm. Sufficient government property is available for the necessary expansion.
- b. Building Requirements. The existing transmitter building is not adequate, however an abandoned coast artillery bunker is available which would be adequate.
- c. Power Requirements. Sufficient power is available.
- d. Control Cable. Additional control cable (26 pair minimum) will be required.

2. RECEIVER SITE.

- a. Antenna Farm. Same as Paragraph 1.a., above.
- b. Building Requirements. Building should be expanded approximately 350 square feet to provide space for technical control and operating positions.
- c. Power Requirements. Sufficient power is available.
- d. Control Cable. On-base cable (26 pair minimum) will be required.

Atchmt #5

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HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADMEL-2

21 June 1954

SUBJECT: (CLASSIFIED) AN/FPS-3 Duplexer Modification Schedule

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Attached is the schedule for depot-level modification action under which forty-nine (49) AN/FPS-3 systems within Air Defense Command will be alerted to incorporate Duplexer CU-315/FPS-3 in place of Duplexer CU-238/FPS-3. It is requested that subject schedule and copies of cover letter containing instructions and general information be forwarded to appropriate activities.

2. Installation of Duplexer CU-315/FPS-3 and associated control components will result in an appreciable improvement in aircraft detection capability for AN/FPS-3, primarily because the receiving system noise figure will be reduced from 16 dbm to only 12 dbm. In addition, the change will result in longer tube life, longer signal mixer crystal life and more uniform performance using stock signal mixer crystals.

3. Following is a summary of AN/FPS-3 components which will be directly affected:

<u>Original Equipment</u>	<u>Modified Equipment</u>
Transmitter Group OA-214/FPS-3	Transmitter Group OA-398/FPS-3
Radar Transmitter T-266/FPS-3	Radar Transmitter T-360/FPS-3
Duplexer CU-238/FPS-3	Duplexer CU-315/FPS-3
I.F. Amplifier AM-423/FPS-3	I.F. Amplifier AM-423A/FPS-3
Control Group OA-179/FPS-3	Control Group OA-399/FPS-3
Radar Set Control C-797/FPS-3	Radar Set Control C-1108/FPS-3

4. Rome Air Force Depot has indicated concurrence in the following plan for transferring accountability for two (2) transmitter cabinets at each site scheduled for modification:

a. Bendix teams will transfer to each site two (2) completely modified transmitter cabinets OA-398/FPS-3, using AF Form 104B bearing a voucher number assigned by the Accountable Property Officer at the Bendix Factory.

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Hq ADC ADMEI-2 Subj: (Classification) AN/FPS-3 Duplexer Modification Schedule

b. Squadrons will transfer to the Bendix depot teams two (2) unmodified transmitter cabinets OA-214/FPS-3, using AFForm 104B bearing a voucher number assigned by the Accountable Property Officer at applicable electronics support base.

5. Following is a brief summary of the operational plan to be used in accomplishing this relatively extensive modification:

a. Specially-equipped Bendix teams will arrive on-site with two (2) completely modified transmitter cabinets OA-398/FPS-3.

b. Bendix teams, assisted by squadron maintenance personnel, will remove unmodified cabinets OA-214/FPS-3, from the antenna support structure and immediately replace them with modified units OA/398/FPS-3.

c. Squadron maintenance personnel, working under the direct supervision of Bendix depot teams, will complete the installation of new control circuit wiring and the modification of Control Group OA-399/FPS-3 and Radar Set Control C-1108/FPS-3.

d. Bendix depot teams will remain on-site for approximately three (3) days to monitor operation of the newly installed equipment. During this monitoring period, squadron maintenance personnel will assist Bendix depot teams in the modification of two (2) Transmitter Groups OA-214/FPS-3, which were removed from the antenna support structure. These modified transmitters will be installed at the next site on the modification schedule.

6. The modification procedure as outlined above will achieve three (3) important objectives:

a. Radar down-time is reduced to the minimum possible for so extensive a modification.

b. Bendix depot teams remain on-site to insure proper operation of newly installed equipment.

c. By actual participation in all phases of the modification work, squadron maintenance personnel are given an opportunity to become thoroughly familiarized with physical and electrical characteristics of new transmitting equipment. Bendix teams will instruct squadron personnel in the proper adjustment and alignment of new equipment.

7. In the interests of avoiding costly delays, it is requested that all AN/FPS-3 squadrons be instructed to take the following actions prior to the on-site arrival of the Bendix depot teams:

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Hq ADC ADMEL-2 Subj: ~~(Classified)~~ AN/FPS-3 Duplexer Modification Schedule

- a. Obtain voucher number for AF Form 104B from appropriate electronics support base.
  - b. Have available for immediate use the primary items of equipment hoisting gear which were supplied as components of Antenna Towers AB-196 and AB-199. (Reference ADC letter to Air Defense Force Headquarters, ADMEL-2, Subject: Antenna Erection and Hoisting Equipment, dated 11 June 1954).
  - c. To avoid technical difficulty and lost-time during modification, remove all minor modifications made under provisions of AFR 65-12 and ADCR 66-11 on any of the AN/FSP-2 components listed in paragraph 3 above.
  - d. Arrange to have the majority of radar maintenance crewmen on-site during the modification period in order that they may assist in the modification and receive adequate training in the operation, adjustment and alignment of the new equipment.
8. It is further requested that AN/FPS-3 squadrons be instructed to make available to the Bendix depot teams those items among squadron spare components which will be declared in excess of squadron requirements as a result of subject modification action. Such excess items will be returned to rotational stock at the Bendix depots to help alleviate existing shortages and for further use in the duplexer modification program. Particular importance is attached to coax-to-waveguide transition UG-948 and the waveguide sections for obsoleted Duplexer CU-238/FPS-3. Detailed instructions relative to the disposition of components to be declared in excess will be forwarded prior to 1 July 1954 in separate correspondence following the completion of plans in this headquarters.
9. Although incorporation of Duplexer CU-315 in all AN/FPS-3 systems required extensive alteration of existing transmitter cabinets, the nature of changes to be made is such that there will be no requirement for exhaustive tests of radar coverage immediately following the completion of modification. Changes to be made are confined to the transmitter cabinet itself and to associated control components. The antenna reflector and antenna horn combination which actually determine the radiation pattern of the system will not be involved in the modification in any respect.
10. The daily maintenance card system AN/FPS-3 is presently being revised in this headquarters. The revised forms will list maintenance procedures required for the new Duplexer CU-315/FPS-3. It is anticipated that the new card forms will be distributed to the field during

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Hq ADC ADMEL-2 Subj: (Classified) AN/FPS-3 Duplexer Modification  
Schedule

the month of July 1954.

BY ORDER OF THE COMMANDER:

2 Incls

1. Duplexer Modification  
Schedule (Eastern)
2. Duplexer Modification  
Schedule (Western)

s/t/ L. E. SMITH  
Captain, USAF  
Asst Command Adj

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Dup' exer CU-315

Eastern Group

<u>Departure Date</u>	<u>From AC&amp;W SqdnNo.</u>	<u>To AC&amp;W Sqdn No.</u>	<u>Arrival Date</u>
July 1	Baltimore	770	July 2
July 8	770	773	July 10
July 15	773	765	July 17
July 23	765	656	July 24
July 30	656	655	July 31
Aug 6	655	662	Aug 7
Aug 13	662	664	Aug 14
Aug 20	664	781	Aug 21
Aug 27	781	754	Aug 28
Sept 4	754	753	Sept 5
Sept 11	753	665	Sept 12
Sept 18	665	676	Sept 19
Sept 25	676	756	Sept 26
Oct 2	756	739	Oct 3
Oct 9	739	787	Oct 10
Oct 16	787	789	Oct 17
Oct 23	789	738	Oct 24
Oct 30	738	797	Oct 31
Nov 6	797	798	Nov 7
Nov 13	798	791	Nov 14
Nov 20	791	784	Nov 21
Nov 27	784	783	Nov 28
Dec 3	783	772	Dec 4
Dec 10	772	647	Dec 11
Dec 17	647	771	Dec 18
Dec 24	771		

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Duplexer CU-315

Western Group

<u>Departure Date</u>	<u>From AC&amp;W Sgdn No.</u>	<u>To AC&amp;W Sgdn No.</u>	<u>Arrival Date</u>
July 1	Baltimoreq	636	July 8
July 15	636	761	July 16
July 22	761	759	July 23
July 29	759	758	July 30
Aug 5	758	637	Aug 6
Aug 12	637	638	Aug 13
Aug 19	638	760	Aug 19
Aug 25	760	680	Aug 26
Sept 1	680	681	Sept 2
Sept 8	681	778	Sept 9
Sept 15	778	779	Sept 16
Sept 22	779	780	Sept 23
Sept 29	780	786	Sept 30
Oct 6	786	785	Oct 7
Oct 13	785	777	Oct 18
Oct 25	777	776	Oct 26
Nov 1	776	774	Nov 2
Nov 8	774	775	Nov 9
Nov 15	775	670	Nov 16
Nov 23	670	751	Nov 24
Dec 1	751	769	Dec 3
Dec 10	769	767	Dec 11
Dec 17	767	768	Dec 18
Dec 24	768	741	Dec 26
Jan 2	741		

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOOT-OS

30 July 1954

SUBJECT: (Unclassified) Request for Additional Plan Position Indicators (OA/99-UPA-35)

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Headquarters ADC has advised this headquarters of the availability of a limited number of plan position indicators through normal supply channels.
2. It is mandatory that any requirement established for additional indicators be fully justified to Headquarters ADC for the purpose of procuring any of the indicators available as indicated in paragraph 1 above and to provide Headquarters ADC with a guide for use in distributing UPA/35 universal type indicators as they become available.
3. Each air division is encouraged to submit requirements for subordinate units to include factors similar to the following in justification thereof:
  - a. Number of indicators unit requires based on present and known future requirements.
  - b. Number of indicators presently on hand at unit.
  - d. ADC fighter interceptor squadrons associated or programmed.
  - e. AAA units associated or programmed.
  - c. Number of indicators presently authorized.
  - f. Augmentation forces assigned, associated or programmed which generate requirements for indicators.
  - g. Additional ACW forces associated or programmed. (i.e., PV, AEW, Texas Towers, mobile radio detachments)

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EAOOT-OS Subject: (Unclassified) Request for Additional Plan Position Indicators (OA/99-UPA-35)

h. Unusual requirements peculiar to local areas. (i.e., Controls two FIS's located geographically apart so that one ascent/recovery director could not logically control both areas on one indicator).

i. Any training requirements planned or programmed which would tend to limit the indicators available for active air defense. (ie, Ram systems training).

j. Any indicator requirements generated as a result of participation in traffic control either normal or for identification purposes. (i.e., CAA Radar Advisory, CAA traffic control use of ADC radar, participation in MCIS-IMIS Programs).

4. Past experience in problems of indicator procurement and distribution serves to emphasize the need for a completely logical justification for any additional indicators. The practice of requesting additional indicators as a cushion for more stringent times will not only destroy the particular request for lack of logical justification, but will jeopardize the over-all command efforts to alleviate the critical indicator situation existing in certain areas at this time.

5. Defense wings and air divisions are cautioned to carefully screen all requests from subordinate units to ensure that requests, as forwarded, are a true representation of the present and programmed needs of their command.

6. It is requested that action on indicator requests be expedited. Approved requests should reach this headquarters not later than 31 August 1954 for screening and consolidation prior to being forwarded to Headquarters ADC for final approval.

BY ORDER OF THE COMMANDER:

JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

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Hq EADF EAOOT-OS Subject: (Uncl) Request for Additional Plan Position Indicators (OA/99-UPA/35)

OOT-A (30 Jul 54) 1st Ind 13 Aug 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base, Newburgh, New York

1. As reflected in recent reports received from APG, ARDC, manufacturers and numerous other air divisions, it is evident that our weapons potential far exceeds our capability to provide effective control.

2. Test findings continually verify the fact that our greatest disadvantage at the present time is the inability, due to lack of communications frequencies and control positions, to attack a raid with the necessary number of interceptors in the allotted time increment. With our control limitations we cannot launch all available interceptors without exceeding the saturation point of every direction center. The further we exceed this saturation point, the less effective each weapon becomes. It is also very apparent that we cannot permit incommision aircraft to sit idle on the ramps while a raid is in progress; simply due to the fact that we are limited in our control capacity. Although interceptor identification and airspace saturation becomes more acute as the number of interceptions is increased, tactics can be developed and proficiency increased to overcome this problem. However, without the control capability, which is directly related to PFI scopes, we cannot meet our responsibilities.

3. To graphically present the situation, the following data is provided:

Station	"B Scans"	Total PFI's	Utilization Control	Surveillance	Maint	AAOC	Multi/RCVR UHF Channels
P-50	0	5	3	1	1	N/A	8-4
P-65	0	5	3	1	1	N/A	5-4
P-49	0	5	3	1	1	N/A	5-4
P-10	5	11	8	1	1	1	8-4
P-14	5	8	6	1	1	N/A	5-4

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Hq EADF EACOT-OS Subject: (Uncl) Request for Additional Plan Position Indicators (OA/99-UPA/35)

Station	"B Scans"	Total PPI's	Utilization Control	Surveillance	Maint	AAOC	Multi/RCVR UHF Channels
P-21	5	11	8	1	1	1	5-4
P-80	0	7	4	1	1	1	4-4
P-13	5	10	8	1	1	N/A	5-4

4. While it is recognized that a PPI is essential to the maintenance section to adequately monitor set performance and for use in counter ECM measures, it has been necessary to direct FPS-3 sites to mobilize this PPI to permit transfer into the operations room for periods of saturation.

5. Present restriction on operations room modification, coupled with the original design falacy in location of "B Scans", separated from the main room, it is absolutely necessary that one PPI be utilized for surveillance supervision. It has been proven that "B Scans" alone are unsatisfactory without coordination and supervision by a PPI monitor. It must be remembered also that FPS-3 sites have no "B Scans". Emergencies have arisen necessitating the decision to disregard surveillance temporarily to safely recover interceptors. During a hostile attack this situation could readily develop. Either decision, to sacrifice surveillance or interceptors, is too grave to accept when we have the capability to eliminate the need for such now.

6. Requirement and justification by individual station is listed in inclosures 1 thru 5.

FOR THE COMMANDER:

5 Incls:	EVERITT W. HOWE
1. P-50 Justification (3 cys)	Major, USF
2. P-44	Adjutant
3. P-49	"
4. P-65	"
5. P-10	"

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P-50

1. Presently assigned PPI's - 5
2. Required number of PPI's - 9
3. Additional PPI's required - 4
4. Justification:

a. This station is an FPS-3 site, situated in the most critical strategic location within the sector. This station has the radar range capability to control interceptors over a multitude of probable target approaches; two of these targets being Boston and New York City.

b. Interceptors which have frequently come under control of this station in past exercises and which have demonstrated the critical need in event of actual attack are: 60th FIS, 37th FIS, 27th FIS, 58th FIS, 437th FIS, 330th FIS, 101st FIS, 131st FIS, 133rd FIS, 134th FIS, 139th FIS, 138th FIS. It is evident that any combination of more than two of these units listed would tax the station far beyond their control capability. This station is the primary controlling ADDC for:

60th FIS, Westover AFB

139th FIS(ANG), Schenectady, N. Y.

131st FIS(ANG), Westfield, Mass.

Scramble and recovery problems involved are self evident and should need no further explanation.

INCL #1

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C O P Y

P-14

1. Presently assigned PFI's - 8
2. Required number of PFI's - 10
3. Additional PFI's required - 2
4. Justification:

a. This station is situated in a strategic location on the approach to the Hudson Valley. Fighters controlled by this station include primary control of the 37th FIS and 134th FIS(ANG) Burlington; tactical control of the 27th FIS, 138th FIS(ANG), 60th FIS, 131st FIS(ANG), RACF fighters in the Montreal area, and 133rd FIS(ANG). It is impossible to effectively employ all available interceptors without augmenting the number of PFI scopes presently assigned. Authorization is ten scopes; however, two scopes were redistributed, one to P-10 and one to P-21 for use of AAA. If these two scopes are returned, rather than authorizing the two additional as requested, an additional authorization of one each must be made to P-10 and P-21 to compensate for the loss.

INCL #2

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P-49

1. Presently assigned PPI's - 5
2. Required number of PPI's - 7
3. Additional PPI's required - 2
4. Justification:

a. This station is an FPS-3 site located on the northern boundary. Surveillance is therefore an extremely important function. Surveillance cannot be sacrificed to provide an additional scope from which to control available interceptors. Following units are controlled by this squadron: 27th FIS, 138th FIS(ANG), 37th FIS, 47th FIS, 136th FIS(ANG), 134th FIS. Primary control is exercised over both the 27th FIS, Griffiss AFB and the 138th FIS(ANG), Syracuse, NY. In addition ADC Ops Plan 4-54 programs deployment of detachment from the 3550th Air Training Wing, Moody AFB to Griffiss AFB for control. Scramble and recovery control is extremely difficult due to distance from the sites and radar limitations.

INCL #3

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C O P Y

P-65

1. Presently assigned PPI's - 5
2. Required number of PPI's- 8
3. Additional PPI's required - 3
4. Justifications:

a. This station is an FPS-3 site located in the Northeast approach to the EADF Region. Being a boundary station, surveillance is an extremely important function. To maintain the minimum acceptable surveillance, two PPI scopes must be on continual search. In addition to normal surveillance function, this station is the radar normally making initial detection on the Marmouth corridors of the Nantucket MCIS. It is anticipated that this station will be designated as the primary control station for this MCIS corridor in the very near future.

b. Interceptors controlled by this station include those of the following units: 49th FIS, 57th FIS, 74th FIS, 132nd FIS(ANG), 506th Strategic Fighter Wing and Chatham RCAF fighters. A total of approximately 100 aircraft are possessed by the 49th FIS and 506th SFW alone. In addition to the problems posed in the control of these aircraft, identification of such a large number of aircraft is in itself a major problem and an everyday workload.

INCL #4

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P-10

1. Presently assigned PPI's - 11
2. Required number of PPI's - 12
3. Additional PPI's required - 1
4. Justification:

a. This site is located as to accept control of interceptors over the most critical target area within the sector. Fighter forces in this area include; 58th FIS, 437th FIS, Quonset Navy, 60th FIS, 131st FIS(ANG), 133rd FIS(ANG), 101st FIS(ANG), 75th FIS and 331st FIS. This station exercises primary control over the 58th FIS, 437th FIS, Otis AFB; 101st FIS(ANG), Boston; Quonset Navy, R.I.; ARDC fighters deployed at Hanscom AFB.

b. This station is a controlling station for the Nantucket MCIS.

c. This station is presently cooperating with CAA on joint usage of the ADDC by ARTCC.

d. Numerous Lincoln Project requirements necessitate utilization of assigned scopes.

e. AAA coordination with Boston AAOC requires use of one scope.

INCL #5

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C O P Y

HEADQUARTERS  
764TH AIRCRAFT CONTROL AND WARNING SQUADRON  
ST. ALBANS AIR FORCE STATION  
St. Albans, Vermont

OPRE

12 Jul 1954

SUBJECT: Replacement PPI Scopes

TO: Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. As instructed by headquarters 32d Air Division during the recent Operations Officers' Conference, we are herewith submitting justification for the replacement of PPI's taken from this site.
2. Instead of the normal 10 PPI's provided with AN/CPS-6B equipment, only 8 PPI's are available and are used for the following purposes:
  - a. 5 PPI's for Control
  - b. 2 PPI's for Surveillance
  - c. 1 PPI for Maintenance
3. The PPI used by Radar Maintenance is absolutely essential for continued high degree of performance with MTI circuits. MTI is used 100% of the time at this site and due to its highly critical tolerances, almost constant adjustment is necessary. This adjustment must be made with the use of a PPI. In order to provide some duplicity of use, this scope is also used for Video Mapper adjustment and for scope photography when required.
4. The two PPI's used in the Surveillance Section are used as source scopes when B-scans are not used; are used as supervisory scopes when B-Scans are used. A third scope is needed in the Surveillance Section, for the Floor Supervisor. Presently he can monitor surveillance with only a B-Scan (a temporary measure that is better than nothing). When two surveillance PPI's are taken over for control, little or no surveillance supervision is possible.

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C O P Y

Subj: Replacement PPI Scopes.....Cont'd

5. The five (5) PPI's in the Control Section make possible a control capacity of 6 to 8 F-86D's. A maximum control of 2 F-86D's per controller is necessary under present state of experience and training. Three scopes are used for control, one for the Fighter Marshal and one for a Recovery Director. Another PPI is needed to increase this capacity. As maintenance improves at the 37th Fighter Interceptor Squadron, more aircraft will be available for training and exercises. In addition there is a marked increase noted, with an even greater increase expected, from an accelerated flying program by the 134th Air National Guard Fighter Interceptor Squadron at Burlington. An unofficial report also indicates that another Fighter Interceptor Squadron from this general area will be based at Ethan Allen Air Force Base, for a limited period during repair of their permanent base.

6. As a "crash measure", the two PPI's used for surveillance can and are used for additional control capacity. This measure increases our capacity to 12 aircraft. However, this limitation is unrealistic in light of the heavy work load that can develop under the conditions explained in paragraph 5. Due to the location of this site it is highly probable from a tactical standpoint, that several additional Fighter Squadrons will be employed concurrently with the 37th, 134th and the deployed Fighter Interceptor Squadron in this area. Similar situations of this type have developed in the past in this area, and undoubtedly will recur frequently.

7. For the reasons outlined here, we request that the two PPI's be replaced and that this site be considered for several additional scopes if available.

FOR THE COMMANDER:

WILLIAM J. BUCHANAN  
1st Lt., USAF  
Adjutant

2

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C O P Y

Hq 764th AC&W Sq OPNS Subject: Replacement PPI Scopes

DO-Comm (12 Jul 54) 1st Ind / 16 Jul 1954

HQ 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32d Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

Concur in request and recommend approval.

FOR THE COMMANDER:

MANUEL S. BETTENCOURT, JR.  
1st Lt., USAF  
Assistant Adjutant

OCE (12 Jul 54) 2nd Ind 27 Jul 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 764th AC&W Squadron, St Albans Air Force Station,  
St Albans, Vermont

1. This headquarters does not concur in the request contained in paragraph 7, basic letter. It is believed assigned equipment is not being exploited to its full potential.
2. Eight plan position indicators are presently assigned. If the situation requires, all of these scopes can be used for control purposes. With only two aircraft assigned each director up to sixteen aircraft can be controlled simultaneously.
3. Five "B" Scopes are assigned. Since this basically is a search scope, surveillance capability should not be reduced by assigning all PPI's for the purpose of aircraft control.
4. This headquarters presently negotiating with Headquarters, Eastern Air Defense Force and Cambridge Research Center to obtain indicators surplus to the Project Lincoln requirements. If this is successful, the 764th AC&W Squadron will be considered along with other units in the distribution of these scopes.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt., USAF  
Asst Adjutant 54-2470

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C O P Y

Hq 764th AC&W Sq OPNS Subject: Replacement PPI Scopes

OPNS (12 Jul 54) 3rd Ind

HQ 764TH AC&W SQUADRON, St Albans Air Force Station, St Albans, Vermont

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Maine

Returned as per conversation between Lt Colonel Fuller, 32d Air Division and Lt Colonel Hollander this station on 28 July 1954.

FOR THE COMMANDER:

WILLIAM J. BUCHANAN  
1st Lt., USAF  
Adjutant

DO/A/C (12 Jul 54) 4th Ind 12 Aug 1954

HQ 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station,  
Syracuse, New York

54-2470

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C O P Y

SUBJ.: Report of Informal Staff Visit

TO ODC  
OOT  
ADCC

FROM: OGP-A/SANTMYER/091 15 July 54 No. 1

1. Visit conducted by Capt Santmyer, OOT section.
2. Squadron visited: 656th ACGW Squadron
3. Squadron personnel contacted:

Maj Petryke, Commander  
Capt Hess, Operations Officer  
Capt Porter, ADCC Chief  
1/Lt Head, Senior Director  
2/Lt Sukup, Duty Director  
CWO, Meyers, Senior Director.

4. General

a. Operations: Internal operations has every appearance of an efficient and effective section. Although hampered by low proficiency level of new personnel, an effective training program is in progress. However, loss of experienced directors is anticipated which indicates a desirable course of action of augmenting the ADCC with a minimum of two experienced directors. It is doubtful if those now in training status will be capable of assuming duty as Senior Director in sufficient time to cover the losses.

b. This station has only five PPI scopes assigned. Two are utilized for normal control, two for surveillance and one for maintenance. However, to increase the control capability, the scope assigned to maintenance has been made transportable and may be moved into position in the operations room. There still remains a definite requirement for one additional scope to maintain necessary surveillance positions when there is maximum control use.

c. Instructions concerning installation of the AI/TIQ equipment for use as alternate control center are inadequate. It is recommended that display boards, maps, status boards etc. be prepared by the appropriate section of this headquarters and delivered to F-50 for installation. Being unfamiliar with all functions of an ADCC imposes a problem in determining the requirements. At present, communication lines are paralleled with the ADCC lines. This would create an intolerable situation due to overload if alternate ADCC is placed into operation.

d. Time did not permit going into detail on the training program. With the exception of proficiency and operational training, and participating in unit and systems training, the program is monitored by the administrative section of the squadron rather than operations.

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C O P Y

DISPOSITION FORM

Subject: Report of Informal Staff Visit Cont'd

e. Although three tape recorders have been received, EADF has directed that they not be put into use until such time as explicit instructions are provided as to their use. These machines could be put to excellent use for the purpose of training by review and reconstruction of intercepts. EADF advised that the delay in use is due to supply problems primarily. Spare parts are not available and racks must be procured in which to mount the units. ADC is expected to authorize installation within 4-5 weeks.

f. Concern was raised over the increasing number of missed intercepts due to late scramble when under centralized control. Due to UHF peculiarities on fade areas and areas of poor radar contact, scramble time must be planned to obtain optimum point of intercept in relation to these two factors. Disposition form on this subject has been submitted for comment and consideration.

SANTMYER/091

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C O P Y

TO ADCC  
OCC

Subj: Report of Informal Staff Visit  
From: OCE/Fedorovich/070

26 July 1954 2

1. Reference para 4b. The Cambridge Research Center has offered to turn over 8 PPL's to this division. The following action has been taken on the scopes:

a. I called EADF, Electronic supply and advised them of the situation. They requested a list of equipment declared excess to project Lincoln's needs.

b. Major Oberinger (4707th AC&W, C&E Officer) was called and advised to send information direct to EADF ATTN: EWAL-S Captain Bobo with info to us.

c. EADF appears to be optimistic over this.

2. Reference para 4c. The present installation of AM/TT-1 for 32 AD ALCCMP is adequate in view of the lack of information that C&E had on how much detail we would go into. Paralleling of present circuits was necessary to insure availability of a suitable system. OCC should advise the site as to what is required in the way of status info etc. A request for necessary engineered circuits has been forwarded to EADF. Circuits to the three remote sites will be delayed (F-21, F-65, F-80). The site must operate as a OCL station rather than an ADCC in order to accomplish their end of the plan. I suggest an OCC team including C&E visit the site to get this matter cleaned up as early as possible. PC&R should have a basic plan written up delegating the responsibility to the proper unit.

3. Reference para 4f. The basic coverage of the site shows that coverage to the north and south is good with east and west coverage approximately 60% effective based on location of PE's.

/FEDOROVICH/070

C O P Y

DISPOSITION FORM

TO DCO Col Fuller FROM ADCC 29 July 3 3

1. This would be an excellent opportunity to comply with the ADC Regulation of progression in the controllers field. Since both Captain Hess and Capt Porter are long overdue for overseas, and the 4707th is looking for a replacement for Squadron Operations Officer, it is recommended (only for betterment of the system) that the ADCC be screened for a volunteer to go as Sq Ops Officer at P-50. This would progress a controller and give at least one site an officer who knows the divisions internal problems.

2. P-50 is on the itenary of the DCO and chief Cont. At this time we will look at the set-up and then send a written requirement to the Commander.

3. As for the tape recorders, I suggest the sites use them until spare parts are available. Why hold equipment until parts arrive. The training would be accomplished when the parts arrive. If it breaks down there is no harm done.

4. Ref Par 4 f (missed intercepts). Actually the AC&W squadron should have on a board all unknowns scramble action preplanned. They should be capable of using proper displacement and make the intercept at the most advantageous point, regardless of the time of the scramble order. The units constantly scramble direct for the unknown. It is good tactics, also, to scramble away from the unknown and make the intercept at the point desired. If they are ordered to scramble on a track very far north they should consider the capability of the northern station and request they take over the interceptors and not try to control at maximum radar range. Also the squadron operations officer or sq commander should immediately comply with the scramble order and then call the COC for a QUICK tactical discussion with reference to the scramble. It is possible that the info on the ADCC board is not current and this discussion will probably produce a change of orders. Centralized control will only work if it is completely supported by all units. The squadrons must realize that they are not a machine to orders and merely sit back and comply.

mack.

ODO OCO 30 Jul 54 COMMENT NO. 4

Recommend this be forwarded to DP for consideration, reference paragraph 1, Comment #3.

FULLER/144

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C O P Y

DISPOSITION FORM

TO VC  
FDP

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1. Loss of a controller here will ~~not~~ *hurt*
2. However, I still think the proposal has considerable merit.
3. Will also show the Wgs & Sqds that we are willing to help them.

WI

TO PDF

FROM COC

5 Aug 54

Your comments then to Col Israel.

WHC

TO COC  
WHC

FROM PDF

Comment #7

The overseas levies for controllers are at a snail's pace. Therefore, no unusual concern has been made over the possibility of losing Capt. Hess. However, in the interest of long range planning a qualified potential operations officer could be selected and ear marked for asgmt to P-50.

It is felt that the Sq Comdr can best determine this move by coordinating with the 4707th Def Wg Deputy for Personnel. Unless the Division ODO has some one officer in mind to transfer into P-50 we have no one in mind for consideration.

Maj. Burak  
For FEEN/120

C O P Y

HEADQUARTERS  
32D AIR DIVISION  
OFFICE OF THE DEPUTY COMMANDER

Memo To: Col Israel

I told Ollie Cillini that we would give them an experienced officer for the 656th, provided they wished to ask for one.

OK

RSI, Jr.

WHC

C O P Y

DISPOSITION FORM

Report of Informal Staff Visit to 655th AC&W Sq.

OCO  
OCC  
OCE  
ODO

OOT-A/MCEACHRON/091

15 Oct 54

1. Visit conducted by Capt McEachron, OOT Section.
2. Squadron visited: 655th AC&W Squadron.
3. Reason for visit: To observe the use of a new beam positioning procedure recently submitted to AC&W Squadrons and scheduled to be tested during Exercise "Pogo Stick #6".
4. Squadron personnel contacted:  
Major Falkins, Commander  
Capt. Wildermouth, Operations Officer  
Lt. Hoodly, Chief Director
5. General:
  - a. Exercise "Pogo Stick #6" was cancelled due to the weather; However, the beam positioning procedure was demonstrated by utilizing the target generator. Constructive comments were received and additional comments will be forwarded when the procedure has been fully tested by all directors
  - b. The ADCC appeared to be operating effectively, however, the lack of fully qualified directors is a serious problem at this station. Furthermore, the anticipated loss of several key airmen in the near future will present more operations and training problems. An extensive training program is now in effect and this should alleviate the situation to some extent.
  - c. More control scopes are definitely needed at this station. They are programmed for three of the new UPA-35 type scopes and EADF has requested that this station be given four. P-49 is also included on a special request to ADC for two of the OA/99 type scopes. The OA/99 is the type in use at the station at the present time.
  - d. P-49 has only one line to the adjacent Canadian ADCC to the North (C-32) and only one line to the 26th AD(D) ADCC to the South (P-30). It was pointed out that the probable course of an attack would be from North to South. In this event additional communications lines for warning telling and control purposes would be essential. A request has been submitted by P-49 for additional lines to these stations.

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e. Three airmen from the ADCC also made the visit for orientation purposes and were given an excellent briefing on the operational phase of the ADCC.

SHELTON/090

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C O P Y

REPORT OF STAFF VISIT - HQ 32D AIR DIVISION

29 September 1954

1. A staff visit was made on the 21-22 September 1954 to the 32d Air Division, Syracuse, New York, by Lt Col Dale A. Rutz, Maj Shelby L. Irby, and Capt Donald F. Rudolph of the Directorate of Communications and Electronics, Hq EADF.

2. The purpose of this staff visit was to discuss communications and electronics matters with personnel of the 32d Air Division.

3. Problems Solved During Visit:

a. Capt Rudolph discussed the reporting procedures for the AF-Z20 Operational Status Report with Capt J. S. Leason and Sgt Harrison, 32d Air Division, DC&E. The contents of ADCR 55-46 and the format for submission of the Z-20 report were thoroughly explained relative to data required in each entry, who is required to submit the report, method of transmission, and the due date to Hq EADF. It was noted that the 32d Air Division had only one copy of ADCR 55-46, which is filed in the AG Office. Capt Leason was requested to obtain an additional copy of this regulation for the 32d Air Division, DC&E.

b. The AN/GTA-6A telephone equipment and additional 10-line units were discussed with Lt Col Fedorovich and Capt Pate. Lt Col Fedorovich asked that Saratoga Springs be given priority for 10-line units and the 32d Air Division be given priority for the GTA-6A. He was told that the shipping instructions have already been issued for the 10-line augmentation unit.

4. Problems Requiring Further Action:

a. Maj Irby reviewed the status of communications projects for the 32d Air Division with Capt Channel and Capt Pate.

PC Facility No. 1103 - EW Radar Station. It was learned that the PC erroneously lists a CPS-5 search radar as installed at the 32d Air Division's Headquarters. This equipment was turned in to supply channels approximately two years ago. The TFS-1B listed in the PC is, in fact, a TFS-1C. PC corrections will be made by EADF. (Action-EADF/DC&E)

PC Facility No. 4501 - On-Line Crypto. This facility is currently operating with rented equipment. Government on-line crypto equipment is now available to replace rented equipment. However, government-owned teletype

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equipment associated with the facility is not currently available to the 32d Air Division. Hq EADF will be notified upon the arrival of associated teletype equipment. (Action - 32d Air Division/DC&E)

PC Facility No. 5331 - Landline Teletype Terminal S/R. Government-owned equipment is now installed thereby replacing the leased equipment. PC coding will be changed from PT (programmed) to AT (installed). This PC change will be accomplished upon receipt of a signed acceptance certificate from the 32d Air Division, (Action - 32d Air Division/DC&E)

PC Facility No. 6311 - Landline Teletype On-Line Tactical Circuit to EADF, 4711 Air Defense Wing, 4707th Air Defense Wing. An interim facility currently employs leased equipment. Government-owned M-19 and M-28 teletype equipment to replace leased equipment has not been supplied. Hq EADF will be notified when M-19 and M-28 equipment is available. (Action - 32d Air Division/DC&E)

PC Facility No. 6428 - Radio Voice High Frequency Terminal. A C-E Scheme has been prepared by MAAMA and processed to Rome. The bill of material lists only three 99A transmitters which is insufficient. MAAMA will be notified that equipment listed in the bill of materials is insufficient to meet the operational requirement (Action - EADF/DC&E)

PC Facility No. 6497 - Power Station Comm Center. This 30 kw emergency power generator is programmed to provide emergency power to the Communications Center. The requirement for this generator appears doubtful in view of the fact that the Communications Center is located only 100 feet from the emergency base generators. Hq EADF will be advised whether or not the 32d Air Division considers this generator essential. (Action - 32d Air Division/DC&E)

PC Facility No. 6501 - On-Line Crypto, 1 ea to EADF, 1 ea to 4707th Air Defense Wing, 1 ea to 4711th Air Defense Wing. Cryptographic equipment is available to replace leased equipment on Hq EADF circuit. However, associated M-19 and M-28 teletype equipment is not available. Hq EADF will be notified when M-19 and M-28 teletype equipment has been supplied under PC Facility 6311. (Action - 32d Air Division/DC&E)

PC Facility No. 6499 - Power Station Remote Transmitters 60 kw. The size of this power generator appears to be larger than necessary to supply emergency power to the remote transmitter building. Hq EADF will be notified whether or not the 32d Air Division considers a 30 kw emergency power generator SFEL packages FD-2-2 and FD-2-2A ample emergency power. (Action - 32d Air Division/DC&E)

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b. Communications files were checked by Maj Irby to ascertain whether or not regulations and technical orders relative to communications and electronics programming and project action were conveniently available to personnel of the office. Several of these regulations, although probably available in the AG office, were not conveniently located for use by communications personnel. Lt Col Fedorovich was requested to obtain an additional copy of the following regulations for use by personnel of his office: (Action - 32d Air Division/DC&E)

TO 16-1-292	14 Jan 1954. Implementation of Fixed Communications-Electronics Program
AFR 55-103	Airspace Sub-Committee and Its Relation to Air Force Activities and Operations
AFR 66-24	Base Wire and Telephone Systems
AFR 87-1	Acquisition, Real Estate
AFR 87-4	Disposal, Real Estate
AFR 93-17	Air Force Installation Representatives
AFR 93-17A	Air Force Installation Representatives
ADCR 55-46	Operations Status Report RCS: AF-220
EADFR 88-2	Selection and Approval of Sites

c. It was learned that all government furnished M-19 and M-28 teletype equipment has been delivered to all of the 32d Air Division's units except wings and division headquarters. When this equipment has been delivered to the Air Defense Wings and the Air Division, it will be installed to replace commercial equipment currently utilized. Hq EADF will be notified when the 32d Air Division and wings receive this equipment. (Action - 32d Air Division/DC&E)

d. Lt Col Fedorovich and Capt Leason stated that the range of the FPS-4 height finder is not compatible with the range of the FPS-3 and CFS-6B search radars. They asked if they should request PC changes programming FPS-6 height finders in lieu of FPS-5's and FPS-4's currently programmed. They were told that the FPS-6 is not acceptable for use with the CFS-6B because of common frequencies. Lt Col Fedorovich was asked to recommend any other height finder that he felt would be superior to equipment currently programmed. In lieu of such a recommendation, he was advised to submit a letter to this headquarters outlining this deficiency for further evaluation by higher headquarters. (Action - 32d Air Division/DC&E)

e. Maj William F. Daniels said that ADC has deleted FY56 public works projects for construction of 420 sq ft additions to all P-site and M-site radio transmitter and receiver buildings, with the exception of North Truro, and has lumped this area into a standard extension to the Operations Building. He contends that 420 sq ft floor space in the Operations Building is not appropriate for 99A transmitters, 1 kw amplifier, and UHF air-to-ground transmitters and receivers which must be located in the remote transmitter and receiver buildings. He referred to an EADF letter, dated 16 September 1954, EAMIS CP-1, Subj:

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Operations and Data Link Transmitter Building Extension at AC&W Stations, with standard plans attached indicating a consolidated extension of the Operations Building. The plan indicated that practically all of the additional floor space was to be occupied by data link equipment. Maj Daniels was under the impression that ADC and EADF had confused the data link transmitter with the air/ground transmitter and had erroneously consolidated the 420 sq ft additions for the transmitter and receiver buildings into the Operations Building extension. Furthermore, Maj Daniels said that 1450 sq ft additions to a number of the Operations Buildings had been programmed in the FY 56 Public Works Program to provide for additional radar equipment, maintenance space, class rooms, latrines, and offices; all of which has been deleted by ADC in favor of 2550 sq ft standard extensions to these buildings and all of which is to be filled with data link transmitter equipment. He contends that the standard extension should be 4000 sq ft since 2550 sq ft will be occupied by data link transmitters and the remaining 1450 sq ft will provide for new radar equipment, maintenance space, offices, latrines, and class rooms. Maj Irby said that he would ask installations personnel of this headquarters to clarify the reason that air-to-ground transmitter extensions were deleted and to insure that consolidated expansions of the Operations Buildings will provide for programmed radar equipment, etc. The 32d Air Division has forwarded a separate letter to Hq EADF on this subject. Records of this headquarters reveal no requests for FY 56 public works projects to provide additions to transmitter and receiver buildings of the 32d Air Division other than a 420 sq ft separate building to house data link transmitter equipment to be located within 200 cable feet of the Operations Building. Programming of this building was accomplished by subordinate units of the 32d Air Division upon instructions received from this headquarters; such programming being directed by Hq USAF. These 420 sq ft separate buildings should be deleted from the FY 56 Public Works Program in view of the latest plan to consolidate this space in extensions to the Operations Building. This matter was discussed by telephone conversations between Maj Irby and Capt Kastis of this headquarters and Lt Col Fedorovich and Maj Daniels of the 32d Air Division. A final reply to this problem will be contained in EADF's reply to the 32d Air Division's letter on this subject. (Action - Hq EADF/EAMIS CP-1)

f. Capt Pate said that P-21 at Lockport has insufficient on-base telephonicable from the fence to the main frame to meet current requirements. He said there is a 52 pair entrance cable to the fence but that only 23 pairs are currently utilized because of shortage of on-base cable. Capt Pate explained that reterminating existing on-base circuits may solve this problem, and that P-21 is submitting a request for engineering assistance to MAAMA to determine the best solution for this problem. (Action -32d Air Division/DC&E)

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g. Capt Pate stated that the 32d Air Division does not have sufficient terminal equipment to meet current requirements. He said that the present terminal board room is too congested to handle the required expansion and that the best solution will be to move this equipment into the larger room presently occupied by the switchboard. The 32d Air Division had requested engineer assistance from MAAMA to determine the best arrangements to provide for current requirements and further expansions. An engineer from MAAMA was at the 32d Air Division looking into this problem. (Action- 32d Air Division/DC&E)

h. In a report on Operation Check Point, the 32d Air Division stated that they did not have adequate UHF multi-channel equipment. This was discussed with Col Israel and Lt Col Fedorovich, explaining that we do not consider this the only limitation since direction centers are also limited by available PFI scope and director personnel. Col Israel said that he did not intend to pose UHF air-to-ground limitations as the only limiting factor. He agrees that there are several factors limiting the AC&W stations' ability to control the fighters that are available. Col Israel said that during emergency conditions, personnel can be put on two 12-hour shifts, thereby temporarily providing sufficient aircraft directors. He said that he was aware of a study being conducted by EADF, O&T, to determine additional scopes required, and wanted to point out that the present control capability cannot be increased by sending PFI scopes only. Col Israel said that he had written Gen Nelson a personal letter relative to the insufficient UHF multi-channel air/ground equipment and insufficient PFI scopes to adequately control numbers of fighters that are available. Gen Nelson's answer to Col Israel's letter states that the items outlined above by Col Israel are being taken into account. (Action - Hq EADF/EA00T)

i. During Discussion with Lt Col Fedorovich relative to the 32d Air Division Communication Center operations, it was discovered that the EADF Communications Center almost regularly, at approximately 1400 hours each day, sends a service message to the 32d Air Division Comm Center telling them not to transmit routine or deferred unclassified relay traffic to EADF until further notice. For the most part, the 32d Air Division Comm Center does not receive instructions to resume transmission of this traffic until approximately 2200 hours each day. Although this saves confusion in the backlog of traffic in the EADF Comm Center, it causes an overall delay and non-use of circuit time during the period of 1400 and 2200 hours each day. This information will be included in a study now being conducted in EADF on traffic delays. (Action - EADF/DC&E)

j. A discussion with Col Israel and Lt Col Fedorovich was held relative to the reasons the 32d Air Division does not agree with EADF Regulation 100-4 relating to the use of tactical circuits to handle administrative traffic. Indications are that the 26th and 30th Air Divisions do agree with this regulation. Col Israel stated that he had no

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objection to administrative use of the tactical circuits during normal operations; however, he feels that provisions should be made whereby the Command Post can immediately obtain control of tactical circuits. He explained that during the first few minutes of Operation Check Point, administrative traffic on tactical circuits almost immediately jammed most of the tactical circuits. It required several minutes to clear the administrative traffic from these circuits and regain control for tactical purposes. Col Israel said that these circuits were installed for tactical use only and that we should not permit any use of them that will delay tactical traffic. This information will be considered in answering a letter from Col Israel to Gen Nelson on the same subject. (Action - EADF/DC&E)

5. General Discussion:

a. Col Ingenhutt and Lt Col Fuller asked that EADF Regulation 60-13 requiring reports on air/ground communications difficulties be reviewed and rewritten if found appropriate. Col Fuller explained that paragraph 14 of this regulation requires a report on air/ground communications difficulties each time any difficulty is experienced regardless of the cause. He said that communications difficulty was frequently traced to imperative equipment in the aircraft which does not indicate any mal-functioning of ground equipment. The regulation still requires a report on such difficulties even though aircraft equipment has been repaired upon landing.

b. It was noted that the 32d Air Division does not have complete copies of all E-6 Navigational Aids and Communications Status Reports on file. Capt Channel explained that project status records held in his office were composed of E-6 reports available, augmented by the Navigational Aids and Communications Status Reports published by EADF. The status of project records was called to the attention of Lt Col Fedorovich.

c. The foundation for the 32d Air Division Operations Building is presently being installed. A 100-pair cable will be provided from this building to the main frame.

6. Persons Contacted:

Colonel R. S. Israel, Jr., Commander  
Colonel W. N. Ingenhutt, Deputy for Operations  
Colonel L. C. Heartz, Ass't Deputy for Operations  
Lt Col E. F. Fuller, Director of Combat Operations  
Lt Col Vita Fedorovich, Director, Comm and Elect  
Maj W. F. Daniels, Installations Officer  
Capt G. C. Channell, Communications Officer  
Capt W. H. Pate, Communications Officer  
Capt E. J. Stout, Base Communications Officer  
Capt J. S. Leach, Electronics Officer

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7. The contents of this correspondence is classified CONFIDENTIAL  
in accordance with paragraph 24a (6), AFR 205-1.

\_\_\_\_\_  
DALE A. ROTZ,  
Lt. Col, USAF

\_\_\_\_\_  
SHELBY L. IRBY  
Major, USAF

\_\_\_\_\_  
DONALD F. RUDOLPH  
Captain, USAF

APPROVED: NELSON S. BROOKS  
Colonel, USAF  
Dir, Comm & Elect

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOCE-CW

SUBJECT: Approved Requirement for Additional ADCC-ADCC Circuit,  
Function Mission Data (MD)

TO: Commander  
32 Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, N.Y.

1. This headquarters recently requested that Headquarters, Air Defense Command amend Attachment #1, "Air Defense System-Standard Wire Communications Network" to include an additional Full Period Talk circuit between each control center and the associated direction center. It was recommended that this additional Full Period Talk circuit be designated with the single function of Tactical Action and Results (TA&R), or another applicable term such as Mission Data (MD). This circuit to be utilized for the reporting of all tactical action taken by the direction center and the results of such action.

2. The following justification was given:

a. Present authorization provides for the installation of three (3) Full Period Talk circuits (AS&ST, TL, CD, CN & SX), and one (1) Engineered Telling circuit between each control center and its associated direction center. Periods of heavy traffic during the conduct of exercises, or other instances of increased air activity, reveal the inadequacy of the one AS&ST circuit for the prompt reporting of surveillance, status and tactical action and results. This inadequacy, although detected during previous exercises, was manifested during Operation "Checkpoint". Delays of 20 minutes, or more, were commonly encountered in the forward reporting of required information from the direction center to the control center. Instances of complete loss of data were prevalent during periods of high traffic density. When consideration is given to the total amount of information that is required by ADCR 55-19 for adequate display at Headquarters, ADC and the air defense forces, the reasons for this delay between the direction center and the collection point (Control Center) become obvious. Each of the three types of information (Air Surveillance, Status and Tactical Action) are individually sufficient to fully utilize the presnet circuitry. In actual usage, this information

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Hq EADP, EACCE-CW Subj: Approved Requirement for Additional ADCC-ADCC Circuit, Function Mission Data (MD)

spills over and is partially reported on circuits originally intended for other purposes. This condition is completely undesirable inasmuch as these circuits are used to maximum capacity, and any additional requirement placed on them delays information which is fully as important for an integrated air defense effort.

b. Analysis of the reporting of tactical action and the results required by ADCM 55-3 has established that, in most cases, the time delay and loss of data occurs prior to the input point of the private line teletype system. Further analysis has established that this difficulty is due to the inability of the ADCC to collect the required data from the ADCC. This inability to collect data is primarily due to insufficient communications, and the additional fact that detailed reporting procedures for tactical action and results are not established between the ADCC and ADCC. Reference is made to ADCR 55-29, Air Surveillance Procedures, as compared to ADCR 55-30, Control Procedures - Fighter Interceptor Aircraft.

3. Based on the above justification, Headquarters, Air Defense Command has approved the requirement for installation of this circuit throughout the command. The function has been designated as Mission Data (MD). ADCR 102-4 is currently being rewritten as an ADC CEI and will reflect this change.

4. It is desired that requests for Mission Data circuits be submitted in the usual manner. The earliest acceptable installation date is 2 January 1955. The requirement for this circuit should be carefully evaluated and requests fully justified.

5. Attached requests are returned for verification of statements required by EADPR 100-3, restatement of the requirement to conform with above, and resubmission.

BY ORDER OF THE COMMANDER:

- 4 Encls /s/t/J.W.FOUNTAIN, JR.  
1. Ltr Hq 32d AD, OCE, Subj: Major, USAF  
Tac Tp & Tg Facs, 4 Aug 54 ASST Adjutant  
w/1 Ind  
2. Ltr Hq 32d AD, OCE, Subj: Tac  
Tp & Tg Facs, 4 Aug 54, w/1 Ind  
3. Ltr Hq 32d Ad, OCE, Subj: Tac  
Tp & Tg Facs, 4 Aug 54, w/1 Ind  
4. Ltr Hq 32d AD, OCE, Subj: Tac  
Tp & Tg Facs, 4 Aug 54, w/1 Ind

C O P Y

Hq EALF, EAOCE-CW Subj: Approved Requirement for Additional ADDC-  
ADCC Circuit, Function Mission Date (NB)

OCE (22 Nov 54) 1st Ind 29 Nov 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse AFS, Syracuse 6, N. Y.

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Reference paragraph five(5) of Basic Letter.
2. This headquarters has reviewed the circuit requirements contained in the inclosures and verification of the subject requests are hereby confirmed.
3. Four additional Status Circuit Requests (Mission Data) were recently forwarded to your headquarters. These requests were from this headquarters to the four other ADDC's. These requests were held up pending availability of terminal equipment at this headquarters.

FOR THE COMMANDER:

4 Incls  
n/c

EVERITT W HOWE  
Major, USAF  
Adjutant

SECRET

32D AIR DIVISION (DEFENSE)  
EADF ALTERNATE COMMAND POST 4-54

HEADQUARTERS 32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Eastwood Station 6, Syracuse, New York  
15 September 1954

CHARTS AND MAP REFERENCES

As required

TASK ORGANIZATION

Headquarters, 32d Air Division (Defense)

1. GENERAL SITUATION. In view of the possibility that subversive action could isolate Headquarters Eastern Air Defense Force and the possibility, though extreme, of a direct attack against that installation, it has been necessary that Headquarters EADF establish an alternate command post to insure the effective continuity of control and coordination of the air defense operations in event of a disaster. The Commander, 32d Air Division (Defense) has been designated Commander of the Alternate EADF Command Post. This plan visualizes the possibility of EADF transferring command and relocation of Headquarters EADF to the Alternate Command Post but does not contemplate the physical movement of Headquarters EADF from the vicinity of Stewart AFB.

a. Alternate Command Post, Headquarters ADC. In the event an attack on Headquarters ADC renders that headquarters unable to continue its air defense functions, Headquarters EADF will assume all activities necessary to insure continuity of active air defense.

b. Alternate Command Post of Forces Assigned EADF for Air Defense:

Army Antiaircraft Command	Eastern Army Antiaircraft Command, Stewart AFB, New York
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32d Air Division (Defense)	656th AC&W Squadron Saratoga Springs, New York
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30th Air Division (Defense)	661st AC&W Squadron Selfridge AFB, Michigan	131
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26th Air Division (Defense)	646th AC&W Squadron, Highlands AFB, Navasink, New Jersey
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c. Assumptions.

- (1) That the Communist Party, USA, has the capability, through sabotage and subversion, to render Headquarters EADF inoperable for an appreciable period of time. This could be accomplished by overt or covert actions that would isolate EADF communications-wise from the air defense system, or disrupt the internal operations of the headquarters to such an extent that it could not function effectively.
- (2) That Soviet Russia has the capability, by limited aerial attack, to render Headquarters EADF inoperable for a appreciable period of time.
- (3) That an estimated 325 persons from the number assigned to Headquarters, 32d Air Division (Defense) at the time this plan is implemented would be available to act as a staff for Headquarters EADF, as well as for Headquarters 32d Air Division (Defense) until such time as:
  - (a) Survivors of EADF are available,
  - (b) Mobilization assignees and designees to the division are available and capable,
  - (c) Reservists are called to active duty, and,
  - (d) Normal procurement channel provide personnel.
- (4) That operation of the Alternate EADF Headquarters will be on an austere basis. Where numbers of personnel sufficient to operate both headquarters are not physically present in the Alternate Headquarters, the functions of both EADF Headquarters

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and 32d Air Division Headquarters will be combined.

See Annex A.

2. MISSION. To provide for:

a. Emergency succession to the duties of the Commander, Eastern Air Defense Force.

b. Continuity of Headquarters EADF functions at Headquarters, 32d Air Division (Defense).

c. Operation of an Alternate EADF Command Post at Headquarters, 32d Air Division (Defense).

3. TASKS. Headquarters, 32d Air Division (Defense)

a. Establish the Alternate EADF Headquarters and Command Post on an austerity basis under one of the following conditions:

(1) When ordered by Commander EADF.

(2) When all communication, direct or indirect, military and civil, between Headquarters ~~EADF~~<sup>32dADIS</sup> and Headquarters ~~EADF~~<sup>EADF</sup> have been broken for one hour.

b. Actions to be taken by the COG Duty Officers.

(1) Advise the Commander, 32d Air Division (Defense), the battle Staff and Headquarters 32d Air Division Adjutant of the implementation of this plan.

(2) Advise 26th Air Division (Defense) and 30th Air Division (Defense) of the time of assumption; notify all service and federal agencies specified in established notification lists of the assumption of EADF Command Post functions.

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- (3) Order all engineered circuits pertinent to the Command Post to be activated.
- (4) Provide a graphic reference of friendly and enemy aerial actions over the EADF area of responsibility.
- (5) Take such special actions as necessary for the orderly and effective operation of the Alternate EADF Command Post.
- (6) Take action necessary for the notification of key personnel of the implementation of this plan.

c. The Alternate EADF Headquarters will be planned as provided for in paragraph 3a above.

- (1) The Alternate Command Post will be provided for on an austerity basis.
- (2) Staff Actions resulting from the implementation of this plan will normally be conducted from the staff locations already in existence.
- (3) Emergency operations as EADF Headquarters will be conducted for the anticipated period of D+1 month.
- (4) Notice of implementation of this plan is not anticipated to exceed one hour.
- (5) Personnel required for the accomplishment of this plan will be provided from those presently assigned, until augmentation can be accomplished.
- (6) Organization of the ALCOP will be as near the same as the present EADF Headquarters as facilities and personnel will permit.

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(7) Headquarters 32d Air Division (Defense) will receive, store, and become familiar with necessary documents vital to the continuity of the function of EADF. These documents will be provided by EADF.

(8) Deputies and Special Staff Agencies of Headquarters 32d Air Division (Defense) will:

(a) Request orientation and familiarization of key personnel of this headquarters who have been designated to carry out EADF Headquarters functions. Each Staff agency will be responsible of submitting request particular to their function.

(b) Develop plans within their immediate section to carry out the responsibilities assigned them in Annex "A" thru "M".

4. Administration and Logistics.

a. Personnel: See Annex A

b. Supply: Normal supply channels will be utilized whenever possible.

5. Command and Communications Matters.

a. Command. In the event of death, disability, or absence during implementation of this plan, the following shall succeed to the position of, and act as, Commander, EADF: Senior rated officer present.

b. Communications. Communication facilities in support of the EADF Alternate Command Post Plan at 32d Air Division (Defense) level will be planned on an austerity basis.

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- (1) All communication facilities required will be planned and programmed as outlined in Annex B of this plan.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

DISTRIBUTION

ADC	- 4
ATRC	- 1
SAC	- 1
TAC	- 1
ESF	- 1
1st Army	- 1
2nd Army	- 1
5th Army	- 2
NEAC	- 1
WADF	- 1
CADF	- 1
EAAC	- 1
EADF	- 4
26th Air Div	- 2
30th Air Div	- 2
4700th AD Gp	- 1

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DISTRIBUTION (Cont'd)

12th Wea Sdqn - 1  
4713th Rad Eval Flt - 1

OFFICIAL:

*William H. Clark*  
WILLIAM H. CLARK  
Colonel, USAF  
Deputy Commander

ANNEX: A. Personnel  
B. DC/S Communication & Electronics  
C. DC/S Operations  
D. DC/S Material  
E. DC/S Personnel  
F. Inspector General  
G. Chaplain  
H. Comptroller  
I. Information Services  
J. Surgeon  
K. Adjutant General  
L. Flying Safety  
M. Commander, Hq Squadron Section

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ANNEX A

PERSONNEL

CHART AND MAP REFERENCES

As required

TASK ORGANIZATION

Headquarters EADF

1. GENERAL SITUATION

a. Requirement for the immediate implementation of this plan may occur without warning and in any event within a time period which will preclude additional manning to meet the situation. For that reason, it is apparent that personnel assigned to this command and present for duty at the time of implementation of this plan will necessarily function as the staff of an Alternate EADF Headquarters. During D+1 month, the emergency period for which this plan was conceived, personnel build-up will be from the following sources as available:

- (1) Survivors EADF Headquarters
- (2) Mobilization assignees and designees to the present EADF Headquarters and to Headquarters 32d Air Division (Defense)
- (3) Reservists called to active duty
- (4) Normal procurement channels

Civilian personnel will be used to fill key positions where necessary and will be procured from:

- (1) Survivors EADF Headquarters
- (2) Local populace

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b. In accomplishing the functions of an Alternate EADF Headquarters, personnel assigned to this command are not relieved from the functions necessary to the effective operation of Headquarters 32d Air Division (Defense).

c. The approximate numbers of personnel required for the operation of the Alternate EADF Headquarters and Command Post until D+1 month are as follows:

	Officers	Airmen	Civilians	Total
Personnel	17	12	8	37
Materiel	12	12	3	27
Comptroller	7	57	26	90
Operations	40	175	5	220
Inspector General	8	15	1	24
Adjutant	2	10	0	12
Flying Safety	1	1	0	2
Surgeon	6	14	3	23
Chaplain	2	2	0	4
Hq Sqdn Section	10	189	29	228
Info Services	3	3	0	6

2. MISSION: To provide immediate manning of the Alternate EADF Command Post and to insure that key personnel within the 32d Air Division (Defense) Headquarters have been adequately briefed on the responsibilities assigned their staff section.

3. TASKS:

a. Upon receipt of this plan, each Deputy and Special Staff Agency of Headquarters 32d Air Division (Defense) (See Annex A through M) will designate, by name and present position, alternates for key personnel assigned, to comparable Deputies and Staff Agencies (including director level)

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ANNEX A  
32D ADTD ALCOP  
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at Headquarters EADF, using the publication, "EADF, Organizational Listings".  
The DCS/O will include in this roster the nominations of a Command Post  
Director and a Staff Weather Officer. Names of personnel nominated, present  
assignment and the Headquarters EADF position they are to fill will be  
forwarded by disposition form to the Plans Division, EACPR, this Headquarters.  
The Plans Division will consolidate the list and forward to Headquarters EADF.

b. As designated Alternate Headquarters EADF key personnel are  
transferred or otherwise lost to this headquarters, a nomination will be  
submitted to the Plans Division, EACPR, this headquarters for inclusion in the  
consolidated list and forwarding to Headquarters EADF.

c. Each Deputy and special staff agency, this headquarters, will  
contact respective Headquarters EADF staff agencies for which alternates  
have been established and request orientation of alternates as expeditiously  
as possible after receipt of this plan and as often thereafter as loss and  
replacement of alternate key personnel dictates.

d. Deputies and special staff agencies, this headquarters, will  
provide for the staff agencies, functions and numbers of personnel required  
for the Alternate EADF Headquarters and Command Post from implementation of  
this plan until D+1 month as outlined in Annex A through M. Appropriate  
rosters will be maintained by each staff agency.

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4. ADMINISTRATIVE AND LOGISTICAL MATTERS

a. As noted.

5. COMMAND AND SIGNAL MATTERS

a. Command. See Basic Plan

b. Signal Matters. See Annex B

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ANNEX A  
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EADF ALCOOP 4-54  
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ANNEX "B"

DC/S COMMUNICATION & ELECTRONICS

Annex "B" to be added upon receipt of information from EADF pertaining to the proposed communication net.

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ANNEX B  
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ANNEX "C"

DC/S OPERATIONS

1. The office of the DC/S Operations, will in addition, to performing presently assigned duties, assume the following EADF functions:

a. Director of Combat Operations

- (1) Maintain a plotting center with adequate communication and plotting facilities for maintaining and coordinating the active air defense of the area assigned to EADF. Provide voice telling of the air defense situation to Command Post ADC. Provide combat intelligence liaison with EAACOM, Navy, CAA and other interested agencies.

b. Director of Operations and Training

- (1) Assist in the formulation of tactical, operational plans and policies relating to air defense.
- (2) Supervise and implement policies, directives, and regulations pertaining to activities, and functions, operations and unit training.
- (3) Ensures operational effectiveness of EADF units for accomplishment of the assigned mission.
- (4) Responsible for all matters pertaining to "SCATER".

c. Director of Communications & Electronics

- (1) Implement and supervise policies, regulations and directives pertaining to Communications & Electronics functions.

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Exercise technical supervision over all communications and electronics operations throughout the command.

- (2) Assume supervision of cyroto security.
- (3) Responsible for all matters pertaining to "CONELRAD".
- (4) Assist in the preparation of plans, requirements, and utilization of all electronics equipment pertaining to ECM activities.

d. Director of PO&R

- (1) Implement and supervise policies, regulations and directives pertaining to the functions of manpower, organization, and management improvement.
- (2) Supervises the preparation and development of EADF programs.
- (3) Prepares mission directives for subordinate units.
- (4) Exercise control over the allocation of Non-T/O Troop Authorizations.
- (5) Evaluates plans, policies, and programs against the requirements of the basic elements of a weapons system to insure that adequate action is taken.
- (6) Acts as EASA Control Officer.
- (7) Assume operational analysis responsibilities.

e. Director of Civil Defense

- (1) Formulate procedures pertaining to the organization of the GOC and the improvement of the operations of that organization.
- (2) Advises and aides civil defense agencies in the recruiting of GOC volunteers.

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- (3) Implement and supervise policies, regulations, and directives pertaining to the GOC.

f. Director of Intelligence

- (1) Implement and supervise policies, regulations, and directives pertaining to Air Intelligence.
- (2) Establishes and forwards requirements for essential elements of information to Hq ADC.
- (3) Assemble and disseminates intelligence to agencies interested.
- (4) Perform applicable functions as outlined in "EADF CIC and SEOPG-NEUS-10 Operating Procedures".

g. Staff Weather Officer

- (1) Analyses continuously the operational weather requirements of EADF.
- (2) Provide staff assistance on weather matters to all echelons of the command.
- (3) Develops technical doctrines and operational procedures necessary to support current and planned operations of the command.
- (4) Provide climatological and special weather studies as required.

h. Liaison Personnel (ECDA, GAA, AAA, FCC, & NAVY)

- (1) Advise the Commander on all matters particular to their command or organization.
- (2) Act as liaison between this headquarters as their parent organization.

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ANNEX C  
32D AD(D)  
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15 Sept 54

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1. Personnel Requirements:

Officers	Airmen	Civilian	Total
40	175	5	220

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32D AD(D)  
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ANNEX "D"

DC/S Material

1. The office of the DC/S Material will in addition, to performing presently assigned duties, assume the following EADF functions:
  - a. Implement and supervise policies, regulations, and directives pertaining to supply activities.
  - b. Advise on all matters pertaining to receipt, storage, preservation, issue, distribution, and utilization of supplies and equipment.
  - c. Formulate plans which will facilitate proper operation and supervision of automotive, armament, aircraft, C&E, petroleum, and general supply activities.
  - d. Implement and supervises policies, regulations, and directives pertaining to maintenance activities. Advises on all matters pertaining to maintenance of equipment. Formulate plans which will facilitate proper operation and supervision of automotive, armament, aircraft, and C&E maintenance equipment.
  - e. Advise on matters pertaining to food services, laundry, commissary food sales, salvage, transportation, clothing sales, purchasing and contracting, exchange services and mortuary activities.
  - f. Plans, programs, and controls projects and funds pertaining to public works. Supervises and administer matters pertaining to acquisition, disposal, and utilization of all real property assigned to EADF.
  - g. Personnel Requirement:

<u>Officers</u>	<u>Airmen</u>	<u>Civilians</u>	<u>Total</u>
12	12	3	27

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ANNEX D 54-2941  
32D AD(D)  
EADF ALCOP 4-54  
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ANNEX "E"

DC/S Personnel

1. The office DC/S Personnel will in addition to performing presently assigned duties, perform the following EADF functions:

a. Implement and supervise policies, regulations, and directives pertaining to military personnel.

b. Supervise the administration of programs pertaining to procurement, assignment, classification and utilization of military personnel within the command.

c. Implement and supervise policies, regulations, and directives pertaining to civilian personnel.

d. Directs and supervises ground safety activities. Implements and supervises policies, regulations, and directives pertaining to ground safety.

e. Implement and supervise activities for the morale and welfare of personnel, including, special services, service clubs, library, non-appropriated and sundry funds, I&E, and personnel affairs programs.

f. Personnel Requirement:

<u>Officers</u>	<u>Airmen</u>	<u>Civilian</u>	<u>Total</u>
17	12	8	37

ANNEX E  
32D AD(D)  
EADF ALCOP 4-54  
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ANNEX "F"

INSPECTOR GENERAL

1. The office of the Inspector General will in addition to performing duties presently assigned, perform the following EADF functions:
  - a. Assume the following EADF Staff Judge Advocate duties:
    - (1) Advise the Commander on legal matters including, contracts, discipline, interpretation of regulations, directives and orders; review courts material records, supervise the operation of legal assistance services within the command.
  - b. Perform Command Inspection Ground functions, including, advising the Commander on matters concerning discipline, special investigations, and inspections.
  - c. Implement and supervise policies, directives, and regulations relating to law enforcement, confinement of prisoners, and installations security.
  - d. Personnel Requirements:

<u>Officers</u>	<u>Airmen</u>	<u>Civilians</u>	<u>Total</u>
8	15	1	24

*SECRET*

ANNEX F 54-2941  
32D AD(D)  
EADF ALCOP 4-54  
15 Sept 54

*SECRET*

ANNEX "G"

CHAPLAIN

1. The office of the Chaplain will in addition to performing presently assigned duties, perform the following EADF functions:

a. Implement the Air Force Chaplain's program. Supervise, and coordinate religious welfare activities and advise on these matters. Maintain liaison with civilian ecclesiastical agencies and promote cordial command relations. Maintain records and review reports concerning Chaplain activities.

b. Personnel Requirements:

<u>*Officers</u>	<u>Airmen</u>	<u>Civilian</u>	<u>Total</u>
2	2	0	4

ANNEX G  
32D AD(D)  
EADF ALCOP 4-54  
15 Sept 54  
54-2741

*SECRET*

*SECRET*

ANNEX "H"

COMPTROLLER

1. The office of the Comptroller will in addition to performing duties presently assigned, perform the following EADF functions:

a. Formulate policies and establish plans, programs, and procedures to accomplish the command objectives pertaining to Comptroller functions. Assembles, evaluates, and presents to the Commander information relative to the accomplishment of command objectives for purposes of management to assist in effective utilization of resources available. Perform technical reporting, budgeting, accounting, and finance functions. Advises on audit activities. Provides central graphic service for the command.

b. Personnel Requirements:

<u>Officers</u>	<u>Airmen</u>	<u>Civilian</u>	<u>Total</u>
7	57	26	90

*SECRET*

ANNEX H 54-274  
32D AD(D)  
EADF ALCOP 4-54  
15 Sept. 54

*SECRET*

ANNEX "I"

INFORMATION SERVICES

1. The office of Information Services will, in addition to performing duties presently assigned, perform the following EADF functions:

a. Advise Commander and staff on all public relations matters. Maintain direct liaison with public information officers of higher echelons. Collect, analyze, and correlate information pertaining to the command and release such information for dissemination in accordance with existing policies.

b. Personnel Requirements:

<u>Officers</u>	<u>Airmen</u>	<u>Civilians</u>	<u>Total</u>
3	3	0	6

*SECRET*

ANNEX I  
32D AD(D)  
EADF ALCOP 4-54  
15 Sept 54 54-294

*SECRET*

ANNEX "J"

SURGEON

1. Office of the Surgeon will, in addition to duties presently assigned, perform the following EADF functions:

a. Supervise all policies relating to the professional care of the sick and injured in the command. Supervise all activities toward maintenance of the highest possible standards of health, safety and proficiency of flying personnel. Renders medical opinion or recommendations pertaining to flying evaluation boards, transfers, & etc.

b. Administer the implementation of policies relating to dental care of authorized personnel. Determines the requirements of the command for dental personnel, equipment, facilities, and recommends assignment of dental personnel. Reviews & evaluates, dental and professional reports.

c. Supervises the implementation of regulations, directives, and policies relating to veterinary matters, food surveillance, nutrition and food service sanitation of the command. Advise on matters of water purification, sewage disposal, insect and rodent control, and environmental sanitation for the command.

d. Supervise the establishment, administration, use and maintenance of medical treatment facilities. Review, correct, evaluates, and consolidate medical reports. Monitor medical supply matters for the command.

e. Personnel Requirements:

<u>Officers</u>	<u>Airmen</u>	<u>Civilian</u>	<u>Total</u>
6	14	3	23

*SECRET*

ANNEX J 54-2941  
32D AD(D)  
EADF ALCOP 4-54  
75 Sept 54

*SECRET*

ANNEX "K"

ADJUTANT GENERAL

1. Office of the Adjutant General will, in addition to duties presently assigned, perform the following EADF functions:

- a. Receive, process, and deliver incoming and outgoing classified and unclassified correspondence and messages.
- b. Issue special, TDY, Reserve and Aeronautical Orders.
- c. Perform command postal activities.
- d. Maintain the headquarters reference library.
- e. Reproduce command blank form and publications.
- f. Publish command regulations, general orders, directives, letters, & etc.
- g. Prepare historical studies.

2. Personnel Requirements:

<u>Officers</u>	<u>Airmen</u>	<u>Civilian</u>	<u>Total</u>
2	10	0	12

*SECRET*

ANNEX K  
32D AD(D) 54-2941  
EADF ALCOP 4-54  
15 Sept 54

*SECRET*

ANNEX "L"

FLYING SAFETY

1. The office of Flying Safety will in addition to performing presently assigned duties, assume the following EADF functions:

a. Implement and supervise policies, regulations, and directives pertaining to flying safety activities. Supervise and coordinate all flying safety activities within the command.

b. Personnel Requirements:

<u>Officers</u>	<u>Airmen</u>	<u>Civilian</u>	<u>Total</u>
1	1	0	2

*SECRET*

ANNEX L 54-294,  
32D AD(D)  
EADF ALCOP 4-54  
15 Sept 54

*SECRET*

ANNEX "M"

COMMANDER, HEADQUARTERS SQUADRON SECTION

1. The Commander, Headquarters Squadron Section will in addition to present responsibilities assume the following:
  - a. Provide either on base or off base billeting and messing facilities for augmentation personnel.
  - b. Establish necessary base supply procedures.
  - c. Maintain adequate transportation for the movement of personnel and supplies.
  - d. Personnel Requirements:

Officers	Airmen	Civilian	Total
10	189	29	228

*SECRET*

ANNEX M  
32D AD(D)  
EADF ALCOP 4-54  
15 Sept 54 54-298

COPY

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DEPARTMENT OF COMMERCE  
CIVIL AERONAUTICS ADMINISTRATION  
REGION ONE  
Federal Building  
New York International Airport  
Jamaica, New York

0-54-114(A)  
August 31, 1954

TO : All Centers - Region 1  
INFO : All Stations, Towers, Combined Station/Towers  
FROM : Acting Chief, Airways Operations Division  
SUBJECT: <sup>↓</sup>USAF/CAA Radar Advisory Service

The attached procedures covering radar advisory service are to be implemented on September 15, 1954.

It is recognized that this service will be limited in this region due to lack of AC&W line terminations at all necessary ARTC Center Sectors, by lack of direct lines to some AC&W sites, and by workload associated with our primary function. However, it is the desire of the Air Defense Command, our Washington Office, and the aircraft operators that this service be implemented to whatever extent may be practicable.

It is requested that this office be advised as soon as possible of the geographical areas wherein it will not be possible to implement this service due to lack of an interphone line to an AC&W site. It is also requested that the number of radar advisory services handled and the number refused by ARTCC each month be included in the memorandum reporting the flight progress strip count.

S/ E. O. Donaldson  
E. O. Donaldson  
Acting Chief, Airways Operations Division, NY300

Attachment

COPY

COPY

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C-54-114(A)

USAF/CAA RADAR ADVISORY SERVICE

EFFECTIVE SEPTEMBER 15, 1954

1. Purpose. To prescribe procedures whereby aircraft may be advised of serious storm areas observed by air defense radar facilities and furnished information to assist in avoiding such areas.
2. Scope. These procedure apply to all First Region ARTC Centers and, by AIC Regulation 55-51, 24 June 1954, to all ADC radar facilities.
3. General. The AC/W system possesses extensive capabilities which can be readily employed to assist aircraft in avoiding existing areas of potentially hazardous weather. USAF Radar Advisory Service is not to be construed as being furnished by, or associated with, the United States Weather Bureau or USAF Weather Service, nor infringing on their missions. The service provided will consist of, (a) general storm advisory information consisting of location and extent of detected storm areas, and/or (b) suggested flight paths so as to avoid intense portions of these areas.
4. Definitions. The following definitions are established for the purpose of these procedures:
  - (a) USAF Radar Advisory Service: A service designed to assist aircraft in avoiding existing areas of potentially hazardous weather observed by air defense facilities.
  - (b) Unable: A procedure void used by AIC radar facilities and/or ARTC Centers when radar advisory service cannot be furnished for any reason.
5. Responsibility. The primary mission of the Air Defense Command is the air defense of the Continental United States. In the program of USAF Radar Advisory Service, no liability will be incurred by the United States Air Force nor will the primary mission of the Air Defense Command be compromised.
  - (a) The responsibility for separation of aircraft within controlled airspace remains with CAA. Air Defense Command assumes no responsibility for the provisions of separation between aircraft, and pilots will retain the responsibility for any operation which may be conducted out of controlled airspace.
  - (b) In all cases the information is advisory in nature and the responsibility for the safety of the operation of the aircraft rests with the pilot of the aircraft.

- (c) RADAR ADVISORY SERVICE IS ONLY MADE AVAILABLE WHEN THE PROVISION OF SUCH SERVICE DOES NOT INTERFERE WITH THE PRIMARY MISSION OF THE AIR DEFENSE COMMAND OR NORMAL CAA AIR TRAFFIC CONTROL FUNCTIONS.
6. USAF Radar Advisory Procedures. (a) If radar advisory service is desired, the pilot of an aircraft will request such service through the appropriate Air Route Traffic Control Center (ARTCC), using normal en route communications facilities.
- (b) The ARTCC will relay the request for radar advisory service to the appropriate radar station or, if unable to handle, will advise the pilot "(name of center) UNABLE RADAR ADVISORY."
- (c) When a radar facility cannot furnish radar advisory service to an aircraft for any reason, the director will answer the ARTCC "UNABLE." The receipt of the procedure word "UNABLE" will be final and no further explanation will be transmitted.
- (d) Upon receiving the concurrence of the director, the aircraft will be cleared by the ARTCC to establish radio contact with a radar facility for advisory information. The ARTCC will advise the aircraft to change to the appropriate frequency and stand by for a call. The radar facility will use the following call-up to the pilot: "(AIRCRAFT IDENTIFICATION) (THIS IS AIR FORCE RADAR ADVISORY SERVICE) (LOCATED AT) (FOLLOWS BY A REQUEST FOR IDENTIFICATION IF REQUIRED)."
- (e) When the aircraft is properly identified, the director will furnish the pilot concerned with the advisory information and, when requested by the pilot, suggest vectors so as to circumnavigate a storm area or to find a clear passage through the area. Radar facilities will not suggest vectors or identifying turns to aircraft unless previously coordinated with ARTCC. If, in the opinion of the director, the position of the aircraft cannot be determined or for any other reason such service cannot be rendered, he will transmit the one procedure word "UNABLE" which will terminate the service to that aircraft.
- (f) Whenever possible, aircraft should also guard the appropriate control frequency while in contact with the radar facility. When not possible, the pilot will return immediately to and report on the appropriate radio frequency normally used for air traffic control communications: (1) if he is unable to establish contact with the radar facility; (2) upon receipt of the word "UNABLE"; or (3) the service provided by the radar facility is completed.
- (g) If positive identification is necessary, the director may, after ARTCC coordination, request the pilot to make identifying turns. Normally these turns will not exceed one-half minute duration.

- (h) Aircraft position information, the direction and distance in nautical miles from easily recognized reference points, will be forwarded by the radar facility to the appropriate ARTCC when a vector is started, when completed, or when requested by the ARTCC. This will facilitate correlation of the aircraft's position and permit the ARTCC to provide separation.
- (i) The radio frequency used for direct pilot-radar communications will be monitored by the radar facility only when advised by the ARTCC that the aircraft is being instructed to standby for a call from the radar facility.

C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
FTT AIR FORCE BASE  
COLORADO SPRINGS, COLORADO

ADMX

12 Nov 1954

SUBJECT: Additional Instructions for Radar Weather Photographs  
INCS: ADC-U15, dated 28 July 1954)

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Twenty-five ADCW Squadrons have participated in the weather radar photography program as of this date.- Ample single frame exposures have been received for use in the ADC manual, however, we still require footage for use in the training film, outlined in paragraph two of the original letter. This film should be exposed every sweep of the camera or every other sweep if the P-3 or P-8 control is used. Film such as this can be run off as a motion picture which reveals in detail the information and behavior of precipitation echoes. With an anticlutter circuits should be switched on during some period so that their effects can be determined. We also desire single photographs of weather echoes appearing on the Range Height Indicator (RHI) if any squadron is equipped to take such photographs. In addition to precipitation echoes, we request that any unusual and anomalous propagation echoes be photographed for use in the proposed film concerning "Weather Effects on Radar Coverage."

2. The following are suggestions which may improve the quality of the photographs and are some common errors noted on film which has been forwarded to this headquarters.

a. For those stations not equipped with the P-3 and P-8 controls, the enclosed wiring diagram is a simplified automatic control which takes a picture every sweep of the antenna.

b. Squadrons should secure a 90° camera mount. The old type hood gives an elliptical image which is usually out of focus due to the critical focal length of the O-15 camera and is also hard to analyze.

c. The data and clock illumination light should be checked to see that it is burning. The bulb might be burned out or the circuit might not be wired properly. (A line is required leading to Pin M on the camera even though a rheostat for brilliancy control may not be used).

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C O P Y

Hq ADC, ADOMX, Subj: Add'l Instr for Radar Weather Photos IRCS: ADC-UI5, dated 28 July 1954

d. The camera clock should be set on ZEBRA time, checked and wound at 2400 ZEBRA every day and the correct ZEBRA date written with soft black pencil on the date card. The importance of having correct time and date on the film cannot be overemphasized.

e. The camera should be mounted with the magazine catch knobs on the underneath side. This permits the film to be projected as a movie with north at the top of the film. (Six rolls of analyzed film from different squadrons revealed that the camera is mounted upside down.)

3. The following is general information concerning the operation of the O-15 camera.

a. The approximate aperture settings are as follows for Eastman Super XX film.

<u>ANTENNA RPM</u>	<u>APERTURE</u>
3.3	F 5.6
5.0	F 4.5
6.6	F 4.0
10.0	F 3.2

b. The following are the number of hours and minutes that a 100 foot roll of film will last at various RPM's.

<u>ANTENNA RPM</u>	<u>APERTURE</u>
3.3	6:05
5.0	5:20
6.6	4:02
10.0	2:40

c. The following are TO's which concern the operation and maintenance of the O-15 camera:

10A1-4-2501	(Old number AN 10-10E-8)
10A1-4-2-501A	(Old number AN 10-10E-8B)
10A1-4-2-1	(Old Number AN 10-10EA-9)
10A1-4-2-3	(Old number AN 10-10EA-10)

4. The undeveloped film should be handled in accordance with ADCR 205-5 and forwarded to:

1  
2

COPY

ADOMX, Subj: Additional Instructions For Radar Wea Photo (RCS: ADC-UL5,  
dated 26 July 1954)

COMMANDER  
Air Defense Command  
Attn: Staff Weather Officer  
Ent Air Force Base  
Colorado Springs, Colorado

5. The roll of film need not contain all weather photographs. Any frames showing ECM, interceptions, etc. that the ACM squadrons wish to retain will be returned by this command. The roll of film will be analyzed for its photographic technique by our contractor and his requested to immediately notify higher headquarters if any difficulties occur with the G-15 camera, with its installation or if film cannot be obtained.

6. This request for film is of a limited duration and will be terminated when sufficient film is obtained. Report Control Symbol (RCS) ADC-UL5 is assigned for the submission of the required film.

BY ORDER OF THE COMMANDER:

1 Incl  
Wiring Diagram (30 cys)

RUSSEL K. PIERCE, JR.  
Colonel, USAF  
Staff Weather Officer

Hq ADC ADMOX Subject: Additional Instructions for Radar Weather  
Photographs (RCS: ADC-UI5, dated 28 July 1954)

EOOT-OS (12 Nov 54) 1st Ind 17 Nov 54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New  
York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force  
Station, Syracuse 6, New York

BY ORDER OF THE COMMANDER:

1 Incl: BEN D. MOORHEAD  
Wiring Diagram (8 cys) 1st Lt., USAF  
Asst Adjutant

OOT-A (12 Nov 54) 2nd Ind 23 Nov 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, 4707th Air Defense Wing, Otis AFB, Falmouth, Mass.  
Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine

1 Incl:  
4 cys ea wg

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OCT-A

6 October 1954

SUBJECT: Revision of Terminal Weather Forecast Code (TFAWS).

TO: Commanders, All Air Defense Groups, Wings and Squadrons

1. On 1 October 1954, certain changes became effective in codes used for terminal forecast groups appended to hourly weather observations transmitted by Air Force weather stations. These changes affect forecast cloud heights and visibilities.

2. The following revised code tables should be made available to appropriate personnel:

W Table: CLOUD HEIGHTS

V Table: Visibility

(Feet above surface)

(miles)

Code Fig	Sky Cover 5/10 or less	Code Fig	Visibility
/0	Less than 100	0	0 to less than 1/4
/1	100	1	1/4 or more but less than 1/2
/2	200	2	1/2 or more but less than 1
etc	etc	3	1 or more but less than 1 1/2
/8	800	4	1 1/2 or more but less than 2
/9	900	5	2 or more but less than 3
1/	1,000	6	3 or more but less than 4
2/	2,000	7	4 or more but less than 5
etc	etc	8	5 or more but less than 7
9/	9,000	9	7 or more
0/	10,000 or over		

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COT-A Cont'd Subject: Revision of Terminal Weather Forecast Code (TFAWS).

00 Sky Cover more than 5/10  
less than 100

01 100

02 200

etc etc

50 5,000

51-55 not used

56 6,000

57 7,000

58 8,000

etc etc

80 30,000

81 35,000

82 40,000

83 45,000

etc etc

89 higher than 70,000

99 no clouds

3. Code tables for "time" and "weather" remain unchanged.

4. New code tables will be forwarded when available.

BY ORDER OF THE COMMANDER:

*Everitt W. Howe*  
EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
764TH AIRCRAFT CONTROL AND WARNING SQUADRON  
St Albans Air Force Station  
St Albans, Vermont

OPNS

5 Oct 1954

SUBJECT: USAF/CAA Radar Advisory Service

TO: Commander 4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Several requests for Radar Advisory Service have been received from aircraft of foreign origin operating in cross border areas. No reference to this air traffic has been made in the ADC Regulation 55-51, 24 June 1954 or in the CAA Memorandum above subject, 31 August 1954.

2. In view of the fact that all participants in such a service should clearly understand the extent of the responsibilities of each agency involved, clarification is requested as to the extension of this service to air traffic outside the United States.

FOR THE COMMANDER:

JOSEPH W. HAUTMAN  
2nd Lt., USAF  
Assistant Adjutant

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C O P Y

Hq 764th ACMW S1 OPNS Subject: USAF/CAA Radar Advisory Service

DO-A/C (5 Oct 54) 1st Ind 13 Oct 1954

Hq 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

KAF

OCT-A (5 Oct 54) 2nd Ind 18 Oct 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, N. Y.

1. Air traffic control sectors preclude Radar Advisory Service by USAF radar stations to aircraft operating over Canadian territory.
2. It is recommended that Headquarters, Air Defense Command submit a proposal for the establishment of an RCAF ADC Department of Transport procedure to extend this service.

FOR THE COMMANDER:

EVERETT M. HOWE  
Major, USAF  
Adjutant

Hq 764TH ACMW S1 OPNS Subject: USAF/CAA Radar Advisory Service

EAOCOT-OS (5 Oct 54) 3rd Ind 22 Oct 54

Hq EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado Springs,  
Colorado

BIM

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C O P Y

Hq 764th AC&W Sq OPNS, Subject: USAF/CAA Radar Advisory Service

ADOOT-C (5 Oct 54) 4th Ind 3 Nov 1954

HEADQUARTERS AIR DEFENSE COMMAND, Ent AFB, Colorado Springs, Colorado

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

At the present time, ADC Radar Advisory Service is not extended to aircraft operating over Canadian territory. Negotiations with the RCAF-ADC will be made by this command. Any future extension of Radar Advisory Service will be coordinated with your headquarters.

BY ORDER OF THE COMMANDER:

JOHN J. HAYES  
CWO, USAF  
Asst Command Adj

EACOT-OS (5 Oct 54) 5th Ind 10 Nov 54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

Information on results of negotiations, reference 4th Indorsement, will be forwarded upon receipt.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

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C O P Y

Hq 764th ACBM Sq OPNS, Subject: USAF/CAA Radar Advisory Service

OOT-A (5 Oct 54) 6th Ind 16 Nov 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine

Your attention invited to 4th Indorsement.

BY ORDER OF THE COMMANDER:

ARCHIE T. SHENBERT, JR.  
2nd Lt., USAF  
Asst Adjutant

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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION

1 July 1954 through 31 July 1954

1-AF-D2A

Chapter I . . . . . Aircraft  
Chapter II. . . . . Food Service  
Chapter III . . . . . Diesel Activities  
Chapter IV. . . . . Air Installations

*Henry R. Meyer*  
HENRY R. MEYER, CAPTAIN, USAF  
Aircraft Maintenance Staff Officer

for and in the absence of the  
Deputy for Materiel

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## CHAPTER I AIRCRAFT

The following percentage figures represent the high - low mark of combat ready aircraft for Squadrons of this command during July.

### 27th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
77%	16th	46%	5th & 9th	52%

Note: On 30 July 1954 all aircraft of this Squadron were grounded by Squadron C.O.s authority due to scissors breaking in main landing gear consequently reducing monthly average percentage.

### 37th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
57%	9,12&14th	39%	26,28&30th	47%

### 47th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
67%	30th	28%	12th	46%

### 49th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
76%	19,21,23 & 26th	16%	2nd & 5th	60%

### 57th Fighter-Interceptor Squadron:

No report for this squadron in as much as all this units aircraft were in for IRAN and alert commitments were provided by a detachment of ten (10) F-94C type aircraft from 58th Fighter-Interceptor Squadron.

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Page 2

58th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
62%	9th, 26th	34%	23rd	53%

60th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
65%	23rd	39%	19th	49%

74th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
82%	2nd	25%	19th	54%

437th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
100%	9th	32%	7th	56%

Percentage figures for combat ready aircraft by Wing and Command are as follows:

4707th Defense Wing

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
70%	9th	37%	7th	53%

4711th Defense Wing

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
74%	12th, 41%	30th	16th	60%

COMMAND

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
64%	12th	48%	7th	57%

There were no reports of logistical difficulties affecting aircraft and/or radar received at this office during the month of July.

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### CHAPTER II FOOD SERVICE

A representative of this office, Deputy for Materiel, this headquarters, conducted the Semi-Annual Food Service Supervisors Staff Visit to the 518th Air Defense Group, Niagara Falls Municipal Airport, Niagara Falls, New York on 19 - 21 July 1954 and the 763d ACGW Squadron, Lockport Air Force Station, Lockport, New York, on 22 - 24 July 1954. A follow-up staff visit to the 655th ACGW Squadron, Watertown Air Force Station, Watertown, New York was conducted on 26 - 29 July 1954.

The 763d ACGW Squadron was not filling out ration requests correctly and the over and under issues each month have not been balancing out.

The 518th Air Defense Group is lax in its on-the-job training program. Individual progress records were not being maintained. It was evident that the dining hall was not being properly secured at night. Refrigerators, doors and the stock room were unlocked. The garbage area was in an untidy condition.

The follow-up staff visit to the 655th ACGW Squadron indicates there has been no improvement since the last Semi-Annual Food Service Staff Visit. All records were not properly maintained. Overall supervision was very lax. The store rooms were in an unsatisfactory condition. Sanitation was also poor.

## SECRET

# SECRET

## CHAPTER III DIESEL ACTIVITIES

During July 1954, the Diesel Operator Technician, a representative of this office, Deputy for Materiel, this headquarters, visited the 763rd AC&W Squadron, Lockport Air Force Station, Lockport, New York, on 19 - 20 July 1954 and the 655th AC&W Squadron, Watertown Air Force Station, Watertown, New York on 21 - 22 July 1954 for the purpose of instruction of personnel, aiding in plant improvement and acquainting with the condition.

All diesel plants visited were found to be extremely vulnerable to bomb sabotage at their weakest points - the switchboards. An unnecessary and unprotected window is directly behind each switchboard. It has been recommended that these windows be bricked up.

The diesel operators of these squadrons are civilians. All operators observed appeared to be competent and interested in their work.

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CHAPTER IV  
AIR INSTALLATIONS

A recent visit to the Air Installations Office at Rome Air Force Base, Rome, New York revealed that the construction of the Division Headquarters Administration Building is scheduled to begin around the 15th of August. It is scheduled for completion in December 1954.

The fiscal Year 1956 Public Works Final Program (New Projects) for all organizations under our jurisdiction were forwarded by the units to the Eastern Air Defense Force for review by the review panel of their headquarters on 28 - 29 July 1954. The program is being defended and reviewed at Air Defense Command Headquarters at the present time.

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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION

1 August 1954 through 31 August 1954

1-AF-D2A

Chapter I . . . . .	Aircraft
Chapter II. . . . .	Food Service
Chapter III . . . . .	Diesel Activities
Chapter IV. . . . .	Air Installations

*William F. Daniels*  
 WILLIAM F. DANIELS, MAJOR, USAF  
 Deputy for Materiel

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## CHAPTER I AIRCRAFT

The following percentage figures represent the high-low mark of combat ready aircraft for Squadrons of this Command during August.

### 27th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
76%	1st & 16th	52%	20, 25 & 27th	63%

Note: An increase of 11% in overall monthly average over the month of July.

### 37th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
78%	13th	33%	16, 16th	53%

Note: A gain of 6% in overall monthly average over the month of July.

### 47th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
56%	16th	22%	11th	41%

Note: A decrease of 6% in comparison with July overall monthly average.

### 49th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
62%	27th	53%	9, 23rd	5%

Note: An increase of 5% over July's overall monthly average.

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## 57th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
72%	27th	17%	30th	11%

Note: This unit received a few of their aircraft from BAK on or about the 6th of August. The end of August showed a total of seven (7) aircraft possessed of which none were combat ready until the 25th of August due to maintenance and AMFE circumstances.

## 58th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
62%	2nd	26%	30th	30%

Note: A decrease of 3% from July.

## 60th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
89%	23rd	14%	30th	56%

Note: An increase of 9% over July.

## 318th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
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No report will be submitted for this unit for August as the 318th Fighter-Interceptor Squadron first submitted reports on the 16th of August. However, no aircraft were reported as combat ready for this Squadron from the 16th to the 30th.

## 437th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
80%	6,13,16,23,25	63%	2nd	71%

Note: A substantial gain of 10% over July for this unit.

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Wing and Command percentage figures for combat ready aircraft during August are as follows:

4707th Air Defense Wing

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
60%	9,16, 23,25	42%	30th	53%

4711th Air Defense Wing

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
65%	4th	34%	23rd	49%

COMMAND

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
56%	2,4,16	39%	30th	51%

There were no reports of logistical difficulties affecting aircraft and/or radar received at this Headquarters during the month of August.

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CHAPTER II  
FOOD SERVICE

During the month of August there were two Semi-Annual Food Service Technical Visits conducted. One to the 656th ACGW Squadron and another to the 655th ACGW Squadron. Both sites showed improvement since the previous visits. The 656th ACGW Squadron is the only Squadron in this Division that is still on the Garrison Nation Systems, but arrangements were in the final stages to change-over to the Field Nation system.

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## CHAPTER III DIESEL ACTIVITIES

During August 1954 the Diesel Operator Technician, a representative of this office, Deputy for Materiel, this headquarters, visited the 764th ACGW Squadron, St. Albans, Vermont on 2-6 August 1954 and the 654th ACGW Squadron, Brunswick Naval Air Station, Brunswick, Maine, 9-13 August 1954 for the purpose of instruction of personnel and aiding in plant improvement.

Also, during August 1954 the Diesel Operator Technician visited the following locations for the purpose of implementing the ACGW Squadrons compliance by 13 September 1954, as requested by Eastern Air Defense Force in their letter, subject, "Air Starting Facilities at Air Force Stations," dated 7 June 1954, together with it's drawing dated 25 May 1954.

762nd ACGW Squadron, North Truro, Massachusetts, 23-24 August.

765th ACGW Squadron, Charleston, Maine, 25-26 August.

766th ACGW Squadron, Caswell, Maine, 26-27 August.

656th ACGW Squadron, Saratoga Springs, New York, 30 August.

517th Air Defense Group, ATO, Ethan Allen AFB, Winooski, Vermont, 30 August.

764th ACGW Squadron, St Albans, Vermont, 30-21 August.

The 654th ACGW Squadron, Brunswick Naval Air Station, Brunswick, Maine, was contacted by phone on 27 August 1954 for the same purpose.

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## CHAPTER IV AIR INSTALLATIONS

During the month of August the final submission of the FY-56 PWP for all units of the Division was forwarded to EADP and thence to ADC. A review of the final submission was not accomplished at Wing, Division or Defense Force due to instructions received from higher headquarters. The DI, this headquarters, attended the review of the program at Headquarters, ADC, where the program was reviewed and corrections were made prior to submission to USAF. This entailed the Division IM being at Headquarters, ADC for a two week period to effect the corrections and reaccomplishment of the program. The changes were many and resulted in reaccomplishment of the entire program for each base. These changes were caused mostly by changes in the instructions for preparation of the program, being issued by USAF at too late a date for the bases to receive the new instructions. Many changes were occasioned by changes in the programming document and requirement documents. Until such time as programming information is firm and instructions for the preparation and submission of public works programs are stabilized, many man hours and materials will be wasted as they have been in the past. It is believed that the best solution under the present situation is for the public works programming to be done at the major command headquarters. This would resolve the confusion that now exists and would certainly prove more economical. It would further result in standardization of requirements, design, justifications, etc. It is felt this could be done by creating a PWP programming section at ADC. This could be done by transferring one engineering space from each base. It is believed that the Base Commanders would welcome such a proposal.

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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION

1 September 1954 through 30 September 1954

1-AF-02A

Chapter I. . . . . Aircraft  
Chapter II . . . . . Diesel Activities  
Chapter III. . . . . Food Service

*William P. Daniels*  
WILLIAM P. DANIELS, MAJ, USAF  
Deputy for Materiel

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CHAPTER I  
ALBANY

The following percentage figures represent the high-low mark of combat ready aircraft for Squadrons of this Command during September:

27th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
72%	5th	42%	27th & 29th	52%

37th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
50%	15, 17, 20	29%	27th	41%

47th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
53%	17th & 20th	21%	1st	40%

49th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
72%	3rd	35%	10th	52%

57th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
82%	21th	30%	3rd & 6th	43%

58th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
55%	23rd	33%	1st	45%

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60th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
80%	10th	23%	1st	56%

310th Fighter-Interceptor Squadron:

Note: No aircraft were combat ready for this unit primarily due to AFB conditions.

437th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
75%	1st	50%	27th	67%

4707th Air Defense Wing:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
61%	22nd	30%	1st	52%

4711th Air Defense Wing:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
50%	20th	25%	10th	39%

There were no reports of logistical difficulties affecting aircraft and/or radar received at this headquarters during the month of September.

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### CHAPTER II DIESEL ACTIVITIES

During September 1954 the Diesel Operator Technician, a representative of this office, Deputy for Materiel, this headquarters, visited the following locations for the purpose of implementing the AOW Squadrons compliance by 13 September 1954, as requested by Eastern Air Defense Force in their letter, Subject: "Air Starting Facilities at Air Force Stations", dated 7 June 1954, together with its drawing dated 25 May 1954.

65th AOW Squadron, Watertown, New York, 1 - 2 September.

763rd AOW Squadron, Lockport, New York, 2 September.

Headquarters Squadron Section, 32d Air Division (Defense),

Syracuse, New York, 7 - 9 September.

Also, during September 1954 the Diesel Operator Technician visited the 65th AOW Squadron, Brunswick Naval Air Station, Brunswick, Maine, 29 - 30 September and 1 October for the purpose of determining causes of malfunction of engines No. 81478 and No. 82448. Middletown Air Materiel Area was notified that No. 82448 required a new governor and that No. 81478 would probably require a valve job.

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CHAPTER III  
FOOD SERVICE

During the month of September two Semi-Annual Food Service Technical Staff Visits were conducted at the 504th Air Defense Group and the 762nd ACW Squadron.

The last Garrison Station Dining Hall, the 650th ACW Squadron, converted to Field Station System as of 1 September 1951.

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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION

1 October 1954 through 31 October 1954

1-AF-D2A

Chapter I . . . . .	Aircraft
Chapter II . . . . .	Diesel Activities
Chapter III . . . . .	Food Service
Chapter IV . . . . .	Air Installations

*William F. Daniels*  
 WILLIAM F. DANIELS, MAJOR, USAF  
 Deputy for Materiel

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CHAPTER I  
AIRCRAFT

The following percentage figures represent the high-low mark of combat ready aircraft for Squadrons of this Command during October:

## 27th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
73%	11th	38%	4th	57%

A 2% drop from October.

## 37th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
84%	22nd	43%	1st	72%

A substantial raise over October.

## 47th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
63%	8th	30%	15th	46%

A 6% gain over October.

## 49th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
84%	11th	42%	1st	58%

A 6% raise over October.

## 57th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
54%	20th	0% on	6th, 22nd thru 31st	12%

This unit is soon to leave-approximately 8 a/c possessed during October.

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58th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
67%	6th	29%	22nd	47%

A 2% gain over October.

60th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
94%	22nd	44%	8th	64%

A nice gain of 8% over October.

318th Fighter-Interceptor Squadron:

This unit had 7% of aircraft combat ready on the 27th. The 27th FIS provided alert aircraft during October. This unit soon to assume their own alert responsibilities.

437th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
86%	18th	59%	29th	73%

There were no reports of logistical difficulties affecting radar and/or aircraft received at this headquarters during the month of October.

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## CHAPTER II DIESEL ACTIVITIES

During October 1954 the Diesel Operator Technician, a representative of the Deputy for Materiel Office, this headquarters, visited the Air Installation Section, Griffiss Air Force Base, Rome, New York on 5 October 1954 for the purpose of borrowing equipment with which hydrostatic tests could be made.

The 773rd AC&W Squadron, Montauk Air Force Station, Montauk, New York, was visited on 11 October 1954 at the request of Eastern Air Defense Force to aid in the improvement of the diesel power plant.

The following AC&W Squadrons were visited to aid in plant improvement. An annual inspection, including hydrostatic tests, were given the air starting storage receivers.

765th AC&W Squadron, Charleston, Maine - 14-15 October 1954.

766th AC&W Squadron, Limestone, Maine - 16-20 October 1954.

The 763rd AC&W Squadron, Lockport, New York, was visited 26 - 27 October 1954. Hydrostatic tests were given to the air starting receivers prior to this visit by the representative of John Reiner & Co., the vendor of the new air starting compressor.

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CHAPTER III  
FOOD SERVICE

During the month of October 1954, Food Service Semi-Annual Technical Staff Visits were made to the 705th AC&W Squadron, Charleston, Maine; the 528th Air Defense Group, Presque Isle, Maine; and the 706th AC&W Squadron, Caswell, Maine.

The most perplexing problem concerning these three locations was the anticipated losses in personnel expected around the end of the year. Many airmen with Food Service AFSCs are leaving the Air Force military service due to some extent to the lack of promotional opportunities in this field, and because of the uncertain future of this field. Many indicated that they believed the career field is to be taken over by civilians. Also, they were concerned with the lack of career field Food Service schools. To the best of my knowledge there are no schools in the Food Service field now available to airmen.

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CHAPTER IV

AIR INSTALLATIONS

Construction of the new administration building is making headway. If the weather holds up so that the building can be enclosed before bad weather sets in, it should be ready for occupancy by 1 February 1955. Considerable difficulty was encountered in the early stages of construction due to bad subsurface conditions. It was necessary to go deeper with the footings than was originally planned. It was necessary to bridge the footing over one pocket of a quick sand formation. As of this time the walls are almost to the required height and the second floor steel is in place.

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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION

1 November 1954 through 30 November 1954

1-AP-D2A

Chapter I . . . . .	Aircraft
Chapter II . . . . .	Diesel Activities
Chapter III . . . . .	Air Installations

*William F. Daniels*  
 WILLIAM F. DANIELS, MAJOR, USAF  
 Deputy for Materiel

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CHAPTER I  
AIRCRAFT

The following percentage figures represent the high-low-monthly average of combat ready aircraft attained by each Squadron of this Command during the month of November 1954.

Units Under 4707th Air Defense Wing

47th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
76%	17th	21%	29th	46%

58th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
65%	19th	23%	3rd	38%

60th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
76%	10th & 17th	53%	24th & 29th	65%

437th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
85%	15th	53%	1st	72%

4707th Air Defense Wing:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
41%	1st	70%	17th	55%

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Page 2

Units Under 4711th Air Defense Wing

## 27th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
71%	26th	59%	15th	62%

## 37th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
81%	1st	28%	29th	50%

## 49th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
65%	1st	34%	6th	44%

## 62nd Fighter-Interceptor Squadron:

No figures will be shown as this organization, having received their first aircraft on or about 19 November 1954, did not have any combat ready during November. The 318th Fighter-Interceptor Squadron is providing for alert commitments.

## 318th Fighter-Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
50%	22nd & 24th	21%	3rd, 5th & 6th	33%

## 4711th Air Defense Wing:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
53%	1st	33%	5th	42%

The overall Command Monthly Average is 49%.

There were no reports of logistical difficulties affecting aircraft and/or radar received at this headquarters during the month of November.

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CHAPTER II  
DIESEL ACTIVITIES

During November 1954 the Diesel Operator Technician, a representative of the Deputy for Materiel Office, this headquarters, visited the following ACMW Squadrons. These technical visits were to aid in plant improvement:

656th ACMW Squadron, Saratoga Springs, N. Y. - 1-2 November  
762nd ACMW Squadron, North Truro, Mass. - 8-12 November  
655th ACMW Squadron, Watertown, New York - 22-24 November

An annual inspection, including hydrostatic tests, were given the Air Starting Storage Receivers at the 762nd ACMW Squadron and the 655th ACMW Squadron. The new air starting receiver had not been installed at the 656th ACMW Squadron at the time of the visit. With the exception of the 656th ACMW Squadron, Saratoga Springs, New York, the 654th ACMW Squadron, Brunswick, Maine, and the 764th ACMW Squadron, St Albans, Vermont, all Air Starting Receivers have had hydrostatic tests. It is expected that these units will receive hydrostatic tests within the next few months.

Noticeable improvement has been noted in the diesel power plants throughout the division since June 1954. The greatest continuous problem is that of supplies, this however has eased. The relative standings of the various sites have remained constant regarding plant operation, maintenance and personnel proficiency.

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CHAPTER III  
AIR INSTALLATIONS

During the month of November the Planning Board met to determine the preliminary sitings for the support facilities for Sage Project. At the first meeting, the problem of relocation of Thompson Road was discussed and it was decided to hold another meeting with the Onondaga County Highway Board. This was done and the Onondaga County Engineer submitted the boards proposal for the relocation of Thompson Road. The reason for the relocation of Thompson Road is a joint requirement with the New York Air National Guard Training Site. The present Thompson Road would bisect the proposed expansion to support Sage Project. This would impose both a security problem and a safety hazard for this installation. The New York Air National Guard cannot utilize the present extended runway because the road crosses the end of the extension and presents a hazard to flying. The County's proposal would meet the clear Zone requirements for this runway if accomplished. The proposed sitings for the support facilities and the County's proposal for relocation of Thompson Road has been forwarded to higher headquarters.

Construction of the Administration Building is ahead of schedule and it should be ready for occupancy by 1 February 1955 if the present progress is maintained.

The project for rehabilitation of the weather room in the operations building for use by the Security Service was let on contract to the G'Brien Construction Co., Syracuse, N.Y. in the amount of \$4,956. Work on the project was begun with a target date of 1 January 1955 for completion.

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HISTORICAL REPORT  
DEPUTY FOR MATERIEL STAFF SECTION

1 December 1954 through 31 December 1954

1-AF-D2A

Chapter I . . . . . Diesel Activities  
Chapter II . . . . . Aircraft  
Chapter III . . . . . Food Service

  
WILLIAM F. DANIELS, MAJOR, USAF  
Deputy for Materiel

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CHAPTER I  
DIESEL ACTIVITIES

During December 1954 the Diesel Operator Technician, a Representative of the Deputy for Materiel Office, this headquarters, visited the following AC&W Squadrons. These Technical visits were to aid in plant improvement:

Headquarters Squadron Section 32d Air Division, Syracuse Air Force Station, Syracuse 6, New York 14 December 1954.

764th AC&W Squadron, St Albans Air Force Station, St Albans, Vermont 20-23 December 1954

An annual inspection, including hydrostatic tests, were given the Air Starting Storage Receivers at the 764th AC&W Squadron. This Headquarters received an information copy of a message from the 764th AC&W Squadron which stated that one (1) engine was deadlined for forty-five (45) days because of a broken injector rocker arm. A replacement part was purchased locally and shipped by special delivery. The 764th AC&W Squadron received and installed the part within two (2) days.

The big operating problem of December consisted of dirty fuel and of worn injector check valve springs. It is hoped that new check valve springs will be received so that all injector check valve springs in the division can be replaced. Voltage regulators were a cause for complaint at three (3) sites during the month of December. One (1) voltage regulator fused the contacts which deadlined the engine.

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CHAPTER II  
AIRCRAFT

The following percentage figures represent the high-low-monthly average of combat ready aircraft attained by each Squadron of this Command during the month of December;

Units Under 4707th Air Defense Wing

## 47th Fighter Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
63%	15th	32%	8th	48%

## 58th Fighter Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
52%	3rd & 17th	23%	13th	37%

## 60th Fighter Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
81%	24th & 27th	40%	10th	67%

## 437th Fighter Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
93%	27, 29th & 31st	60%	3rd	80%

## 4707th Air Defense Wing:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
67%	17th	48%	8th	58%

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Units Under 4711th Air Defense Wing

## 27th Fighter Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
80%	29th	55%	24th & 27th	65%

## 37th Fighter Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
65%	8th	36%	1st & 3rd	54%

## 49th Fighter Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
72%	6th	33%	8th & 13th	44%

## 82nd Fighter Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
40%	3rd & 6th	0%	8th thru 20th, 27th, & 29th	9%

Note: The 318th F.I.S. is still providing alert aircraft for this unit.

## 318th Fighter Interceptor Squadron:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
43%	1st & 22nd	18%	8th	32%

## 4711th Air Defense Wing:

<u>High</u>	<u>Date</u>	<u>Low</u>	<u>Date</u>	<u>Monthly Average</u>
47%	6th	35%	8th	41%

The overall Command Monthly Average is 49%.

There were no reports of logistical difficulties affecting aircraft and/or radar received at this Headquarters during the month of December.

**SECRET**

## SECRET

CHAPTER III  
FOOD SERVICE

During the month of December 1954, Semi-Annual Food Service Staff Visits were made to 517th Air Defense Group, Ethan Allen Air Force Base, Winooski, Vermont and 764th AC&W Squadron, St Albans Air Force Station, St Albans, Vermont. A routine staff visit was made to 656th AC&W Squadron, Saratoga Springs Air Force Station, Saratoga Springs, New York.

High standards relative to the Food Service appears to be declining due to some extent by the extreme cuts in Food Service personnel in the past year. Although the Squadrons have generally increased in size and structure with additional loads on food service facilities, the manpower to operate the dining halls has been decreased in Food Service authorizations as follows:

	<u>1953</u>	<u>1954</u>	<u>DECREASE</u>
HQ SQ SEC 32 AD	21	19	-3
518th AD GP	33	30	-3
763rd AC&W SQ	28	11	-17
656th AC&W SQ	14	9	-5
655th AC&W SQ	14	10	-4
564th AD GP	105	71	-34
762nd AC&W SQ	28	13	-15
765th AC&W SQ	19	10	-9
766th AC&W SQ	19	12	-7
528th AD GP	44	36	-8
764th AC&W SQ	29	10	-19
517th AD GP	34	30	-4

SECRET

C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
ENT AIR FORCE BASE  
Colorado Springs, Colorado

ADMSV-3A

21 May 1954

SUBJECT: Improved Crayons for Use on Vertical Plastic Edge  
Lighted Plotting Boards

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Mobile Air Materiel Area has received numerous Unsatisfactory Reports on china marking pencils used on plotting boards and other plastic surfaces. The most important objections to the use of currently available "grease" pencils are:

- a. Pencils scratch plastic surface.
- b. A greasy film is left after erasing.

c. Erasure by rubbing with a dry cloth generates static electricity which attracts dirt and causes it to adhere to the plotting board. The edge lighting causes the dust to glow, diminishing the contrast between the background and the current and permanent entries.

2. A water soluble crayon is available in which these disadvantages are reduced or eliminated.

a. Crayons are entirely free of abrasive materials, and will not scratch the plastic surface unless they are allowed to pick up dirt by careless handling.

b. Erasure is accomplished by wiping with a damp sponge, preferably by a synthetic nylon sponge. Crayon entries are more readily removed, thereby speeding operations.

c. Erasure by wiping with a damp sponge reduces the static charge to a point that is not objectionable.

3. It is recommended that all units utilizing vertical plastic edge lighted plotting or status boards obtain and use these crayons. Purchasing and Contracting Officers may obtain these crayons from commercial sources under the provisions of paragraph 22, AFR 70-16.

C O P Y

Hq ADC, ADMSV-3A, Subject: Improved Crayons for Use on Vertical Plastic Edge Lighted Plotting Boards

4. The only known crayon which is suitable is manufactured by this American Crayon Company of Sandusky, Ohio. Their part number is 2086. Colors available which have proved suitable are:

White (American Crayon No G56F)

Red " " " 56B6

Orange " " " 56B5

Yellow " " " 56B4

5. These crayons are not currently supplied by the General Services Administration. If difficulty is encountered by purchasing and contracting officer, GSA will be requested to include this item in stores stock.

BY ORDER OF THE COMMANDER:

RECTOR C. DACUS  
Captain, USAF  
Asst Command Adj

C O P Y

Hq EDC, ADMSV-3A, Subj: Improved Crayons for Use on Vertical Plastic  
Edge Lighted Plotting Boards

EAMSS-SUG (21 May 54) 1st Ind 27 May 54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, NY

TO: Commander, 32d Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

Forwarded for your information and dissemination to all applicable  
units under your command jurisdiction.

BY ORDER OF THE COMMANDER:

J. S. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

OOT-A 2nd Ind 2 Jun 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Defense Wing, Presque Isle AFB, Maine

For your information and dissemination.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt., USAF  
Asst Adjutant

C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
ENT AIR FORCE BASE  
Colorado Springs, Colorado

ADOOT-C

SUBJECT: Finger Eraser

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Attached is basic correspondence from Psychological Research Associates Corp. dated 20 April 1954, calling attention to a grease pencil eraser called a Finger Eraser.

2. It is pointed out in the basic correspondence that Major Frank J. Pietryka, Operations Officer of the 656th AC&W Squadron, Saratoga Springs, New York, was present when this eraser was tested during another exercise at that station.

3. Request this headquarters be advised of the value of the eraser in air defense operations.

BY ORDER OF THE COMMANDER:

1 Incl: JOHN J. HAYES  
Cy ltr Psychological CWO, USAF  
Research Associates Asst Command Adj  
Corp dtd 20 Apr 54

EAOOT-OS (23 September 54) 1st Ind 29 Sep 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart AFB, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse AFS, Syracuse, NY

Desire the information requested by ADC, paragraph 3, basic letter, be forwarded through this headquarters.

BY ORDER OF THE COMMANDER:

1 Incl: J. W. FOUNTAIN, JR.  
n/c Major, USAF  
Asst Adjutant

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C O P Y

Hq ADC ADOOT-C Subject: Finger Eraser

OOT-A (23 Sep 54) 2nd Ind 4 Oct 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse AFS, Eastwood Station 6,  
Syracuse 6, New York

TO: Commander, 4707th Air Defense Wing, Otis AFB, Falmouth, Mass.

1. Request correspondence be referred to 656th AC&W Squadron for comment.

2. It is desired that comments include statement as to relative cost of this item in comparison to present expenditure for cloth. It is opinioned that cost would far exceed that estimated in Inclosure 1. Estimated cost as stated in Inclosure 1 would amount to approximately \$4000.00 per year for this air division. Provided each individual use only one eraser per shift, which is highly unlikely, the absolute minimum cost would be approximately \$6500.00 per year for the air division. This estimate does not include the ADCC or direction center plotting boards.

BY ORDER OF THE COMMANDER:

1 Incl: EVERITT W. HOWE  
N/C Major, USAF  
Adjutant

DWOOT (23 Sep 54) 3rd Ind 6 Oct 1954

HEADQUARTERS, 4707TH AIR DEFENSE WING, Otis Air Force Base, Falmouth, Mass

TO: Commander, 656th Aircraft Control and Warning Squadron, Saratoga  
Springs Air Force Station, Saratoga Springs, New York

Forwarded for compliance with basic correspondence and indorsements.

BY ORDER OF THE COMMANDER:

1 Incl: FOREST L. LITTLE  
n/c 1st Lt., USAF  
Asst Adj

C O P Y

Hq ADC ADOOT-C Subject: Finger Eraser

ACNCO (23 Sep 54) 4th Ind

HEADQUARTERS 656TH AIRCRAFT CONTROL AND WARNING SQUADRON, Saratoga  
Springs Air Force Station, Saratoga Springs, New York, 15 October 1954

TO: Commander, 4707th Air Defense Wing, Otis Air Force Base, Falmouth,  
Massachusetts

1. Following is an evaluation of the Finger Eraser based on tests  
made at this station last summer.

a. The Finger Eraser is an excellent device for erasing  
greasepencil marks on PPI scopes in fact, the plush fabric absorbed  
much more "grease" than any type of rag material used during the test.  
Due to the small size of erasing surface it would be impractical for  
use on plotting boards.

b. I concur with the reasons given in favor of the Finger  
Eraser as outlined by Mr. Parsons. It will definitely do everything  
outlined in sub paragraphs a thru f of that correspondence. There is  
no doubt that the Finger Eraser is a definite improvement over the rag  
used by Intercept Directors.

c. On the basis on an average of actual and simulated inter-  
cepts thirty (30) at this station per twenty four (24) hour day, each  
eraser lasted from four (4) to six (6) eight (8) hour shifts before  
becoming saturated.

d. Based on information contained in 1c above and on an aver-  
age of nine (9) Aircraft Directors per twenty four (24) hour day and  
assuming that the cost of each eraser was fifteen (15) cents, the  
estimated cost to this station for these erasers would be between two  
hundred and three hundred dollars per year. The average cost of rags  
used in this direction center per year is one hundred dollars.

FRANK J. PIETRYKA  
Major, USAF  
Commander

C O P Y

Hq ADC ADOOT-C Subject: Finger Eraser

DWOOT (23 Sep 54) 5th Ind 19 Oct 54

HEADQUARTERS, 4707TH AIR DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse, New York

Forwarded in compliance with basic correspondence.

FOR THE COMMANDER:

GEORGE N. LEITNER  
Captain, USAF  
Adjutant

OCT-A (23 Sep 54) 6th Ind 23 Oct 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, NY

1. Report is forwarded in compliance with basic letter.
2. Although all claims made concerning this device are substantiated, this headquarters is of the opinion that such 'finesse' in erasing of grease pencil marks is not required in the conduct of operations.
3. Other comment is contained in 2nd Indorsement, this headquarters, 4 October 1954, to basic letter.

FOR THE COMMANDER:

EVERETT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-A

31 July 1954

SUBJECT: Changes to ACEW Operations Room Equipment Component  
Location

TO: Commander  
471th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. During a visit to the 764th ACEW Squadron on 28 July 54, staff officers of this headquarters were very favorably impressed with the ADCC internal equipment arrangement which had been made recently.
2. It is requested that floor plan and listing of parts or construction necessary to effect this relocation be forwarded this headquarters for information.
3. If necessary, Commander, 764th ACEW Squadron will insure compliance with EADFR 57-1 and letter, Headquarters Eastern Air Defense Force, EACOT-05, subject as above, 22 June 1954 which was forwarded your headquarters by our 1st Indorsement, OOT-A, 25 June 1954.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt., USAF  
Asst Adjutant

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C O P Y

762D AIRCRAFT CONTROL AND WARNING SQUADRON  
NORTH TRURO AIR FORCE STATION  
North Truro, Massachusetts

AC1 OPS

13 Aug 1954

SUBJECT: Request for Relocation of Equipment

THROUGH: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

TO: Commander  
33d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Herein is submitted a plan for relocation of equipment within the operations room of this Air Defense Direction Center. This request for approval is necessitated by the fact that we cannot appreciate full utilization of equipment possessed as it is now positioned.
2. It is believed that this move will provide a number of positions concurrent with the number of directors to be on duty during peak periods.
3. By moving the "B" scans into the area indicated on Inclosure #1 to this letter, the full value of these units might be realized, whereas presently, they occupy a position divorced from the operation; consequently full usage cannot properly be obtained.
4. Modifications planned on Inclosure #1 fulfill definite requirements of this unit, and consent for their inception is strongly recommended.
5. This situation seems to indicate that existing tech orders might be reviewed against such requests as this for possible revision.

FOR THE COMMANDER:

1 Incl:  
Plan

JAMES J. DOUGHERTY  
Captain, USAF  
Adjutant

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C O P Y

762d ACW Sg. ACQ OPS Subject: Request for Relocation of Equipment

DWCNT (13 Aug 54)

1st Incl

17 Aug 1954

HEADQUARTERS, 4707th DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Recommend approval.
2. The effective utilization of multiple fighters is presently restricted by the limitations of the direction center's capabilities. The attached plan provides for more effective utilization of the radar equipment and should help solve this problem.

FOR THE COMMANDER:

1 Incl:  
a/c

FOREST L. LITTLE  
1st Lt., USAF  
Assistant Adjutant

COI-A (13 Aug 54)

2nd Incl

21 Aug 1954

HEADQUARTERS, 32d AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass.

1. EADP has indicated that the modified floor plan submitted by the 764th ACW Squadron will shortly be adopted as standard for all CFS-6N sites. It is requested that a representative of the 762d ACW Squadron visit the 764th ACW Squadron to study their modifications and make recommendations as to adaptability to his particular location.
2. If after visiting the 764th ACW Squadron, the 762d ACW Squadron, still feel that their proposed floor plan is superior, the attached floor plan should be resubmitted.

BY ORDER OF THE COMMANDER:

1 Incl:  
a/c

EVERETT W. HOWE  
Major, USAF  
Adjutant

2

C O P Y

762D AIRCRAFT CONTROL AND WARNING SQUADRON  
NORTH TRURO AIR FORCE STATION  
North Truro, Massachusetts

ACQOPS

6 Oct 1954

SUBJECT: Request for Relocation of Equipment (Qualitative Operational Requirement)

TO: Commander  
4707th Air Defense Wing  
Attn: Wing Qualitative Operational Requirement Officer  
Otis Air Force Base  
Falmouth, Massachusetts

1. Introduction: Recent system's training exercises have clearly indicated that the present location of equipment in this squadron's CPS-6B Direction Center is precluding effective utilization of the authorized equipment and the assigned personnel. The operational deficiencies that have been noted are as follows:

a. Senior Directors cannot adequately supervise and coordinate the efforts of duty directors and at the same time perform required liaison with associated units and stations. Present location of the Senior Director's PPI on the upper dais of the operations against the back wall is inadequate in that it removes him from his switchboard on which are located all control lines and radio channels.

b. Present internal communications, in conjunction with the excessive interval between PPI's makes the passing of vital information between duty directors most difficult.

c. Location of the B-scans in the B-scan room now provided prevents effective supervision by the Floor Supervisor of the B-scan operators. Smooth pass-over of tracks from one scope to another within the direction center is hampered when scope operators cannot watch the plotting board. B-scan operators cannot watch the plotting board to make certain the plots they are calling to the plotters are being correctly displayed.

2. Objective: To provide a Direction Center lay-out which will provide much greater utilization of equipment and personnel than can presently be achieved.

3. Description:

a. Nomenclature: Relocation of equipment in the Direction Center.

b. Purpose: To attain a closely integrated, well supervised operations room that will permit effective control of multiple interceptors.

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C O P Y

c. Performance:

- (1) An attack director, who will supervise and coordinate the activities of all duty directors, will be located at a Plan Position Indicator located adjacent to the Senior Director's switchboard. He will thus be in a position to use present existing internal communications and radio channels. This position is absolutely essential if effective utilization of multiple interceptors is to be achieved.
- (2) Positioning of all Duty Directors within close proximity to one another will enable them to more effectively transmit vital information between each other. Present communications permit only one-way conversation from the attack director to each duty director. A requirement exists for two-way conversation between each director. This feature may be available in programmed equipment. However, positive information on this is not available, and grouping of directors as shown in attached diagram is advisable for the additional reason of making room available for the B-scans.
- (3) Moving the B-scans from the present B-scan room to the Operations Room will provide closer supervision of the operators than is now possible. Furthermore, the operators will be able to watch the plotting board to check the correctness of plotting targets being called in. Smoother passing of tracks from scope to scope will result if the plotted tracks are within sight of all surveillance scope operators.

d. Design Features: See attached diagram.

e. Special Features: None

f. Proposed Basis of Issue: Not applicable.

g. Method of meeting the Requirement: Existing equipment will be rearranged by site personnel. An additional PFI should be authorized and provided this unit so that the six authorized control positions, Attack Directors position, and surveillance positions can be manned. Prior to receiving this scope five control positions can be utilized.

4. In late 1953, this unit attempted to implement portions of this plan including the movement of the B-scans into the Operations room. However, experimentation ceased when 32d Air Division in message ACFDCE 12010, dtd 11 December 1953 ordered the unit to place all equipment back

C O P Y

in T.O. positions. The point has now been reached where the successful control of available fighters is dependent upon adoption of this plan.

FOR THE COMMANDER:

1 Incl: THOMAS H. GALLIGAN  
Diagram (1 cy) Captain, USAF  
Executive Officer

DWOCNT (6 Oct 54) 1st Ind 29 Oct 54

HEADQUARTERS, 4707TH DEFENSE WING, Otis Air Force Base, Falmouth, Mass

TO: Commander, 32d Air Division (Def), Syracuse AFB, Syracuse 6, N.Y.

1. Concur with this requirement.
2. The request for the change in floor plan layout is to improve and promote operational efficiency of the unit.

FOR THE COMMANDER:

L Incl: GEORGE N. LEITNER  
n/c Captain, USAF  
Adjutant

OCT-A (6 Oct 54) 2nd Ind 18 Nov 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse AFB, Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, N. Y.

It is requested that this correspondence be referred for consideration to the Standardization Committee to be convened at your headquarters 21 November 1954.

FOR THE COMMANDER:

1 Incl: EVERITT W. HOWE  
n/c Major, USAF  
Adjutant

C O P Y

762nd AC&W Sq ACQOPS Subject: Request for Relocation of Equipment  
(Qualitative Operational Rqmt)

EAOFR-5 (6 Oct 54) 3rd Ind 29 Nov 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. A plan for standardization of equipment locations in CPS-6B and FPS-10 operations buildings has been developed. This plan will be considered together with those from CADF and WADF at a meeting to be held at ADC on 6-10 December 1954. At that time, the Project Officers from each defense force and ADC Headquarters will form a committee to determine the standard for use throughout ADC.

2. The enclosed request should be held in abeyance by the 762nd AC&W Squadron pending the results of the ADC meeting.

BY ORDER OF THE COMMANDER:

1 Incl: J. W. FOUNTAIN, JR.  
n/c Major, USAF  
Asst Adjutant

OOT-A (6 Oct 54) 4th Ind 4 Dec 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, 4707th Air Defense Wing, Otis AFB, Falmouth, Mass

1 Incl:  
n/c

C O P Y

SECRET

HEADQUARTERS  
764th AIRCRAFT CONTROL AND WARNING SQUADRON  
ST ALBANS AIR FORCE STATION  
St Albans, Vermont

OFNS

13 Apr 1954

SUBJECT: Report of Disclosure of Classified Information to  
Foreign Nationals

TO: Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. In accordance with paragraph 66, AFR 205-1, the following report is submitted pertaining to the visit to this organization, 8 April 1954, by Squadron Leader J. K. Rogers.
2. Squadron Leader Rogers, British subject, is a member of the Royal Air Force presently on Exchange duty with the Royal Canadian Air Force and is currently stationed at Lac St Denis, Quebec. His visit to this unit was authorized by Eastern Air Defense Force message EA0IN 341, 5 April 1954.
3. This visit was arranged with the expressed purpose of familiarization with United States Air Force Aircraft Control and Warning facilities and procedures. The visitor displayed the keenest interest in facilities and equipment directly relating to the Operations Section of this squadron. His questions were of an informative type and it is believed that the real object of the visit was the same as the expressed objective.
4. This officer was of high intelligence, excellent character and with an above average technical knowledge in the AC&W field. He had flawless command of the English language.
5. The following subjects and equipment were discussed and shown:
  - a. AN/CPS-6B radar and associated equipment.
  - b. AN/GPS-5, video mapper
  - c. 15-J-1C and 15-J-4A, simulator and programmer
  - d. AN/GRT-3 and AN/GRC-27, UHF transmitters

54-752

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OFNS

SUBJECT: Report of Disclosure of Classified Information to Foreign Nationals (Cont'd)

- e. Operations room layout and equipment.
  - f. Operations communications including manning and procedures.
  - g. Electronic maintenance including procedures and personnel.
6. The highest security classification of material and equipment included in this visit was secret.

FOR THE COMMANDER:

WILLIAM J. BUCHANAN  
1st Lt., USAF  
Adjutant

DO-Int (13 Apr 54) 1st Ind 23 Apr 1954

HQ 4711TH DEFENSE WING, Presque Isle AFB, Maine

THRU: Commander, 32nd Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

TO: Chief of Staff, United States Air Force, Washington 25, D.C.

OIN (13 Apr 54) 2nd Ind

HQ 32D AIR DIVISION (DEFENSE) Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base, Newburgh, New York

54-752

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COPY

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

GENERAL ORDERS)  
NUMBER 33)

23 May 1953

ACTIVATION AND ASSIGNMENT OF UNITS

1. Effective 26 May 1953, the following units, (having been constituted and assigned to this command), are activated with station, strength, and T/O composition as follows:

UNIT & STATION	AUTH STR	
	OFF	AMN
911th AC&W Squadron, Hancock Field, Syracuse, N.Y.	11	96
906th AC&W Squadron, Willow Run Apt, Detroit, Mich.	5	72
907th AC&W Squadron, Hancock Field, Syracuse, N. Y.	5	72
649th AC&W Squadron, Roslyn, N.Y.	11	96

2. Concurrent with activation, units are assigned to the air divisions (defense) as indicated:

UNIT	ASSIGNED TO
907th AC&W Squadron	32d Air Division (Defense)
911th AC&W Squadron	32d Air Division (Defense)
906th AC&W Squadron	30th Air Division (Defense)
649th AC&W Squadron	26th Air Division (Defense)

3. Personnel will be furnished from sources available to the division concerned.

4. The above units are authorized unit essential and base support equipment as listed on the Unit Property Record Equipment Authorization List. The UPREAL's will be prepared based on Columns 3A and B of the MEAL and the above T/O composition.

5. The precedence categories, as established in the current issue of the USAF Operating Program - Priorities of Programmed Units, are as follows:

907th AC&W Squadron - XCIII-112  
911th AC&W Squadron - XVIII-116  
906th AC&W Squadron - XVIII-111  
649th AC&W Squadron - XVIII-121

Any changes thereto will be reflected in subsequent issues of the cited publication.

C O P Y

6. Appropriate allotments will be obligated to the extent necessary in accordance with AFM 172-1, June 1949.

7. Pertinent provisions of AFM 171-6, 1 June 1950, as amended, are applicable.

8. Upon completion of action directed herein, report showing effective date and type of action will be made to the Commanding General, Easter Air Defense Force Attn: Director of Statistical Services. Report is to arrive within 24 hours after effective date by means of Air Force Organization Status Change Report (Reports Control Symbol AF-01) as required in Chapter XX, EADF Manual 171-2.

9. Authority: Letters, Air Defense Command, ADOMO 322, Subject: "(Unclassified) Constitution, Redesignation, and/or Activation of the 902d Aircraft Control and Warning Squadron and Certain Other USAF Units," 23 April 1953 and 29 April 1953; and Headquarters USAF message AFOMO-A 54620, 23 April 1953.

BY COMMAND OF MAJOR GENERAL NELSON:

OFFICIAL:

s/t/ GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

s/t/ R. H. THOM  
Lt Colonel, USAF  
Asst Adjutant

DISTRIBUTION:

A plus  
40 - AAG, Hq USAF, Attn: Pub Div  
15 - CG, ADC, Attn: M&O (Unit Con Br)  
5 - AF Liaison O, Kansas City, Mo.  
6 - EAOPM (EADF)  
4 - EACST (EADF)

HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

GENERAL ORDERS  
NUMBER 25

3 August 1954

UNIT ATTACHMENT

	SECTION
ATTACHMENT OF 907TH AIRCRAFT CONTROL AND WARNING SQUADRON.....	I
ATTACHMENT OF 911TH AIRCRAFT CONTROL AND WARNING SQUADRON.....	II

I. Under the provisions of Air Force Regulation 20-62, 28 July 1949, the 907th Aircraft Control and Warning Squadron, ADC, is attached to Headquarters Squadron Section, 32d Air Division (Defense), ADC, Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York, for the purpose of administration and logistical support.

II. Under the provisions of Air Force Regulation 20-62, 28 July 1949, the 911th Aircraft Control and Warning Squadron, ADC, is attached to Headquarters Squadron Section, 32d Air Division (Defense), ADC, Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York, for the purpose of administration and logistical support.

BY ORDER OF THE COMMANDER:

OFFICIAL:

*Virginia L. Sweet*  
VIRGINIA L SWEET  
1st Lt, USAF  
Asst Adjutant

HENRY R BROWN  
Major, USAF  
Adjutant

DISTRIBUTION:

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, NY

GENERAL ORDERS)  
NUMBER 61)

4 November 1954

ASSIGNMENT OF UNIT

1. Effective 8 November 1954, the 907th Aircraft Control and Warning Squadron, presently assigned to the 32nd Air Division (Defense), Syracuse Air Force Station, Syracuse, New York, is further assigned to the 4711th Air Defense Wing without change in strength or station.

2. Pertinent provisions of AFM 171-6, June 1950, as amended, will apply.

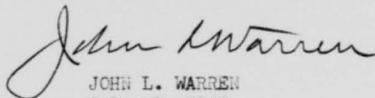
3. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.

4. Authority: TWX, Headquarters Air Defense Command, ADCMO 35312, 1 November 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:

DONALD B SMITH  
Brigadier General, USAF  
Vice Commander



JOHN L. WARREN  
Colonel, USAF  
Adjutant

DISTRIBUTION:

A plus  
30 - AAG HEDUSAF ATTN: PUB DIV  
5 - COMDR ADC ATTN: MFO (Unit CON BR)  
5 - AF Liaison OFF Kansas City MO  
6 - EACPR  
4 - EACST

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, N.Y.

GENERAL ORDERS)  
NUMBER 55)

29 September 1954

ACTIVATION AND ASSIGNMENT OF UNITS.....SECTION I  
REORGANIZATION OF UNIT.....SECTION II

SECTION I

1. The following units (having been constituted and assigned to this command) are activated with effective date, station, T/O composition, and strength as indicated:

<u>UNIT AND STATION</u>	<u>T/O COMPOSITION</u>	<u>AUTH STR</u>		<u>EFF DATE</u>
		<u>OFF</u>	<u>AMN</u>	
644th ACWRON Syracuse AF Sta Syracuse, N. Y.	1-2129P, 1 Jan 52, 1 x parts IIAH, CE, CH, OH, RC, SE; 1-2129P-B, 15 Nov 52, 1x part IIAC; 1-4101-B, 15 Mar 53, 1 x part IIICL	5	47	8 Nov 1954
704th ACWRON Willow Run AF Sta Willow Run, Mich	1-2129P, 1 Jan 52, 1 x parts IIAH, CE. CH, OH, RC, SE; 1-2129P-B, 15 Nov 52, 1 x part IIAC; 1-4101-B, 15 Mar 53. 1 x part IIICL	5	47	8 Dec 1954

2. Concurrent with activation, the 644th Aircraft Control and Warning Squadron is assigned to the 32d Air Division (Defense) and further assigned to the 4707th Air Defense Wing, and the 704th Aircraft Control and Warning Squadron is assigned to the 30th Air Division (Defense) and further assigned to the 4706th Air Defense Wing.

3. Personnel will be furnished from sources available to the division concerned. Units will be initially manned with one (1) officer and one (1) airman and will be maintained at record strengths until otherwise directed or until units are moved to ultimate destination.

4. The above are category D units and are authorized Unit Essential and Base Support Equipment as listed in the MEAL. The UPREAL's, or the UME column of the UAL's, as applicable, will be prepared based on Columns 3A and B of the MEAL and the above T/O compositions. Supply action will be withheld until otherwise directed, or until units are moved to ultimate destination.

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C O P Y

GO 55 HEDEADF (ADC) Stewart AFB Newburgh NY 29 Sep 54 (CONT)

5. The precedence category for the 644th Aircraft Control and Warning Squadron is XIV-97 and for the 704th Aircraft Control and Warning Squadron is XIV-102, as established in current issue of the USAF Operating Program - Priorities of Programmed Units. Any changes thereto will be reflected in subsequent issues of the publication.

6/ Pertinent provisions of AFM 171-6, June 1950, as amended, are applicable.

7. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.

8. Authority: Letter, Department of the Air Force, AFPMO 349j, 17 August 1954, Subject: Constitution and Activation of the 644th and Certain Other aircraft Control and Warning Squadrons, with 1st Indorsement thereto, Headquarters Air Defense Command, ADOMO, 30 August 1954.

SECTION II

1. Effective 8 December 1954, the following unit is reorganized with strength and T/O composition as indicated:

UNIT	T/O COMPOSITION	AUTH STR	
		OFF	AMN
63d Fighter-Interceptor Squadron	1-1289, 1 Mar 54 1 x parts II, IID, 3 x part IIC; 1-1294, 1 Feb 54, 1 x part IID	09	301

2. Required personnel will be furnished from sources available to the 4708th Air Defense Wing.

3. The above is a category D unit and is authorized Unit Essential Equipment as listed in the MEAL. The UPREAL, or UME column of the UAL, as applicable, will be prepared based on Column 3A of the MEAL and the above T/O composition. So far as Part IID, T/O 1-1294, is concerned, no organizational equipment is involved.

C O P Y

GO 55 HEDEADF (ADC) Stewart AFB Newburgh NY 29 Sep 54 (CONT)

4. Pertinent provisions of AFM 171-6, June 1950, as amended, will apply.

5. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.

6. Authority: Letter, Department of the Air Force, AFOMO 361j, 27 August 1954, Subject: Reorganization of the 63d Fighter-Interceptor Squadron, with 1st Indorsement thereto, Headquarters Air Defense Command, ADOMO, 7 September 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:

DONALD B SMITH  
Brigadier General, USAF  
Vice Commander

JOHN L WARREN  
Colonel, USAF  
Adjutant

DISTRIBUTION:

A plus  
30 - AAG Hq USAF ATTN: Pub Div  
5 - Comdr ADC ATTN: M&O (Unit Con Br)  
5 - AF Liaison Off Kansas City Mo  
6 - EAOFR  
4 - EACST

HEADQUARTERS  
32D AIR DIVISION (DEFENSE) (ADC)  
Syracuse Air Force Station  
Syracuse 6, New York

GENERAL ORDERS  
NUMBER 40

8 November 1954

UNIT ATTACHMENT

Under the provisions of Air Force Regulation 20-62, 28 July 1949, the 644th Aircraft Control and Warning Squadron, ADC, is attached to Headquarters Squadron Section, 32d Air Division (Defense), ADC, Syracuse Air Force Station, Syracuse 6, New York, for the purpose of administration and logistical support.

BY ORDER OF THE COMMANDER:

OFFICIAL:

*Everitt W. Howe*  
EVERITT W HOWE  
Major, USAF  
Adjutant

EVERITT E HOWE  
Major, USAF  
Adjutant

DISTRIBUTION:  
B

COPY

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
STEWART AIR FORCE BASE, NEWBURGH, N. Y.

EAOPR-4

28 January 1955

SUBJECT: Movement Orders, 644th AC&W Squadron

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. It is desired that you take necessary action to move the following unit, at the EFD after 1 February 1955, less personnel and equipment, from and to stations as indicated: (movement will be completed within 30 days from this date)

<u>UNIT</u>	<u>PRESENT STATION</u>	<u>NEW STATION</u>
644th AC&W Squadron	Syracuse Air Force Sta Syracuse, New York	Portsmouth, New Hampshire

2. This movement constitutes a Permanent Change of Station. Unit assignment remains unchanged.

3. Compliance with paragraph 38c, AFR 35-12, 10 April 1953, is directed.

4. Movement will be made in accordance with applicable provisions of AFR 75-2, 75-19, 75-20 and 75-38.

5. Transportation costs of records and impediments are chargeable to base M&O funds available to your command.

6. Unit will be furnished logistical support at new station in accordance with the provisions of AFR 11-4. Unit will also receive electronic support in accordance with ADCR 62-13, 28 October 1954.

7. Reports of departure and arrival of unit will be reported by means of the Organization Status Change Report (RCS AF-01) which will be submitted in accordance with current directives. Specific reference is directed to paragraph 12 e, AFR 75-20.

150

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C O P Y

Hq EADF, EACPR-4, Subject: Movement Orders, 644th AC&W Squadron

8. Authority: USAF message AFOOP\_OC-C 35812, 20 January 1955,  
and ADC message, ADOMO 04001, 26 January 1955.

BY ORDER OF THE COMMANDER:

DISTRIBUTION

2 - Hq Usaf, Directorate of Operations, DCS/O  
5 - Hq ADC, Attn: M&O (Unit Con Br)  
5 - AF Liaison O, Kansas City, Mo  
2 - Hq CADF  
2 - Hq WADF  
5 - Comdr, Grenier AFB  
5 - Comdr, Stewart AFB  
10 - Hq 32d ADiv (Def)  
40 - Comdr, 4707th Air Def Wg  
2 - Other EADF ADiv and Air Def Wg  
10 - Comdr, 644th AC&W Sq, Syracuse AF Sta  
5 - EACPR (EADF)  
5 - EACST (EADF)

J. W. FOUNTAIN, JR.  
Major, USAF  
Assistant Adjutant

CONFIDENTIAL

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OPR

3 Feb 1955

SUBJECT: 907th AC&W Squadron

TO: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Reference letter your headquarters, dated 11 January 1955,  
Subj: 907th AC&W Squadron, the following information is being  
forwarded for your planning purposes:

- a. The primary mission of the 907th AC&W Squadron will be to furnish early warning radar surveillance information to the 765th AC&W Squadron.
- b. The command channels for the 907th AC&W Squadron will be the same as any other AC&W Squadron.
- c. The 765th AC&W Squadron will not be assigned a sub-sector of responsibility but will report all surveillance information within radar ranges.
- d. Operations will be twenty-four (24) hours daily.
- e. The 907th AC&W Squadron is programmed to receive an AN/MPS-11; however, since this equipment is not readily available Headquarters, EADF has requested that an AN/CPS-5 be installed until such time as the AN/MPS-11 can be obtained. Information as to the number of scopes is not available within this headquarters.
- f. Three telephone circuits: 2 circuits to 765th AC&W Sq  
1 circuit to 654th AC&W Sq
- g. At the present time the 907th AC&W Squadron has a 458 Fund of \$100.90. When the squadron moves to the permanent location this fund will be turned over to the 4711th Air Defense Wing, who will assume all funding responsibilities.

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C O P Y

Hq 32D AD(D) OPR Subj:907th AC&W Squadron

n. Reference AFM 67-1, Vol #4, Section 3, Par #3 A(3); the Squadron Commander will request, through channels, that ADC take action to obtain automatic distribution of appropriate Air Force supply directives. A list of Air Force supply directives that have been prepared is not available at this headquarters.

BY ORDER OF THE COMMANDER:

EVERETT W. HOWE  
Major, USAF  
Adjutant

2

128-55

CONFIDENTIAL

1 5 2 9

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
STEWART AIR FORCE BASE, NEWBURGH, N. Y.

EAOPR-4

17 February 1955

SUBJECT: Movement Orders, 907th AC&W Squadron

TO: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. It is desired that you take necessary action to move the following unit, at the EPD after 15 February 1955, less personnel and equipment, from and to stations as indicated: (movement will be completed within 30 days from this date)

<u>UNIT</u>	<u>PRESENT STATION</u>	<u>NEW STATION</u>
907th AC&W Squadron	Syracuse Air Force Sta Syracuse, New York	Bucks Harbor, Maine

2. This movement constitutes a Permanent Change of Station. Unit assignment remains unchanged.

3. Compliance with paragraph 38c, AFR 35-13, 10 April 1953, is directed.

4. Movement will be made in accordance with applicable provisions of AFR 75-2, 75-19, 75-20 and 75-38.

5. Transportation costs of records and impediments are chargeable to base M&O funds available to your command.

6. Unit will be furnished logistical support at new station in accordance with the provisions of AFR 11-4. Unit will also receive electronic support in accordance with ADCR 67-13, 28 October 1954.

7. Report of effective date of this movement will be reported by means of the Organization Status Change Report (RCS AF-01) which will be submitted in accordance with current directives. If applicable, a report of inability of unit to move within 30 days after 15 February 1955 will be submitted in accordance with paragraph 11c, AFR 75-20, 10 November 1955.

151 2

1 5 3 0

C O P Y

Hq EADF, EAOFR-4, Subject: Movement Orders, 907th AC&W Squadron

8. Authority: USAF message AFOOP-OC-C 41000, 5 February 1955,  
and ADC message, ADOMO 06260, 11 February 1955.

BY ORDER OF THE COMMANDER:

DISTRIBUTION

2 - Hq USAF, Directorate of  
Operations, DCS/O  
5 - Hq ADC, Attn: M&O (Unit Con Br)  
5 - AF Liaison O, Kansas City, Mo.  
2 - Hq CAADF  
2 - Hq WADF  
5 - Comdr, Dow AFB  
5 - Comdr, Stewart AFB  
10 - Hq 32d ADiv (Def)  
40 - Comdr, 4711th Air Def Wg  
2 - Other EADF ADiv and Air Def Wg  
10 - Comdr, 907th AC&W Sq, Syracuse AF Sta  
5 - EAOFR (EADF)  
5 - EACST (EADF)

J. W. FOUNTAIN, JR.  
Major, USAF  
Assistant Adjutant

C O P Y

2 0 Dec 54

HQ 32D AD(D), SYRACUSE AFB, SYRACUSE 6, NY 20/1540Z UNCLASSIFIED  
ROUTINE

4707TH AIR DEF WG, OTIS AFB, FAIRMOUTH, MASS.  
4711TH AIR DEF WG, PRESQUE ISLE AFB, PRESQUE  
ISLE, ME. X

ACFPOR 12048 UNCLASSIFIED

/UNCLASSIFIED/ ACFOPR 12 065. Fol msg from Hq EADF quoted

FYI and planning purposes "Reurmsg ACFPOR 12048. Curr info indi-  
cates BOD for 1st phase ACMW Sites is as fols,

M - 103 - Unknown

M - 104 - Mid Jan depn upon delievery of generators

M - 110 - 1st wk of Feb depn upon DT water can be made aval

You w/b advised of changes as they occur"

UNCLASSIFIED

1 1

ROBERT U. RANDLE, MAJOR, USAF WILLIAM W. INGENHUTT, COLONEL, USAF

OPR

092

ODO/144

152

1 5 3 2

C O P Y

23 December 1954

Colonel Robert S. Israel, Jr.  
Commander, 32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

Dear Bob:

Mr. Fred Smith has recently written me that staff visits to M-sites about to be commissioned have revealed minor discrepancies such as poorly fitting doors, sub-standard sanitary facilities and inadequate sidewalks. For your information, Air Defense Command is aware of the basic deficiencies in the facilities provided under the M-site program and is preparing package improvement programs which will be financed from our own M&O funds. However, correction of minor discrepancies is normally accomplished by the support base using its own funds and when these bases are part of other commands, it is apparent that a closer relationship and better understanding of the M-site mission by the support base commander would be of great value in assuring priority of corrective action.

My visits have confirmed that often the ACW station commander limits his requests for support to routine actions such as requisitioning and processing of work orders and fails to exploit the medium of personal contact. I would like to suggest that you personally emphasize the need for ACW station commanders to become acquainted with the support base commander, make known their requirements and maintain aggressive follow-up action. In addition, you and your staff can assist in this educational program by visiting non-EADF support bases to insure base commanders appreciate the high priority of these units and the assistance available for their own flight operations if full support is rendered and a spirit of team play developed.

Sincerely,

M. R. NELSON  
Major General, USAF  
Commander

154

1 5 3 3

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

30 December 1954

Major General M. R. Nelson  
Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Nellie:

I am attaching a copy of a letter addressed to my wing commanders, based on your letter of 23 December regarding the support of AC&W stations. You may be assured that we will maintain aggressive follow-up action from this headquarters in this matter.

In the past, the support of our AC&W stations has, in general, been satisfactory. The only sub-standard support has been that which is provided the 765th AC&W Squadron by Dow Air Force Base. In the past six months, the support to this station has been greatly improved. It should soon be on a par with that provided other AC&W stations.

With regard to the M-site program, I strongly recommend that the nearest point of support, even though requiring a cross-servicing agreement with the Army or Navy be utilized in order to obviate the necessity of travelling many unnecessary miles to an Air Force Base for support which can equally well be provided by the Army or Navy. A case in point is the M-104 site which I discussed with Don Smith on the twenty-ninth.

Sincerely,

1 Incl:  
Ltr, CCG, 32d AD(D)  
dtd 30 Dec 54 (cy)

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

155

1 5 3 4

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

CCG

30 Dec 1954

SUBJECT: Command Liaison with Support Bases

TO: Commander  
4707th Air Defense Force  
Otis Air Force Base  
Falmouth, Massachusetts

Commander  
4711th Air Defense Force  
Presque Isle Air Force Base  
Presque Isle, Maine

1. I have recently received a personal letter from General Nelson, Eastern Air Defense Force, a copy of which is attached. In general the letter deals with effecting better relations between AC&W commanders and the support base commanders. He feels that the AC&W squadron commanders can effect and maintain better support and relations by closer, personal liaison with the support base commander. I agree with him wholeheartedly. This is particularly important to those AC&W squadrons which are supported by bases of other commands. It is therefore my desire that this subject be brought to the personal attention of all AC&W commanders.

2. Each commander should pay periodic visits to the support base commander. On these visits, he should be prepared to present any support difficulties he is having. He should extend an invitation to the support base commander to visit his installation. He should be prepared to brief the support base commander on his organization's mission and the assistance they can render the flight operations of the support base.

3. It is important that the AC&W squadron commander satisfy himself that his own organization has properly processed requisitions, work orders, etc., and has accomplished the necessary follow-up action with the appropriate support base agency prior to bringing up the problem to the personal attention of the base commander. In presenting the problem to the support base commander, he should be prepared to back up the statements made with documentary evidence that satisfactory action is not being taken by the support base activity. General statements of difficulties without factual support should be avoided since it can prove embarrassing and harm rather than help the problem.

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C O P Y

Hq 32d Air Div (Def) CCG Subj: Comd Liaison with Support Bases

4. It is also my desire that, in all cases, upon the transfer of the commander of an AC&W squadron, that the former commander, accompanied by the new, visit the support base commander. Thus, relationship between the AC&W squadron commander and its support base commander will remain established.

5. My staff, along with myself, will assist in establishing better relationship between the division and the various support bases outside the command.

1 Incl:  
Ltr, Maj Gen Nelson,  
dtd 23 Dec 54

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOCE-P

30 Dec 1954

SUBJECT: (Uncl) Changes in ADC Radar Programs

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. The attached letter from Headquarters ADC, ADOCE-A, 26 November 1954, subject as above, is forwarded for your information.

2. Information contained in messages referred to in Paragraph 1a and 1c, attached letter, was furnished your headquarters in the following messages from this Headquarters:

<u>ADC Message:</u>	contained in	<u>EADF Message:</u>
ADOCE-A 1945		EAOCE-P C1618
ADOCE-A 2024		EAOCE-P C1631

Information contained in letter referred to in Paragraph 1d was forwarded to your headquarters by letter this Headquarters, EAOCE-P, 8 December 1954, Subject: (Uncl) ADC's Revised Radar and Radar Tower Requirements.

3. Numerous errors are present in the ADC Revised Equipment Requirements List which was forwarded to your headquarters 8 December 1954. The majority of these errors will be found in the Tower Extension Program. This Headquarters is taking action to correct these mistakes and your headquarters will be kept informed of all changes.

4. If enclosure is withdrawn, or not attached, the classification of this correspondence will be cancelled in accordance with Paragraph 25g, AFR 205-1.

BY ORDER OF THE COMMANDER:

1 Incl:  
a/s (dup)  
Info cy to Wgs

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

014-55

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CONFIDENTIAL

C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADOCE-A

26 November 1954

SUBJECT: (Unclassified) Changes in ADC Radar Programs

TO: Director of Communications  
Headquarters USAF  
Washington 25, D. C.

1. Reference is made to the following:

- a. Message this headquarters ADOCE-A 1945, 9 November 1954.
- b. Message this headquarters ADOCE-A 2014, 18 November 1954.
- c. Message this headquarters ADOCE-A 2024, 18 November 1954.
- d. Letter this headquarters ADOCE-A, 24 November 1954, subject: (Uncl) ADC Revised Radar and Radar Tower Requirements.

2. This headquarters is aware of the difficulties generated by changing the radar equipment requirements for permanent and semi-mobile programs at this time. However, it is felt that the requirements for the equipment and towers being deleted from this program, plus the overall saving of funds, warrants this action. These changes resulted from the following considerations:

a. The acceleration of the 3d Phase Semi-Mobile Program has resulted in the earlier establishment of perimeter defense around the continental United States and critical target areas in Canada. This, together with delays in the P-site radar augmentation program and 1st Phase Semi-Mobile Program, has resulted in a change in priority for the installation of emergency equipment at many ACEW stations. Since the number of radars available to Air Defense Command is limited, it is necessary to use this equipment for emergency (backup) at perimeter sites rather than at interior sites as originally programmed.

b. Due to the shortage of temperate AN/FPS-6 towers, it has been necessary to program arctic towers at nine ACEW sites where detailed weather studies showed that a temperate tower was needed. Later, additional AN/FPS-6's and temperate towers, AB-258, were made available to ADC. It was then possible to use these nine arctic towers with the additional AN/FPS-6 equipment at locations where weather conditions made such equipment necessary.

INCL #1

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C O P Y

Hq ADC, ADOCE-A, Subject: (Uncl) Changes in ADC Radar Programs

c. Although it was realized that money had been spent for transportation, engineering, and, in some cases, for construction, for the equipments deleted or modified, it was felt that a considerable savings in both money and equipment could be realized by making this change without further delay.

3. It was also realized that dates for installation of equipment must be changed. However, it is felt that some of these changes can be made without changing the operational date as much as would be required if a newly generated requirement was established.

4. Request that you approve the changes made in radar and radar tower requirements, and that you so advise Rome Air Force Depot and appropriate construction agencies.

FOR THE COMMANDER:

cc to:	JAMES S. FURDUM
Comdr, RAFD, CADF, EADF,	Major, USAF
WADF, MAAMA, MOAMA, OOAMA,	Asst Command Adj
OCAMA, SBAMA, SMAMA, SAAMA,	
WRAMA.	

INCL #1

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OCE

31 Aug 1954

SUBJECT: Project Lincoln Gap-Filler Station, Squibnocket, Mass.

TO: Commander  
Air Force Cambridge Research Center (ARDC)  
224 Albany Street  
Cambridge 39, Mass.

1. This headquarters has tentatively selected the gap-filler radar station on Martha's Vineyard Island, Massachusetts, to be a permanent installation in the gap-filler program. This station is presently operated by the Lincoln Project, Air Force Cambridge Research Center.

2. During a conference between Captain James S. Leason, this headquarters, and Mr. Rader, Project Lincoln, on 30 July 1954, it was determined that utilizing this temporary site as a permanent station would be of advantage to both the Air Defense Command and Project Lincoln. It was verbally agreed that upon the installation of new equipment, this station would be under the complete jurisdiction of Air Defense Command. It was further agreed that upon assumption of jurisdiction over this station by Air Defense Command that a one pair telephone line would be made available to Project Lincoln over which slowed-down video would be transmitted for use in the Cape Cod system.

3. Request that definite confirmation be made releasing this station to the Air Defense Command unequivocally upon the installation of standard equipment presently programmed for gap-filler radar stations.

4. Captain James S. Leason, this headquarters, telephone Syracuse 54-2411, extension 288, is contact officer on this subject for this headquarters. It is requested that this officer be contacted on matters pertaining to this program.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

2580-54

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COPY

JEPNB B 132  
NBB137  
YTD189  
JEDEN105  
RR JEPNB  
DE JEDEN 077  
R 161827Z

FM COMDR ADC ENT AFB COLO  
TO COMDR EADF STEWART AFB NY (16/1830Z)  
ADOMO 12450. URMSG EAOPM 11543 DTD 14 APR 54. REF OUR 1ST IND TO  
YOUR LTR EAOPM SUBJ: FIRST PHASE MOB RADAR SQ, DTD 29MAR 54. BENE-  
FICIAL OCCUPANCY DT OF 651ST AC&W SQ UNKNOWN AT THIS TIME. FOR REASONS  
OUTLINED IN REFD IND NOT DESIRABLE TO ASGN 651 TO WG AT PRES.  
16/1830Z APR JEDEN

157

1 5 4 1

HEADQUARTERS  
AIR DEFENSE COMMAND  
8th Air Force Base  
Colorado Springs, Colorado

ADCOGT-B1

14 FEB 1955/C.O.P.Y/

SUBJECT: Policy on Organization of Observation Posts in Critical  
Target Complexes

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. The organization of observation posts within critical target complexes has been seriously questioned as regards the resultant benefits to the air defense system. The initial detection of hostile raids is of paramount importance. Surveillance information available from observation posts within critical target complexes will prove helpful in initial detection and identification of hostile forces.
2. Once action against the United States has been identified and states of warning have been declared the additional tracking information gained from observation posts in critical target areas would prove of little value. Under such circumstances, observation posts in critical areas are no longer required.
3. It is the policy of this command to organize observation posts within critical target complexes based on the requirement for initial detection and identification. Surveillance information from these observation posts may prove of considerable value, particularly from the coastal complexes. It is also the policy of this command that the personnel of observation posts organized and operating within the critical target complexes will comply with local civil defense procedures instituted upon declaration of an Air Defense Warning Yellow or Red. Personnel of observation posts in critical target areas will be advised that evacuation or the seeking of shelter as directed by civil defense officials will be complied with.
4. Critical target complexes are defined as those areas outlined in Part I, Section B-1 of the PCDA Key Data Book, dated 1 July 1953 and any amendments thereto.
5. Request immediate action be taken to notify the personnel of observation posts concerned of the above policy.

BY ORDER OF THE COMMANDER:

s/t JOHN J. HAYES  
CWO, USAF  
Asst Command Adj

158

1 5 4 2

C O P Y

HEADAD ADOOT-B1 Subject: Policy on Organization of Observation Posts  
in Critical Target Complexes

EAOCD (14 Feb 55) 1st Ind 25 Feb 1955

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N.Y.

TO: Commander, 32d Air Division (Defense), Syracuse, New York

Forwarded for necessary action.

BY ORDER OF THE COMMANDER:

BEN D. MOORHEAD  
Captain, USAF  
Asst Adjutant

OCD (14 Feb 55) 2nd Ind

HEADQUARTERS 32D AIR DIVISION (DEFENSE), Syracuse AFS, Syracuse, NY

TO: Commander, 4673d GOS, Syracuse AFS, Syracuse 6, N. Y.

1. For compliance with paragraph 5 of the basic letter.
2. Sufficient copies of the basic letter are inclosed for you to make distribution to observation posts within twenty-five miles of the center of critical target cities.
3. According to the FCDA Key Data Book the following cities in your area or responsibility are designated critical target cities:

- |                          |                               |
|--------------------------|-------------------------------|
| a. Buffalo, New York     | g. Troy, New York             |
| b. Rochester, New York   | h. Albany, New York           |
| c. Syracuse, New York    | i. Boston, Massachusetts      |
| d. Rome, New York        | j. Fall River, Massachusetts  |
| e. Utica, New York       | k. New Bedford, Massachusetts |
| f. Schenectady, New York |                               |

BY ORDER OF THE COMMANDER:

1 Incl:  
Basic ltr

EVERITT W. HOWE  
Major, USAF  
Adjutant

972

**SECRET**

**HISTORICAL REPORT  
of the  
32d AIR DIVISION (DEFENSE)**

K-DIV-32 HI  
July-Dec 1954  
V.D.



**THE AIR DEFENSE OF A SECTOR**

**JULY through DECEMBER 1954**

SUPPORTING DOCUMENTS 111

HISTORICAL OFFICE

SYRACUSE AIR FORCE STATION, NEW YORK

**SECRET**

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OPERATIONS ANALYSIS TECHNICAL MEMORANDUM NO. 15

GROUND OBSERVER CORPS  
EXERCISE SKY SCAN

by

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Approved

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This material contains the results  
of analyses performed by Operations  
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28 December 1954

Operations Analysis Office  
Deputy Chief of Staff for Operations  
Headquarters Air Defense Command  
Colorado Springs, Colorado

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I. SUMMARY

The exercise was conducted on a nation-wide basis to determine present effectiveness under alerted conditions, outstanding deficiencies, and undeveloped capability.

Strikes were flown by four-engine aircraft during the last week of May and the first week of June in nine filter center areas of the Western, Central and Eastern Air Defense Forces. During the last week of October substantiating tests were run in Eastern Air Defense Force. The trials were conducted under forewarned conditions to test maximum capability, that is, the days of the exercise were announced but GOC personnel were not given the routes nor the exact times of the strikes.

The general results of the test showed that the GOC at present, under alerted conditions, has the capability of making a substantial contribution to the defense of the United States. The strongest contribution lies in the outstanding ability to detect low flying strikes which, when coupled with effective identification and proper utilization within the radar sites, is a highly valuable asset. Furthermore, the GOC has a daylight identification capability, not possessed by radar, in the ability to report number of engines. On the other hand the test showed several weaknesses, all subject to improvement. Among these were errors in reporting and inadequate filtering operations, both of which resulted in a short average track length as plotted in the filter centers. This short track length reduced the chance of successful intercepts on GOC tracks. Also, manning of organized posts was lower than anticipated. The quantitative results of the tests are outlined briefly in the following paragraphs.

Only two daylight strikes, each made up of single aircraft and averaging 208 miles in length, were missed out of eighty-two. At night only three averaging 166 miles were missed out of sixty-six, the aircraft flying with running lights. Over-all, 97% of the strikes were detected. All strikes were flown under essentially clear skies.

The probability of individual posts, reported as manned, detecting and reporting aircraft was about 60% for overhead daylight strikes. This figure decreased to about 5% at 10 miles from the strike routes. On night strikes, flown with running lights, detection capability was about 50% overhead and 5% at 10 miles from the strike routes. The figures for the overhead results were lower than anticipated. Strong evidence indicated that this resulted primarily because many posts, reported as manned, actually were not manned. This situation, generally unsuspected before the test, needs thorough study because of its basic importance to the success of the GOC.

The average length of tracks plotted in the filter center was 34 miles. The longest plotted track was 302 miles. This short average

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track length precludes a high intercept success rate. Track length can be increased by emphasis upon more accurate reporting by observers and by more effective filtering.

On an average 6.4 observations were made on each track on which there was more than one observation and 2.6 track numbers were assigned. Night results gave 4.6 observations and 2.1 assigned track numbers. Thus there was an over-all ratio of 1 track number assigned to every 2 to 3 observations. These figures indicate a weakness in filtering operations.

About 33% of each daylight strike track was plotted in the filter centers and 22% of each night strike.

Only 5% of the daylight reports from observers on number of engines were in error. These figures indicate that the GOC has a valuable identification capability not possessed by radar; single and bi-motor propeller driven aircraft, not considered as constituting a threat, can be identified visually without recourse to flight plan matching. However, 40% of the daylight reports on altitude were incorrect and 17% of the daylight reports on course were in error by more than 25 degrees. These numerous errors make filtering difficult and account in part for the short average tracks plotted in the filter centers.

The density of posts reported as manned within 10 miles of the strike routes during daylight hours was 4.4 per 1000 square miles. At night the density was 3.6 per 1000 square miles. (The ADC goal of posts 8 miles apart is the equivalent of 16 posts per 1000 square miles.) The highest average was 7.1 posts from Eastern Air Defense Force. These figures, as well as those on hourly manning below, probably show a greater manning than actually existed because, as previously mentioned, all posts reported as manned apparently were not manned. The test did not determine the optimum density of manned posts for maximum tracking capability. There is no indication that the optimum density has yet been reached country-wide.

From one to five o'clock in the morning approximately 30% of the organized posts were reported as manned. This figure increased steadily to about 50% at eight o'clock and remained nearly constant until five o'clock in the afternoon. After five the reported manning decreased gradually to about 35% at midnight. (These figures represent the whole filter center areas and are not limited to 10 miles on either side of the strike routes.) These results show that the density of manned observer posts can be increased appreciably by manning those already organized.

Twenty-three intercepts were attempted on daylight strikes in Central Air Defense Force and Western Air Defense Force, 11 of which were successful, 4 on GOC tracks alone and 7 on GOC tracks combined with radar tracks. In addition, 11 were successful in Eastern Air

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Defense Force out of an unknown number of attempts. Two of these were made on GOC plots alone and 9 on GOC plus radar tracks. The results prove intercepts can be run on GOC tracks alone in this country but the average track length is not sufficiently long to expect a high intercept success rate. However, it is quite feasible to run intercepts on GOC tracks in combination with radar tracks.

It is recommended that GOC operation be encouraged and fully supported; increased emphasis be placed upon improvement of the filtering operation and upon improvement of the accuracy of reports from observers; full utilization be made of the GOC capability to identify aircraft by observation of number of engines; and use of GOC tracks in conjunction with radar tracks for intercepts be stressed.

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II. INTRODUCTION

Exercise Sky Scan was requested by the Commander of the Air Defense Command in order to expand the scope of the recent GOC study made in the Western Air Defense Force.

The project was handled jointly by the Office of Civil Defense and the Office of Operations Analysis under the Deputy Chief of Staff, Operations at Headquarters Air Defense Command and by the equivalent offices within the three defense forces. Because of the scope of the project, much of the general plan covering standardization of procedures and of methods for data collection was developed by Air Defense Command while the exact routes of the strike aircraft and certain operational techniques were planned by the defense forces. The consolidation of the data from the filter centers was the responsibility of the defense forces; the Air Defense Command consolidated the data from the three defense forces and made the final report.

All figures presented in this report are based on strike aircraft only. Reports on other traffic flying during the strike periods are not included.

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III. DISCUSSION

A. Objectives

1. The study was directed toward the evaluation of the specific objectives listed below.
  - a. Detection capability under alerted conditions in daylight and darkness.
  - b. Tracking capability under the same conditions.
  - c. Accuracy of observer reports to the filter centers.
  - d. Density of manned posts along the routes of strike flights.
  - e. Percent of organized posts that were manned.
  - f. Ability to make intercepts on Ground Observer Corps data.
  - g. Optimum density of manned observer posts.
  - h. Unusual occurrences other than routine aircraft sightings which might aid Air Force operations.

B. Conditions of the Test

1. Strikes were flown by four-engine aircraft during the last week of May and the first week of June in nine filter center areas of the Central, Western, and Eastern Air Defense Forces. During the last week of October, substantiating tests known as Sky Scan II were run in Eastern Air Defense Force. All tests were conducted under fully forewarned conditions to test maximum capability; that is, the Ground Observer Corps personnel were told of the days on which the test was to be conducted and were asked to put forth maximum effort during these days. However, the exact times and routes of the strikes were

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withheld from the Ground Observer Corps. All strikes consisted of single aircraft; in no case were aircraft flown in formation. Weather was essentially clear during all strike periods.

2. The plan for the study is included in this paper as Appendix E. The revised techniques used for the conduct of the October tests in Eastern Air Defense Force are summarized in Appendix D.

3. In the May and June tests the radars within air defense identification zones were asked to attempt intercepts on daylight strikes. Flight plans and position reports of strike aircraft were withheld from the radars and from the filter centers to make the conditions of the test as realistic as possible. However, during the October test in Eastern Air Defense Force, intercepts were not planned on the strikes. Under these circumstances there was no need to withhold flight plans from the radars, although they still were not passed to the filter center personnel. Passing the flight information to the radars made possible the more rapid evaluation techniques described in Appendix D.

C. Presentation of Data

1. In the Discussion the data presented for each part of the study are of necessity concise, consisting generally of the more illustrative parts of the AirDefense Command compilations. However, in each case references are made to the complete Air Defense Command tables in the Appendix A. In addition Appendix B contains the complete tables for each of the three defense forces, showing breakdowns for each filter center concerned.

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D. Detection Capability

1. The detection phase of the exercise was divided into two parts. The first concerned the over-all detection capability as indicated by the number and percentage of aircraft detected; and the second, the average detection capability of the individual manned posts as a function of distance from the strike aircraft.

2. Concerning the number of aircraft detected, Central Air Defense Force failed to detect only one out of 47 daylight tracks flown averaging 220 miles in length and only two out of 25 night tracks flown averaging 210 miles in length. The Eastern Air Defense Force record was equally good. They missed only one out of 31 daylight tracks averaging 127 miles in length and one out of 39 night tracks averaging 105 miles in length. The tracks flown in Western Air Defense Force were fewer in number but much longer, totalling six and averaging 690 miles during the day and 850 miles at night. All six were seen. Thus, over-all, 97% of the aircraft were detected.

3. These results are highly encouraging. They indicate that regardless of other capabilities, the Ground Observer Corps has a definite over-all ability to detect enemy aircraft. In this regard, it must be kept in mind that only one early detection of an enemy aircraft, properly utilized, may be sufficient to alert the country in time to take certain actions to maximize defense capability. Such a single observation could more than justify the total existence and maintenance of the Ground Observer Corps.

4. To determine the average detection capability of the

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observation posts, the actual paths flown by the strike aircraft were mapped and all posts reported as manned within 10 miles on either side of the flight path were plotted. The reports from these posts were tabulated and used as the basis for the detection capability.

5. This capability was measured from overhead to 10 miles from the strike routes. Strikes were flown at 500 and 4000' during the day and 4000' at night in most of the test areas.

6. Results on the 500' daylight strikes are given in Table I, Appendix A. They show an average individual post capability of about 60% directly overhead to somewhere in the neighborhood of 4% at 10 miles. The results for the 4000' day strikes are indicated in Table II. They show approximately a 65% capability overhead and 5% at 10 miles

7. The night strikes were flown with running lights. The results are listed in Table III. They show an overhead capability of about 50% and a 10 mile capability of approximately 5%.

8. It is immediately apparent that the detection probabilities shown here are considerably lower, particularly overhead, than would be expected. As it is almost impossible to miss detection of a four-engine aircraft flying overhead at 500 or 4000', if the observer is on the post, these figures have been subjected to considerable scrutiny.

9. There are a number of factors that can contribute to this low capability. Posts reported manned are sometimes left unmanned while observers run errands, go for coffee, or to take care of farm business. The aircraft may not have flown exactly where they were reported and miscellaneous errors in data handling may have occurred.

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Furthermore, all observations on detected aircraft may not have reached the filter centers because telephone lines are not always functioning. Before the October tests little was known of the relative importance of these factors. However, during these tests, spot checks of manning were made by phone calls to the posts during the night. These checks indicated that 50% or more of the posts that had called in and reported themselves manned actually were unattended at the time of the check calls. Some 30 calls were made from the Syracuse Filter Center and some 15 calls from the Albany Center. Because of the relatively small sampling, these figures need more substantiation. However, they indicate strongly that the low detection probability figures resulted primarily from posts being left unmanned. Because of its basic importance, this problem needs considerable study. It had been suspected that some of the posts reported as manned were actually not manned but the high proportion was quite unexpected.

10. These findings do not mean that these figures are to be discarded. The figures represent the detection probabilities of posts reported as manned under actual working conditions. From an over-all operational point of view this information is valuable. However, care must be taken not to speak of the results as the detection capabilities of observers, alert and on post.

E. Length of Plotted Tracks

1. The length of plotted tracks is important because of its bearing upon the success of intercepts attempted on GOC tracks. The results are shown in Table IV. There were 176 tracks plotted during daylight hours. The average length was 34 miles. Western Air Defense

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Force had the longest average length with 45 miles and Eastern Air Defense Force the shortest with 28 miles. (For these computations single plot tracks were considered 4 miles in length.) Caution must be used in comparing defense forces on the basis of these figures because the average length of the strikes was not the same for all defense forces.

2. The longest track plotted during daylight hours was 302 miles in length. It was plotted in the 25th Air Division by the Seattle Filter Center. 100 mile long tracks were not uncommon.

3. At night there were 90 tracks plotted. The average length was 29 miles. The longest was a track of 205 miles plotted in the Central Air Defense Force area.

4. The shortest track for both day and night was 4 miles in length, representing a single plot.

5. When it is remembered that the daylight strike flight pattern actually averaged 208 miles in length, and that the night tracks averaged 166 miles, it is evident that effort must be expended to increase the average length of the plotted tracks. Intercepts cannot be attempted on a routine basis with the expectation of a high degree of success unless the plotted track length can be increased. This situation can be improved as will be shown in the discussion of filtering and of reporting.

F. Filtering Capability

1. It is now logical to ask how many of these short tracks could have been combined to make longer ones. This is a matter of

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correlating individual observations to form tracks. This process is known as filtering.

2. To arrive at a measure of filtering effectiveness the observations were counted on each strike track having more than one observation. This figure was compared with the number of track numbers assigned to the strike. The greater the number of observations per track number the better the filtering.

3. The results are shown in Table V. On an average, for 500' day strikes in Central Air Defense Force, there were 1.6 track numbers assigned to every 4.2 observations. This gave a ratio of 1 track number to 2.6 observations. No figures were available from Western Air Defense Force or Eastern Air Defense Force on the 500' strikes. For daylight strikes flown at 4000', Central Air Defense Force and Eastern Air Defense Force figures showed 2.6 track numbers for every 5.7 observations or a ratio of 1 to 2.2. It was possible to show figures from all three defense forces by combining the 500' and 4000' day strikes. These figures gave 2.6 track numbers for every 6.4 observations or a ratio of 1 to 2.5. Night results were somewhat less favorable than those during the day giving 2.1 track numbers to 4.6 observations or a ratio of 1 track number to every 2.2 observations. Combining the figures for all day and night strikes there was an over-all ratio of 1 track number assigned to about every 2 to 3 observations.

4. These figures indicate a definite weakness in filtering ability and a need for greatly increased stress on this function. In

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that there were about 6 observations and 2.5 track numbers per strike track, it is apparent that tying the tracks together and closing the gaps between them should at least triple the length of the plotted track. It should be possible to raise the present average of 34 miles to better than 100 miles. This can be done by increased emphasis on training in filtering procedures, particularly under conditions of maximum traffic loads, and by the country-wide adoption of successful filtering techniques and devices. Particular attention should be given to holding pips on the plotting board longer than the present 6 minute period indicated by AFM 50-13 before fading them. If the pip is kept on the board there is a reasonable chance that it can be used even though the board becomes crowded; if the pip is removed there is no chance that it will be used. Because of the present weakness in filtering it is believed that the chance of confusing the board should be taken.

5. However, weakness in filtering does not stem wholly from inadequacies within the filter centers. It results also from incorrect reports from observers as will be pointed out later. Emphasis must also be placed upon improving the accuracy of these reports. Suggestions for this improvement are given in the section on accuracy of observer reports.

G. Coefficient of Tracking

1. The average length of plotted tracks has been shown but, because of filtering difficulties, there often was more than one plotted track per track flown. Therefore, it was desirable to add all parts of each track as plotted to obtain the percent of each strike track seen by the GOC.

2. Specifically, this figure was obtained by adding the length of all plotted tracks and all single observations on each strike.

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Again single observations were assumed to be 4 miles long. The total length of the plotted track was then compared with the length of the actual strike track. The percentage of the length of the actual strike track that was successfully plotted was designated as the coefficient of tracking. For example, a strike track was 100 miles in length. Two tracks 25 miles long were plotted in the filter center and a single observation was made that was not part of either of the two plotted tracks. Thus a total of 54 miles was plotted by the GOC. The coefficient of tracking was .54.

3. Results of coefficient of tracking are shown in Table V.I. For the daylight 500' strikes in Central Air Defense Force the average coefficient was .18. Figures for the other two defense forces were not available for 500' strikes. On daylight strikes at 4000' in Central and Eastern Air Defense Forces, the average coefficient was .39. When all day strikes for all three defense forces were combined, the coefficient was .33. The coefficient for all night strikes was .22.

#### H. Accuracy of Observer Reports

1. Accuracy of reporting is essential to efficient filtering. Furthermore, the most probable hostile threat is one of four-engine aircraft, therefore correct reporting of the number of engines can be of considerable aid to aircraft identification. The capability of visual identification of all single and bi-motor aircraft without the necessity of flight plan matching is one of the greatest undeveloped potentials the GOC now possesses. These aircraft can be eliminated as a threat automatically. The effectiveness of this potential, not

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possessed by radar, depends upon the accuracy of observer reports.

Table VII shows the results of testing the accuracy of this reporting

2. Figures on the accuracy of reports of number of engines were compiled from Central and Western Air Defense Force data. Only 5% of the 271 reports were in error. Data were taken from all three defense forces on errors in reporting altitude. Analysis showed that 40% of the reports made during daylight were not correct, that is, 500' flights were not reported as very low and 4000' flights were not reported as low. Finally, 17% of the daylight reports on aircraft course from all three defense forces were in error by more than plus or minus 25 degrees. These errors undoubtedly account for some of the difficulties being encountered in filtering.

3. The errors on number of engines were lower than on any test previously published. Thus these results were very encouraging; however, the average error of 5% should be reduced to give the greatest possible accuracy in identification. Improvement can be achieved at least in part by supplying observers with field glasses as presently planned, and by stressing the importance of accurate observation. It should be noted that it is better to make an "unknown" report on number of engines when in doubt than to make an incorrect report; it may be possible to identify an unknown report by flight plan matching. This is much to be preferred to the acceptance of an incorrect report on a multi-engine aircraft. Furthermore, an unknown report is less confusing to the filterer than an incorrect report.

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4. It is probable that errors on course reports can be reduced by improving and emphasizing training procedures and possibly by the use of mechanical devices to aid in course determination.

5. The reduction of errors on reports of altitude presents a much more difficult problem. It is not a simple matter, even for an experienced observer, to judge altitude correctly. Furthermore, an aircraft flying over hilly or mountainous terrain at a constant altitude measured from sea level may be low over one post, high over the next, and very low over a third. While reports on such flights cannot be classed as erroneous they appear to be in error and they can be extremely confusing to the filterer. (The strike aircraft were instructed to fly insofar as possible at a constant altitude over terrain, thus these apparent errors should be at a minimum in the test data.)

6. Over terrain of high relief the altitude of the observer posts should be taken into consideration in filtering, a complexity that may not be practical in an already complex job; or the importance of reports on altitude should be minimized in the filtering procedure. Perhaps over mountainous terrain only two reports should be used on altitude; low and very high. The procedure for minimizing importance of altitude in mountainous areas appears preferable but the problem should be put to field test. In any event training should be emphasized to improve the accuracy of altitude reporting.

I. Density of Manning

1. The density of manned observer posts along the routes of

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the strike flights was measured at the time the strikes passed through. A strip 10 miles on either side of the actual route of flight was marked off and the number of posts reported as manned in this area was counted. This figure was then reduced to the number of posts manned per 1000 square miles.

2. Several things should be kept in mind concerning these figures. First, they are not averages for the whole defense force (or filter center) areas but only for the areas along the routes of flight. Although an effort was made to route the strikes through both lightly and heavily manned regions, this could not always be done. Second, the figures represent posts that were reported as manned. All posts were instructed to call into the filter center when going on duty and again when going off duty. Records were kept of these calls, and of the normal aircraft flash reports, to determine the manned status. As discussed in the section on detection capability, spot checks indicated that all posts reported as manned were actually not manned. Thus it appears that the following figures on manning are high and probably should be degraded somewhat, perhaps by 25%, to give a true picture.

3. The results are reported in Table VIII. Eastern Air Defense Force had the highest density, reporting 7.1 posts per 1000 square miles. Western Air Defense Force was second with 4.3 and Central Air Defense Force had the least with 3.5. The over-all figure was 4.4. At night the density was less, running 5.9 for Eastern, 3.9 for Western and 2.5 for Central Air Defense Force. The over-all night figure was 3.6. As a reference point, a spacing of posts 8 miles apart gives the AirDefense Command goal of 16 posts per 1000 square miles.

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J. Hourly Manning of Posts

1. The next phase of the test concerned the percent of the organized posts that were reported as manned. This study was made over the whole of the test areas (except in the Minneapolis area where the manning was sampled) and was made on an hourly basis. The figures on manning were collected in the same manner as those on the study of density of manning, that is, by recording the phone calls when the observers went on and came off duty and by recording the regular aircraft flash calls. These figures also are probably higher than the actual.

2. Table IX shows that from one to five o'clock in the morning approximately 30% of the organized posts were reported as manned. This figure increased steadily to about 50% at eight o'clock and remained about 50% until five o'clock in the afternoon. After five the reported manning decreased gradually to about 35% at midnight.

3. These results indicate that density of manned posts can be increased appreciably by fully manning those already organized.

K. Optimum Density of Manned Posts for Maximum Tracking Capability

1. It was hoped that an optimum density of manned posts could be determined from the Sky Scan figures. On the basis of limited data and theoretical considerations it was believed that the greater the density of manning the greater would be the ability to track aircraft at least up to a certain point after which no gains and perhaps a loss would be noted. Thus the data on density of manning were correlated with the data on coefficients of tracking. It was found generally that densities of one or two manned posts per 1000 square miles gave very

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little tracking capability and that higher densities gave an increased capability. However, the correlations were not significant because other factors varied more than had been expected. These factors cause an overriding effect on the correlations. For example, the quality of the filtering as well as the density of manning affected the tracking coefficients and the quality of filtering varied considerably. In addition, densities of manning greater than 7 posts per 1000 square miles were not encountered in any test area in the country. Densities greater than this appear to be necessary to set an optimum density figure. (The present optimum set by ADC is 16.) Therefore, the data from this test were insufficient to determine reliable figures on optimum density of manned posts for maximum tracking capability. There is no indication that optimum density has yet been reached.

L. Intercept Capability

1. The next phase of the test was designed to determine intercept capability on GOC tracks alone and upon GOC tracks used in combination with radar tracks. Certain air divisions have been scrambling on radar tracks using GOC information for early warning, as in the case of flights entering the 28th Air Division from the north, but, prior to this test, few scrambles had been made in the U.S. on GOC tracks alone. Therefore, the results of these attempts were of considerable interest. With the exception of the Buffalo Filter Center, intercepts were attempted only in those filter center areas within ADIZs, that is, only in those areas possessing identification capability.

2. Table X shows the results. In Western Air Defense Force 12 intercepts were attempted, 8 on GOC tracks alone and 4 on radar

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tracks in combination with GOC information. 8 of these 12 were successful. 4 of the 8 were on GOC tracks alone and the other 4 on GOC plus radar tracks.

3. In Central Air Defense Force 11 were attempted, 6 on GOC tracks alone and 5 on a combination of GOC and radar tracks. 3 of the 11 were successful. All three were on GOC plus radar tracks.

4. In Eastern Air Defense Force information was not available on the number attempted; however, Eastern did report 11 successful intercepts, 2 on GOC tracks alone and 9 on GOC in combination with radar information.

5. Consolidating the three defense forces there were 22 successful intercepts, 6 on GOC tracks alone and 16 on a combination of GOC and radar tracks. All were made during daylight hours in essentially clear weather.

6. These results indicate two conclusions. First, intercepts can be made successfully during daylight on GOC tracks used in combination with radar tracks. This situation is usually one in which GOC tracks are used as early warning beyond radar cover. The actual intercepts are made while the track is being carried on the radar scopes. There is no reason why the employment of GOC tracks in this manner should not be practiced widely and successfully in appropriate areas given adequate display of GOC tracks in the radar stations. Attention should be given immediately to exploiting this capability, primarily through the development of adequate displays for controllers.

7. Second, intercepts on GOC tracks alone can be made in this

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country during daylight hours with our present density of manning. However, because of the short average length of GOC tracks, a low success rate is to be expected.

8. An all-out effort should be made to improve GOC reporting and filtering procedures so that the average track length can be raised to a point where intercept success is reasonably assured. The test proved intercepts can be made; GOC procedures must now be improved to a point where intercepts can be made routine.

M. Unusual Occurrences

1. Finally, the filter centers were asked to list any reports of unusual occurrences recorded during the three months prior to the test. These reports were limited to air activities and excluded reports of robberies, assaults, and fires. A list of pertinent items is given in Appendix C. In addition, a list of unusual occurrences covering the last few years is included from Western Air Defense Force.

2. These reports show an ancillary value of the GOC, particularly as an aid in air search and rescue. There also is a potential wartime value in the reporting of the landing of enemy parachutists.

IV. CONCLUSIONS

1. The test showed that the GOC as presently manned under alerted conditions has the definite capability of detecting low flying strikes.

2. The detection capability of individual posts reported as manned was lower for overhead strikes than anticipated (60%). Spot checks indicated that this situation resulted at least in part from organized posts reported as manned actually being unmanned.

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3. The average length of strike tracks plotted in the filter center was 34 miles. The actual strikes averaged about 200 miles in length. The relatively low average length of plotted tracks resulted from weaknesses in filtering operations which in turn resulted in part from errors in observer reports. Track length must be increased before a high intercept success rate on GOC tracks can be expected. It should be possible to increase the average track length to perhaps 100 miles with present manning through improved filtering operations.

4. The density of manned observer posts along the routes of flights averaged about 4 posts per 1000 square miles with 7 reported by Eastern Air Defense Force as the highest. As stated in the second conclusion, the actual manning was somewhat less than these figures indicate by an amount not determined in the tests. Density of manned posts was not sufficiently high in any part of the test areas to determine the optimum density of manned posts for maximum tracking capability. There is no indication that optimum densities have been reached.

5. The percent of organized posts reported as manned throughout the filter center areas averaged about 50% during daylight hours and gradually decreased to about 30% in the early hours of the morning. Again the actual manning was probably somewhat less than shown by these figures. These figures indicate that density of manned posts can be increased appreciably by manning fully those already organized.

6. The high percent of correct reports on number of engines indicated that the GOC has a valuable identification potential not possessed by radar. Single and bi-motored propeller driven aircraft, not considered as constituting a threat, can be identified visually

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without recourse to flight plan matching.

7. The number of errors in reporting course and altitude are higher than is desirable. These errors undoubtedly contribute to the difficulties encountered in filtering.

8. It is quite feasible to run intercepts on GOC tracks in combination with radar tracks.

9. It is possible to run intercepts on GOC tracks at present without aid from radar plots. However, the expected success rate cannot be high until the average length of plotted tracks is increased.

10. Unusual occurrences reported by the GOC particularly those of aircraft in distress and of aircraft crashes, are of value to the Air Force.

V. RECOMMENDATIONS

It is recommended that:

1. GOC operation be encouraged and fully supported.
2. Stress be placed to increase the percentage of time organized posts are manned in Skywatch areas. In this respect, studies be made of the actual manning of organized posts reported as manned. If the findings substantiate the tentative results, i.e., that an appreciable number of posts reported as manned are not actually manned, steps be taken to correct this deficiency.
3. Increased emphasis be placed upon the improvement of filtering operations through more intensive training, particularly under conditions of heavy traffic; through the development of mechanical aids; and through the standardization of proven filtering techniques.

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4. Stress be placed upon improving the accuracy of reports from observers because of the importance of accurate reporting to aircraft identification and to filtering operations.

5. Full utilization be made of the GOC capability to identify aircraft by visual observation of the number of engines.

6. Use of GOC tracks in conjunction with radar tracks for purposes of intercept be encouraged, primarily through development of means of display of GOC tracks in the radar sited.

Richard H. Jordan, Operations Analyst

Philip S. Ball, Jr., Chief, Operations Analysis

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GOC MONTHLY SUMMATION

This Monthly Summation is designed to present:

- (A) Progress toward objectives
- (B) A Review of Accomplishments
- (C) Significant Trends

DEFINITION OF TERMS USED

REQUIRED OBSERVATION POST

Required observation posts reflects the total potential of observation posts that can be established.

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An observation post is considered organized when a fixed location for observing has been established, communications facilities are available and cleared for use, and sufficient personnel have been recruited with which to operate the post. Sufficient personnel is interpreted as enough to successfully operate the observation post on a minimal basis. Observation posts in the Skywatch area need not be operational to be considered organized.

PART TIME

Observation posts operating less than 24-hour basis

FULL TIME

Observation posts operating continuously on a 24-hour basis

OPERATIONAL, MANNED OR PARTICIPATING OBSERVATION POSTS

An observation post is considered operational manned or participating when an observer is available at the observation post for transmission of live messages to the filter center.

OPERATIONAL CAPABILITY

Operational capability reflects the average number of observation posts participating during 4 six hour periods each day as compared to the number of observation posts.

MONTHLY SUMMATION  
4673d GROUND OBSERVER SQUADRON  
32d AIR DIVISION (DEFENSE)  
Syracuse, New York  
July, 1954

COMMANDER, 4673d Ground Observer Squadron..... Lt Colonel F. E. YORK, Syracuse AFS, Syracuse, N. Y.  
Operations Officer, 4673d Ground Observer Squadron.. Capt. D. V. BOUCK, Syracuse AFS, Syracuse, N. Y.

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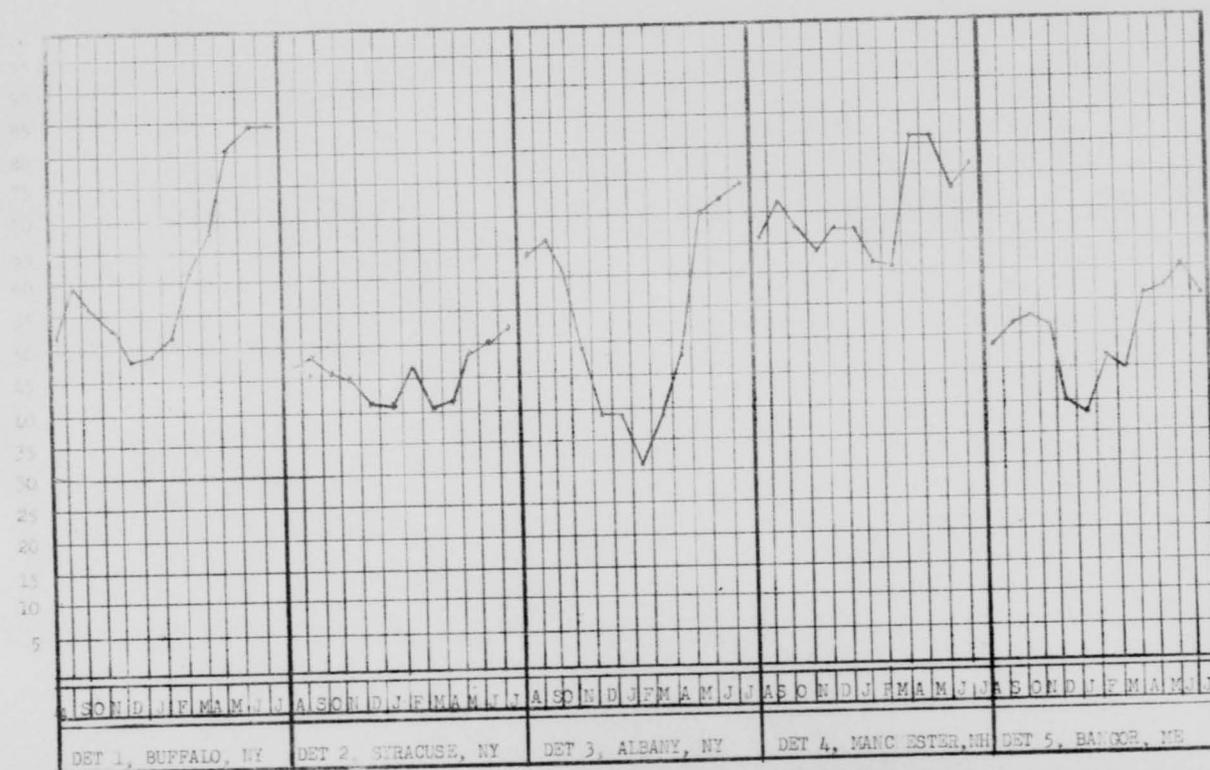
DISTRIBUTION

Commander, EADF.....4 ea	Adjutant, 32d AD(D).....1 ea	GOS State Coord's.....2 ea
Commander, 32d AD(D).....1 ea	Dep Operations, 32d AD(D).....1 ea	Det Commanders.....2 ea
Dep Commander, 32d AD(D).....1 ea	Historical Section, 32d AD(D).....5 ea	Squadron.....2 ea
	Comptroller, 32d AD(D).....3 ea	IG Section.....1 ea

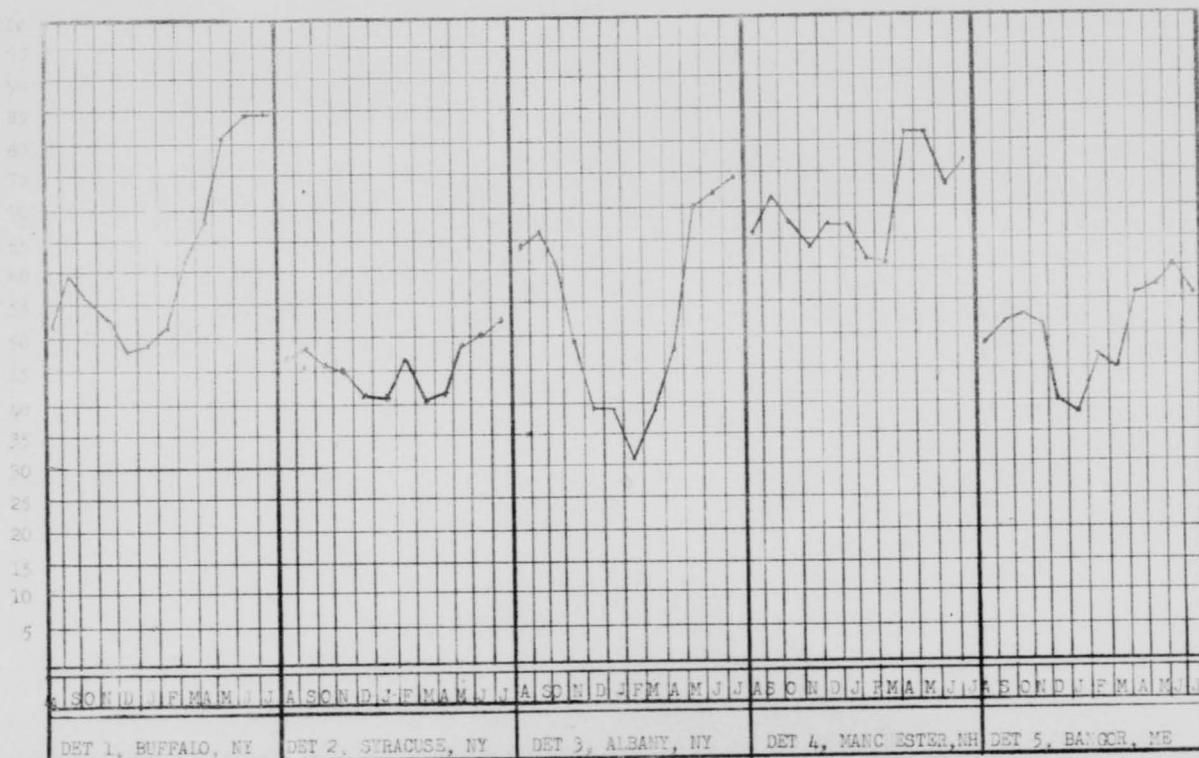
OBSERVATION POST STATUS  
AS OF JULY 1954

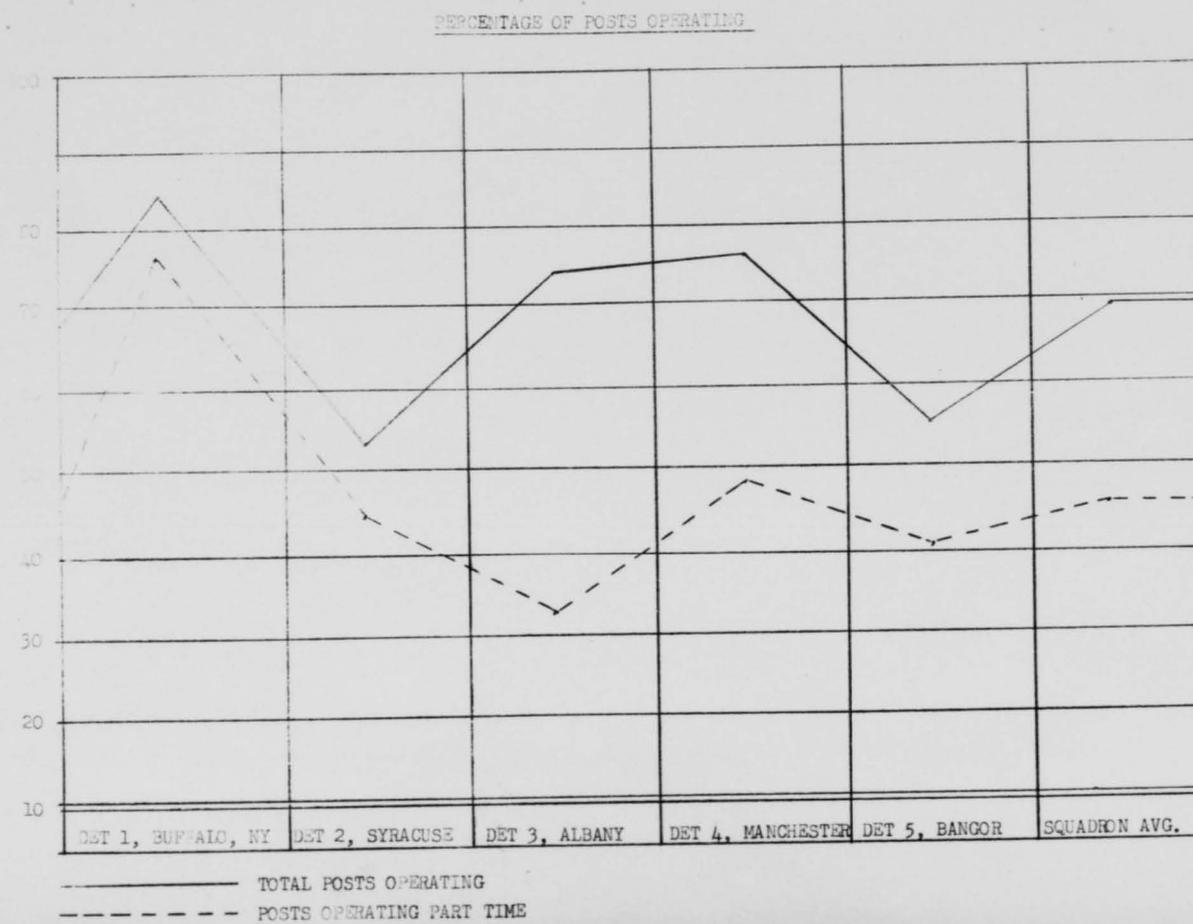
		CIVILIAN POSTS				NON-CIVILIAN POSTS				TOTAL POSTS				PERCENTAGE OF TOTAL RECEIVED			
		No. Required	No. Organized	NUMBER ACTIVE		No. Required	No. Organized	NUMBER ACTIVE		NO. REQUIRED	NO. ORGANIZED	NUMBER ACTIVE		% OF POSTS INACTIVE	% OF POSTS OPERATING	TOTAL POSTS OPERATING	
				PART TIME	FULL TIME			PART TIME	FULL TIME			PART TIME	FULL TIME				
STATE	NEW YORK	108	369	229	36	90	90	14	76	498	459	243	114	28	49	23	72
	VERMONT	100	76	55	9	39	37	4	35	139	115	59	45	21	43	24	73
	MAINE	223	194	95	13	79	68	19	29	282	251	114	66	34	40	15	56
	MASS.	96	94	55	1	20	20	0	20	115	114	55	21	34	48	18	66
	N. H.	92	80	72	8	49	49	0	49	143	135	72	57	9	51	40	91
	R. I.	2	2	1	0	0	0	0	0	2	2	1	0	50	50	0	50
SQ TOTAL		921	821	507	67	257	257	37	209	1178	1078	544	276	31	46	23	69
DETACHMENT	BUFFALO	124	124	101	3	9	9	3	6	133	133	104	9	16	77	7	84
	SYRACUSE	148	135	64	8	15	15	10	5	163	150	74	13	47	45	8	53
	ALBANY	177	138	81	29	82	82	5	77	259	220	86	106	26	33	41	74
	MANCHESTER	280	258	179	16	95	95	0	95	375	353	179	111	23	48	29	77
	BANGOR	102	166	82	11	56	56	19	26	248	222	101	37	44	41	15	56

PERCENTAGE OF OBSERVATION  
POSTS OPERATING  
FOR ONE YEAR



PERCENTAGE OF OBSERVATION  
POSTS OPERATING  
FOR ONE YEAR





OPERATIONAL DATA

FILTER CENTER	FLASH CALLS			COST			TRACKS ESTABLISHED		
	JUN	JUL	INC OR DECR	JUN	JUL	INCR OR DECR	JUN	JUL	INCR OR DECR
DETACHMENT 1	22,778	26,975	✓ 4,197	.41	.38	-- .03	1,092	2,013	✓ 921
DETACHMENT 2	8,649	9,737	✓ 1,058	.41	.40	-- .01	210	749	✓ 539
DETACHMENT 3	13,338	16,986	✓ 3,648	.39	.41	✓ .02	947	1,219	✓ 272
DETACHMENT 4	27,177	31,000	✓ 3,827	.41	.43	✓ .02	2,380	2,132	- 248
DETACHMENT 5	11,609	9,206	- 2,403	.51	.56	✓ .05	5,519	5,216	- 303
SQUADRON TOTAL	83,551	93,904	✓ 10,353	.42	.44	✓ .02	10,148	11,329	✓ 1,181

ROAD TEAM ACTIVITIES

FILTER CENTER	ROAD TEAM MAN DAYS		INCREASE OR DECREASE	NUMBER OF PEOPLE BRIEFED		INCREASE OR DECREASE
	JUNE	JULY		JUNE	JULY	
DETACHMENT 1	82	121	✓ 39	1,513	1,049	-464
DETACHMENT 2	87	55	-32	2,732	540	-2192
DETACHMENT 3	93	71	-22	1,399	719	- 680
DETACHMENT 4	79	72	- 7	8,062	1,071	-6991
DETACHMENT 5	76	72	- 4	1,261	1,401	✓ 140
SQUADRON TOTAL	417	381	-26	14,967	4,780	-10,187

STATUS OF GOVERNMENT PAID TELEPHONES

FILTER CENTER	JUNE			JULY			STATE	JUNE			JULY		
	OP'S REQD	134 SUB	PHONES INST	OP'S REQD	134 SUB	PHONES INST		OP'S REQD	134 SUB	PHONE INST	OP'S REQD	134 SUB	PHONES INST
DETACHMENT 1	124	99	98	124	99	98	NEW YORK	408	274	268	408	278	271
DETACHMENT 2	148	94	93	148	95	93	VERMONT	100	55	46	100	55	48
DETACHMENT 3	177	103	96	177	105	101	MAINE	226	98	92	223	99	94
DETACHMENT 4	282	211	174	280	211	174	MASSACHUSETTS	97	88	75	96	88	75
DETACHMENT 5	192	75	71	192	76	73	NEW HAMPSHIRE	90	65	49	92	65	49
TOTAL	923	582	532	921	586	539	RHODE ISLAND	2	2	2	2	0	2

PERSONNEL

FILTER CENTER	OFFICERS		AIRMEN		TOTAL		LOSSES NEXT 60 DAYS	
	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	OFFICERS	AIRMEN
DET 1 BUFFALO, NEW YORK	4	3	13	12	17	15	0	3
DET 2 SYRACUSE, NEW YORK	5	4	15	14	20	18	1	1
DET 3 ALBANY, NEW YORK	5	4	18	13	23	17	0	0
DET 4 MANCHESTER, N. H.	7	2	28	17	35	19	0	1
DET 5 BANGOR, MAINE	5	2	18	10	23	12	0	0
SQ HQ SYRACUSE, NEW YORK	3	2	6	2	9	4	0	0

MONTHLY  
SUMMATION

AUG 1954

4673rd



153  
GROUND OBSERVER SQUADRON

1586

GOC MONTHLY SUMMATION

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- (A) A Review of Accomplishments
- (B) Progress toward objectives
- (C) Significant Trends

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FULL TIME

Observation posts operating continuously on a 24-hour basis.

PART TIME

Observation posts operating less than 24-hour basis.

OPERATIONAL, MANNED OR PARTICIPATING OBSERVATION POSTS

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OPERATIONAL CAPABILITY

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4673D GROUND OBSERVER SQUADRON  
32D AIR DIVISION (DEFENSE)  
Syracuse, New York  
August 1954

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Operations Officer, 4673d Ground Observer Squadron, Capt D. V. BOUCK, Syracuse AFS, Syracuse, N. Y.

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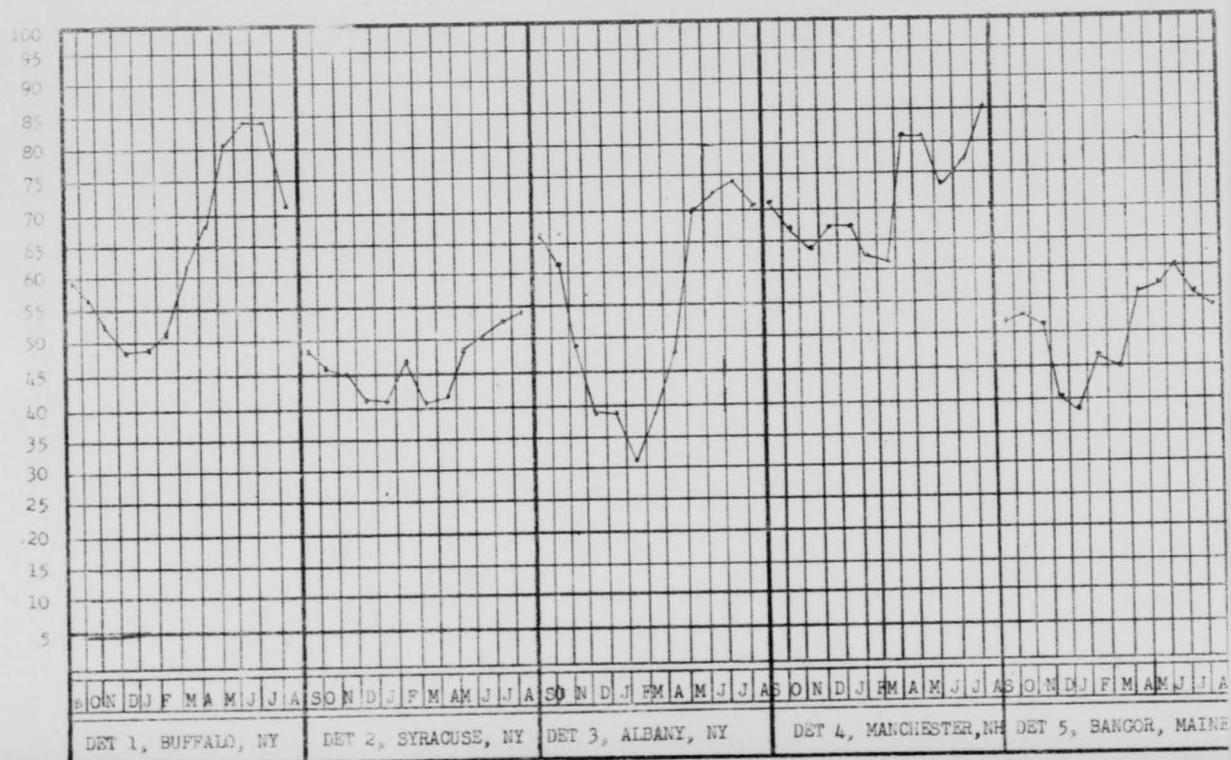
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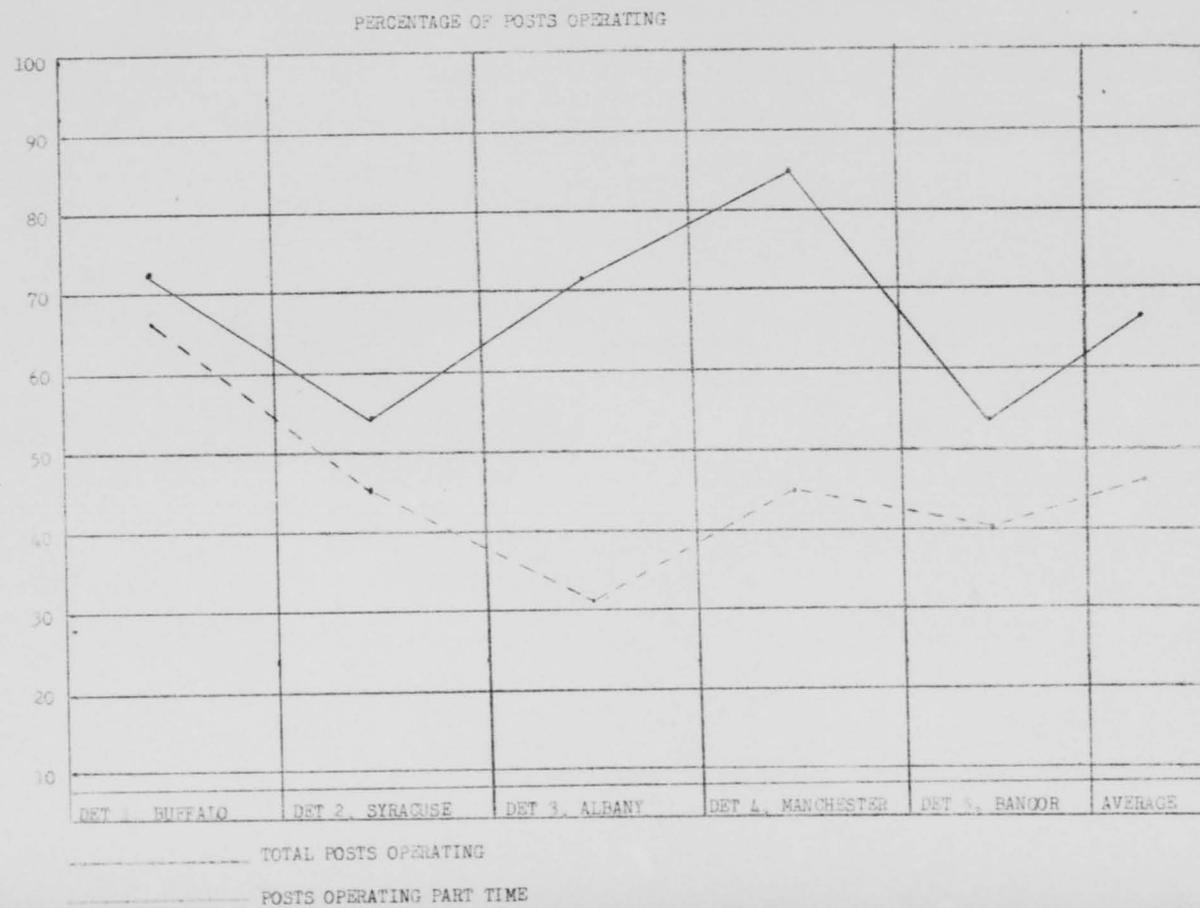
Commander, EADF.....4	Adjutant, 32d AD(D).....1	GOS State Coord's.....2 ea
Commander, 32d AD(D).....1	Dep Operations, 32d AD(D).....1	Det Commanders.....2 ea
Dep Commander, 32d AD(D).....1	Historical Section, 32d AD(D).....5	Squadron.....2
	Comptroller, 32d AD(D).....3	IG Section.....1

OBSERVATION POSTS STATUS  
AS OF AUG 1954

	CIVILIAN POSTS				NON CIVILIAN POSTS				TOTAL POSTS				PERCENTAGE OF TOTAL REQUIRED				
	NO. Requir- ed	NO. Organ- ized	NUMBER ACTIVE		NO. Requir- ed	NO. Organ- ized	NUMBER ACTIVE		No. Requir- ed	No. Organ- ized	NUMBER ACTIVE		% OF POSTS INACT- IVE	% OF POSTS OPER- ATING	TOTAL % POSTS OPER- ATING		
			PART TIME	FULL TIME			PART TIME	FULL TIME			PART TIME	FULL TIME			PART TIME	FULL TIME	
S	NEW YORK	97	348	214	33	91	30	14	76	198	458	224	109	33	67	22	67
T	VERMONT	91	77	55	11	32	17	4	33	139	114	59	44	26	42	32	74
A	MAINE	227	196	93	13	60	39	20	29	287	265	113	43	66	39	13	54
T	MASS	49	79	45	2	20	20	0	20	119	99	46	32	62	37	38	47
E	N. H.	92	66	74	8	48	48	0	48	140	134	72	56	9	51	40	91
	R. I.	2	2	1	0	0	0	0	0	2	2	1	0	50	50	0	50
SQ TOTAL		928	808	478	67	257	254	38	206	1185	1062	516	273	33	64	23	67
D	BUFFALO	124	124	86	1	9	9	3	6	133	133	89	7	28	67	4	72
E	SYRACUSE	148	135	65	8	15	15	10	5	163	150	75	13	46	46	8	54
T	ALBANY	177	137	76	29	82	80	5	75	259	217	81	104	29	31	40	71
A	MANCHESTER	385	242	172	19	94	94	0	94	379	336	172	113	15	45	30	85
H	BANKOY	194	170	79	10	57	56	20	26	251	226	99	36	46	40	14	54
M																	
E																	
N																	
T																	
S																	

PERCENTAGE OF OBSERVATION  
POSTS OPERATING  
FOR ONE YEAR





OPERATIONAL DATA

FILTER CENTER	FLASH CALLS			COST			TRACKS ESTABLISHED		
	JUL	AUG	INC OR DECR	JUL	AUG	INC OR DECR	JUL	AUG	INC OR DECR
DETACHMENT 1	26,975	19,661	-7,314	.38	.40	/.02	2,013	581	-1,432
DETACHMENT 2	9,737	8,911	-826	.40	.40	.00	749	396	-353
DETACHMENT 3	16,986	16,568	-418	.41	.40	-.01	1,219	1,215	-4
DETACHMENT 4	31,000	37,643	+6,643	.43	.43	.00	2,132	1,639	-493
DETACHMENT 5	9,206	11,767	+2,561	.56	.51	-.05	5,216	4,782	-434
SQUADRON TOTAL	93,904	94,550	+646	.44	.43	-.01	11,329	8,613	-2,716

ROAD TEAM ACTIVITIES

FILTER CENTER	ROAD TEAM MAN DAYS		INCREASE OR	NUMBER OF PEOPLE BRIEFED		INCREASE OR
	JUL	AUG	DECREASE	JUL	AUG	DECREASE
DETACHMENT 1	121	83	-38	1,049	1,629	-381
DETACHMENT 2	55	83	+28	540	8,307	+7767
DETACHMENT 3	71	123	+52	719	2,134	+1415
DETACHMENT 4	72	112	+40	1,071	6,791	+5720
DETACHMENT 5	72	83	+11	1,401	1,074	-327
SQUADRON TOTAL	381	484	+103	4,780	19,935	+15,155

STATUS OF GOVERNMENT PAID TELEPHONES

FILTER CENTER	JULY			AUGUST			STATE	JULY			AUGUST		
	OP'S REQD	134 SUB	PHONES INST	OP'S REQD	134 SUB	PHONES INST		OP'S REQD	134 SUB	PHONES INST	OP'S REQD	134 SUB	PHONES INST
DETACHMENT 1	124	99	98	124	2	98	NEW YORK	408	278	271	407	5	273
DETACHMENT 2	148	95	93	148	3	93	VERMONT	100	55	48	101	7	49
DETACHMENT 3	177	105	101	177	1	104	MAINE	223	99	94	227	4	95
DETACHMENT 4	280	211	174	285	39	175	MASSACHUSETTS	96	88	75	99	14	76
DETACHMENT 5	192	76	73	194	1	74	NEW HAMPSHIRE	92	65	49	92	16	49
TOTAL	921	586	539	928	46	544	RHODE ISLAND	2	0	2	2	0	2

PERSONNEL

FILTER CENTER	OFFICERS		AIRMEN		TOTAL		LOSSES NEXT 60 DAYS	
	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	OFFICERS	AIRMEN
DET 1 BUFFALO, NY	4	3	13	10	17	13	0	0
DET 2 SYRACUSE, NY	4	4	13	13	17	17	0	1
DET 3 ALBANY, NY	5	4	18	13	23	17	0	0
DET 4 MANCHESTER, N.H.	7	3	28	18	35	21	0	0
DET 5 BANGOR, ME	5	3	18	10	23	13	0	0
SQ HQ SYRACUSE, NY	3	2	6	2	9	4	0	0

MONTHLY  
SUMMATION

SEP 1954

4673rd



GROUND OBSERVER SQUADRON

1595

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32D AIR DIVISION (DEFENSE)  
Syracuse, New York  
September 1954

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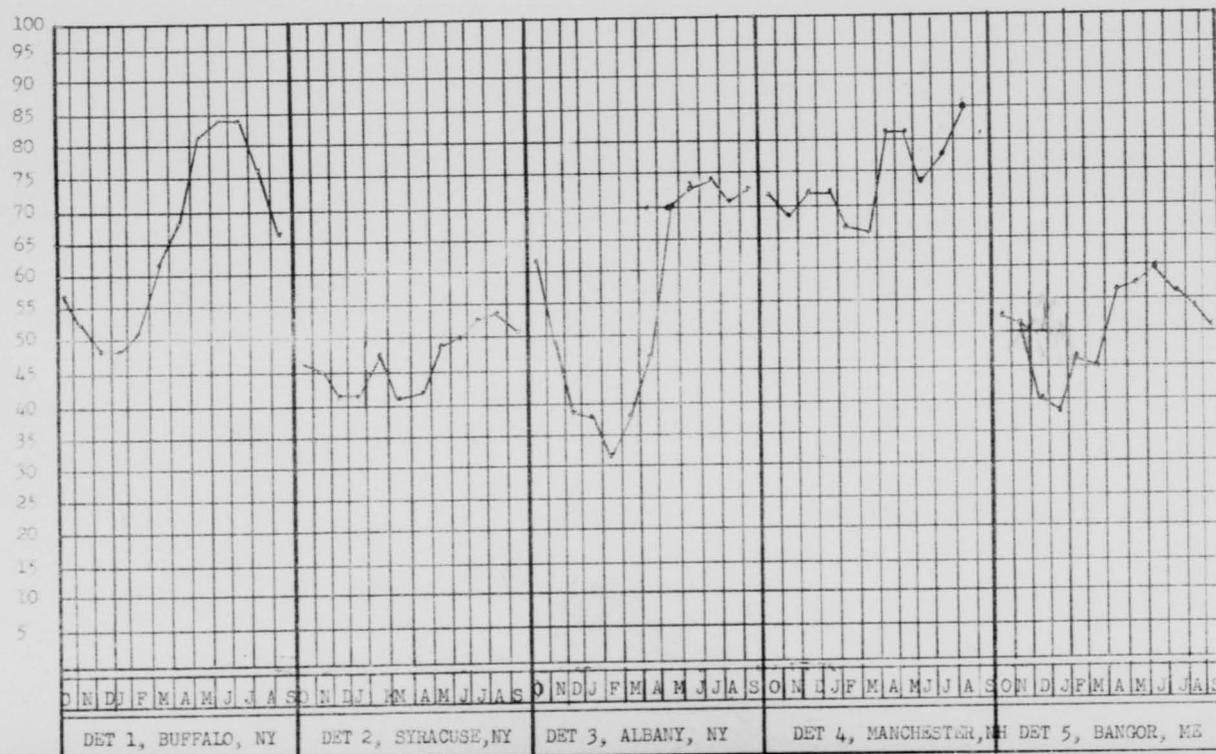
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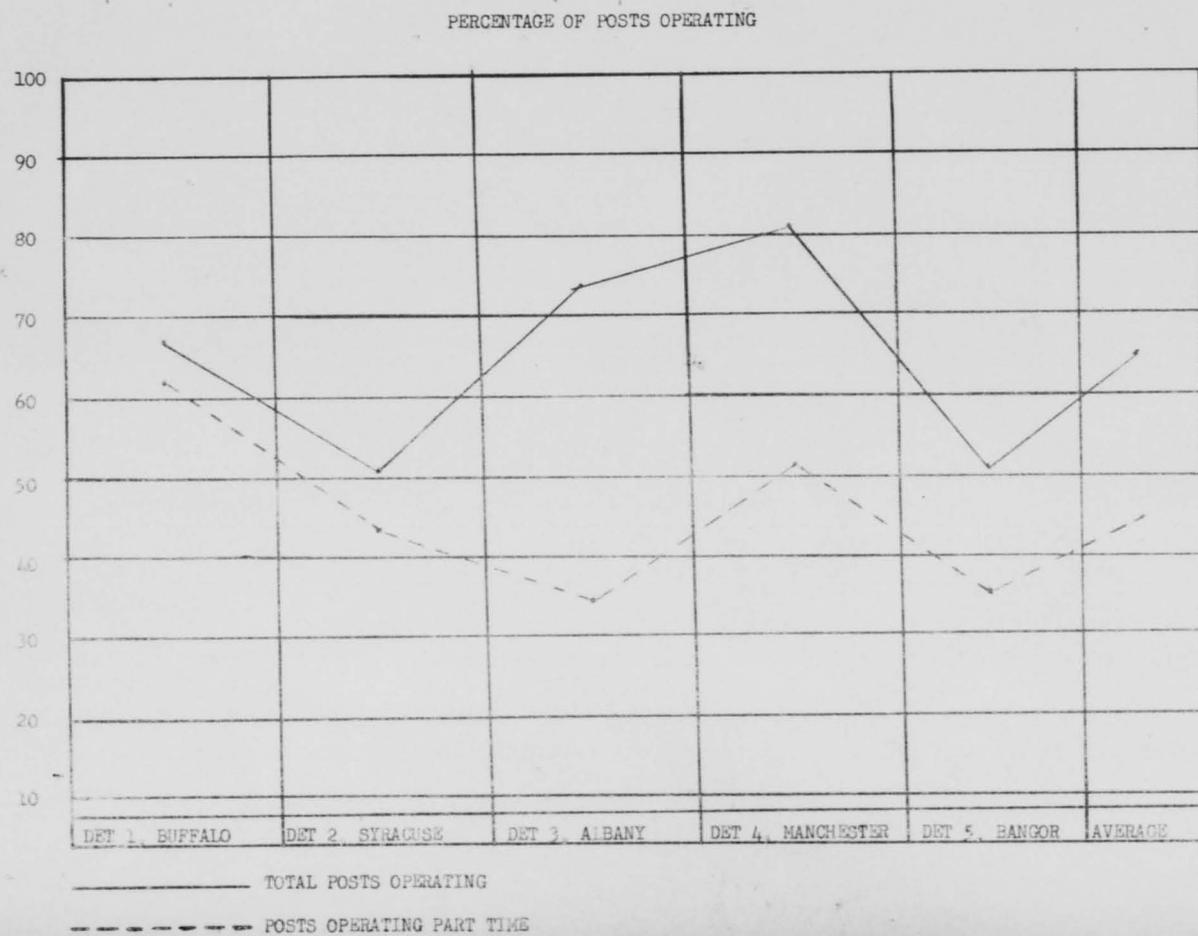
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	Comptroller, 32d AD(D).....3	IG Section.....1

OBSERVATION POSTS STATUS  
AS OF SEP 1954

		CIVILIAN POSTS				NON-CIVILIAN POSTS				TOTAL POSTS				PERCENTAGE OF TOTAL REQUIRED			
		No. Requir- ed	No. Organ- ized	NUMBER ACTIVE		No. Requir- ed	No. Organ- ized	NUMBER ACTIVE		No. Requir- ed	No. Organ- ized	NUMBER ACTIVE		% OF POSTS INACT- IVE	% OF POSTS OPER- ATING	TOTAL % POSTS OPER- ATING	
				PART TIME	FULL TIME			PART TIME	FULL TIME			PART TIME	FULL TIME				
S T A T E	NEW YORK	407	369	206	30	91	90	14	76	498	459	220	106	35	44	21	65
	VERMONT	101	77	57	7	38	38	4	34	139	115	61	41	27	44	29	73
	MAINE	228	198	89	13	66	65	20	32	294	263	109	45	48	37	15	52
	MASS	94	85	65	3	30	20	0	20	114	105	65	23	23	57	20	72
	N. H.	87	85	72	6	48	48	0	48	135	133	72	54	7	53	40	93
	R. I.	2	2	1	0	0	0	0	0	2	2	1	0	50	50	0	50
SQ TOTAL		919	816	490	59	263	261	38	210	1182	1077	528	269	32	45	23	68
D E T A C H M E N T S	BUFFALO	124	124	80	0	9	9	3	6	133	133	83	6	33	62	5	67
	SYRACUSE	148	135	60	8	15	15	10	5	163	150	70	13	49	43	8	51
	ALBANY	177	137	83	26	82	81	5	76	259	218	88	102	27	34	39	73
	MANCHESTER	275	249	191	15	97	97	0	97	372	346	191	112	19	51	30	81
	BANGOR	195	171	76	10	60	59	20	26	255	230	96	36	49	37	14	51

PERCENTAGE OF OBSERVATION  
POSTS OPERATING  
FOR ONE YEAR





1 6 0 0

OPERATIONAL DATA

FILTER CENTER	FLASH CALLS			COST			TRACKS ESTABLISHED		
	AUG	SEP	INC OR DECR	AUG	SEP	INC OR DECR	AUG	SEP	INC OR DECR
DETACHMENT 1	19,661	19,758	/ 97	.40	.34	- .06	581	676	/ 95
DETACHMENT 2	8,911	8,054	- 857	.40	.39	- .01	396	284	- 112
DETACHMENT 3	16,568	16,646	/ 78	.40	.41	/ .01	1,215	1,080	- 135
DETACHMENT 4	37,643	35,705	- 1,938	.43	.41	- .02	1,639	1,431	- 208
DETACHMENT 5	11,767	9,667	- 2,100	.51	.54	/ .03	4,782	3,134	- 1,648
SQUADRON TOTAL	94,550	89,830	- 4,720	.44	.42	- .01	8,613	6,605	- 2,008

ROAD TEAM ACTIVITIES

FILTER CENTER	ROAD TEAM MAN DAYS		INCREASE OR	NUMBER OF PEOPLE BRIEFED		INCREASE OR
	AUG	SEP	DECREASE	AUG	SEP	DECREASE
DETACHMENT 1	83	104	/ 21	1,629	999	- 630
DETACHMENT 2	83	25	- 58	8,307	201	- 8,106
DETACHMENT 3	123	95	- 28	2,134	1,256	- 878
DETACHMENT 4	112	53	- 59	6,791	2,921	- 3,870
DETACHMENT 5	83	70	- 13	1,074	1,213	/ 139
SQUADRON TOTAL	484	347	- 137	19,935	6,590	- 13,345

STATUS OF GOVERNMENT PAID TELEPHONES

FILTER CENTER	AUGUST			SEPTEMBER			STATE	AUGUST			SEPTEMBER		
	OP'S REQD	134 SUB	PHONES INST	OP'S REQD	134 SUB	PHONES INST		OP'S REQD	134 SUB	PHONE INST	OP'S REQD	134 SUB	PHONES INST
DETACHMENT 1	124	2	98	124	4	99	NEW YORK	407	5	273	407	8	273
DETACHMENT 2	148	3	93	148	5	93	VERMONT	101	7	49	101	2	52
DETACHMENT 3	177	1	104	177	2	101	MAINE	227	4	95	228	1	98
DETACHMENT 4	285	39	175	275	6	208	MASACHUSETTS	99	14	76	94	5	85
DETACHMENT 5	194	1	74	195	0	75	NEW HAMPSHIRE	92	16	49	87	1	64
TOTAL	928	46	544	919	13	579	RHODE ISLAND	2	0	2	2	0	2

PERSONNEL

FILTER CENTER	OFFICERS		AIRMEN		TOTAL		LOSSES NEXT 120 DAYS	
	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	OFFICERS	AIRMEN
DET 1 BUFFALO, NY	4	3	13	13	17	16	0	3
DET 2 SYRACUSE, NY	4	3	13	12	17	15	0	4
DET 3 ALBANY, NY	5	4	18	14	23	18	0	2
DET 4 MANCHESTER, NH	7	3	28	20	35	23	0	8
DET 5 BANGOR, ME	5	3	18	12	23	15	0	1
SQ HQ SYRACUSE, NY	3	2	6	1	9	3	0	0
TOTAL	28	18	96	72	124	90	0	18

MONTHLY  
SUMMATION

OCT 1954

4673rd



GROUND OBSERVER SQUADRON

1604

GOC MONTHLY SUMMARY

DEFINITIONS

REQUIRED OBSERVATION POST:

The number of posts required for adequate detection and tracking of low level aircraft.

ORGANIZED OBSERVATION POST:

An observation post is considered organized when a fixed location for observing has been established, communications facilities are available and cleared for use, and sufficient personnel have been recruited with which to operate the post. Sufficient personnel is interpreted as enough to successfully operate the observation post on a minimal basis. Observation Posts in the skywatch area need not be operational to be considered organized.

24-HOUR OBSERVATION POST:

Observation posts operating continuously.

PART TIME OBSERVATION POST:

Observation posts operating less than 24-hours a day.

MONTHLY SUMMARY  
 4673D GROUND OBSERVER SQUADRON  
 32D AIR DIVISION (DEFENSE)  
 Syracuse Air Force Station  
 Syracuse 6, New York

October 1954

COMMANDER, 4673d Ground Observer Squadron.....Lt Colonel F. E. YORK, Syracuse AFS, Syracuse 6, NY  
 Operations Officer, 4673d Ground Observer Squadron...Capt D. V. ROUCK, Syracuse AFS, Syracuse 6, NY

DETACHMENT COMMANDERS

Detachment One, 2500 Main St, Buffalo, NY.....Major H. L. BICKELL  
 Detachment Two, 113 S. Midler Ave, Syracuse, NY.....Captain W. T. REYNOLDS  
 Detachment Three, 268 Central Ave, Albany, NY.....Captain D. P. GIAMBRUNO  
 Detachment Four, 1257 Elm St, Manchester, NH.....Captain L. W. FREDLAKE  
 Detachment Five, Pine St School, Bangor, ME.....Captain R. E. JOHNSON

GROUND OBSERVER CORPS STATE COORDINATORS

DIRECTOR OF CIVIL DEFENSE, 32D AIR DIVISION.....Lt Colonel F. E. YORK, Syracuse AFS, Syracuse 6, NY  
 NEW YORK.....Major R. T. WENDELL, 124 E. 28th St, New York 16, NY  
 VERMONT.....Lt Colonel C. V. CHARBONNEAU, Redstone, Montpelier, VT  
 NEW HAMPSHIRE.....Major M. A. KING, State House, Concord, NH  
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 MASSACHUSETTS.....Major F. C. WOODWARD, 905 Commonwealth Ave, Boston, Mass

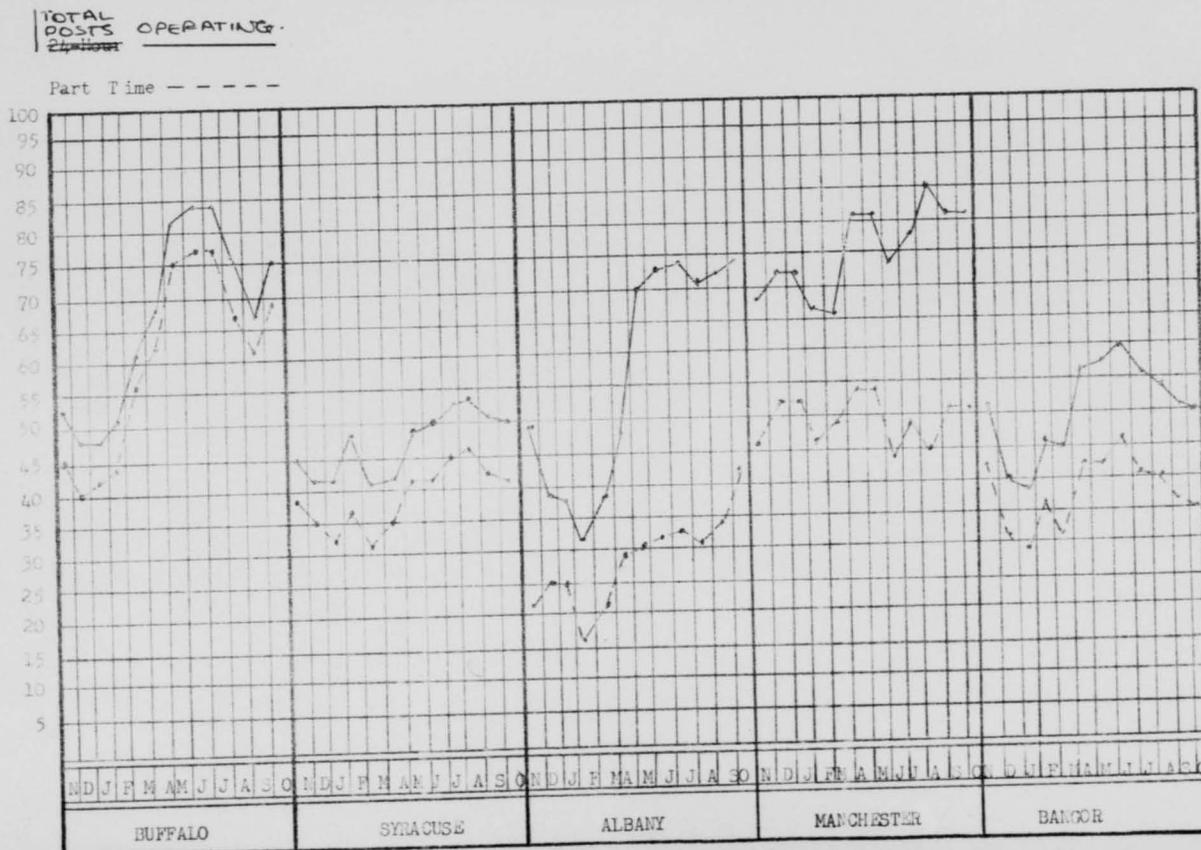
DISTRIBUTION

Commander, EADF.....4	Adjutant, 32d AD(D).....1	GOS State Coord's.....2 ea
Commander, 32d AD(D).....1	Dep Operations, 32d AD(D).....1	Det Commanders.....2 ea
Dep Commander, 32d AD(D).....1	Historical Section, 32d AD(D).....5	Squadron.....2
Comptroller, 32d AD(D).....3	IG Section.....1	

OBSERVATION POSTS STATUS  
AS OF OCT 1954

		CIVILIAN POSTS				NON-CIVILIAN POSTS				TOTAL POSTS				PERCENTAGE OF TOTAL REQUIRED		
		No. Required	No. Organized	NUMBER ACTIVE		No. Required	No. Organized	NUMBER ACTIVE		No. Required	No. Organized	NUMBER ACTIVE		PART TIME	24 HOUR	TOTAL
				PART TIME	24 HOUR			PART TIME	24 HOUR			PART TIME	24 HOUR			
S T A T E	NEW YORK	407	369	229	15	91	87	15	74	498	456	244	89	49	18	67
	VERMONT	100	74	63	4	37	37	4	33	137	111	67	37	49	27	7
	MAINE	229	195	93	12	66	65	13	29	295	260	106	41	36	14	50
	N. H.	87	86	68	7	48	48	0	48	135	134	68	55	50	41	91
	R. I.	2	2	1	0	0	0	0	0	2	2	1	0	50	0	50
	MASS	94	85	66	2	20	20	0	20	114	105	66	22	58	19	77
SQ	TOTAL	919	811	520	40	262	257	32	204	1181	1068	552	244	47	21	68
D E T A C H M E N T S	BUFFALO	124	124	89	2	9	9	2	6	133	133	92	8	69	6	75
	SYRACUSE	148	139	59	8	15	14	9	5	163	153	68	13	42	8	50
	ALBANY	176	136	103	6	82	79	7	74	258	215	110	80	43	31	74
	MANCHESTER	276	239	192	15	96	96	0	95	372	335	192	110	51	30	81
	BANGOR	195	173	77	9	60	59	13	24	255	232	90	33	35	15	50

PERCENTAGE OF REQUIRED OBSERVATION POSTS OPERATING



OPERATIONAL DATA

FILTER CENTER	FLASH CALLS			COST			TRACKS ESTABLISHED		
	SEP	OCT	INC OR DECR	SEP	OCT	INC OR DECR	SEP	OCT	INC OR DECR
DETACHMENT 1	19,758	18,934	-- 824	.34	.33	- .01	676	973	/ 297
DETACHMENT 2	8,054	8,434	/ 380	.39	.38	- .01	284	394	/ 110
DETACHMENT 3	16,646	15,981	-- 665	.41	.40	-- .01	1,080	1,106	/ 26
DETACHMENT 4	35,705	28,954	-- 6,751	.41	.42	/ .01	1,431	2,597	/ 1,166
DETACHMENT 5	9,667	7,118	-- 2,549	.54	.53	- .01	3,134	3,685	/ 551
SQUADRON TOTAL	89,830	79,321	- 10,509	.42	.42	.00	6,605	8,755	/ 2,150

FILTER CENTER	ROAD TEAM MAN DAYS		INCREASE OR DECREASE		NUMBER OF PEOPLE BELIEVED		INCREASE OR DECREASE	
	SEP	OCT	SEP	OCT	SEP	OCT	SEP	OCT
DETACHMENT 1	104	85	-	19	999	1,297	/	298
DETACHMENT 2	25	97	/	72	201	5,849	/	5,648
DETACHMENT 3	95	172	/	77	1,256	2,570	/	1,314
DETACHMENT 4	53	88	/	35	2,921	1,959	--	962
DETACHMENT 5	70	52	-	18	1,213	2,072	/	859
SQUADRON TOTAL	347	494	/	147	6,590	13,747	/	7,157

PERSONNEL

FILTER CENTER	OFFICERS		AIRMEN		TOTAL		LOSSES NEXT 120 DAYS	
	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	OFFICERS	AIRMEN
DET 1 BUFFALO, NY	4	4	13	16	17	20	0	3
DET 2 SYRACUSE, NY	4	3	13	16	17	19	0	4
DET 3 ALBANY, NY	5	5	18	21	23	26	0	2
DET 4 MANCHESTER, NH	7	5	28	32	35	37	0	7
DET 5 BANGOR, ME	5	3	18	20	23	23	0	0
SQ HQ SYRACUSE, NY	3	2	6	1	9	3	0	0
<b>TOTAL</b>	28	22 *	96	106	124	128	0	16

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MONTHLY SUMMARY  
 4673D GROUND OBSERVER SQUADRON  
 32D AIR DIVISION (DEFENSE)  
 Syracuse Air Force Station  
 Syracuse 6, New York

November 1954

COMMANDER, 4673d Ground Observer Squadron.....Major J. A. MOBERLY, Syracuse AFS, Syracuse 6, NY  
 Operations Officer, 4673d Ground Observer Squadron...Capt D. V. BOUC, Syracuse AFS, Syracuse 6, NY

DETACHMENT COMMANDERS

Detachment One, 2500 Main St, Buffalo, NY.....Major H. L. BICKELL  
 Detachment Two, 113 S. Midler Ave, Syracuse, NY.....Captain W. T. REYNOLDS  
 Detachment Three, 268 Central Ave, Albany, NY.....Captain D. P. GIAMBRUNO  
 Detachment Four, 1257 Elm St, Manchester, NH.....Major W. R. CAMPBELL  
 Detachment Five, Pine St School, Bangor, ME.....Captain R. E. JOHNSON

GROUND OBSERVER CORPS STATE COORDINATORS

DIRECTOR OF CIVIL DEFENSE, 32D AIR DIVISION.....Lt Colonel F. E. YORI, Syracuse AFS, Syracuse 6, NY  
 NEW YORK.....Major R. T. WENDELL, 124 E. 28th St, New York 16, NY  
 VERMONT.....Lt Colonel C. V. CHARBONNEAU, Redstone, Montpelier, VT  
 NEW HAMPSHIRE.....Major M. A. KING, State House, Concord, NH  
 MAINE.....Major T. C. SCHIEBEL, State House, Augusta, ME  
 MASSACHUSETTS.....Major F. C. WOODWARD, 905 Commonwealth Ave, Boston, Mass

DISTRIBUTION

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Comptroller, 32d AD(D).....3	IG Section.....1	

GOC MONTHLY SUMMARY

DEFINITIONS

REQUIRED OBSERVATION POST:

The number of posts required for adequate detection and tracking of low level aircraft.

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24-HOUR OBSERVATION POST:

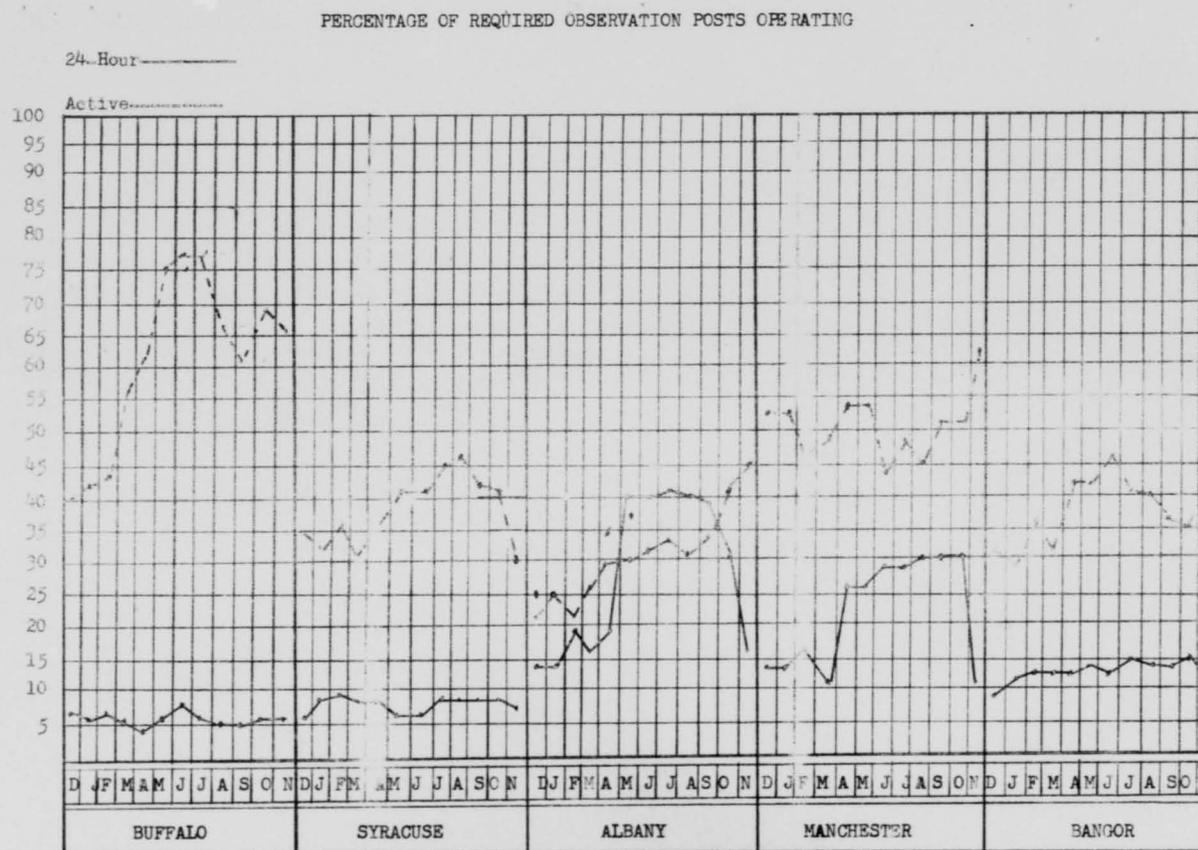
Observation posts operating continuously.

ACTIVE OBSERVATION POST:

Observation posts operating less than 24-hours a day.

STATUS OF GROUND OBSERVER CORPS ORGANIZATION AND OPERATION  
AS OF 1 Dec 54

		TOTAL POSTS				PERCENTAGE OF TOTAL		
		REQ'D	ORGAN	ACTIVE	24-HR	ACTIVE	24-HR	TOTAL
S T A T E	NEW YORK	434	395	204	2	47	08	55
	VERMONT	115	96	66	1	57	14	71
	MAINE	281	251	125	36	44	13	57
	NEW HAMPSHIRE	103	100	84	6	82	06	88
	RHODE ISLAND	2	2	1	0	50	00	50
	MASSACHUSETTS	114	107	61	24	54	21	75
	STATE TOTAL	1049	951	541	110	52	10	62
D E T A C H M E N	BUFFALO	133	131	87	8	65	06	71
	SYRACUSE	153	143	45	10	29	07	36
	ALBANY	199	162	98	25	49	13	62
	MANCHESTER	323	297	203	3	63	11	74
	BANGOR	241	218	108	30	45	12	57
	SQDN TOTAL	1049	951	541	110	52	10	62



OPERATIONAL DATA

FILTER CENTER	FLASH CALLS			COST			TRACKS ESTABLISHED		
	OCT	NOV	INC OR DECR	OCT	NOV	INC OR DECR	OCT	NOV	INC OR DECR
DETACHMENT 1	18,934	15,653	- 3,271	.33	.37	.04	973	751	- 222
DETACHMENT 2	8,434	6,625	- 1,809	.38	.38	.00	394	414	+ 20
DETACHMENT 3	15,981	14,826	- 1,155	.40	.41	.01	1,106	972	- 134
DETACHMENT 4	28,954	27,900	- 1,054	.42	.41	.01	2,597	2,044	- 553
DETACHMENT 5	7,118	9,173	+ 2,055	.53	.50	.03	3,685	3,911	+ 226
SQUADRON TOTAL	79,421	74,187	- 5,234	.42	.41	.01	8,755	8,092	- 663

FILTER CENTER	ROAD TEAM MAN DAYS		INCREASE OR DECREASE	NUMBER OF PEOPLE BRIEFED		INCREASE OR DECREASE
	OCT	NOV		OCT	NOV	
DETACHMENT 1	85	96	+ 11	1,297	676	+ 621
DETACHMENT 2	97	66	- 31	1,849	634	- 1,215
DETACHMENT 3	172	160	- 12	2,570	2,363	- 207
DETACHMENT 4	88	152	+ 64	1,959	1,770	- 189
DETACHMENT 5	52	128	+ 76	1,072	2,045	- 973
SQUADRON TOTAL	494	602	+ 108	13,747	7,488	- 6,259

PERSONNEL

FILTER CENTER	OFFICERS	OFFICERS	AIRMEN	AIRMEN	TOTAL	TOTAL	LOSSES NEXT 120 DAYS	
	AUTH	ASGD	AUTH	ASGD	AUTH	SGD	OFFICERS	AIRMEN
DETACH 1 Buffalo, NY	4	5	13	17	17	22	0	5
DETACH 2 Syracuse, NY	4	3	13	16	17	19	0	4
DETACH 3 Albany, NY	5	5	18	23	23	28	0	3
DETACH 4 MANCHESTER, NH	7	8	28	34	35	42	0	8
DETACH 5 BANGOR, ME	5	5	18	20	23	25	0	1
SQ HQ Syracuse, NY	3	4	6	1	9	5	0	0
TOTAL	28	30	96	111	124	141	0	21

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MONTHLY SUMMARY  
4673D GROUND OBSERVER SQUADRON  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

December 1954

COMMANDER, 4673d Ground Observer Squadron.....Major J. A. MOBERLY, Syracuse AFS, Syracuse 6, NY  
Operations Officer, 4673d Ground Observer Squadron...Capt D. V. HOUCK, Syracuse AFS, Syracuse 6, NY

DETACHMENT COMMANDERS

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Detachment Four, 1257 Elm St, Manchester, NH.....Major W. R. CAMPBELL  
Detachment Five, Pine St School, Bangor, ME.....Captain R. E. JOHNSON

GROUND OBSERVER CORPS STATE COORDINATORS

DIRECTOR OF CIVIL DEFENSE, 32D AIR DIVISION.....Lt Colonel F. E. YORK, Syracuse AFS, Syracuse 6, NY  
NEW YORK.....Major R. T. WENDELL, 124 E. 28th St, New York 16, NY  
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Comptroller, 32d AD(D).....3	IG Section.....1	

GOC MONTHLY SUMMARY

DEFINITIONS

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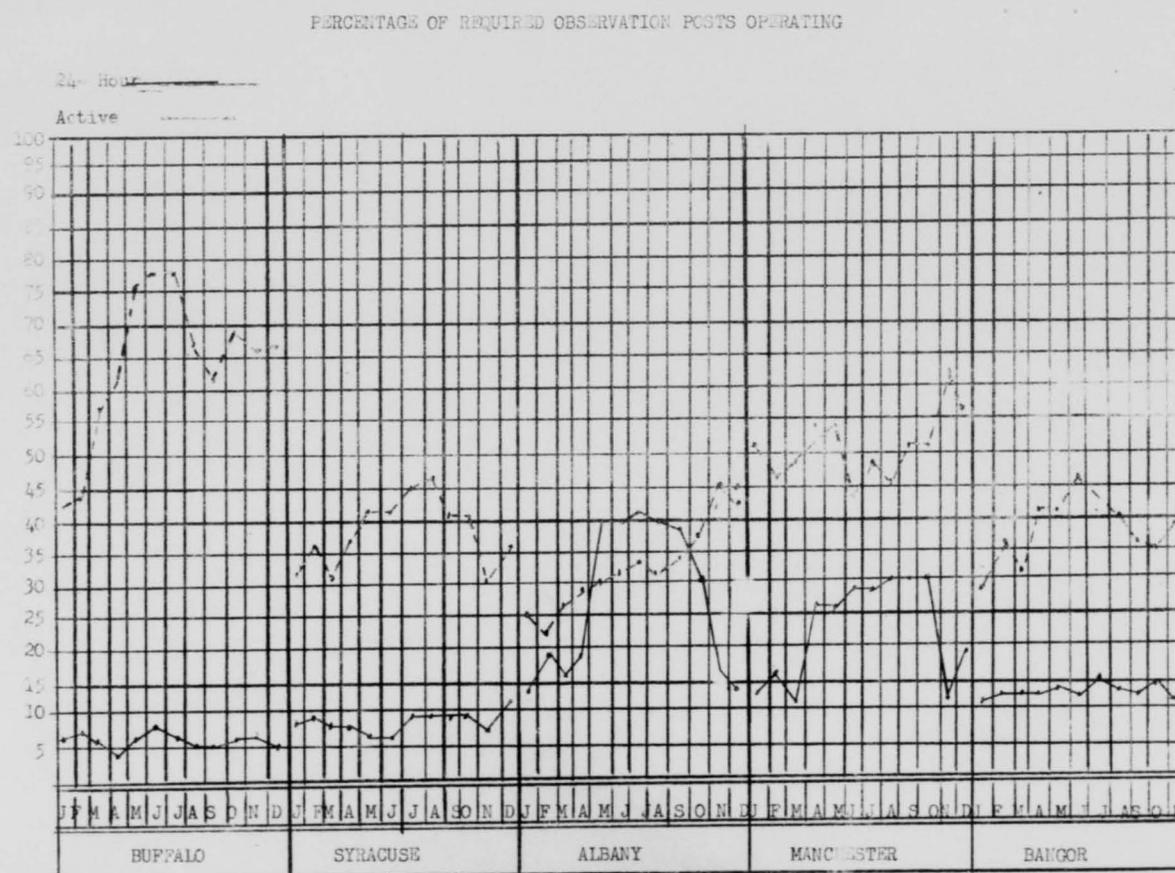
Observation posts operating continuously.

ACTIVE OBSERVATION POST:

Observation posts operating less than 24-hours a day.

STATUS OF GROUND OBSERVER CORPS ORGANIZATION AND OPERATION  
AS OF 1 JAN 55

		TOTAL POSTS				PERCENTAGE OF TOTAL		
		REG'D	ORGAN	ACTIVE	24-HOUR	ACTIVE	24-HR	TOTAL
S T A T E	NEW YORK	432	401	210	44	49	08	57
	VERMONT	115	86	65	16	57	15	72
	MAINE	291	253	125	37	44	17	61
	N.W HAMPSHIRE	103	100	57	21	66	20	86
	RHODE ISLAND	2	2	1	0	50	00	50
	MASSACHUSETTS	114	105	55	25	31	0	32
	STATE TOTAL	1048	957	523	143	50	14	64
D E P T A C H M E N T	SUFFALO	132	129	85	6	67	05	72
	SYRACUSE	152	150	56	19	37	12	49
	ALBANY	199	164	85	28	43	14	57
	MANCHESTER	324	294	182	62	56	19	75
	BANGOR	241	220	110	28	46	12	58
	SQDN TOTAL	1048	957	523	143	50	14	64



OPERATIONAL DATA

FILTER CENTER	FLASH CALLS			COST			TRACKS ESTABLISHED		
	NOV	DEC	INC OR DECR	NOV	DEC	INC OR DECR	NOV	DEC	INC OR DECR
DETACHMENT 1	15,663	11,681	- 3,982	.37	.39	+ .02	751	511	- 238
DETACHMENT 2	6,625	5,589	- 1,036	.38	.37	- .01	414	217	- 197
DETACHMENT 3	14,826	17,680	+ 2,854	.41	.44	+ .03	972	804	- 168
DETACHMENT 4	27,900	21,877	- 6,023	.41	.45	+ .04	2,044	1,896	- 148
DETACHMENT 5	9,171	8,522	- 649	.50	.50	.00	1,911	3,241	+ 680
SQUADRON TOTAL	74,185	65,299	- 8,886	.41	.43	+ .02	6,092	6,669	+ 577

FILTER CENTER	TOTAL TRACKS ESTABLISHED		INCREASE OR DECREASE	NUMBER OF TRACKS ESTABLISHED		INCREASE OR DECREASE
	NOV	DEC		NOV	DEC	
DETACHMENT 1	96	62	- 34	676	470	- 206
DETACHMENT 2	66	36	- 30	634	346	- 288
DETACHMENT 3	160	98	- 62	2,363	900	- 1,463
DETACHMENT 4	152	56	- 96	1,770	962	- 808
DETACHMENT 5	128	82	- 46	2,045	1,039	- 1,006
SQUADRON TOTAL	602	334	- 268	7,488	3,717	- 3,771

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FILTER CENTER	OFFICER	OFFICER	AIRMAN	AIRMAN	TOTAL	TOTAL	DAYS NEXT 120 DAYS	
	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	OFFICER	AIRMAN
DETACH 1 Buffalo, NY	2	5	13	15	17	20	0	1
DETACH 2 Syracuse, NY	4	3	13	11	17	14	0	1
DETACH 3 Albany, NY	5	5	18	25	23	30	0	4
DETACH 4 Manchester, NH	7	4	28	30	35	39	0	3
DETACH 5 Bangor, ME	5	5	18	21	23	26	0	3
OC HQ Syracuse, NY	3	4	6	7	9	5	0	1
TOTAL	28	31	96	103	124	134	0	10

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C O P Y

Subj: 32d AD(D) OPG ORDER 7-55

TO: OCO  
ODO  
OIN  
OCE  
OPR  
CDC  
CIG  
IHS

FROM: OOT/LANG

14 Feb 55

For your information and file.

1 Incl:  
32d Opor 7-55

INGENHUIT/142

16

1 6 2 5

C O P Y

OPERATIONS ORDER  
NUMBER 7-55

Chart and Map References: As required

Task Organizations:

Headquarters 4707th Air Defense Wing  
Headquarters 4711th Air Defense Wing  
Commander: 654th AC&W Squadron  
Commander: 765th AC&W Squadron  
Commander: 763rd AC&W Squadron  
Commander: 755th AC&W Squadron  
Commander: 656th AC&W Squadron  
Commander: 766th AC&W Squadron

Information To:

Commander: Det #5, 4673d Ground Observer Squadron  
Commander: Det #3, 4673d Ground Observer Squadron  
Commander: Det #2, 4673d Ground Observer Squadron  
Commander: Det #1, 4673d Ground Observer Squadron

2 1. General Situation: In support of ADC Operations Plan 10-54, dated 1 December 1954, Ground Observer Corps training exercises will be conducted regularly to provide reporting and identification training to active ground observer posts; and plotting, correlation and cross telling information training to filter centers within 32d Air Division (Defense).

2. Mission: Task organizations of this command will provide a minimum of two (2) jet aircraft to fly each designated route at minimum altitude and constant power settings to provide training as outlined in above situation.

3. Tasks for Subordinate Units:

a. Commander, 4707th Air Defense Wing, Otis Air Force Base.

Falmouth, Massachusetts, will:

C O P Y

OPERATIONS ORDER  
NUMBER 7-55 (Cont'd)

(1) Provide a sufficient number of jet aircraft to insure a minimum of two (2) aircraft over the following routes at 1000E:

(1) IP- Range at Buffalo, New York; Check Points: Bradford, Pennsylvania; Hinsdale, New York; Target: Lancaster, New York; Control 763rd AC&W Squadron; Filter Center: Buffalo, New York.

b. Commander, 4711th Air Defense Wing, will provide a sufficient number of jet aircraft to insure a minimum of two (2) aircraft over the following routes at 1000E:

- (1) IP - Jackson, Maine, Check Point: Madison, Maine; Target: Brunswick, Maine; Control 654th - 765th AC&W Squadron; Filter Center: Bangor, Maine.
- (2) IP - Limestone, Maine; Check Point: Houlton, Maine; Target: Brownville Junction, Maine; Control: 766th - 765th AC&W Squadron; Filter Center: Bangor, Maine.
- (3) IP - Massena, New York; Check Point: None. Target: Albany, New York; Control: 655th - 656th AC&W Squadron; Filter Center: Albany, New York.
- (4) IP - Massena, New York; Check Point: None; Target: Rome, New York; Control 655th AC&W Squadron; Filter Center: Syracuse, New York.

C O P Y

OPERATIONS ORDER  
NUMBER 7-55 (Cont'd)

X. General:

- (1) Routes will be flown 20 February 1955 so as to be over IP at 1000E, weather permitting.
- (2) Time of lead aircraft over IP, check point and target will be passed to AC&W Squadrons listed as control for the route flown and will be confirmed by control reading back to aircrew at all times reported.
- (3) After completing the flight the pilots will make the following report to the appropriate AC&W Squadron with instructions to be forwarded to the filter center operations section:
  - (a) Actual time of take off.
  - (b) Actual number of aircraft in flight.
  - (c) Actual time over IP.
  - (d) Actual time over check points.
  - (e) Ground speed in knots.
  - (f) Average altitude throughout the route.
  - (g) Actual time over target.
- (4) Routes will be flown at an altitude of 2000 feet above highest obstruction to flight.

C O P Y

OPERATIONS ORDER  
NUMBER 7-55 (Cont'd)

- (5) Lead aircraft over each route will maintain constant power setting from IP to target.
- (6) Provisions of Air Force Regulation 60-16, Eastern Air Defense Force Regulation 60-13 and any other pertinent directives will be complied with, weather minimums for mission will be 4000 feet, ceiling 3 miles visibility with 5 miles forward visibility at flight altitude.
- (7) Provisions of Paragraph 8A Eastern Air Defense Force Regulation 60-13, dated 5 December 1953 are waived to allow accomplishment of mission as directed.
- (8) AC&W Squadrons will forward track progress reports on jet flights to filter centers once every five (5) minutes, when and if available.
- (9) Report of completed mission will be submitted from task organizations by teletype message addressed to this headquarters.

4. Administration and Logistics:

- (1) As Normal.

5. Command and Communications:

- (1) As Normal.

DISTRIBUTION:  
OCO OPR  
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ISRAEL  
Colonel

4

C O P Y

February 25, 1954

General Benjamin W. Chidlaw, Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

Dear General Chidlaw:

First, let me express my sincere thanks and appreciation for the courtesies extended to Major Schiebel and myself during our visit at your Base at the time of the Ground Observer Corps conference. Also, your kind message of appreciation to State Grange Master, Maynard C. Dolloff, relative to his organization's participation in the State of Maine program.

The details of augmenting the State Grange forces into the Ground Observer Corps program were completed at a meeting yesterday of the Grange, Air Force personnel from the Bangor and Manchester Filter Centers and my own Staff. The manning of Ground Observer posts in two of the 16 Counties will start immediately. For your information, we are doing this slowly but, we hope, soundly. It will, therefore, take several months before we will be in a position to determine the exact results of this compact.

At yesterday's meeting it was brought very forcibly to my attention that there are two definite weaknesses in the Air Force training procedure. If we are to be successful in utilizing State of Maine Grange personnel, these weaknesses must be corrected. They are, namely, Air Force personnel and vehicles. As to the former, is it possible for you to take some action which will bring both Filter Centers to the strength discussed at Colorado Springs and now officially confirmed in your recent manning table. We urgently need these additional officers and airmen. The detachment commanders at both Bangor and Manchester stated quite emphatically that something must be done to get the rolling equipment assigned to them back in commission. As an example, at Bangor they currently have only one vehicle which is usable. All of the others are in for overhaul or repair. A like situation exists at Manchester.

Apparently, in this case the right hand does not know what the left hand is doing. Vehicles taken in to Dow Air Force Base, a strategic air command base, appear to be retained by them for such a long period of time that the Filter Center is losing at least 70% of its efficiency.

We, in the State of Maine, are particularly anxious to have all of our Ground Observer posts completely manned on a 24-hour basis. Those of us in Civil Defense are ready, but there seems to be some Air Force deficiency. Is it possible for you to exert some pressure in the right places to assist us in achieving our objectives?

Sincerely,

HAM/vib

Harry A. Mapes, Director  
Civil Defense and Public Safety

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C O P Y

Headquarters  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

Office of the Director  
Civil Air Defense

Mr. Harry A. Mapes  
Director of Civil Defense & Public Safety  
State House  
Augusta, Maine

Dear Mr. Mapes:

General Chidlaw has asked me to answer your letter of February 25 to him concerning the shortage of Air Force personnel and vehicles at filter centers. He is most anxious to have the situation alleviated as soon as possible.

The problems which you mention are by no means limited to Maine. They extend throughout the GOC, and we have been aware of their adverse effect on the program for some time. In our attempt at working out a solution to the personnel problem, our first step was to get an increased personnel authorization for our filter centers. This, as you know, was done. The next hurdle was to fill those new slots.

In doing this, we wanted to avoid past pitfalls. Experience has shown that newly-commissioned officers or personnel who will rotate overseas in a short time are not generally as effective in filter center duty as others. Therefore, we are concentrating upon bringing overseas returnees into the program, as was pointed out during the January conference. It is being done on a volunteer basis, to obtain those men who have a definite interest in the GOC.

This is not the easiest method, nor the quickest, but I think it will produce results in the end. Our main problem now is to inform overseas personnel of their opportunity to volunteer for GOC duty and thus start the flow of applications. Stories in overseas editions of the Air Force TIMES should help, as will letters to overseas commanders which are now going out. Once the word gets around, I feel we will have a wealth of top-notch officers and airmen to select from.

The vehicle situation is a continuing thorn in our side, but the conditions at the Manchester and Bangor Filter Centers are certainly not tolerable. I am requesting that Eastern Air Defense Force investigate this problem and take any action possible. If it requires assistance from this headquarters, we will certainly provide it.

C O P Y

We are deeply appreciative of your sincere concern over these problems, and we are grateful to you for bringing them to our attention. The GOC can always profit by constructive comment such as you have given us.

It was a pleasure meeting you during the January conference, and I hope we may renew our acquaintance in the near future.

Sincerely,

BROWN H. MAYALL  
Colonel, USAF  
Director

C O P Y

OFFICE OF MAINE CIVIL DEFENSE  
AND PUBLIC SAFETY  
State House  
Augusta, Maine

August 23, 1954

Ltr 135

The Honorable H. E. Taltott  
The Secretary of the Air Force  
The Department of the Air Force  
Washington 25, D. C.

Dear Mr. Secretary:

I have read with considerable interest your August 17 letter regarding the increasing capabilities of the Soviet Air Force and our own Ground Observer Corps.

Recognizing the urgent need of our G.O.C. program, the State of Maine has for the past 8 months intensified that part of our Civil Defense organization. In this State we have approximately 285 observation posts, taking into account both civilian and military units. Eight months ago we had about 110 manned as against 170 at this writing. As you probably know, we have an agreement with the State of Maine Grange with 62,000 members, whereby, their members are volunteering to increase the tempo of our G.O.C. program. To date, they have rendered a great service and are increasing our part-time operations as well as activating dormant observation posts.

In January of this year I attended a meeting of all State Directors of Civil Defense and G.O.C. Coordinators. At that time we were assured by Gen. Chidlaw, members of his staff, and, in fact, by your own Under Secretary 1) that the need to increase our efforts were very necessary, and secondly, that the Air Force would immediately increase the personnel at all filter centers because of the urgency of the G.O.C. detection ability. On February 25, I wrote Gen. Chidlaw a letter explaining that instead of increasing personnel and equipment, actually the reverse was taking place--copy of my letter is attached. On March 11, I received a letter from Gen. Chidlaw's command by Col. Broun H. Mayall, a copy of which is also attached.

Last week the Commander, Eastern Air Defense Force, called a conference of G.O.C. Coordinators, filter center commanders, and Civil Air Defense officers from the air divisions within the Eastern Air Defense Force, at Baltimore at which time Major Thomas C. Schiebel, G.O.C. Coordinator for the State of Maine, attended. Major Schiebel reports to

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1 6 3 3

C O P Y

The Honorable H. E. Talbott

Page 2

August 23, 1954

me that the text of the meeting was, in substance, that personnel at all filter centers are far below strength, and that the outlook for the future looked even more unsatisfactory. For instance, at the Bangor Filter Center a full complement would include 5 officers and 18 airmen. The Manchester Filter Center should have a complement of 7 officers and 28 airmen. At the present time, the Bangor Filter Center has 2 officers, 10 airmen, 3 airmen are available for field duty. At Manchester they have 3 officers and 17 airmen, with about 10 airmen available to go into the field.

The Air Force has assumed the responsibility of training these volunteers after they have been recruited by Civil Defense. Here in the State of Maine we have been and are continuing to lend every effort possible to give the Air Force the highest possible degree of detection. I ask you, however, how 3 men can train the personnel of 285 observation posts when the distance from one end of the State of Maine to another is about 450 miles? I am a little bit disturbed that you would write me a letter which, in substance, asks me to step up our recruitment program for G.O.C. while at the same time your Air Force is letting not only me down, but the people in the State of Maine who are willing to volunteer their services.

In addition to Major Schiebel's normal duties and responsibilities he, like every other member of this staff, is carrying out a field assignment of one week in each of Maine's 16 counties over the next 10 months. Everyone on this staff is much concerned with Major Schiebel's problems. Major Scheibel is also much concerned with the responsibilities of everyone else in this organization. He is one of 11 people making these field trips and each of them is assisting in all phases of Civil Defense. I greatly appreciate the Air Force's assigning this officer to my staff.

Mr. Talbott, we are ready to increase the tempo of the G.O.C. program for the Air Force; what is the Air Force ready to do about increasing its tempo of personnel in order to meet your demand?

I would very much appreciate an early reply.

Sincerely,

Harry A. Mapes, Director  
Civil Defense and Public Safety

HAM/yib

copy: Gen. Benjamin W. Chidlaw  
Major General M. R. Nelson  
Col. Robert S. Israel, Jr.

C O P Y

AFOOP-GOC

2 September 1954

Mr. Harry A. Mapes  
Director  
Civil Defense and Public Safety  
State House  
Augusta, Maine

Dear Mr. Mapes:

The Secretary of the Air Force has asked me to express his appreciation for your informative letter of August 23, 1954, and to answer your constructive observations.

I am compelled to agree with you, at first glance, that existing conditions at Bangor and Manchester Filter Centers appear incongruous with Mr. Talbott's letter of August 17. Explanations of or for certain deficiencies do not solve the problems you pointed out and I realize that you are primarily interested in what remedial action is being taken. I have been informed by Air Defense Command that since your letter two additional officers have been added to Bangor and one has been added to Manchester. While these personnel will not make up the deficit, we have been assured of action to correct personnel shortages in the system.

We are confident that Air Defense Command is taking all possible action within its resources. On September 7, appropriate representatives of this Headquarters will meet in Colorado Springs to review the entire situation with a view toward satisfactory and early resolution of the problems you mention.

You may have our assurance that the Air Force will increase its efforts to keep pace with the ever growing numbers of volunteers. Thank you for your sincere comments, and particularly for the great contribution the State of Maine is making in air defense.

Very truly yours,

3 Incls

1. Cy ltr Mr. Mapes fr  
Col Mayall, ADC (no date)
2. Cy ltr Gen Chidlaw, ADC,  
fr Mr. Mapes (dtd 25 Feb 54)
3. Cy ltr Secy Talbott fr  
Mr. Mapes (dtd 23 Aug 54)

OWEN F. CLARKE  
Colonel, USAF  
Project Officer  
Ground Observer Corps

Info cy:  
Secy Talbott  
OSAF  
ADC  
EADF  
32nd Air Div

GOC Reading File Cy  
MAINE State File Cy  
Civ Def File Cy

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

5 Nov 1954

In reply refer to: EA0CD

Lt Col Frederick York  
Commander, 4673d Ground Observer Squadron  
Syracuse Air Force Station  
Syracuse, New York

Dear Freddie:

I am enclosing a copy of the reports on the sector-sergeant tests conducted in the 26th and 30th Air Divisions. Since you are just now getting underway for similar tests in your area, you may be able to profit by the experience gained thus far.

In comparing the two plans, it seems to me that a little more flexibility is achieved in the Chicago plan. For instance, the assignment of two or more airmen to a sub-area under the close supervision of an officer or perhaps a "sharp" NCO, not only affords us an opportunity to give our junior officers and top NCO's supervisory experience and training, but also permits more than one airman to become acquainted with an area, thus reducing the shock to the people if we should have to reassign a field man. The Chicago plan also may afford a better opportunity to train new people by assigning them with experienced people in a sub-area.

As of now, we only have the authority to test the sector-sergeant system of field training. Before requesting the authority to implement the system command wide, we would like to come up with a standard which incorporates the best features of each plan tested. By the time we are ready to implement a standard plan, we should have the vehicles we are now authorized -- an important consideration for any plan which we adopt.

In anticipation that we will get the necessary equipment and be able to keep close to our 100% manning, I would like to have your comments on the attached reports and your suggestions on the adoption of one or the other, or parts of both, as a standard for use throughout EADF.

I do not have a copy of the detailed plan for Chicago showing the breakdown of the filter center area, directives, SOP's, forms, etc., which they are using. I suggest you drop Colonel Dew a personal note and ask him for a copy. However, I am enclosing a copy of the staff study which they conducted prior to implementing their plan. I previously sent you copies of the directives which the 26th people are using.

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C O P Y

I particularly like the method used by the 26th in comparing the sector-sergeant system with the old method of field training. I recommend you adopt the chart for reporting the tests in your area.

Sincerely,

3 Incls:

1. Rept fr 26th ADiv
2. Rept fr 30th ADiv
3. Staff Study

THOMAS C. HOLLICK  
Colonel, USAF  
Director, Civil Air Defense

Info by to:

- Col Dow, less encls
- Col Geary, less encls

C O P Y

HEADQUARTERS  
26TH AIR DIVISION (DEFENSE)  
Roslyn Air Force Station  
Roslyn L.I., New York

13 Oct 1954

26ADOCB

SUBJECT: Analysis of Ninety Day Test of Sector Sergeant Plan

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. The Sector Sergeant plan was placed into operation on or about 1 July 1954 in four specific training areas. An analysis of the operation broken down by detachment and airman is attached. The period used for comparison was from 1 April to 30 June; the sector sergeant plan is reflected in the period 1 July to 30 September.

2. The plan has been extremely well received at both the state and county levels of civil defense. They express the feeling that the Air Force has taken a positive step to emphasize the importance it places upon the GOC program.

3. This headquarters is of the opinion that the realized saving of \$1400.00 and the increase by approximately 5100 volunteers, in a ninety day period, has proved this plan to be both feasible and practicable. Two additional sector sergeants are now in the field from Det #1 (Rhode Island area) and Det #6, (Delaware area). A survey is now being conducted to determine where further expansion of the plan can be implemented based upon availability of vehicles and qualified airmen.

4. This test proved to our satisfaction that a sector sergeant can be expected to be most efficient when he operates within the following criteria:

a. Be assigned to an area that has between thirty (30) and forty (40) observation posts based upon terrain and distances.

b. Operate within county boundaries which, depending upon site, should not exceed eight (8).

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C O P Y

Hq 26th AD(D) 26ADOCB Subject: Analysis of Ninety Day Test of Sector  
Sergeant Plan (Cont'd)

c. Have a minimum of three (3) months experience in field  
training prior to assignment as a sector sergeant.

d. He should not be placed on duty until the Detachment has  
qualified field training officers and NCO's who are able to effectively  
monitor his program and give him immediate assistance with any problem  
he may have.

FOR THE COMMANDER:

2 Incls: C. LAPPAS  
1 - Chart showing analysis Major, USAF  
of Sector Sgts Operation Adjutant  
2 - SOP

C O P Y

Detachment #1  
4673d Ground Observer Squadron  
2500 Main Street  
Buffalo 14, New York

17 September 54

SUBJECT: GOC Sector Plan

TO: Commander  
4673d Ground Observer Squadron  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Reference letter your headquarters, 27 July 1954, subject, same as above, this detachment requests use of this plan in one of our areas (Brown area, map inclosed) at this time.
2. It is felt by this detachment that this plan could be used most advantageously in the Brown area, which covers three counties with a total of thirty-two observation posts. The nearest post to the filter center is fourty miles and the farthest is 115 miles.
3. Since the GOC Sector Plan, as set forth by the 25th Air Division (Defense) is noteworthy, due to the present austerity program in the Air Force a considerable amount of savings could be realized in this particular area. In all instances an airman must be sent on five days TDY to cover this area.
4. With an airman centrality located in this area it would cut down on TDY expenses and save on the cost of government vehicle operation.
5. T/Sgt Arthur T. Stuart is assigned to this area.

1 Incls:  
a/s

HOWARD L. BICKELL  
Major, USAF  
Detachment Commander

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1 6 4 0

C O P Y

Det 1, 4673d GOS Subj: GOC Sector Plan

GOS (17 Sep 54) 1st Ind

HEADQUARTERS 4673D GROUND OBSERVER SQUADRON, Syracuse Air Force  
Station, Syracuse 6, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. Request approval on a six month trial basis.
2. Airman will reside in Horwell, New York, and will have access to civil defense phone.
3. The following advantages are expected of this plan:
  - a. Less vehicular mileage.
  - b. Airman is home with family each night.
  - c. Airman can attend more local meetings of civic groups (evening meetings).
  - d. Airman can visit observation posts moreoften.
  - e. Laundry and dry cleaning problem is simplified.
4. A similar but more comprehensive plan for the 4770th Ground Observer Squadron was approved by ADC per 2d Indorsement, 10 September 1953, to basic letter Headquarters 4770th Ground Observer Squadron, McChord AFB, Washington, subject: "GOS Sector Plan for the 25th Air Division (Defense) Area of Responsibility," 10 August 1953.

1 Incl:  
n/c

FREDERICK B. YORK  
Lt Colonel, USAF  
Commander

C O P Y

Det #1, 4673d GOS, Subject: GOC Sector Plan

OCD (17 Sep 54) 2nd Ind 19 Oct 1954

HEADQUARTERS 32D AIR DIVISION (DEPENDS), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

Recommend approval.

FOR THE COMMANDER:

1 Incl:  
n/c

EVERETT W. HOWE  
Major, USAF  
Adjutant

C O P Y

Det #1, 4673d GOS Subject: GOC Sector Plan

EACCD (17 Sep 54) 3rd Ind 27 Oct 54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N.Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Syracuse, New York

1. Authority is granted to test the sector sergeant system of training team operation within your command in whatever areas you desire. Such tests will be conducted within your present personnel and equipment resources.

2. Reference is made to paragraph 3 of our 2nd Indorsement to Detachment #5, 4673d Ground Observer Squadron letter, subject, 'GOC Sector Plan', dated 24 August 1954, for control of tests within your command.

3. The tests should be implemented for an indefinite period. However, a complete report will be forwarded to this headquarters following the first ninety days of operation, showing a comparison of results in each filter center sub-area tested with results under the present system of operation. The ninety day period immediately prior to implementation of the sector-sergeant plan will be used for this comparison. This report will include a comparison of observation post organizational and operational status, volunteer status, travel and per diem expenses, man hours spent in travel status, and any other phases of training team activity which will assist in evaluating the plan. The results of tests conducted within your area will be evaluated with results of similar tests conducted in the other air divisions in an effort to develop the best method for use throughout the Eastern Air Defense Force.

BY ORDER OF THE COMMANDER:

1 Encl  
n/c

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

HEADQUARTERS  
4673D GROUND OBSERVER SQUADRON  
Syracuse Air Force Station  
Syracuse 6, New York

SUB-SECTOR PLAN

1 January 1955

ANNEXES

"A" - Administration  
"B" - Personnel  
"C" - Public Information Activities  
"D" - Logistics  
"E" - Communications  
"F" - Rental

HEADQUARTERS  
4673D GROUND OBSERVER SQUADRON  
Syracuse Air Force Station  
Syracuse 6, New York

SUB-SECTOR PLAN

GENERAL

1. The purpose of the sector concept of GOC operation is to enable detachments of the 4673d Ground Observer Squadron to increase their operational effectiveness at a reduced cost to the Air Force.
2. The desired results can be obtained by assigning detachment personnel, both officers and airman, to specified cities within the filter center's area of responsibility, and as nearly as possible in the center of the specified sector or sub-sector.
3. Personnel records will continue to be maintained at the squadron headquarters. Observation post records will be maintained at the sector headquarters and at the detachment headquarters. Each sub-sector team will submit a weekly summary to its sector officer who, in turn, will submit to the detachment commander a consolidated summary. Other reports will be submitted through channels as required.
  - a. All military personnel will be paid (both regular and travel) through normal finance channels directly to the individual.
  - b. Medical care will be in accordance with Air Force policy on treatment of USAF personnel on detached service.
4. Military control will be maintained through substantiated reports from field personnel, and periodic visits by the sector officer and detachment commander. Under the sector plan greater effort can be brought to bear on such projects as: 1) Telephone cluster circuits; and 2) Perimeter reporting, etc.
5. The supply of all expendable material to field teams will be effected at a monthly field personnel conference at the detachment headquarters. Non-expendable supplies will be carried on AF Form 1120 in accordance with Volume IV, AFM 67-1, by the detachment, with subsequent hand-receipt issue to individuals in the field.
6. It is contemplated that each field unit will be provided space in the local recruiting office or military reserve training office where telephone answering service would be available.

Hq, 4673d GOS Sub-Sector Plan (Cont'd)

7. This sub-sector plan will be implemented for an indefinite period. The ultimate aim of this plan is to increase the number of volunteers and to bolster the effectiveness of the ground observation posts, as well as to decrease the travel and per diem expenses and man-hours spent in travel status under our present system.

Attachments

Annex "A"  
Annex "B"  
Annex "C"  
Annex "D"  
Annex "E"  
Annex "F"

ANNEX "A"

SUB-SECTOR PLAN

I. ADMINISTRATION

A. PERSONNEL RECORDS:

1. Morning Reports. Any statistical changes in morning reports will be reported by telephone direct to the filter center by personnel concerned. The filter center will notify the sector officer concerned by return mail or by telephone.

2. Form 20 and Service Records. These records will be maintained at squadron headquarters. Only convenience data cards will be on file at detachments. For annual or periodic review or reaccomplishment, squadron will mail records to filter center for necessary action.

B. OPERATIONAL REPORTS:

1. Activities Reports.

a. Each field team will submit to sector officer three copies of a comprehensive activities report as of each Friday.

b. Sector officers will compile and condense information from the field teams, and will submit his report to the detachment commander, to arrive not later than Tuesday of each week.

(1) One copy of Field Team Report will be retained in the files of the sector officer, duplicate copies of the above will be attached as supporting documents to the sector officer's report.

2. Daily Diary. A diary in concise narrative form covering all pertinent events of the day will be maintained by all field personnel, including sector officers. This diary will have no formal purpose, but will serve as a memory aid when compiling the weekly activities report.

3. Vehicle Mileage Report. Field teams will submit vehicle mileage reports as of 2400 hours each Saturday to the sector officer. Sector officers will submit a consolidated report, together with all field team mileage reports, to arrive at the filter center not later than 1200 hours on the 24th day of each month.

4. All other forms, as required, will be submitted to the sector officer, excepting ADC Forms 134 and 55, which will be mailed without delay directly to the filter center.

Annex "A", Sub-Sector Plan (Cont'd)

C. FINANCE:

1. Pay and Travel Reimbursement. Pay and travel checks will be mailed through normal finance channels directly to field personnel.

2. Travel Orders. Blanket travel orders for a fiscal quarter should be issued to personnel and should include specific counties through which they can travel. Benefits to be derived from blanket travel orders are:

a. Through the elimination of special orders publication and the reduction of VOCC, administrative workloads at the detachments will be lightened to the extent that the present TD authorization for administrative airmen will be sufficient for any needs in the foreseeable future.

b. It can be accurately forecast that field teams will continue to be saddled with emergency trips to posts which are about to disintegrate. Blanket travel orders would expedite such visits and eliminate the need for VOCC orders.

c. Further, and perhaps most important, such orders will reduce to an absolute minimum, delay in payment of travel vouchers for all field personnel.

d. Control of the use of blanket travel orders will be maintained by detachment commanders, who will be the certifying officers on claims for reimbursement.

3. Special Orders. For travel outside of regularly assigned counties, and not covered by blanket travel orders, letter orders will be issued by the detachment.

4. Itineraries. Upon completion of travel, the field team airmen will submit an itinerary to sector officers for certification. Sector officer will then forward approved itinerary to filter center. Travel vouchers will be prepared by filter centers and submitted through normal finance channels for payment directly to field personnel concerned.

D. MEDICAL:

1. Dental, surgical and medical care, other than emergency, will normally be accomplished through the filter center. Emergency treatment will be administered by civilian medical doctors in the individual area.

Annex "A", Sub-Sector Plan (Cont'd)

Payment for these services rendered will be accomplished in accordance with AFR 160-53. A statement indicating all services rendered to detachment personnel in the field will be made by the medical doctor concerned and will be sent directly to the filter center. WD AGO Form 8-9 and WD AGO Form 8-10 will be prepared by the filter center administrative personnel and forwarded to the medical doctor concerned for signature verifying the services performed. The forms will then be returned to the filter center, processed, relayed to normal finance channels for payment.

2. Current emergency data cards will be carried by all field personnel. In addition, all personnel will have current DD Form 2AF (1 Jan 50) in their possession and will be required to wear identification tags at all times when travelling.

3. Personnel in the field will notify the sector officer immediately by telephone when their M/R status changes. Sector officer will then relay the information to the filter center so that necessary morning report changes can be made. Excused from duty forms, AF Form 183a-1 will be prepared for the medical doctor's signature. Individuals concerned will return the completed form immediately to the filter center where normal distribution will be made.

ANNEX "B"

SUB-SECTOR PLAN

II. PERSONNEL

A. SELECTION:

1. The key to success of our entire sector plan lies in the selection of reliable field personnel, necessitating a thorough screening to determine qualifications. This pertains to both officers and airmen. Only those individuals who maintain a high standard in these attributes--reliability, trustworthiness, initiative, appearance and job knowledge--will be utilized in field activities.
2. Each sector commanded by one officer or NCO.
3. Each sub-sector has one NCOIC to govern it, and in some instances an additional airman to assist.
  - a. NCOIC is responsible for training, assist in recruiting and organization in the counties of his sub-sector.
4. The officer retained in the filter center will normally fill the job of field training officer for the detachment.
5. The airmen working out of the filter center are on stand-by to replace a field man or internal operations personnel, as well as handle local GOC meetings.

B. JOB DESCRIPTIONS:

1. Sector Commanders. This officer is directly responsible to the detachment commander for all field operations in his sector. His principal duties and responsibilities will include:
  - a. To train, supervise and coordinate the activities of his sector.
  - b. To resolve any civil-military problems beyond the scope of subordinates.
  - c. To make himself available as a speaker, or Air Force representative, in situations where the prestige of a commissioned officer is required.

Annex "B", Sub-Sector Plan (Cont'd)

d. To carefully audit all vouchers submitted through him by subordinate personnel.

e. To counsel and assist his subordinates with their personnel problems, and when necessary to make recommendations concerning morale to detachment commander.

2. Sub-Sector NCOIC. Sub-sector NCOIC's are directly responsible to the sector officer for all field operations in their sub-sectors. Their principal duties include:

a. The responsibility for maintaining recruiting efforts, training, morale, and post operations at a high degree of efficiency.

b. The serving as public speaker and Air Force representative for the purpose of recruiting, training and monitoring.

c. Maintaining accurate and comprehensive records on all observation posts in the sub-sector.

d. Maintaining an adequate level of all necessary supply items.

3. Sub-Sector Airman. Where assigned, this airman will assist the sub-sector NCOIC in all phases of GOC operation, and in his absence will assume command of the sub-sector.

ANNEX "C"

SUB-SECTOR PLAN

III. PUBLIC INFORMATION ACTIVITIES (Governed by ADGR 190-2,  
dated 12 April 1951)

A. The fact that field teams are closer to the people will result in three basic public information advantages. They are:

1. Individual communities can be bombarded consistently with material furnished by the squadron headquarters and the detachments. Further, field personnel can frequently make personal contacts with newspaper editors and radio and television station program directors.

2. Close proximity will enable field teams to accurately evaluate what types of public information material most effectively sell the GOC program. From this data, squadron or detachment headquarters can design individual sales programs for specific communities.

3. Field teams can gather newsworthy items for publication in the Aircraft Flash and other newspapers and magazines. The printing of names and deeds will improve civilian morale and, consequently, benefit recruiting efforts.

ANNEX "D"

SUB-SECTOR PLAN

IV. LOGISTICS

A. SUPPLY:

1. Supply of stationery, public information and miscellaneous materials will be maintained on a 30-day level at sector headquarters. Replenishment of stock will be made at monthly filter center meetings.

2. Non-expendable supplies will be requisitioned from the filter center and issued on a hand-receipt.

B. TRANSPORTATION AND MAINTENANCE:

1. Vehicle Maintenance. Vehicle maintenance will be accomplished in accordance with provisions of AFM 77-1 as indicated:

- a. Class I - Credit cards on road.
- b. Class II - Credit cards or P&C in home city of sub-sector team.
- c. Class III and IV - Nearest military installation.
- d. Emergency repairs - USAF Form 15, authorizing emergency repairs not to exceed \$125.00, will be carried in each field vehicle.
- e. Garage facilities - P&C in home city of sub-sector team.

2. Other Maintenance. Contractual arrangements should be made through P&C at the support base for audio-visual maintenance at the city in which the personnel are residing.

ANNEX "E"

SUB-SECTOR PLAN

V. COMMUNICATIONS

A. An Air Force telephone will be installed at the most convenient point for the field unit, and authorization should be given for both incoming and outgoing calls. A telephone log will be maintained in duplicate and one copy will be mailed to Detachment Commander, the other will remain as a permanent file on this phone. Phone bills will be certified by Detachment Commander monthly.

ANNEX "F"

SUB-SECTOR PLAN

VI. RENTAL

A. The Ground Observer Corps coordinator will attempt to obtain office space through State Civil Defense and if this is not possible, then with either the local military recruiting office or the military reserve training office. Be advised that there is no money available at this time for renting an office.

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

16 November 1954

SUBJECT: Identification of Air Movements - Bangor ADIZ

TO: Directors of State Aeronautics Commissions  
Maine, New Hampshire, New York and Vermont

1. The 32d Air Division (Defense) is, as you know, responsible for the air defense of the northeast sector of the United States. One of the requisites of our responsibility is the identification of all flights penetrating and/or operating within the Bangor ADIZ, regardless of altitude. Such identification is accomplished by either correlation of known flight movement data with our radar intelligence, visual observation by qualified observers, or by interception.

2. Identification by interception not only costs several hundreds of dollars for each jet aircraft employed but, when required for obviously friendly aircraft, could be detrimental to the effectiveness of your air defense system. There is also the probability of an in-flight hazardous condition inadvertently occurring. Consequently, identification by interception is not desirable and is employed only when identification cannot be accomplished by correlation or observation. Identification by visual observation is, of course, limited by weather conditions and the relative position of the air movement to the observation post. Therefore, identification by correlation is our most applicable method.

3. Identification by correlation interposes no formidable problems when flight plans are filed with a CAA aeronautical facility in person or by telephone. However, for VFR operations within 4000 feet of the immediate terrain for which a flight plan has not been filed, or for all operations where a flight plan is not filed in person or by telephone, insufficient data is available to permit identification by correlation. Consequently, a problem of identification exists and other means, normally interception, must be employed.

4. This problem would, of course, be negligible if flight plans were filed in person or by telephone for all flights of aircraft equipped with two-way radio operating in the ADIZ regardless of altitude, as urged by the notes to paragraphs 620.11(e) and 620.13(a)(1), Regulations of the Administrator, Part 620 - Security Control of Air

Traffic. Aircraft not equipped with two-way radio operating within 4000 feet of the terrain could file a VER flight plan. However, it is recognized that, because of areas and/or types of operations, availability of telephone service without cost, etc., it may not always be desirable to file a flight plan or file in person or by telephone. Therefore, the problem of identifying these movements remains prevalent.

5. To minimize this problem, we are making available to flights "originating" in the Bangor ADIZ a "voluntary" flight reporting system. This system will be effective 1 January 1955, and will permit pilots not desiring to file flight plans when not required, or where filing cannot be done in person or by telephone with a CAA aeronautical facility, to notify an air defense facility by telephone, without personal cost, of movement information which will assist in aircraft identification. Such a system has been tested in the Traverse City ADIZ and in the state of Maine for several months with exceptional success; it has particularly, resulted in a decrease of identification required by interception.

6. This system is known as "Aircraft Flash Skylark - Bangor ADIZ Voluntary Flight Information Report System", and will operate as follows:

- a. Pilot calls "LONG DISTANCE OPERATOR" and says "Aircraft Flash Skylark". When pilot hears "Air Defense Go Ahead Please", he will report the following:
  - (1) Aircraft Registration (i.e., N-1994).
  - (2) Type of Aircraft (i.e., Cessna 140).
  - (3) Point of Departure (name of airport or nearest community).
  - (4) Estimated Elapsed Time Prior to Departure (see Note 1).
  - (5) Destination (name of airport or nearest community).
  - (6) Route (direct or via \_\_\_\_\_, \_\_\_\_\_, etc.).
  - (7) Estimated Time in Route.
  - (8) Altitude(s).
  - (9) Indicated Air Speed (specify MPH or Knots).
  - (10) Purpose of Flight (cross-country, training, spraying, pleasure, etc.).

NOTE 1: Actual take-off time should be within five (5) minutes of the estimated time of departure, whenever practicable. If departure is delayed more than five (5) minutes, if practicable, recontact the Filter Center COLLECT, make reference to aircraft registration, and file revised estimated departure time.

7. I wish to emphasize that this is a VOLUNTARY system for flights originating in the Bangor ADIZ. It is designed solely to provide air defense facilities with information to assist in the identification of air movements for which flight plans are not or cannot be filed with a CAA aeronautical facility in person or by telephone. THE USE OF THIS SYSTEM WILL IN NO WAY RELIEVE THE PILOT OF COMPLYING WITH REGULATIONS OF THE ADMINISTRATOR, PART 620 - SECURITY CONTROL OF AIR TRAFFIC, AND OTHER APPLICABLE CIVIL AIR REGULATIONS. It does not provide pilots with weather, flight following, en route communications, search and rescue, and other such services associated with filing flight plan with CAA aeronautical facility. Therefore filing a flight plan with CAA aeronautical facility regardless of altitude is urged. Where flight plan cannot be filed in person or by telephone, it is urged that this system be employed to provide necessary information from time of departure until flight plan can be filed. This system does, however, provide the pilot with a means of assisting us in our identification responsibility, which may preclude the necessity of effecting identification by interception.

8. Your cooperation in disseminating pertinent information contained in this letter and the inclosed "Skylark" - Bangor ADIZ FLIGHT INFORMATION REPORT" Index Card is solicited. The inclosed 5x8 card is for airport use. Additional 5x8 and also 3x5 pocket size for pilots, aircraft owners and operators within and adjacent to the Bangor ADIZ, will be sent to you in the near future.

9. I wish to take this opportunity to express my appreciation for your assistance in implementing this system.

*Robert S. Israel Jr.*  
ROBERT S. ISRAEL JR.  
Colonel, USAF  
Commander

TO: Mr. Scott K. Higgins, Director  
Maine Aeronautics Commission  
State Airport  
Augusta, Maine

Mr. Russell Hilliard  
Director of Aviation  
New Hampshire Aeronautics Commission  
P. O. Box 237  
Municipal Airport  
Concord, New Hampshire

Mr. Claude Friday, Director  
N. Y. S. Department of Commerce  
Bureau of Aviation  
112 State Street  
Albany, New York

Mr. Edward F. Knapp  
Director of Aeronautics  
Vermont Aeronautics Commission  
Montpelier, Vermont

INFO CY:

Mr. Crocker Snow  
Director of Aeronautics  
Massachusetts Aeronautics Commission  
Logan Airport  
East Boston 28, Massachusetts

AIRCRAFT FLASH SKYLARK - FLIGHT INFORMATION REPORT, For Flights Originating in  
Bangor ADIZ

Pilot calls "LONG DISTANCE OPERATOR" and says "Aircraft Flash Skylark".  
When pilot hears "Air Defense Go Ahead Please", he will report the following:

1. Aircraft Registration (i.e., N-1994).
2. Type of Aircraft (i.e., Cessna 140).
3. Point of Departure (airport or community).
4. Estimated elapsed time prior to departure. (Actual take-off time should be within five (5) minutes of estimated time of departure wherever practicable. If departure is delayed greater than five (5) minutes file a revised estimate.
5. Destination (airport or community).
6. Route (direct or check points).
7. Estimated time enroute (\_\_\_\_\_hrs,\_\_\_\_\_mins).
8. Altitude(s)
9. Indicated Air Speed (MPH or Knots).
10. Type of Flight (crop dusting, cross-country, etc.).

WARNING: Participating in this system does not relieve aircraft operator of his responsibilities in complying with applicable CAA Regulations.

(AIRPORT MANAGER,  
Please Post Near Telephone.)

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

NOV 16 1954

OOT-A

SUBJECT: GOC Flight Movement Information Processing

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Effective 1 January 1955, flight movements information processing by the Manchester, Albany and Syracuse Filter Centers will be implemented. This is an expansion of the system presently in use between the Bangor Filter Center and the 765th ACW Squadron. The unclassified project nickname is "Aircraft Flash Skylark".

2. Procedure for operation of this procedure is contained in inclosure 1 to this letter.

3. All ACW Squadrons whose subsector contains a portion of the Bangor ADIZ will be included in this project and will be prepared to receive this additional flight movements information as of the implementing date.

4. Separate identification logs will be maintained for "Aircraft Flash Skylark" flight plans and correlations or non-correlations will not be included in operational summaries except when specified. It is anticipated that the 32DADR 55-28 will be amended to include this data.

5. It is evident that this information can not be as accurate as flight plan data received from ARTCC and MFS; therefore, discretion should be used by direction center personnel in relation to the correlation criteria contained in ADCR 55-12. Information furnished by this system should be applied to all other aspects of slow, low-flying aircraft when the time/distance of the target is slightly beyond that permissible for positive correlation.

BY ORDER OF THE COMMANDER:

2 Incls:  
1. Ident of Air Movements  
2. Flt Info Rept

*Everitt W. Howe*  
EVERITT W. HOWE  
Major, USAF  
Adjutant

176

1661

-COPY-

HEADQUARTERS  
AIR DEFENSE COMMAND  
WEST AIR FORCE BASE  
COLORADO SPRINGS, COLORADO

ADCOM-31

5 November 1954

SUBJECT: Air Movements Identification at Filter Centers

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Maximum exploitation of the air movements, identification capability of the GOC has been approved by Headquarters, USAF. The air movements identification function will be assumed by the GOC, and filter centers will be equipped and trained in air movements information processing.

2. Three means of accomplishing aircraft identifications are available to the GOC:

a. Visual Recognition of Aircraft. Visual recognition is highly reliable, and such valuable data concerning type and numbers of aircraft is available from this source.

b. Flight Plan Correlation. The GOC has proven its ability to accurately correlate observations with flight plans using tolerances and correlation aids identical to those employed by direction centers.

c. Flight Information Reporting. The GOC has further demonstrated its ability to assist in performing identification by instituting a system of obtaining voluntary flight plans-flight information reports from operators of aircraft not required to file flight plans in ADIZs under current CAA regulations. The information reports are received by filter centers involved with ADIZs, and the reports are handled similarly to flight plans. The information reports are passed to parent direction centers, and both the direction center and filter center attempt correlation.

3. The methods outlined above have proven successful individually. Full exploitation of the identification capability requires combination of all three means into a coordinated function.

4. Reference paragraph 2a above, action has been taken by this headquarters to increase aircraft recognition instructions to observers. AFM 355-10, AIRCRAFT RECOGNITION FOR GROUND OBSERVERS, is devoted mainly to aircraft recognition and will require reporting of a functional designation for aircraft in addition to type by propulsion. This manual will replace AFM 50-12, GROUND OBSERVERS' GUIDE. 177

ADOC-81 Subj: Air Movements Identification at Filter Centers (Contd)

5. Reference paragraphs 2b and c above, the following actions are taken by this headquarters.

a. AFM 50-13, FILTER CENTER OPERATION, is being revised to incorporate operational procedure for an air movements section.

b. Military personnel spaces for air movements sections are being requested of Headquarters USAF.

c. Communications requirements are being reviewed.

6. Pending the establishment of formal T/D authorizations for air movements sections in ground observer detachments, it is desired that the following actions be taken:

a. Indoctrinate air movements personnel of direction centers and operations personnel of filter centers in coordinated air movements identifications.

b. Obtain necessary equipment for establishing air movements sections at filter centers (Pre-plot boards, maps, correlation aids, etc.)

c. Request installation of necessary communications to meet the requirement. Initially, and until a high state of training of volunteers is accomplished, filter center communications from CAA-AMISs will consist of listening facilities only (100 type loudspeaker) installed as a drop-off the regular AMIS-Direction Center circuit.

BY ORDER OF THE COMMANDER:

s/t/ JOSE J BATES  
CWO, USAF  
Asst Command Adj

Hq ADC ABOOT-31 Subject: Air Movements Identification at Filter Centers

SACOT-OS (5 Nov 54)

1st Ind

14 December 1954

HQ EASTERN AIR DEFENSE FORCE, Syracuse Air Force Base, Newburgh,  
New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. Forwarded for your information and necessary action in accordance with paragraph 6, basic letter.
2. Reference paragraph 6 b, basic letter, disregard reference to flight strip holders and flight strips. These items are being centrally procured by ADC and will be forwarded upon receipt. For the interim period, present ABOC movement and identification forms will be used.
3. Reference paragraph 6c, basic letter, installation of communications will be limited to those filter centers on 24 hour operation whose entire area or a portion thereof lies within an ADIZ.

FOR THE COMMANDER:

s/t/ J.W.FOUNTAIN JR  
Major, USAF  
Asst. Adjutant

Hq ADC ADCOF-21 Subject: Air Movements Identification at Filter  
Centers

(5 Nov 54)

2d Ind

27 December 1954

HEADQUARTERS 4673d GROUND OBSV. SQADRON, Syracuse Air Force Station,  
Syracuse 6, New York

TO: Detachment Commander, Detachment 2, 4673d Ground Observer Squadron,  
113 S. Midler Ave, Syracuse, New York

Detachment Commander, Detachment 3, 4673d Ground Observer Squadron,  
268 Central Ave. Albany, New York

Detachment Commander, Detachment 4, 4673d Ground Observer Squadron,  
1257 Elm St, Manchester, New Hampshire

Detachment Commander, Detachment 5, 4673d Ground Observer Squadron,  
Pine St School, Bangor, Maine

Reference Par 3, 1st Indorsement. Necessary communications have  
been requested by this headquarters.

BY ORDER OF THE COMMANDER:

/s/ Donald V Bouck  
/v/ DONALD V BOUCK  
Captain, USAF  
Operations Officer

CONFIDENTIAL

C O P Y

TWX

5F1 068  
RR 3EOA  
DE 5F1 199  
R 281911Z  
FM COMDR EADF STEWART AFB NY  
TO COMR 32 ADIV SYRACUSE AFS NY  
/C O N F I D E N T I A L/EAMAC-ACM 1763. SUBJ CLN CONVERSION OF 58  
FINCEPTON. REF URMSG ACFOPR 12091 CMM 23 DEC 54. FOL MSG EAMAC-ACM  
1748 CMM 23 DEC 54 DISPATCHED TO 4707 ADWG CMM SUBJ CLN SAME AS ABOVE  
IS QUOTED FYIG CLN QUOTE ATTN CLN LT COL RUSSEL DM. REF URMSG DWOMD  
D\_787 CMM FOL INFO AVAL THIS HQ FWD FOR YOUR GUIDANCE CLN THE ANSWERS  
BELOW ARE VERBAL IN NATURE TO THIS HQ AND THEREFORE WILL NOT BE  
CONSTRUED TO BE FINAL. 1. ACFT WILL START TO ARR IN APR OR MAY 55. 2.  
BLOCK NRS ARE IN THQE RANGE OF 53-2524 CMM MODEL W/B F-89D-60 3.  
COMPONENTS ARE CLN E-11 AUTO-PILOT CMM NOSE GEAR STEERING CMM E-6 FIRE  
CON CMM YG 214A SIDESLIP STABILITY ARGMENTOR CMM ARC-27 CMM ARN-6 CMM

PAGE TWO 5F1 199

ARN -R CMM J-35-A-35 ENG WITH A/B CNM B8 STICK GRIP PAREN 1 PAREN  
CMM D\_2 OXYGEN REGULATORS CMM ARN-18 CMM AN/AIC-10 INTERPHONE CMM APX-6  
CMM PYLON TANKS CMM 2.75 ROCKETS. 4. TRAINING COURSE REQUESTS SBM TO  
ADC 21 DEC 54 FOR CLASSES FEB THRU MAY 55. MTD TO ARR ON OR ABOUT 10  
FEB 55 CMM AND REMAIN APRX 90 DAYS. 5. NO CMM RQNS W/B BASED ON TABLES  
II CMM XI CMM AND XVI. 6. TABLES II AND XI FWD 20 DEC 54 TO URHQ WITH  
INFO RELATIVE TO TABLE XVI. 7. YES. 8. NO. HUGHES TECH REP WILL REMAIN  
UNTIL F89H ACFT ARE REC AND THEN A HUGHES TECH REP TRAINED ON E-9  
FCS W/B ASGND. 9. F-94C W/B ABSORBED IN EADF CMM ACFT AT HOP -UP W/B  
REASSIGNED FR HOP-UP. 10. ACFT ON HAND W/B TRF IAW TO 00-25-4. 11.  
REQ FOR TECH REP W/B SBM BY 58 FINCEPTON AT LEAST 45 DAYS PRIOR TO REC  
OF ACFT IAW PAR 10 APR 66-18. UNQUOTE REF PAR 7 OF QUOTED MSG CMM  
ANSWERS QUERY THAT ACFT W/B EQPD WITH TURNABLE MAGNITRON.  
28/1924Z DEC 5F1

3441-54

CONFIDENTIAL

183 1

1 6 6 6

C O P Y

TWX

5F1 ~~008~~  
FF CE7A 3E6A 4KVA 333  
DE 5F1 218  
P ~~072233Z~~  
FM HQ EADF STEWART AFB NY  
TO CE7A/COMDR 4707TH ADW OTIS AFB MASS  
INFO 3E6A/COMDR 32D ADIV D SYRACUSE AFS NY  
4KVA/COMDR 564TH ADG OTIS AFB MASS  
/UNCLASSIFIED/ EAOPR-4 40622. CFM FONECON MAJ COOK CMM THIS HQ CMM  
AND LT HUTCHINSON CMM YOUR HQ. GO 57 CMM THIS HQ CMM 15 OCT 54 CMM  
IS BEING AMENDED TO DELETE THE REORG OF THE 58TH FINCEPTRON. INFO FROM  
HQ ADC INDICATES THIS UNIT W/B REORGD FOR F89D TYPE ACFT UNDER T/O  
1-1289 EFF ON OR ABOUT 8 JAN 55. GO W/B WRITTEN FOR THIS REORG UPON  
REC OF AUTH FROM HQ ADC.  
~~07/2243Z~~ DEC 5F1

193 2

1 6 6 7

SECRET

COPY

TWX

CE7A 12  
RR 307A 5F1 222  
DE CE7A 24  
R 211505Z  
FM HQ 4707 AIRDEFWG OAFBFA MASS  
TO 307A/COMDR 32 AD(D) SYRACUSE NY  
INFO 5F1/COMDR EADF STEWART AFB NY  
/SECRET/DWOMO D-787. SUBJ IS CONVERSION OF 58TH FIS. THIS HQ  
HAS BEEN UNABLE TO OBTAIN FIRM INTO SUITABLE FOR PLANNING AND ACT  
ON THE PROPOSED CONVERSION OF THE 58TH FIS. MOST OF THE INFO AVAL IS  
INFORMAL OR HERESAY AND CANNOT BE USED. IN ORDER TO ELIMINATE  
CONFUSION AND FACILITATE ORDERLY CONVERSION OF THE SQ, REQ FOL INFO:  
(1) WHEN AND AT WHAT RATE WILL 58TH FIS RECEIVE F-89D ACFT? (2) WHAT  
ARE BLOCK NOS. OF ACFT TO BE ASG? (3) WHAT COMPONENT SYS, SUCH AS FIRE  
CON, UHF, INTERCOM, AND SO FORTH WILL BE INSTALLED? (4) WHEN AND FOR  
HOW LONG WILL 80D MTD BE AT OTIS? (5) HAS AFSD BEEN INITIATED? (6)  
ARE COPIES OF TABLES 2, 11, AND 16 FOR 80D AVAL? IF SO, REQ COPIES  
BE FURNISHED OTIS BASO AND 58TH FIS. (7) WILL ACFT BE EQUIPPED WITH  
TUNABLE MAGNITRON? (8) WILL PRESENT HUGHES TECH REP BE REPLACED OR  
SENT BACK TO FACTORY FOR ADDITIONAL TNG IN THE EVENT ACFT ARE EQUIPPED  
WITH E-9 FIRE CON SYS? (9) WHEN AND AT WHAT RATE WILL SQ LOSE F-90C  
ACFT? (10) WHAT TYPE OF TRANSFER INSPECTION IS ANTICIPATED ON 04C WHEN  
THEY ARE TRF? (11) WHAT ACT HAS BEEN TAKEN TO ASG ADDITIONAL TECH REFS  
TO 58TH FIS? A TEAM REPRESENTING THIS HQ IS SKED TO VISIT THE EADF TNG  
SEC ON 21 DEC FOR THE PURPOSE OF OBTAINING URGENTLY NEEDED INFO ON  
SCOL QUOTAS AND EST8MT OF A TNG PROGRAM.  
21/1507Z DEC CE7A

54-4340

SECRET

183 3

1668

COPY

*Confidential*

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N.Y.

EA00T-OW

29 Jun 1954

SUBJECT: Radiation Effects of the AFS-00B Radar

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. The inclosed letter from Airborne Early Warning Squadron Two (VW-2) (U. S. Navy) is forwarded for your information. Subject letter has been forwarded to ADC for further evaluation.

2. As an interim measure and until more information becomes available, it is recommended that precautionary measures be undertaken as outlined in paragraphs 2b and 3 of inclosed letter.

3. When Inclosure 1 is withdrawn or not attached, the classification of this correspondence will be cancelled in accordance with paragraph 25g, AFR 205-1.

BY ORDER OF THE COMMANDER:

1 Incl  
Cy ltr Abn Early Wng  
Sq Two (VW-2)  
Subj as above  
June 9, 1954

/T/S/ JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

COPY

*Confidential*

183 1/2  
2074-54

1669

*Confidential*

Hq EADF EA00T-OW Subject: Radiation Effects of the APS-20B Radar

OCE (29 June 54) 1st Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Sta 6,  
Syracuse, New York

TO: Commanders, Defense Wings  
Commanders, AC&W Squadrons  
Commanders, Fighter Interceptor Squadrons

1. Your attention is invited to paragraph 2b and 3 of the inclosed  
letter.

2. When inclosure is withdrawn or not attached, the classification  
of CONFIDENTIAL on this correspondence will be canceled.

BY ORDER OF THE COMMANDER:

1 Incl  
n/c

*Virginia L. Sweet*  
VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

*Confidential*

2074-54

1670

C  
O  
P  
Y

*Confidential*

In Reply Refer to: UNITED STATES ATLANTIC FLEET  
VW-2/WCM:sr AIR FORCE  
Airborne Early Warning Squadron Two (VW-2)  
Serial: J15-7 U. S. Naval Air Station, Patuxent River, Md.

June 9, 1954

CONFIDENTIAL

From: Commanding Officer, Airborne Early Warning Squadron Two (VW-2)  
TO: CG 26th Air Division (Defense), Roslyn, New York

Subj: Radiation effects of the AFS-20B Radar

Ref: (a) ComAirLant conf ltr FF4-2 S90 16F/0237 dtd 1 May 1954  
(b) Lockheed Field Service Technical Section Memorandum  
dtd 4 May 54, title "High Power Search Radar Radiation  
Hazards"

1. A series of tests have been conducted by Lockheed on high-powered "S" band radar as outlined in reference (b) with the results listed below:
  - a. Flash bulbs were exploded at 850 feet.
  - b. One hundred (100) octane aircraft fuel containing metal particles was exploded at 300 feet.
2. As a result of these tests it has been determined that:
  - a. A tightly sealed container is not as dangerous as a container with its lid or cap loose.
  - b. The minimum safe distance between aircraft being fueled and aircraft with operating radar is 275 feet.
3. In view of the possibility of interceptor aircraft having a leak in fuel tanks and pending final results of tests of the radiation affects of the AFS-20 series radar as installed in the WV-2 Super Constellations, it is strongly recommended that interceptors do not close within 500 feet.

Copy to:  
ComAirLant  
ComEasrSeaFron  
CPAD, Patuxent River

/s/t/ J. N. MYERS

CONFIDENTIAL

*Confidential*

COPY

Incl #/

0074-5

C O P Y

TWX

FR EADF STEWART AFB NEWBURGH NY

EAMAC-ACD 12789. FOLG ADC MSG IS QUOTED FOR YOUR INFO CLN "ADMAC-4  
 13002. FOR AFOOP AT USAF CMA OCMCA AND OCAMA AND OCM AND M-1 AT OCAMA.  
 THIS MSG IN 4 PARTS. SUBJ IS O/S DEPLOYMENT OF ADC F-89 UNITS. PART  
 ONE CLN IN ORDER THAT ACFT ASG TO SUBJ UNITS CAN BE PLACED IN PROPER  
 CONFIGURATION FOR O/S DEPLOYMENT CMA IT IS NEC THAT THEY BE MOD TO USE  
 THE J-35A-47 ENG INCORPORATING COMPRESSOR BLADES REWORKED IAW OVHL C NO  
 59 OF TO O2B-1050. COMPLIANCE WITH THIS OVHL C ORDER HAS BEEN REQ BY  
 THE O/S RECIPIENT COMD AND HAS BEEN DSG A SAFETY OF FLT ITEM BY TIG.  
 THIS WORK IS IN ADD TO NEC WINTERIZATION AND IRAN AND ENTAILS THE FOLG  
 CLN /1/ A/L OF ALL AVAL J-35A-33A/41 ENG CMA THAT HAVE NOT BEEN REWORKED  
 IAW CITED OVHL C ORDER CMA TO OCAMA FOR THIS WORK. /2/ MOD OF J-35  
 A-33A-41 ENG TO THE J-35A-47 CONFIGURATION. /3/ MOD OF AFFECTED ACFT  
 TO ACFT THE J-35A-47 ENG. PART WO CLN NON AVAL OF REQUIRED TOC KITS AND  
 LTD ENG OUTPUT SCD AT OCAMA PROHIBITS ACCOMP OF FOREGOING WORK ON ALL  
 AFFECTED ACFT IN TIME TO MEET PRESENTLY ESTB DEPLOYMENT DT. TO COMFORM  
 AS CLOSELY AS POSSIBLE TO THESE DT CMA FOL ACTIONS HAVE BEEN OR W/B  
 TAKEN CLN /1/ 18TH FIS W/B RE-EQUIPPED WITH 25 NEW PDN F-89D ACFT  
 EQUIPPED WITH THE J-35A-35 ENG. THIS IS A MORE REFINED ENG THAN THE J-  
 35A-47 MODEL AND IT INCORPORATES ALL NEC MOD. THESE ACFT W/B WINTERIZED  
 BY OCAMA PRIOR TO THEIR DEPLOYMENT IAW FOL SCD CLN 8 EA DURING JUN CMA  
 8 EA DURING JUL AND 9 EA DURING AUG 54. COMPL FLT ECHELON OF THIS UNIT  
 CMA THEREFORE CMA WILL NOT BE READY FOR DEPLOYMENT UNTIL O/A 20 AUG 54.  
 /2/ 433D FIS HAS OR WILL REC BY 30 APR 54 CMA 11 F-89C ACFT FR IRAN AND  
 WINTERIZATION WITH J-35A-41 ENG INSTL WHICH HAVE NOT BEEN REWORKED IAW  
 OVHL C ORDER NO 59. THESE 11 ACFT W/B FLT DLVR TO OCAMA FOR INSTL OF  
 J-35A-47 ENG DURING JUN /4 EA/ AND JUL /7 EA/. IN ADD CMA THIS UNIT WILL  
 REC 13 COMPL MOD F-89C ACFT FR IRAN AS FOL CLN 5 EA DURING JUN AND 8  
 EA O/A 25 JUL 54. DEPLOYMENT OF THIS UNIT CMA THEREFORE CMA MUST BE DE-  
 LAYED UNIT LATTER PART OF JULY 54 IF IT IS TO MOVE IN ONE FLT ECH.  
 /3/ 74TH FIS HAS OR WILL REC BY 30 APR CMA 12 F-89C ACFT FR IRAN AND  
 WINTERIZATION WITH J-35A-41 ENG INSTL WHICH HAVE NOT BEEN REWORKED IAW  
 OVHL C ORDER NO 59. THESE 12 ACFT W/B FLT DLVR TO OCAMA FOR INSTL OF THE  
 J-35A-47 ENG DURING AUG 54. IN ADD CMA THIS UNIT WILL REC 13 COMPL  
 MOD F-89C ACFT FR IRAN AS FOL CLN 8 EA IN JUL AND 5 EA IN AUG 54.  
 COMPL FLT ECH OF THIS UNIT W/B READY FOR DEPT O/A 30 AUG 54. /4/ 57TH  
 FIS IS CURR EQUIPPED WITH 22 F-89C ACFT HAVING J-35A-33 ENG INSTL. TOC  
 KIT OI-15FD-211 CMA WHICH IS NEC TO MOD THESE ACFT TO ACCEPT THE J-35A-  
 41/47 ENG CMA WILL NOT BECOME AVAL FR NORTHROP PDN UNTIL STARTING  
 DURING SEP 54. THESE ACFT CMA THEREFORE CMA W/B SCD TO OCAMA FOR IRAN  
 CMA WINTERIZATION AND ENG MOD AS FOL CLN 8 EA IN SEP CMA 7 EA IN OCT AND  
 7 EA IN NOV 54. OCAMA WILL REQUIRE A MIN OF 60 DAYS TO COMPL MOD THESE  
 ACFT AND EFF THEIR RTRN TO THE ISSUING ACTY. COMPL FLT ECH OF THIS UNIT  
 CANNOT BE READIED FOR DEPT UNTIL O/A 20 JAN 55. PART THREE CLN FOREGOING  
 DEPT DT ARE CONTINGENT UPON AVAL OF NEC TOC KITS AND EFF A/L OF NON MOD  
 TO OCAMA IN TIME AND IN QTY REQUIRED TO MEET AND SUSTAIN THEIR OUTPUT  
 SCD. ANY SLIPPAGE IN PDN OF THE TOC KITS OR DELAY IN DLVR THESE ENG TO

C O P Y

AND FR OCAMA WILL CAUSE A CORR SLIPPAGE IN THE ABOVE CITED DEPT DT.  
PART FOUR CLN THE FACT THAT THE 18TH FIS W/B RE-EQUIPPED WITH NEW F-89D  
ACFT PRESENTS A PARKING AND MAINT PROBLEM AT MINN ST-PARUL. SUFFICIENT  
PARKING SPACE IS NOT AVAIL AT THAT BASE TO ACCOM ADD ACFT. IT W/B NEC  
OMA THEREFORE CMA TO DEPLOY THE NEW ACFT OUT OF OCAMA DIR. TO REDUCE  
THE WORKLOAD AND SPACE PROBLEMS AT OCAMA CMA IT MAY BE DESIRABLE TO DE-  
PLOY THE FLT ECH OF THE 18TH FIS IN 2 INCR DURING JUL AND AUG 54. YOUR  
COMMENTS REQ".  
23/1547Z APR 54

C O P Y

HEADQUARTERS  
27TH FIGHTER-INTERCEPTOR SQUADRON  
Griffiss Air Force Base, Rome, NY

FIS27-OPR

18 August 1954

SUBJECT: Waiver of ADC UPD Requirements

THRU: Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Waiver of ADC UPD 10-4 requirements are requested for this organization in accordance with EADF Regulation 50-16 for the period of 1 August 1954 to 31 August 1954.

a. Description of Waiver:

- (1) Phase of training: Radar scope recording and aerial rocketry requirements.
- (2) Percent of training for which a waiver is desired:  
100%

b. Justification of Waiver:

- (1) Equipment and facilities are lacking for the local conduct of radar scope recording and aerial rocketry training.

FOR THE COMMANDER:

DONALD L. FREE  
2nd Lt., USAF  
Adjutant

185 2

1 6 7 4

C O P Y

Hq 27th FIS FIS27-OPR Subject: Waiver of ADC UPD Requirements

DO (18 Aug 54) 1st Ind

Hq 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Recommended approval.

2. This headquarters is in receipt of a letter from Headquarters Eastern Air Defense Force, EAMAC-ARM, Subject: Local Manufacture of Scope Recorder Mount for F-86D and F-94C Aircraft, dated 14 August 1954. The 27th Fighter-Interceptor Squadron has been forwarded copies of the approved plans and correspondence referred to above. It is anticipated that locally manufactured kits should be available within the 27th by the end of September 1954.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

OOT-FO (31 August 1954) 2nd Ind (1 Sep 54)

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Recommend Approval.

2. Concur with Paragraph 2, 1st Ind, as to target date of 30 Sep 1954, for 27 FIS to have scope recording kits locally manufactured.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

**SECRET**

C O P Y

57TH FIGHTER INTERCEPTOR SQUADRON  
520TH AIR DEFENSE GROUP  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

FIS 57-0PN

11 August 1954

SUBJECT: Waiver of ADC UPD Requirements

THRU: Commander  
520th Air Defense Group  
Presque Isle Air Force Base  
Presque Isle, Maine

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Under the provisions of EADF Reg 50-16, a waiver of all ADC UPD requirements is hereby requested for the month of July 1954 for the 57th Fighter Interceptor Squadron, Presque Isle Air Force Base,

a. The squadron presently has nineteen aircraft assigned and none possessed.

b. All assigned aircraft are undergoing project IRAN at Hill Air Force Base, Ogden, Utah, of the five (5) aircraft possessed the first of July, the last one departed for IRAN on 12 July 1954. However, all of these five (5) aircraft had been grounded for several days prior to transfer, for maintenance and transfer inspections. Therefore, the aircraft utilization for the purpose of ADC, UPD requirements was negligible.

c. The first aircraft are not scheduled for return from IRAN until the latter part of August 1954 and will continue returning in small increments through September 1954.

FREDERIC T. WATTS  
Major, USMC  
Commander

54-2643

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**SECRET**

C O P Y

Ltr 57th FIS FIB57-CIN Subject: Waiver of ADC UPD Requirements

DO (11 Aug 54) 1st Ind 17 Aug 1954

Hq 528TH AIR DEFENSE GROUP, Presque Isle AFB, Maine

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Maine

Recommend approval.

FOR THE COMMANDER:

HAROLD H. MARQUIS, JR.  
1st Lt., USAF  
Adjutant

DO (11 Aug 54) 2nd Ind

Hq 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. Recommend approval.

2. All available resources within this command have been utilized  
in an effort to meet UPD Requirements.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

**SECRET**

**SECRET**

C O P Y

Ltr 57th FIS F1357-OPW Subject: Waiver of ADC UPD Requirements

OCT-FO (11 Aug 54) 3rd Ind 1 Sep 1954

HEADQUARTERS, 3RD AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Recommend approval.
2. Utilization of F-89D aircraft as they become available at Presque Isle AFB, should alleviate the situation of small increments of F-89C aircraft returning from IRAN by 1 September 1954.

FOR THE COMMANDER:

EVERETT W. HOWE  
Major, USAF  
Adjutant

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C O P Y

HEADQUARTERS  
528TH AIR DEFENSE GROUP  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

CO

31 Mar 1954

SUBJECT: Alert Requirements

TO: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. It is requested that the alert commitments for this base be changed from a two-squadron commitment to a one-squadron commitment for the following reasons:

a. The present combined number of F-89's possessed by both squadrons totals 23, which approximates the normal complement of one fighter squadrons.

b. It is anticipated that in May of this year the number of aircraft possessed will decrease even further due to loss of 57th Fighter-Interceptor Squadron aircraft to IRAN and the fact that seven aircraft sent to IRAN by the 74th Fighter-Interceptor Squadron are scheduled to the 433rd Fighter Interceptor Squadron rather than return to the 74th Fighter-Interceptor Squadron.

c. Our in-commission rate will be adversely affected for a period of time due to the 6th stage engine modification underway at this station.

2. In view of the above it is felt that a two-squadron alert commitment for this base is unrealistic until the aircraft situation improves and that the request contained in paragraph 1 is justified.

FRANK Q. O'CONNOR  
Colonel, USAF  
Commander

54-468

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SECRET

C O P Y

Hq 528th ADG CO Subject: Alert Requirements

COMDR (31 Mar 54 1st Ind

Hq 4711th DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

1. This headquarters strongly recommends favorable consideration of above request.

2. An additional consideration is the fact that the 74th Fighter-Interceptor Squadron is preparing to deploy to Thule Air Force Base, Greenland on or about 3 August 1954. Any additional respite given this Squadron could be utilized to great advantage in continuing to train unqualified pilots and in preparing for the cited deployment.

JAMES O. BECKWITH  
Colonel, USAF  
Commander

OOT-FO (31 Mar 54) 2nd Ind

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York, 10 Apr 1954

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base, Newburgh, New York

1. Recommend approval.

2. In addition to a critical shortage of possessed aircraft, it is anticipated that the squadrons assigned to Presque Isle will lose qualified F89C crews to the 433rd Fighter Interceptor Squadron. Any new crews assigned, to bring the 57th Fighter-Interceptor Squadron and the 74th Fighter Interceptor Squadron up to TO strength, will require training in assigned aircraft before they become combat qualified. This training will be greatly accelerated by the requested change in alert requirements.

ROBERT S. ISRAEL, JR  
Colonel, USAF  
Commander

54-468

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**SECRET**

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

INCOMING CLASSIFIED MESSAGE

Precedence:      Date Time Group:      Month:      Copy 1 of 2 Cys  
PRIORITY      30 1940Z      JUN 54

Paraphrasenot required

CATEGORY ABLE MESSAGE

FROM: COMDR 4711TH DEF WG, PRESQUE ISLE

REF NR: DO 573-F

TO: COMDR 32D ADIV SYRACUSE AF STA

INFO: COMDR, EADF, STEWART AFB

HQ 4711 DEF WG OPS ORDER NO 5-54 IS QUOTED FYI: QUOTE CHART  
AND MAP REF: AS REQUIRED. TASK ORGN: 517 ADG COL H. L. DOWNING.  
528 ADG COL F. Q. OCONNIR. 27FIS MAJ J. HRECHER. 49F IS MAJ J.A.  
BELL.

1. GENERAL SITUATION: BY 1 JULY CURR, IRAN AND MODIFICATION  
COMMITMENTS, COUPLED WITH THE OVER SEAS DEPLOYMENT OF THE 74 FIS, WILL  
HAVE REDUCED THE AIR DEF CAPABILITY OF THE 528 ADG TO A POINT WHERE  
OUT SIDE AS DISTANCE WILL BE MANDATORY.

2. MISSION: THIS COMD MAINTAINS THE ALERT COMMITMENTS AT PRESQUE  
ISLE AFB BY UTILIZING RESOURCES WITH IN ITS OWN LIMITATIONS. THIS HQ  
ESTB A SKED OF ROTATION AMONG THE OTHER UNITS OF THIS COMD IN MAINTAIN-  
ING REQUIRED DEGREE OF ALERT.

3. TASKS FOR SUBORDINATE UNITS:

A. COMDRS 517 ADG, 27 FIS AND 49 FIS WILL FURNISH ACFT,  
CREWS AND MAINT PERS AS DIRD IN ATTCHE SKED. (SEE ANNEX A).

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C O P Y

DO 573-F Continued

PAGE 2

B. COMDR 528 ADG WILL FURNISH ALL FACILITIES FOR BILLETING AND MESSING THE REQ PERS. HE WILL FURNISH LOGISTICAL SUPPORT AS REQ AND MAINT PERS TO RUN THE ALERT FACILITIES. THIS WILL INCLUDE PERS TO PERATE THE ALERT HANGERS AND AUXILIARY POWER UNITS FOR ACFT ON ALERT.

4. LOGISTICAL AND ADMIN MATTERS:

A. COMDRS 517 ADG, 27FIS AND 49 FIS WILL FURNISH A 10 (TEN) DAY LEVEL OF SPARES MOST COMMONLY USED AND WHICH ARE PECULIAR TO THEIR PARTICULAR ACFT.

B. ONLY ESSENTIAL GROUND HANDLING EQUIPMENT NOT AVAILABLE AT PRESQUE ISLE AFB AND NEC FOR MAINT OF ACFT WILL ACCOMPANY ACFT TO PRESQUE ISLE.

C. ESSENTIAL SKILLED PERS WILL ACCOMPANY ACFT. SPECIFICALLY, THIS WILL INCLUDE RADAR TECHNICIANS, ROCKET HANDLERS AND ANY OTHER PERS WITH SKILLS PECULIAR TO THE MAINT OF THE PARTICULAR ACFT CONCERNED.

D. ARRANGEMENTS WILL BE MADE WHERE EVER POSSIBLE TO EFF SCT ANY MAJOR MAINT AT THE HOME STA OF DEPLOYED ACFT. THIS WILL INTAIL A CERTAIN AMOUNT OF ROTATION TO AVOID PULLING ANY MAJOR INSPECTIONSAT PRESQUE ISLE AFB.

5. COMD AND SIGNAL MATTERS:

A. COMDR 528 ADG WILL SKED THE ALERT REQUIREMENTS ODDEPLOYED ACFT IN ACCORDANCE WITH ADC OPS ORDER 3-54. REQUIREMENTS OF DEPLOYED ACFT IN ACCORDANCE WITH ADC OPS ORDER 3-54. NON AI FIGHTERS W/B SKED

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C O P Y

DO 573-F Continued

PAGE 3

ACCORDINGLY.

B. DIRECT COMM BETWEEN UNITS CONCERNED IS AUTHORIZED FOR THE PURPOSE OF COORDINATION.

C. UNITS DEPLOYING TO PRESQUE ISLE WILL NOTIFY THE CMDR, 528 ADG AT LEAST 48 (FOUR EIGHT) HRS IN ADVANCE OF THE NO. OF PERS TO ACCOMPANY THE ACFT DEPLOYING.

ANNEX A TO OPS ORDER 5-54. ALERT SKED FOR PRESQUE ISLE AFB DURING THE PERIOD 1 JULY THROUGH 26 AUG. THIS SKED WILL BE SUBJECT TO CHANGE IN ACCORDANCE WITH UNIT CAPABILITIES. IT WILL BE CANCELLED IF AT ANY TIME THE 528 ADG REGAINS ITS AIR DEF CAPABILITY OR EXTENDED IF IT IS DEEMED NECESSARY.

UNIT	NO OF ACFT	DATE OF DEPLOYMENT
27FIS	4	1200 EDT 1 JUL to 1200 EDT 15 JUL 1200 EDT 12 AUG TO 1100 EDT 26 AUG.
37FIS	4	1200 EDT 15 JULY TO 1200 EDT 12 AUG
49FIS	2	1200 EDT 5 JULY TO 1200 EDT 29 JUL
528 ADG	MAIN RAIN 2 ACFT ON QUOTE BACKUP UNQUOTE DURING THE PERIODS 1200 EDT 12 JULY TO 1200 EDT 5 JULY AND 1200 EDT 29 JULY TO 1200 EDT 26 AUG.	

SECRET

**SECRET**

COPY

TWX

5F1 069  
RR 3E0A  
DE 5F1 29  
R 022128Z

FM HQ EADF STEWART AFB NEW YORK  
TO 3TFX/COMDR ADC ENT AFB COLO  
3E0A/COMDR 32D AD(D) SYRACUSE AF STA NY

/S E C R E T/EA00T-OW C-703. THIS MSG IN 2 PARTS. PART 1 FOR ADC.  
AS RESULT OF DECREASED AIR DEF CAPABILITY OF 528TH AIR DEF GP AND  
TO MEET ALERT REQUIREMENTS ESTED IN ADC OPORD 3-54 CMA THE FOLG  
UNITS WILL DEPLOY INTERCEPTORS TO PRESQUE ISLE AFB AS INDICATED  
CLN A. 27TH FTR-INTERCEPTOR SQ 1 JUL-15 JUL AND 12 AUG - 26 AUG CMA  
4 ACFT. B. 37TH FTR-INTERCEPTOR SQ CMA 4 ACFT CMA 15 JUL-12 AUG. C.  
49TH FTR INTERCEPTOR SQ CMA 2 ACFT CMA 5 JUL-29 JUL. PART 2 FOR 32D  
AIR DIV DEP. CONCUR IN ACTION TAKEN TO FULFILL ALERT REQUIREMENTS  
AT PRESQUE ISLE AFB.  
02/2202Z JUL 5F1

54-1736

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, N.Y.

GENERAL ORDERS)  
NUMBER 49)

13 August 1954

ASSIGNMENT OF UNIT . . . . . SECTION I  
REORGANIZATION OF UNITS. . . . . SECTION II

SECTION I

1. The 318th Fighter Interceptor Squadron, having been assigned to this command from Northeast Air Command effective 8 August 1954, is concurrently further assigned to the 528th Air Defense Group.
2. The pertinent provisions of AFM 171-6, June 1950, as amended, are applicable.
3. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.
4. Authority: Headquarters United States Air Force message AFOMO-0 48298, 27 July 1954, and Headquarters Air Defense Command message ADOMO 25930, 12 August 1954.

SECTION II

1. Effective 8 September 1954, the following units are reorganized with strength and T/O composition as indicated:

<u>UNIT</u>	<u>T/O COMPOSITION</u>	<u>AUTH STR</u> <u>OFF AMN</u>
Fighter Interceptor Squadrons 318th, 438th	1-1289, 1 Mar 54, 1 x Parts II, IID; 3 x Part IIC; 1-1294, 1 Feb 54, 1 x Part IID	85 301 (each)

2. Required personnel will be furnished from sources available to the Defense Wing concerned.
3. The above are Category D units and are authorized Unit Essential Equipment as listed in the MEAL. The UPREAL's, or UME column of the Unit Allowance Lists, as applicable, will be prepared based on Column 3A of the MEAL and the above T/O composition. So far as Part IID, T/O 1-1294, is concerned, no organizational equipment is involved.

C O P Y

GO 49 HEDEADF (ADC) Stewart AFB Newburgh NY 13 Aug 54 (CONT)

4. Pertinent provisions of AFM 171-6, June 1950, as amended, will apply.
5. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.
6. Authority: Letter, Headquarters Department of the Air Force, AFOMO 301j, 13 July 1954, Subject: Reorganization of the 318th Fighter Interceptor Squadron, with 1st indorsement thereto from Headquarters Air Defense Command, ADOMO, 23 July 1954, and letter, Headquarters Department of the Air Force, AFOMO 337j, 3 August 1954, Subject: Reorganization of the 337th and Certain Other Fighter Interceptor Squadrons, with 1st indorsement thereto from Headquarters Air Defense Command, ADOMO, 10 August 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:

HANLON H VAN AUKEN  
Colonel, USAF  
Acting Vice Commander

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

DISTRIBUTION:

- A plus:
- 30 - AAG HEDUSAF (ATTN: PUB DIV)
- 10 - CCMDR ADC (ATTN: M&O (Unit CON BR))
- 5 - AF Liaison OFF Kansas City MO
- 6 - EAOFR
- 4 - EACST

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, NY

GENERAL ORDERS)  
NUMBER 60)

27 October 1954

ASSIGNMENT OF UNIT . . . . . SECTION I  
REORGANIZATION OF UNIT . . . . . SECTION II

SECTION I

1. The 82d Fighter-Interceptor Squadron, having been assigned to this command from Northeast Air Command effective 25 October 1954, is concurrently further assigned to the 528th Air Defense Group.

2. The pertinent provisions of AFM 171-6, June 1950, as amended, are applicable.

3. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.

4. Authority: TWX, Headquarters United States Air Force, AFOP-OC-C 35362, 21 August 1954, and letter, Headquarters Department of the Air Force, AFOMO 391j, 27 September 1954, Subject: Assignment of the 82d Fighter-Interceptor Squadron, with 1st Indorsement thereto, Headquarters Air Defense Command, ADOMO, 7 October 1954.

SECTION II

1. Effective 18 November 1954 the following unit is reorganized with strength and T/O composition as indicated:

<u>UNIT</u>	<u>T/O COMPOSITION</u>	<u>AUTH STR</u>	
		<u>OFF</u>	<u>AMN</u>
82d Fighter-Interceptor Squadron	1-1289, 1 Mar 54, 1 x Parts II, IID, 3 x Part IIC 1-1294, 1 Feb 54, 1 x Part IID	85	301

2. Required personnel will be furnished from sources available to the 4711th Air Defense Wing.

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GO 60 HEDEADF (ADC) Stewart AFB Newburgh NY 27 OCT 54 (CONT)

3. The above is a Category D unit and is authorized Unit Essential Equipment as listed in the MEAL. The UPREAL, or the UME column of the UAL, as applicable, will be prepared based on Column 3A of the MEAL and the above T/O composition. So far as Part IID, T/O 1-1294, is concerned, no organizational equipment is involved.

4. The precedence category for the above unit is XVII-31, as established in the current issue of the USAF Operating Program - Priorities of Programmed Units. Any changes thereto will be reflected in subsequent issues of this publication.

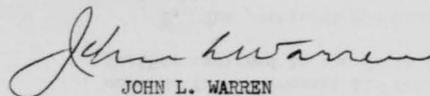
5. The pertinent provisions of AFM 171-6, June 1950, as amended, are applicable.

6. Upon completion of action directed herein, Organization Status Change Report (Reports Control Symbol AF-01) will be prepared in accordance with Chapter XX, EADF Manual 171-2, and submitted to the Commander, Eastern Air Defense Force, to arrive not later than 0800 hours the first calendar day following the "as of" date.

7. Authority: Letter, Headquarters Department of the Air Force, AFOMO 348j, 19 August 1954, Subject: Reorganization of the 82d Fighter-Interceptor Squadron, with 1st Indorsement thereto, Headquarters Air Defense Command, ADOMO, 30 August 1954.

BY ORDER OF THE COMMANDER:

OFFICIAL:



JOHN L. WARREN  
Colonel, USAF  
Adjutant

DONALD B. SMITH  
Brigadier General, USAF  
Vice Commander

DISTRIBUTION:

A plus  
30 - AAG HEDUSAF ATTN: PUB DIV  
10 - COMDR ADC ATTN: M&O (Unit CON BR)  
5 - AF Liaison OFF Kansas City MO  
6 - EAOPR  
4 - EACST

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE (ADC)  
Stewart Air Force Base, Newburgh, NY

GENERAL ORDERS)  
NUMBER 66)

7 December 1954

AMENDMENT OF GENERAL ORDERS

Paragraph 1, Section I, General Orders number 60, this headquarters, dated 27 October 1954, pertaining to assignment of the 82d Fighter Interceptor Squadron, as reads "from Northeast Air Command" is amended to read "from Iceland Air Defense Force (MATS)".

BY ORDER OF THE COMMANDER:

OFFICIAL:

DONALD B SMITH  
Brigadier General, USAF  
Vice Commander

JOHN L WARREN  
Colonel, USAF  
Adjutant

DISTRIBUTION:

A plus  
30 - AAG HEDUSAF ATTN: PUB DIV  
10 - Comdr ADC ATTN: M&O (Unit CON BR)  
5 - Comdr Iceland Air DEF Force  
5 - Comdr MATS  
5 - AF Liaison OFF Kansas City MO  
6 - EACPR  
4 - EACST

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C O P Y

TWY

5F1 005  
RR3EOA EVA  
RR AJOA 3EOA C93A 333  
DE-5F1 147  
R 272211Z  
FM HQ EADF STEWART AFB NY  
TO AJOA/COMDR 4711TH ADM PRESQUE ISLE AFB ME  
INFO ZEN/COMDR ADC ENT AFB COLO  
3EOA/COMDR 32D ADD SYRACUSE AFS NY  
C93A/COMDR 528TH ADGP PRESQUE ISLE AFB ME  
/UNCLASSIFIED/ EAOFF-4 35992. EADF GO NR 60 CMM 27  
OCT 54 CMM ASSIGNS THE 82D FINCEPTRON TO THE 528TH AIRDEFCRU EFF  
25 OCT 54. SEC II OF THIS GO REORG THE 82D FINCEPTRON EFF 18 NOV  
54 UNDER T/O 1-1289 CMM 1 MAR 54 CMM 1 X PARTS II CMM IID CMM 3 X  
PART IIC CMM AND T/O 1-1294 CMM 1 FEB 54 CMM 1 X PART IID CMM WITH  
AN AUTH STR OF 85 OFF AND 301 AMN. GO BEING PUB THIS DATE AND  
COPIES W/B FWD AT EPD.  
27/2218Z OCT JEPNB

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 20 July 1954

At the staff meeting held at 0900 hours on 20 July 1954, briefings were given by the deputies as follows:

Deputy Commander:

Colonel Clark introduced the newly assigned Naval Liaison Officer, Lt Commander Bernard Sevilla, to all deputies.

Also, a message was received from General Nelson, SADF, which will be published in the Daily Bulletin, expressing appreciation for the efforts put forth by everyone during Exercise Checkpoint.

Deputy for Operations:

Colonel Ingenhutt. The ROTC is through at Burlington, therefore, recommend we get the T-33 and start using it at this headquarters since there is only an hour and forty minutes left on the one we now have.

Some of the pilots in my section are beginning to complain about the mechanical condition and uncleanness of the aircraft.

The State Police are still complaining about the speeding, by Air Force personnel, in North Syracuse and informed me that the Sheriff's Office and the North Syracuse Police are going to start "lowering the boom". Recommend something be done about it.

Comptroller:

Lt Colonel Dawson. Yesterday afternoon a new ADC Program Book arrived at this headquarters. It was transferred from our office to PC&R.

We received funds for this FY and have started to break them down. We stand pretty good as far as I can tell and have a little more money than we did the previous year.

Adjutant:

Lt Sweet. Because of late suspense dates, etc., we have started a new system. Lt Colonel Dawson has been designated Assistant Adjutant for the purpose of signing RCS reports. RCS reports will go directly to his section and out of this headquarters instead of going through the AG section.

Staff Meeting, 20 July 1954 (Cont'd)

Director, Office of Information Services:

Major Casety. The Office of Information Services is now located in Building 7.

Colonel Clark. Suggest the Assistant Director of OIS make field visits to the AC&W Squadrons and filter centers as soon as he is able to do so.

Deputy for Material:

Major Daniels. We are still having difficulty with pilots from the field who fail to comply with ADCR 67-1 in filing arrival and departure notices when ferrying or transferring aircraft.

Inspector General:

Colonel Thomas. ADC & EADF are apt to pull vulnerability tests within the command and I think it a good idea for staff officers to make a particular point of looking at security as they visit installations. They do not have to "snoop" around but should get a general picture of the attitude towards security.

*WFC*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 10 August 1954

At the staff meeting held at 0900 hours on 10 August 1954, briefings were given by the deputies as follows:

Deputy Commander:

Colonel Clark: We received a call from Major Daniels yesterday and he wanted help on the Otis Air Force Base Public Works Program. I called Otis last night and asked them to send Captain Baker and one other man to help him. Captain Meyers will you get a wire out confirming my conversation with Otis, directing them to send an installations officer and an assistant, suggesting that it be Captain Baker, to assist Major Daniels in revising the Otis Public Works Program.

Deputy for Operations:

Lt Colonel Fuller: St Albans is having a stag party Friday night for all adjacent AC&W and Fighter squadrons and they have invited as many as would like to attend from this division.

Colonel Clark: Colonel Israel would like to have as many as we can spare attend these parties, particularly captains and lieutenants.

Colonel Beckwith will be the Division Commander until Colonel Israel's return on Tuesday. A General Order is being published to this effect.

I have noticed in visits to AC&W squadrons that they are better equipped in their BOQs than we are here. This does not make a very good impression when personnel from the squadrons visit our installation. Captain Meyers has a regulation which authorizes necessary equipment. Would like to have requisitions issued for the necessary equipment needed in our BOQ. Similar requisitions have been submitted for the airmen's quarters. If necessary, let's follow up on this.

How do we stand on business of officers who will be allowed to draw quarters allowance and live off base?

Captain Monroe: Major King is working on this and he should be back on Thursday.

Colonel Clark: Will you make a note of that for his attention and to let me know how we stand on it.

Staff Meeting, 10 August 1954 (Cont'd)

Commander, Hq Sq Section:

Captain Monroe: Lt Messick has gone to Rome in regard to the damage done to the fence on Friday night when a vehicle drove in and out of it. Griffiss has designated this down to Ground Safety. Attempts are being made to settle with the driver of the vehicle before supply action is taken. Reimbursement for the damage will not be accomplished until this matter is settled.

Colonel Clark: Has the new officer checked in for duty at Supply?

Deputy for Personnel:

Lt Colonel Fenn: The new supply officer should be here for duty now.

Inspector General:

Colonel Thomas: We had a great deal of late correspondence from the wings lately and we are wondering if other sections have had the same difficulty.

Lt Colonel Fuller: The only difficulty we have had of late is non-receipt of messages by the wing. In following through, the messages do go out of our message center to the wing; they are falling down at the wing somewhere.

Colonel Clark: This will be an item for Colonel Thomas to check on during his inspection trip.

Colonel Thomas: We received a letter from Colonel Van Auken, Acting Vice Commander at Eastern, stating that we have a late report on the 74th FIS POM. Thought perhaps this might be due to unrealistic suspense dates.

Colonel Clark: Comptroller states that we have been doing much better on late reports.

Suggest that CAG keep a check to see that correspondence is properly sent out.

*WFC*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 24 AUGUST 1954

At the staff meeting held at 0900 hours on 24 August 1954, briefings were given by the deputies as follows:

Commander:

Colonel Israel: I received a letter from General Nelson in regard to late reports. Starting in February, throughout the division, we had 250 late reports; in March, 206; in April, 86; in May, 84; in June, 72 and in July, 123. We have had five or six late reports from this headquarters. Suggest IG check the reports control and have a board set up in the wing, group and squadron commanders' office, which will point out to them reporting dates, etc.

Colonel Thomas: About three months ago, we received a similar letter. Major Brown and I worked on it and broke the report down, attempting to locate the difficulty. When the report is broken down to units, the seriousness disappears. We could not pin point the lateness down to any one cause.

Colonel Israel: We will pin point it down to reports control.

Colonel Clark: Suggest we pass the word along to get reports in on time. When Lt Colonel Dawson returns from leave we will go through and pick out individual causes. Then we will draft up letters to go out to the wing commanders, holding them personally responsible.

Colonel Israel: Thing we can do is get everybody concerned with these reports and do the best we can on monitoring them. Then, see if we could supervise and get the wing, group and squadron commanders to keep a daily check on the basis of the control board. Suggest that the primary duty of the newly assigned executive officers at the units be that of getting reports out on time.

Major Daniels: Considerable difficulty is encountered in having reports that are in on time correct.

Colonel Israel: In order to avoid having them go in late, send them on through as is and have the corrections follow. If there are any delays, find out where they are occurring and how they are occurring and get the date changed in EADF and ADC. Suggest that Major Howe work along with Lt Colonel Dawson on this.

Colonel Thomas: We will make another breakdown and will carry it with us on inspection trips.

Staff Meeting, 24 August 1954 (Cont'd)

Lt Colonel Fenn: Believe one of the reasons for late reports in fighter squadrons is lack of adequate adjutants. Within the next 60-day period we have at least five full-time adjutants going into squadrons, which should help correct the situation.

Colonel Israel: We will not get it corrected unless we hold the commanders responsible.

Deputy Commander:

Colonel Clark: Want to bring up the fact that we will have an Officers' Call on Friday, 27 August, at 1530 hours for the purpose of discussion, by the Headquarters Squadron Section, on ADCR 62-10 and dependent travel.

Is everyone squared away on the Saturday schedule? The general rule is that we will have one officer capable of handling the business and one airman capable of typing letters on duty in each major staff section. Although payday is a day for I&E, counselling and general meetings, the Saturday schedule will still apply.

Deputy for Materiel:

Major Daniels: I attended a Planning Board meeting last week at Griffiss Air Force Base in relation to work orders here at the 32d Air Division. In order to arrive at some conclusion, anything that requires manpower, for work to be done here, will go on Form 525.

It was decided that we will have a Planning Board set up here at the 32d Air Division to go over all work orders prior to their submission to Griffiss, primarily to get them in shape and eliminate those that should not go out. A meeting will be set up for Monday, 30 August, to go over the present backlog of work orders and to consider any new ones that come up. The Board will consist of Lt Colonel Dawson, Major Daniels and Major King.

Deputy for Personnel:

Lt Colonel Fenn: Headquarters, USAF, has announced a new policy for the selection of officers for overseas. This item will be discussed in detail at the Officers' Call on Friday, 27 August.

EADF is going to hold a golf tournament within the next 60 days to select a five man team to attend the ADC Golf Tournament at Pebble Beach, California on 9, 10, 11 January 1955. By 1 September 1954, EADF would like the names and handicaps of all golfers qualified to compete. ADC Welfare Fund will pay for green fees, caddy or cart fees, expense allowance for each contestant not to exceed \$5.00 per day (\$2.00 per day for host personnel).

Staff Meeting, 24 August 1954 (Cont'd)

The Primary Management Course here at Syracuse Air Force Station will commence approximately 13 September through 8 October. Dates are not firm as yet. This will be a two-week course, four hours a day. Would like to have the help of all deputies and staff heads in selecting students to attend this course. Airmen should be of a 5 or 7 skill level; officers should be of company grade. It is also pointed out that an airman and his immediate supervisor should not attend the same course.

We are just starting the officers temporary promotion cycle for Fiscal Year 1955. Recommendations for promotion for captain must be back in our section by 30 August. Promotions for major should be in by the end of September and promotions for Lt Colonel should be in by the end of October. We are getting out the necessary forms today. We have seven in this headquarters eligible for promotion to captain.

*EWA*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 31 AUGUST 1954

At the staff meeting held at 0900 hours on 31 August 1954, briefings were given by the deputies as follows:

Deputy Commander:

Colonel Clark: I would like to call a meeting at 1100 hours today, which will include the Deputy for Operations, Inspector General, Deputy for Personnel, Comptroller and the Adjutant, in regard to General Nelson's letter on the EADF Semi-Annual Inspection Report. Many of our deficiencies are the result of personnel not knowing the regulations and publications. The purpose of this meeting will be to work out a definite program to get them to know the directives.

Commander, Hq Sq Section:

Major King: All airmen personnel have been reminded that the Labor Day weekend is coming up and that they should drive carefully.

Today is payday and a minimum amount of people will be on duty. Also, personnel have been informed that they must personally sign out, prior to going on leave, and in, and that no one will sign for them.

The exceptions of dependent travel, and ground safety have also been discussed with all personnel.

Deputy for Materiel:

Major Daniels: In regard to the Otis proposition on '54 monies, it was decided by the Corps of Engineers and USAF that they go ahead and let bids to the people. They believe the bids will be lower than the estimates. Eastern wants Otis to be prepared with their list of priorities in the event the bids do not cover the money limitations that have been established.

In regard to the meeting called on 30 August for the purpose of reviewing work orders, Major King has a list of the priorities. The filter bed problem was also discussed.

Colonel Clark: What about Niagara? Did they get squared away on runways?

Major Daniels: They are still proceeding with the work and they were going to come up today with the exact amount they were going to ask of ADC. I will be advised as soon as they arrive at a figure.

Staff Meeting, 31 August 1954 (Cont'd)

Colonel Clark: Does everyone know that the 49th FIS are getting their F86D's and that they have stood down on their commitments?

Lt Colonel Fuller: It does show on the briefing board this morning.

Inspector General:

Colonel Thomas: Eastern has revised the inspection schedule to include Presque Isle Air Force Base and all units stationed on base for a special inspection on 25 October.

Our inspection team will be at Burlington beginning 13 September for a general inspection of all units at Burlington and St. Albans.

Colonel Clark: In regard to General Nelson's letter on the EADF Semi-Annual Inspection Report, he also stated that many people are using the alibis of "personnel shortages" and "inexperienced personnel". Apparently he is getting irritated at unit commanders using this excuse for not being able to accomplish the job. Suggest we tone down the gripes and alibis of those who say they do not have enough people or do not have experienced people. General Nelson is already going into a program to get experienced personnel.

*EWH*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse New York

MINUTES OF THE STAFF MEETING - 14 September 1954

At the staff meeting called at 0900 hours on 14 September 1954, briefings were given by the deputies as follows:

Deputy for Personnel:

Lt Colonel Fenn: We are operating an Air Force Management School this week and I find that we are having too much absenteeism already. The class started yesterday. These boys must keep 90% attendance or they do not receive a certificate. Also, there must be 90% attendance in order for the class to operate.

Colonel Israel: They will attend unless sickness prevents it.

Deputy Commander:

Colonel Clark: Major Daniels, what did we do about the audit for the PX at Burlington?

Major Daniels: We sent a message to EADF requesting that they do something about getting the audit.

Deputy for Operations:

Colonel Inghutt: There will be a meeting of the Manpower Board, similar to that which we held last December. The ground rules of this are a little stiff so rather than the deputies sending their assistants or sergeants, strongly recommend that the deputies attend. The meeting will be within the next week or ten days.

Commander:

Colonel Israel gave a resume' of his trip to ADC and stated that the meeting consisted of a briefing on Checkpoint. Generally speaking everyone was happy with the mission. It was not a test of the system but purely a training exercise.

The new CONAD organization was discussed. Also, Flying Safety. We must be on the look-out for unsafe conditions and unsafe practices, and that members of the staff keep their eyes open when going out to the field for unsafe conditions. We must get rid of apprehension in the minds of pilots and put awareness in them.

*EWA*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 21 September 1954

At the staff meeting called at 0900 hours on 21 September 1954, briefings were given by the deputies as follows:

Deputy for Operations:

Colonel Ingenhutt: I just want to remind all the people who were previously notified of the manpower meeting, that it will be held right after the staff meeting this morning.

Commander:

Colonel Israel: Colonel Dawson, have you found anything on the Combat Readiness Report?

Lt Colonel Dawson: I talked it over with Captain McEachron yesterday. He is going to Eastern today and will check into the matter there. He will be able to get the information quicker, otherwise we would have to write a letter since it is classified information.

Colonel Israel: Find out if there is anything we can do about it from this level on down. I want to know why we dropped from 85% to 40%.

Commander, Eq Sq Section:

Captain Mancuso: We have had three fires in the past two weeks in trash barrels outside the buildings. Believe if the officers who work for the deputies take pains to inform airmen to utilize extreme caution in emptying wastebaskets, ash trays, etc., we may prevent future fires of this type.

Colonel Israel: Suggest that fire precaution posters be put up and that butt cans be filled almost to the brim with sand in order to prevent paper from being put in them. Also, a fire prevention program for the base.

Deputy for Personnel:

Lt Colonel Penn: We have an Air Force Aid Membership drive starting tomorrow and ending on 4 October. DF's have been sent out to major staff sections requesting that an officer be appointed as project officer for same. Project officers are requested only for the major staff sections. Our section will handle the smaller units.

Colonel Israel: I am confused about the Niagara runway situation. What are they doing? I understand they are going to do the job right.

Major Daniels: They are going ahead with it and are going to come very close to the estimates we were given.

Staff Meeting, 21 September 1954 (Cont'd)

Inspector General:

Colonel Thomas: We have just completed our inspection at Burlington. If any questions come up about reorganization, my people should be quite familiar with it. Generally speaking, there was considerable improvement over last year.

*BWH*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

MINUTES OF THE STAFF MEETING - 28 September 1954

At the staff meeting called at 0900 hours on 28 September 1954, briefings were given by the deputies as follows:

Deputy for Operations:

Colonel Ingenhutt: TV will not be allowed in the Operations Section during the World Series this year. If supervisors permit it, personnel may be excused to watch TV at the Rec Hall or Club during the Series.

Commander:

Colonel Israel: I have no objection to letting people off for the Club or Rec Hall to watch TV during the Series; however, feel this should be left up to the discretion of the deputies. TV will not be allowed in any of the offices. Radios will be permitted provided they do not annoy people who are working in adjacent offices.

Colonel Ingenhutt: We have a letter in Operations requiring us to comment on the ADC SOP for aircraft check-out in making pilots combat ready. We have called in two crews tomorrow for combat ready aircraft.

Comptroller:

Lt Colonel Dawson: I am working on a revised financial plan for the division headquarters, which is done every three months. If anyone has any major changes or revisions, or if you know of anything that will be an additional cost to what you have already given me, please inform my office.

Commander, Hq Sq Section:

Captain Mancuso: I am compiling information, all that is available, on the Master Sergeant from the Reserve Center downtown, who was killed on Saturday. If anyone is interested in this information, I will furnish them with a copy.

Reference the snow removal problem. In order to do a good job on the snow removal, there will be some change in the parking areas, but it will be during certain hours. Signs will be put up, printed in red and white such as, for example, "After 1800 hours, parking will be on the Opposite Side of the Street", etc. When complete details are drawn up, I will bring the plan to Colonel Israel for his approval.

Minutes of the Staff Meeting, (Cont'd)

Colonel Israel suggested that a plan also be set up whereby snow removing will be done after duty hours.

Captain Mancuso: We have picked up the dishwasher for the mess hall. Also, we are sending a man from Air Installations to school at Otis Air Force Base for the filter bed.

Deputy for Personnel:

Lt Colonel Fenn: Wish to remind the staff that recommendation for promotion from Captain to Major will be due in my office day after tomorrow.

Inspector General:

Colonel Thomas: We have a proposed special subject letter on the 121 series circulating through the sections. Subject is on publications, maintenance and utilization. As yet, it has not been returned to my section.

Colonel Ingenhutt: A message was sent out of our office to be coordinated by two other staff sections on Thursday and it finally got back to my office on the following Tuesday. It was held up in one office because the senior staff officer concerned was absent. Suggest that if anything is going out by message, that it be handled as expeditiously as possible.

*WTC*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

MINUTES OF THE STAFF MEETING - 12 OCTOBER 1954

At the staff meeting called at 0900 hours on 12 October 1954, briefings were given by the deputies as follows:

Deputy for Operations:

Colonel Ingenhutt: My office issued a directive, which is to be published as a regulation, indicating that all pilots will have a map with their course, mileage and line plotted on it prior to taking off on any cross-country flight from this headquarters. Interim fix until the regulation is published is: The Flight Line was instructed by me to put next to the dispatcher's desk a book for the pilots to sign, indicating that they understand this.

Commander:

Colonel Israel: Mr. Tomlin just returned from a CAA conference down on the West coast. USAF has requested CAA to report all violations beginning the first of November for a certain period of time. A violation consists of anything you do that is not in compliance with CAA regulations. This item will be further discussed at Officers' Call on Friday, 15 October.

Colonel Ingenhutt: This is a base problem but it was brought to me by Lt Colonel York, President of the Central Base Fund. They have \$700.00 or \$800.00 in the fund. If we don't do something with it, an assessment will be put on it and it will be taken away from us.

Colonel Clark: We have a letter signed by General Smith on Welfare and Recreation Facilities. Also, another pertaining to Transient Facilities. We should go through these and if the money is available, use some of it on these items.

Captain Mancuso: Action has already been initiated to work on this. Rather than having the money taken away from us, we thought it might be used for items such as carpenter's equipment and machinery.

Colonel Ingenhutt: For the benefit of other staff officers, C&E is a part of the ODO shop. Continually I get papers addressed to ODO and OCE and it does not necessarily apply just that way. It might concern other sections under ODO. Would appreciate it if you would route all correspondence to ODO, or if you want specific sections to see it, send it to me and mark it for the attention of ---. I have found on numerous occasions, because of incorrect routing, papers have not been fully coordinated. Therefore, suggest other staff sections be correct all the way or leave it up to me as to just who will see it.

Minutes of the Staff Meeting, 12 October 1954 (Cont'd)

The report of the inspection at the Flight Line is to be read by all pilots.

Colonel Clark: The inspection was made by our inspection people. One point they brought out was that out of many flights, there were only a few write-ups by pilots, but there were many complaints by pilots of the condition of aircraft. Pilots should be encouraged to write up faults of aircraft or condition of aircraft.

Commander, Hq Sq Section:

Captain Mancuso: Just want to mention that the resident auditors are here checking the food service books. Also, I would like to mention that Thursday of last week, I spent the entire day at Griffiss and all our problems concerning installations should now be little ones.

Office of Information Services:

Major Casety: The Community Chest-Red Cross Drive is on and the various sections have appointed officers to help make collections. Wish to remind the staff that this is both Community Chest and Red Cross, and we would like to have personnel give a little more than they did previously for just the Community Chest.

Colonel Israel: Next to the Air Force Aid Society, the Community Chest-Red Cross is the most important charity to contribute to. A day's pay would be a good contribution or a half day's pay, \$10.00 for a field grade officer and \$5.00 for a company grade officer.

Deputy for Materiel:

Major Daniels: At the meeting at Griffiss, the preventive maintenance program was discussed. We are behind on our program. Some of it is due to carpenters occupying their time by building cabinets, etc. Regulation forbids them from doing it, but it is being done. Would like to have these small items curtailed for a while until they get caught up. A Base maintenance inspection was made by Griffiss. They pointed out discrepancies such as: Chrome ceiling fixtures being removed; overloading of outlets (too many appliances being plugged into one outlet). Also, quite a few table model radios, where cases have been broken, setting out in the open with paper, etc., around them. This is a dangerous fire hazard.

Minutes of the Staff Meeting, 12 October 1954 (Cont'd)

Deputy for Personnel:

Lt Colonel Fenn: We have a new directive from USAF on Project Guidance. The spirit of this project must be followed or we are going to fall short of manpower in the future. This is a little rougher than previous directives on Project Guidance. Would like the support of the staff in complying with same.

Deputy Commander:

Colonel Clark: I have a letter from Colonel Richmond on the reenlistment program, which I will turn over to Lt Colonel Fenn for further dissemination. It contains good logic and good pointers for commanders.

During a casual conversation with General Burgess at ADC, the matter was brought up of looking into SOP's for Augmentation Forces until they get into the swing of things.

Colonel Israel: Suggest we send people to Augmentation Forces every three or four months, because of the turnover in personnel, not only to talk about SOP's but to find out if there is any change in logistic requirements.

*PWA*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

MINUTES OF THE STAFF MEETING - 19 OCTOBER 1954

At the staff meeting called at 0900 hours on 19 October 1954, briefings were given by the deputies as follows:

Commander, Hq Sq Section:

Captain Mancuso: I am wondering what the ideas might be in providing one of the following for the winning barrack of the month (cleanest barrack): An extra three-day pass, or to relieve people of the winning barrack of the month from standby inspection for the following month.

Colonel Israel: Suggest getting a pennant or something like that, or a flag in front of the winning barrack.

Captain Mancuso: The other item was in regard to the parking on base during coming winter months, which I will go over with Colonel Israel.

Office of Information Services:

Major Casety: We have a speaker coming in tomorrow, for the Community Chest-Red Cross, for pay call. So far we have collected \$210.50, 20% of our goal. We plan to take contributions at pay call.

Colonel Israel: I am getting rather apprehensive about the information services program. A lot of emphasis is being placed on this subject at higher level. We must get our headquarters going and also all subordinate units. When we have Commander's Call here, expect Captain Mancuso to run it as Commander, but I will be present at the majority of them when possible. We should not have anything but interesting material in it. We must acquaint our personnel here with our mission, organization and people. I want Major Casety to take hold of the program and get it organized.

Major Casety: Have asked Personnel to screen their records here and at subordinate units for qualified OIS personnel.

Colonel Clark: Get together with both Personnel and PO&R and find out what the various authorizations are for OIS.

Deputy for Materiel:

Major Daniels: A resume' of the SAGE project requirements was given by Major Daniels.

Minutes of the Staff Meeting, 19 October 1954 (Cont'd)

Inspector General:

Colonel Thomas: Headquarters EADF is scheduled for a special inspection some time within the next 20 days by a team from ADC. The team is going to look into the handling, control and security of classified information. Emphasis will be placed upon the Eastern Inspection System and how well it is organized. They have asked that we send an observer down from our inspection team here. Major Brown will be selected.

Deputy Commander:

Colonel Clark: Lately, we have been receiving a number of letters from EADF, and they in turn from ADC, indicating a tightening up of administration procedures throughout. Particularly, in reference to personnel records. The current promotion program brought out a lot of deficiencies, and while present at the Lieutenant to Captain Promotion Board, it was very evident. The last letter pertained specifically to personnel records. Suggest IG include that as a part of their inspection when going out in the field. Suggest the rest of us ask questions about it or look into it. Impress people in the field with the importance of keeping these records accurate.

Colonel Thomas: This has been a subject of special emphasis because of the bad write-ups we received on the POM's at Presque Isle.

Colonel Israel: Suggest Personnel pull out and review 10 or 15 personnel records a day; this should aid in picking up discrepancies.

Colonel Clark: One thing that stuck out most was that there are people that have gone as long as 15 months with no effectiveness rating. Everyone is taking full advantage of the regulations to get out of preparing effectiveness reports. This does not aid the individual concerned. What we should do is make effectiveness reports when we can rather than to make them when we have to.

Colonel Thomas: About two weeks ago Captain L'Hommedieu sent around to the security control officers a number of examinations that were to be taken by individuals. Not too many have been returned.

Colonel Israel: A new magazine has been published by the Professional Services Publishing Company entitled "Armed Forces Management". If anyone is interested in subscribing to same, I have a form which can be used.

Colonel Ingenhutt briefed the staff on the designation of our GCI sites.

*PWA*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

MINUTES OF THE STAFF MEETING - 26 October 1954

At the staff meeting called at 0900 hours on 26 October 1954, briefings were given by the deputies as follows:

Commander, Hq Sq Section:

Captain Mancuso: For the information of the staff, I received a call from the Syracuse Armed Forces Committee and on Thursday of this week, the twenty-eighth, there is to be a meeting at the American Legion. It was requested that I attend. The purpose is a parade on Armistice Day.

Colonel Clark: For the last Memorial Day parade, we had a group of WAF's and a group of airmen. Everybody here that is not on duty or not immediately going on duty should participate in the Armistice Day parade.

Captain Mancuso: Another item is three-day passes. It was my understanding that a three-day pass consisted of not more than one work day.

Colonel Clark: There is no regulation that specifically ties it down. Three-day pass can be given at any time the command so desires. We have put out no specific rule here.

Captain Mancuso: The thing I had in mind was, one work day in conjunction with a weekend - Friday or Monday, providing Friday or Monday is not a holiday. Likewise, for people who work a nine-day shift, Saturday or Sunday may come in the middle of the week, so they could leave the last day of work or the first day.

Colonel Clark: This should be left to the discretion of the section-heads. They are responsible for turning out the work and should issue three-day passes accordingly. A three-day pass should not be used for normal leave if the person has leave coming.

Captain Mancuso: The other item we are working on is Christmas and New Year's leave. Believe we are going to set it up on a 50-50 basis.

Colonel Ingenhutt: What is a 50-50 basis?

Captain Mancuso: Believe Air Force policy for the last several years has been that no more than 50% be gone for either holiday, providing it does not interfere with the mission.

Colonel Clark: This also should be left up to the section-heads. Air Force regulation advises you may go up to 50%, anything less is alright. It depends on how many people are in the section and on the amount of work to be done.

Minutes of the Staff Meeting, 26 Oct 54 (Cont'd)

Captain Mancuso: The next item is, there will be four meetings here on Thursday, 28 October, one at 0900, 1100, 1300 and 1530 hours. Everybody on base, regardless of shift, should be able to attend one of the four meetings. The purpose is to draw a comparison for the airmen on the maximum punishment for changes in AWOL's.

The temporary flag pole is going up today.

Director, Office of Information Services:

Major Casety: On the Community Chest-Red Cross, I would like the section-heads to speak to their project officers and ask them to get as many contributions in as they can. Would like permission to extend the drive until next payday for the benefit of the project officers who were not able to get their contributions in. Colonel Clark agreed to this.

On the Commander's Call, we are going to get a film for the first program.

Colonel Clark: Colonel Israel would like to make the first program or two for Commander's Call. The Commander's Call is Captain Mancuso's program. Major Casety has the responsibility of seeing that it is carried on throughout the division, but here at division level it is Captain Mancuso's job and Major Casety may assist with it.

Deputy for Materiel:

Major Daniels: Tentatively, it has been coordinated with EADF, AFIR (Air Force Installations Representative) that there will be a Master Planning Board meeting here at the 32d Air Division at 1300 hours on 4 November. A representative will be present from EADF, AFIR, ADC, New York District of Engineers, the City, County, GSA and the National Guard.

Deputy for Operations:

Colonel Ingenhutt: Regarding the jet business at the flight line. A lot of people, many outside of the IO shop, are going to need instrument cards. The policy has been made whereby there will be no more running to the fighter squadrons to get instrument checks. They will have to be taken here at the 32d. Colonel Israel is very insistent on this and I am sure we will agree that they should be conducted in the true spirit and manner. This applies not only to jet but conventional type aircraft as well.

Colonel Clark: Colonel Legg will assume command of the 32d Air Division during the temporary absence of Colonel Israel.

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

MINUTES OF THE STAFF MEETING - 2 November 1954

At the staff meeting called at 0900 hours on 2 November 1954, briefings were given by the deputies as follows:

Deputy Commander:

Colonel Clark: On 11 November, Veterans Day, this headquarters will be on holiday schedule. Eastern Air Defense Force will also be on holiday schedule on that date.

We are having a critique here in the Conference Room at 1100 hours today on the EADF security inspection which is now being conducted. Either the section heads or the administrative supervisors will be present to get the information on how we can improve our security.

Some time ago Colonel Israel brought up a point - that a card file, or similar system, be used by officers preparing officer effectiveness reports or promotion evaluation forms, so that specific incidents or recommendations, relative to the officer being reported on, can be jotted down. When it is necessary to prepare an OER or promotion form, the information will be available.

Deputy for Operations:

Lt Colonel Fuller: Lt Colonel York asked me to bring this up. He would like to have a field grade officer present awards at the Filter Center, Buffalo, N. Y. on 16 November at 2000 hours. Colonel York will be in Concord at the time.

Comdr, Hq Sq Section:

Captain Mancuso: I attended the luncheon last week, which was in regard to the parade on Veterans Day, 11 November 1954. It will take place at 1900 hours.

A staff officer from the 108th Infantry Regiment asked me if it would be possible for their staff officers to tour the Operations Building.

Colonel Israel: Yes, we would be very happy to have them.

Also, on Friday, 5 November, we will have the Commander's Call. It will take place at 0830 hours in the Mess Hall.

Minutes of the Staff Meeting, 2 November 1954 (Cont'd)

In reference to the Thanksgiving Day meal, believe the price will be approximately \$1.10 per adult and \$.55 per child.

Office of Information Services:

Major Casety: I am attending a briefing on Monday, 7 November, at EADF. The briefing will be given by USAF Information Services Officers. I will render a report on my return.

In reference to the Community Chest-Red Cross, we hope to reach our goal at the next paycall.

Chaplain:

Chaplain Archer: In regard to the Christmas party, the airmen have not been submitting their registrations. If the committee is to get a good selection of toys for the children, they will have to do so within the next week or two.

Colonel Israel: Suggest you have someone present at paycall to check each airman as he goes through for the necessary information.

Deputy for Materiel:

Major Daniels: Want to remind the staff of the Master Planning Board meeting Thursday, 4 November, at 1300 hours.

Inspector General:

Colonel Thomas: I have two inspection teams in the field, one went out yesterday and the other went out today. Both wings are being visited and similar inspections of classified material will be conducted as is being done here at the 32d.

*EWA*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

MINUTES OF THE STAFF MEETING - 9 November 1954

At the staff meeting called at 0900 hours on 9 November 1954, briefings were given by the deputies as follows:

Deputy for Operations:

Lt Colonel Fuller: I am combining all ODO comments and those from the two wings, for the Commanders' Conference at EADF, for Colonel Israel.

Colonel Israel: I will take about an hour and of that time, will give each wing commander 15 minutes. Also, it is not purely operational. This should be put across to the staff. Anything that anyone desires me to take up at Eastern should be forwarded to me as soon as possible.

Colonel Thomas: Want to be sure the staff sees this list so we can answer all the questions possible without going to Eastern.

Lt Colonel Muller: The 318th FIS assumed alert commitments as of today and the 27th FIS is relieved.

Commander, Hq Sq Section:

Captain Barber: Captain Mancuso is at Griffiss AFB today on a Court Martial case.

Deputy for Materiel:

Major Daniels: There will be eleven members of the County Highway Department out here for a meeting at 1400 hours today. This does not involve the planning board.

Acting Deputy Commander:

Colonel Thomas: Some questions came up the other evening on the disposal of classified material by burning. It appears that two sections had been using the same wastepaper basket to collect their classified material scheduled for burning. That, in itself, is technically wrong. This incident could have caused a report of violation of security, which would have gone to the OSI in Washington. A person may be cleared for classified material but it is only on a need-to-know basis and if he is handling classified material from another section, that is wrong. Let's look into the proper procedures of disposing of classified material and be sure regulations are followed.

Colonel Israel suggested an HOI be put out on the subject.

Minutes of the staff meeting, 8 November 1954 (Cont'd)

Lt Colonel York has requested authority for detachments to cut their own travel orders for traveling in their local areas. We are authorized to give that authority.

Colonel Dawson and Colonel Fenn had no objections to this. Colonel Israel suggested we give it a try, but that copies of their orders should be sent to us.

Commander:

Colonel Israel: I received a call from Colonel Richmond, Acting Commander of the 4707th Air Defense Wing, on Thursday, stating that they received a chain letter by pilot courier. Anything along this line in the Air Force is considered illegal. I have notified EADF, who notified ADC, etc., and the OSI on location. This must be stopped and request that if anyone comes across any such letters, that they be destroyed or prevented from going forward.

*EWAH*

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

MINUTES OF THE STAFF MEETING - 16 November 1954

At the staff meeting called at 0900 hours on 16 November 1954, briefings were given by the deputies as follows:

Commander:

Colonel Israel: Items covered at the Commanders' Conference at Eastern on Friday, 12 November, are as follows:

We did not cover all the questions that were asked by the various sections, Eastern will answer them by mail.

The 30th Air Division made a study on the amount of support that was accorded from their bases to other units. For example, they found that Selfridge was providing about 98,000 man hours per month to tenant units and other bases. Pittsburgh and O'Hare are similarly supporting outside units. A tremendous amount of manpower is being placed in support of outside units. In that light, we ought to take a look at our units (Otis, Niagara and perhaps Burlington) to find out just what units are attached for support and how much time is being placed on that support. Niagara could not get supply on its feet. Why? Because they were supporting Reserve units without adequate manpower.

EADFR 60-13 is being changed, particularly with regard to requirements of filing IFR in jet aircraft and flight following on cross-country flights. If you file IFR then under CAA you will not be required to request flight following under GCI. Check in with GCI station upon take-off to be sure radios are working. If you have IFF, check that in. VFR cross-country flights in jet aircraft will probably be authorized. GCI stations will be authorized to drop anyone they are flight following when they are saturated or conducting intercepts, etc. Knowing that, pilots should know where they are and not depend on the ground to keep them located.

We talked about training. Getting quality in lieu of quantity.

Talked about power units. Seems as though everybody wants the Navy NC5. TAC has completely gone over to NC5. It is a power unit which is used for a tow vehicle and other purposes.

Talked about the re-enlistment problem. It has been resolved to a point where we are trying to re-enlist specialities; personnel qualified in certain fields. That is where the emphasis should be placed. The re-enlistment rate throughout EADF is 44%, which is above Air Force requirements.

General Tucker, out of curiosity, sent for the Pilot's Information File, ADCR 55-17. He counted the documents in it. Two hundred and thirty directives and amendments are in the file and better than half were immaterial. EADF is going to try to cut it down.

Minutes of the Staff Meeting, 16 November 1954 (Cont'd)

Talked about corollary investigation of aircraft accidents. Paragraph 49b, AFR 62-14 and one paragraph in EADFR 120-1 will be rescinded. Actually there is to be no investigation by a corollary board unless there is an indication of disciplinary action. In that connection, a new regulation, ADCR 62-13, is coming out. Instead of a corollary investigation, they are going to call it a Report of Special Aircraft Accident Analysis. Whenever an accident occurs, a Colonel or Lt Colonel will be appointed to investigate. A copy of the check list pertaining to this type investigation will be circulated through the sections.

In addition to that, we have a new format for the Wing Commander's Narrative Report. A copy of this new format will also be circulated through the sections.

At EADF, when General Smith gets an Aircraft Investigation Report, he has a meeting in his office with the DO, DP, etc., and goes through the report. We will have a similar committee at this headquarters, which will consist of the Deputy Commander, CFS, CIG, ODC, MDM and PDP, to go over the report before our indorsement is prepared to Eastern. The new ADCR 62-13 will be out very soon.

Talked about Management Controls. Are the V-8 reports doing any good? If not, what are we doing about it? Eastern Command Data Book. Is it being used? If not, what should we have? Everybody should be interested in material contained in the book because it is a summary of Management Control items.

Colonel Beckwith brought up the question: Should we program Presque Isle as a two squadron base? I think we should. If we are going to do that, we will have to get the change into ADC for approval.

On Flying Safety, we talked about ADCR 62-10 and ADCR 62-13.

General Nelson is very conscious about the cost of an operation. Cash, time and manpower. He pointed out an example where we had an aircraft accident when an aircraft which was after some priority supplies ran into some weather. The pilot got out of it, but we lost the aircraft. If they had waited 24 hours, it might not have happened. Don't want people dashing off for parts in aircraft. Take a look at the weather and see how long we can wait.

Also, we have had a decrease in aircraft accidents but have had an increase in cost of aircraft accidents and loss of life. From 31 October 1953 to 31 October 1954, EADF had 118 aircraft accidents; 8 involved support, 16 T-33 aircraft and 94 fighters. Total of 17 fatal accidents with 31 losses of life.

In the afternoon we got into the training program. Eastern has a proposed draft of EADFR 50-?, on training. All divisions, wings, groups and squadrons are to write training programs.

Minutes of the Staff Meeting, 16 November 1954 (Cont'd)

Talked a little bit about qualitative versus quantitative. AFR 50-7 sets forth proficiency requirements in all fields. ADCR 10-2 and 10-4 are entirely quantitative. In order to set forth these requirements, instead of setting up standards of qualifications, going to get into the establishment of yardsticks so that these regulations can be changed and follow through to ADCR 50-7. There are two things to evaluate, one is on the state of operational readiness, and the other is on the state of operational effectiveness. You can be operational ready in the sense that you have all of your equipment, flown so much time, what people you have, etc. Then to find the end effectiveness of that squadron. Can it hit the target? Can it fly in bad weather? We will have to set up yardsticks so that we can measure these things and differentiate between operational readiness and operational effectiveness. These measures and yardsticks have got to be applied to support forces, individuals and units.

Deputy for Operations:

Lt. Colonel Fuller: The operational readiness inspection is being conducted at the 4707th Air Defense Wing by USAF, starting on 17 November 1954. The only way we will be involved is our affect on the operations from this headquarters. We will have one observer here at the 32d Air Division.

Deputy for Material:

Major Daniels: We have to get a housing survey in for this station and it is quite lengthy and detailed. It requires questions to be filled out by all married personnel, officer and airmen. Deadline date at Eastern is 3 December. Suggest personnel complete the forms as rapidly as possible. Accuracy is one of the governing factors of whether we will obtain housing or not.

Office of Information Services:

Major Casety: We have turned in \$708.25 towards the Community Chest-Red Cross Drive. At the Information Services Conference held at EADF, it was stated that the Information Services Office is now located in the Office of the Secretary of the Air Force. They are still emphasizing the same thing we have done all along, getting new personnel to put the program across.

Colonel Israel: We are concerned with the internal information program here, Commander's Hour, etc. Would like to keep the Commander's Hour interesting and informative. We should use our organization, mission and local relations as a general guide.

Chaplain:

Chaplain Archer: On Thursday of this week, Chaplains from ADC and EADF will be here.

Minutes of the Staff Meeting, 16 November 1954 (Cont'd)

Colonel Israel: Did not get an opportunity to get into the Chaplain's questions at the conference at EADF. Would like to say that as far as our bases go, our religious activities appear to be in good shape. There is a lack of support on the part of commanders at AC&W sites of responsibilities in character guidance and responsibilities for religious activities. The sites receive aid from adjacent bases and also from the local clergy nearby.

Lt Col Fenn: USAF is now publishing a new directive on character guidance which should be out shortly. In that directive, commanders will be given the problem and left to solve it. In this connection, character guidance is applicable to officers as well as airmen.

Division Surgeon:

Major Reberdy: Department of Defense has indicated that all personnel should take Influenza shots. We have the serum now.

*EW*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

MINUTES OF THE STAFF MEETING - 23 November 1954

At the staff meeting called at 0900 hours on 23 November 1954, briefings were given by the deputies as follows:

Deputy Commander:

Colonel Clark: The Commander's Conference for all Wing, Squadron and Group Commanders has been set for 9 and 10 December 1954, at this headquarters. A schedule is being set up for the conference by Colonel Ingenhutt, and Captain Mancuso will be project officer for taking care of the people as they come in and making the necessary arrangements for housing, etc. We want the conference to go off as smoothly as possible and deputies should keep the part they cover in the conference as short and pertinent as they can. A memo will be circulated through the sections on this subject.

It Colonel Fuller: A Cocktail Party will take place on 9 December at 6:00 P.M. and supper will be at 7:00 P.M. The deputies and directors will be invited, and the cost for the commanders' dinners will be charged to the Entertainment Fund and other personnel will pay for their own.

Also, during the last Commander's Conference, the Flight Line became somewhat involved when people started coming in.

Colonel Clark: Suggest an officer be designated to meet the people from each station as they come in.

Comptroller:

Major Brown: We have had three late reports this month due to the method of processing. The reports are not being handcarried to Stat Services, instead they are left in the Adjutant's Section and are therefore late in getting out. We are working with Major Howe on getting a set of instructions out that will cover this. In the meantime, reports should be completely coordinated when they hit Stat Services, particularly those classified, so that they can go to the Adjutant's Section and then out of the division.

We got a check on the mail lag between here and Eastern and it covers a full three days. December reports will be called for 24 hours earlier than they were in the past as a test to see if they can overcome the mail lag.

Minutes of the Staff Meeting, 23 November 1954 (Cont'd)

Adjutant:

Major Howe: Wish to remind our deputies and section heads that they are responsible for proper classification of matter originating in their section. Eastern is getting rather critical of material coming through which is not carrying proper classification. We have had one in this headquarters and the 4707th had one. The regulation puts the responsibility of proper classification on the deputy.

Colonel Clark: Let's be careful that we do not overclassify.

Commander, Hq Sq Section:

Captain Mancuso: We have a letter from Headquarters, ADC pertaining to special use of base motor vehicles. We have been allowing officers and airmen to use a vehicle for moving and they would sign a statement making them liable for the vehicle. Wonder if it would be okay to continue this?

Colonel Clark: Suggest that it be done only in special situations and that you clear through me.

Captain Mancuso: We also have a letter pertaining to Sentry Dogs. Don't feel we need Sentry Dogs at the present time; however, there may be a need for them in the future.

Colonel Clark: Suggest we wait until the need arises.

Deputy for Materiel:

Major Daniels: Preliminary instructions for preparation of the '57 PWP are being circulated. Due date at Eastern will be 15 January. Reports will be reviewed here somewhere around 10 and 11 January. The implementing instructions will come out this week. As yet, the program book has not arrived at EADF from ADC. I questioned them again on whether support facilities for SAGE will be in the '57 program. They will be included in the '56 program.

Deputy for Personnel:

Lt Colonel Fenn: About 1 November 1954 through February 1955, we are going to discharge 83 airmen. The greater percentage of this amount are of the 5 skill level. Of these 83 airmen, 9 have stated their intentions to re-enlist.

*PWA*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

MINUTES OF THE STAFF MEETING - 30 November 1954

At the staff meeting called at 0900 hours on 30 November 1954, briefings were given by the deputies as follows:

Deputy Commander

Colonel Clark: On our aircraft accidents, the wing commanders submit a report within 48 hours. Eastern has a committee that goes over these reports when they arrive at their headquarters. Colonel Israel would like to have a similar committee here. The committee will consist of the Deputy for Operations, someone qualified in the type aircraft involved, a maintenance man, the Flying Safety Officer and also a representative from the IG section.

Deputy for Operations

Colonel Ingenhutt: We have not had a Pilot's Flying Safety Meeting since August or September.

Colonel Israel: We will have a Flying Safety Meeting on Friday, 3 December at 1530 hours and an Officers' Call at 1630 hours.

Headquarters Squadron Section, Comdr

Captain Mancuso: There will be a Commander's Call on payday, Friday, 3 December.

Office of Information Services

Major Casety: A few of the units have mentioned the fact that they were having trouble getting crash passes issued to OIS officers.

Colonel Israel: They will be directed to issue crash passes.

Chaplain

Chaplain Archer: The Christmas party for the children will take place on 19 December at 1300 hours.

Deputy for Materiel

Major Daniels: Would like the Deputy for Personnel, Inspector General, Comptroller and Adjutant to submit a list of the people in their section and also the number of pieces of furniture in their offices for use in allocation of space in the new building.

Minutes of the Staff Meeting, 30 November 1954 (Cont'd)

Commander

Colonel Israel: Reference community relations. We have had good community relations here and it has been through the Armed Services Committee. Suggest that we invite them out here to have lunch, after which they can hold their meeting.

Inspector General

Colonel Thomas: The inspection team will be at Watertown and Griffiss beginning next Monday, 6 December, for approximately four days inspection of both installations. Also, have tentatively scheduled a survey of morale and discipline at Burlington for 13 December, which is a follow-up of the general inspection we made.

*PWH*

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

MINUTES OF THE STAFF MEETING - 7 December 1954

At the staff meeting called at 0900 hours on 7 December 1954, briefings were given by the deputies as follows:

Deputy for Operations

Colonel Ingenhutt: Regarding the security violation yesterday. About a year ago the ADCC was locked up all the time and due to the inconvenience and fact that people who did have business in there would have to knock or carry a key with them, the policy was made that it would be left open all the time for the convenience of those that have a right and duty to get in that room. Would like to have all staff officers caution their people that no one has business in there just by virtue of being an officer. Material contained therein is of a classified nature.

The 4707th list of problems for discussion at the Commander's Conference came in yesterday and was sent out to the staff for their perusal. Those from the 4711th Air Defense Wing will be in some time this morning.

Office of Information Services

Major Casety: I have been appointed as Project Officer for the March of Dimes. The drive is on from January 3 through January 31. Last year boxes were put in various places and it was strictly on a voluntary basis. We plan to do the same this year.

Colonel Clark: Suggest we do the same as we did with the Community Chest-Red Cross. See that everyone has an opportunity to contribute.

Deputy for Materiel

Major Daniels: Instructions for the preparation of the FY-57 PWP are in my possession. The date for submission and review at EADF is 13 January at 0800 hours. We have set up the review at this headquarters for the 4711th Wing on 7 December and the 4707th Wing on 10 December. In connection with that, the review this year will be in a different manner than it has been heretofore. It will involve members of the staff. After review at EADF, the Deputy for Operations, Deputy for Personnel, Surgeon and the Inspector General will have to defend certain items of our program for all of our bases. Briefly, Operations will have to defend airfield pavements, communications and navigation aids, operational and training facilities. Personnel will defend troop housing, family housing, personnel and administrative facilities. The Surgeon will defend medical facilities. The Inspector General will defend security items. Deputy for Materiel will defend fuel storage, troop messing, aircraft maintenance facilities, storage facilities, etc.

Minutes of the Staff Meeting, 7 December 1954 (Cont'd)

Between now and the time of the review here, booklets will be prepared. We have only one copy of the Facilities Requirements Manual and we will break it down so that the deputies will have all the information that is required in the categories that they have to defend. In reviewing it this year, because of the new system, we will break it down and I will take care of the technical part, insuring that all numbers are right, etc. The deputies will review the justifications for those items which fall under their jurisdiction.

Colonel Clark: The same man who defends it at EADF will be a member of the board here. Would like to know from the deputies who their representative will be.

Surgeon: Major Reberdy. I will be at Eastern at the time and will be able to help. Captain Kobylk will be able to be a member.

Operations: Lt Colonel Fuller

Materiel: Major Daniels

Personnel: Lt Colonel Fenn

Inspector General: Lt Colonel Wilson

Deputy for Personnel

Lt Colonel Fenn: I had a very brief visit this morning with Mr. McClane, Assistant Director of Civilian Personnel at ADC. He mentioned one particular subject, "Operation Home Front". The idea is to replace military spaces with civilian spaces. He did not have any information with him as to how many we were going to get.

Deputy Commander

Colonel Clark: A letter was received from EADF on holiday leaves. Maximum leave should be given consistent with operational and training requirements during the period 17 December 1954 to 7 January 1955. The units should be advised of this, but there must be sufficient personnel on duty to man the air defense system.

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

MINUTES OF THE STAFF MEETING - 14 December 1954

At the staff meeting called at 0900 hours on 14 December 1954, briefings were given by the deputies as follows:

Commander

Colonel Israel: Would like the following sections to follow up on the items brought up at the Commander's Conference on 9 and 10 December.

ODO: Command support of Otis AFB.

Program lags.

Naval use of Guard channels.

Organization of Otis AFB.

PDP: NCO Academy.

Officer's and NCO's Armament Systems Field.

Stability of Airmen.

MDM: MA-1 Power Units.

Housing at Otis AFB for AEW&Con Wing.

Correspondence has been received recently from higher headquarters regarding management. We should all look into this. When time is available, we should make field trips. We should indicate our contacts with civil defense people, briefings and public relations, and time spent in supporting other units.

Would like to have everyone read and study ADC Operations Plan 10-54, dated 1 December 1954, regarding the Ground Observer Corps.

Deputy for Operations

Colonel Ingenhutt: We are going to try to put out a monthly bulletin from PO&R in an effort to keep units informed with the changing picture.

Minutes of the Staff Meeting, 14 December 1954 (Cont'd)

Deputy for Materiel

Major Daniels: We are sending a folder around to the various staff sections which contains all the documents received so far on the '57 PWP. Wish the staff sections would keep my office informed as to its location at all times in the event it becomes necessary to refer to it. At a later date, we will extract the information pertinent to each staff section for inclusion in a booklet.

*EWA*

**CONFIDENTIAL**

C O P Y

HEADQUARTERS  
49TH FIGHTER-INTERCEPTOR SQUADRON  
Dow Air Force Base, Bangor, Maine

DM-Sup 400

13 Jan 54

SUBJECT: Refueling UnitsTO: Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. In accordance with AFR 5-25 dated 21 May 1953 and 4711th Defense Wing letter, file number DM-Sup 400, Subject: Refueling Units, dated 29 December 1953, the inclosed Air Force Forms 25 and 25A are submitted as a proposed T/O change for this organization.
2. This organization has been a tenant at Dow Air Force Base, Bangor, Maine, since February 1951. Dow Air Force Base was under the command of the Tactical Air Command until June 1952 and has since been under the command of the Strategic Air Command. Since approximately February 1952, this organization has been supported completely by the Base. Since February 1952, the reservicing of aircraft belonging to this organization has been a continual problem. At times, reservicing is accomplished in a normal amount of time, however, on occasions it has taken as much as three hours and thirty minutes to reservice flights.
3. As outlined in Section III, paragraph 61, ADC Manual 55-6, dated 1 July 1953 as amended, this organization is required to reservice alert aircraft in a maximum time of fifteen (15) minutes. In the month of August 1953, records show that this organization did reservice alert aircraft within the required time, however, all SAC fighter aircraft assigned to this Base were on temporary duty from mid July until the end of October and as a result all the Base refueling facilities were available to this organization. The following is extracted from the monthly combat readiness reports and indicate the average required reservicing time for the month indicated:

MONTH	Average Reservicing Time (Minutes)
July 1952	22
August 1952	24
September 1952	41
October 1952	27

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C O P Y

MONTH	Average Reservicing Time (Minutes)
November 1952	45
December 1952	Unknown
January 1953	38
February 1953	30
March 1953	31
April 1953	49
May 1953	34
June 1953	31
July 1953	22
August 1953	13
September 1953	27
October 1953	24
November 1953	40
December 1953	65

4. If the requested T/O change is approved, this organization will have the necessary personnel and equipment to support it's reservicing requirements and be more capable of meeting the provisions of ADC Manual 55-6.

3 Incls:  
1. Ltr, Hq 4711th Def Wg  
2. AF Form 25  
3. AF Form 25A

s/t/ ALFRED L. CUMMINGS  
Major, USAF  
Commander

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C O P Y

Hq, 49th FIS DM-Sup 400 Subject: Refueling Units

DM-Sup (13 Jan 54) 1st Ind

HQ 4711TH DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Forwarded in compliance with your letter, MDM 452.1, dated  
22 October 1953, Subject: Refueling of Tactical Aircraft.

2. Excessive reserve time is seriously effecting the mission  
of the 49th Fighter-Interceptor Squadron, as is indicated in basic  
letter. It is the opinion of this headquarters that the assignment  
of refueling units and personnel to the 49th Fighter-Interceptor  
Squadron is the most desirable solution. Therefore, it is recommended  
that the request in basic letter be approved.

FOR THE COMMANDER:

3 Incls:  
n/c

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

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C O P Y

49th FIS DM-Sup 400, Subject: Refueling Units

MDM (13 Jan 54) 2nd Ind 13 Feb 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York'

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. It is vitally important to the operational mission of this division that this organization is able to meet the turn-around time. As you will note, this organization has met the requirement only once in 16 months. This has been obviously due to lack of fuel servicing facilities at Dow Air Force Base, to service both their own aircraft and those of the 49th Fighter-Interceptor Squadron.

2. It is the opinion of this headquarters that the best solution to problem is to give the squadron its' own refueling equipment and personnel to operate it. This will give the Squadron Commander complete control over the refueling operation and should correct this unsatisfactory condition.

3. Approval is recommended upon the facts outlined above and in the basic communication.

3 Incls:  
n/c

WILLIAM R. CLARK  
Colonel, USAF  
Deputy Commander

**CONFIDENTIAL**

CONFIDENTIAL

C O P Y

Hq 49th FIS DM-Sup 400 Subj: Refueling Units

EAMP (13 Jan 54) 3rd Ind 1 Mar 1954

Hq EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N.Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

1. Attention is invited to paragraph 3, EADFR 400-1 and paragraph 3b, c and d, AFR 11-4.

2. What action has been taken to effect resolution of the difficulties in accordance with the above referenced directives?

BY ORDER OF THE COMMANDER:

3 Incls:  
n/c

JOHN L. WARREN  
Colonel, USAF  
Adjutant

MDM (13 Jan 54) 4th Inf

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York, 13 Mar 1954

TO: Commander, 4711th Air Defense Wing, Presque Isle Air Force Base, Presque Isle, Maine

Forwarded for compliance with the preceding indorsement.

BY ORDER OF THE COMMANDER:

3 Incls:  
n/c

VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

CONFIDENTIAL

C O P Y

TWX

HQ 32D AD(D)  
SYRACUSE AFB EASTWOOD STA 6 SYRACUSE NY

UNCLASSIFIED

PRIORITY

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X

COMDR, 4711TH DEF WG, PRESQUE ISLE AFB, ME.

ACFOPR 76033. Unclassified/This comd is preparing to make a proposal to higher hq for the mov of the 49th FIS from Dow AFB, Me. to Ethan Allen AFB, Vt. on or about 1 Aug 54. This mov would be a perm change of station. It is anticipated that the operational benefits gained by such a move would more than justify the expenditure involved. To aid this hq in drawing up such a proposal, it is requested that your hq prepare a study of the proposed move, covering the folg major points: a. Operational benefits resulting in such a move. b. Facilities avail at Ethan Allen AFB compared to those avail at Dow AFB. c. Time elm involved in the proposed move to Ethan Allen AFB and the programmed move to Hanscom AFB. d. Estimated cost of move. (1) On TDY basis. (2) Perm change of station basis. e. Copy of proposed mov plan including: (1) Airlift reqmts. (2) Rail reqmts. (3) Pers Mov. In preparing the mov plan the folg references are to be used as a guide: AFM 400-5. Joint Travel Reg, AFR 75-20, AFR 75-32, AFR 75-56, AFR 75-81 and AFR 205-1. The above w/b fwdd ASAP.

UNCLASSIFIED

1 1

EDWIN W. FULLER, LT. COL, USAF WILLIAM W. INGENHUTT. COL., USAF

OPR

092 ODO/050

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C O P Y

DISPO FORM

SUBJ: Conversion Plan for 49th FIS

TO: OPR  
ODO

FROM: OOT

24 Sep 54

No. 1

1. Conversion plans for the 49 FIS appears to be adequate.

2. Additional Comments:

a. Concur that this squadron is capable of maintaining normal alert commitment in present equipped aircraft, however, the training of personnel and transitioning of pilots would be better accomplished if the squadron were relieved from alert commitments during this period. It must be noted that pilots in particular have had very little, if any, lead collision course practice and will consequently require numerous missions on this phase alone.

b. Believe that this squadron is definitely in better shape transition-wise than is indicated in the conversion plan. At last report all but three pilots had been checked out in the F-86D (Formal schooling at Tyndall AFB or by other squadrons).

c. In discussing problems with the 47 FIS, they feel that the F-5 Auto pilot is a very important part of the aircraft. The 49 FIS, in this case should try to get more quotas for personnel to attend the F-5 Auto pilot school.

d. Everything within our power should be accomplished to try to get the supply precedence (XVII-7) of this squadron more in line with their urgent need for equipment and supplies at this time.

CIMMINGS/090

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Comment #2

ODO

OPR/DURGIN/092

27 Sept 54

Appears adequate.

DURGIN/092

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C O P Y

DISPO FORM

SUBJ: Conversion Plan for 49th FIS

TO: MDM  
PDP  
CIG  
ODO

FROM: ODO

27 Sep 54 No. 3

Your info and comment.

---

WI

PDP  
CIG  
ODO

MDM

1 Oct 54 No. 4

1. Recommend that the F-86D Mobile Training Detachment be obtained as soon as possible for the 49th FIS. The requirement for the MTD is much greater now than it would be on 1 Mar 55, also the 49th FIS is scheduled for Yuma in March of 55.

2. The supply precedence rating (XVII-7) of the 49th FIS does not mean too much as far as obtaining supplies is concerned as initial and stock replenishment requisitions will reflect the precedence rating of the base supply which is XII-58 at Dow AFB. Critical items such as AOCP and ANFE parts automatically get a special priority so again the precedence rating would not mean too much.

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DANIELS/162

CIG

PDP

6 Oct 54 No. 5

1. Concur w/comments in par 1, above.
2. Training being conducted is well above average.
3. Personnel picture looks good.

FENN

C O P Y

DISPO FORM

Subj: Conversion Plan for 49th FIS

TO: ODO FROM: CIG/PRICE/124 11 Oct 54 No. 6

Concur with previous comments.

---

THOMAS/264

No. 7

PO &R

---

WI

ODO PO&R 12 Oct 54 No. 8

1. Conversion plan appears to be adequate.

2. Comments:

a. The aircraft and crew status of other squadrons within this area make it necessary for the 49th to maintain normal alert commitments; however, if the 49th could be relieved of this, it should expedite the conversion program.

b. Recommend that PDP keep close supervision over Personnel actions and training.

---

RANDLE/092

PO &R No. 9

OK your file to watch and keep others informed--especially PDP, DM, O&T.

WI

C O P Y

HEADQUARTERS  
4711TH AIR DEFENSE WING  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

DO-O&T

22 Sep 1954

SUBJECT: Conversion Plan for 49th Fighter-Interceptor Squadron

TO: Commander  
32nd Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. The inclosed is a revised Conversion Plan for the 49th Fighter-Interceptor Squadron.
2. Aircraft are presently being received by the 49th and this plan is being used.

FOR THE COMMANDER:

1 Incl:  
Conversion Plan  
for 49th FIS  
(3 cys)

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

192

1 7 3 8

COPY

HEADQUARTERS  
49TH FIGHTER INTERCEPTOR SQUADRON  
Dow Air Force Base  
Bangor, Maine

CONVERSION PLAN

SECTION I  
Operations Actions

A. Alert Commitments:

1. The squadron is capable of maintaining normal alert commitments in presently equipped aircraft until ready to assume these commitments in the new aircraft.
2. Training for all personnel and transitioning for pilots can be better accomplished if the squadron is relieved from alert during at least part of this period.

B. General Operations Actions:

1. The squadron commander will insure that necessary action is taken on the following before alert commitments are assumed in the new aircraft:
  - (a) A check will be made of scramble and recovery procedures to align with new aircraft capabilities and mandatory operating procedures.
  - (b) A study will be made of base traffic, taxi procedures, etc.
  - (c) Rules governing intercepts, identification and engagement will be reemphasized.
2. The similarities between the F-86D and the F-86F should lessen operational problems.

C. Transition:

1. A limited number of pilots will go through the F-86D simulator at Westover Air Force Base. Others will take simulator training at Burlington, Vermont. Some pilots will transition at Burlington with the 37th Fighter-Interceptor Squadron. The experience gained by these pilots will be used in the transitioning of the remaining pilots.
2. The questionnaire for pilots will be completed prior to initial checkout.
3. The transition program will be established and implemented as aircraft arrive and additional information becomes available.

Incl 1'

C O P Y

4. A waiver of UPD requirements is anticipated for this transition period.

D. Mobile Training Detachment:

1. A Mobile Training Detachment has been requested, and scheduled to arrive about 1 March 1955.
2. Both pilots and maintenance personnel will attend the training unit in shifts to allow for regular squadron activities.
3. Approximate number attending and programmed hours per course are as follows:
  - (a) Forty-Two (42) pilots for twenty-eight (28) hours.
  - (b) Ninety (90) engineering personnel for eighty (80) hours, including base personnel.
  - (c) Thirteen (13) communications personnel for forty-five (45) hours.
  - (d) Ten (10) electronics personnel for one hundred (100) to one hundred twenty (120) hours.
  - (e) Five (5) instrument specialists for twenty (20) hours.

E. Navigational Aids

1. Installed - Operational
  - (a) Tower
    - (1) LF 278KC (Transmitting only)
    - (2) HF 4495, 3023, 5KC (receive only)
    - (3) VHF 126.18, 137.88, 121.5 MC
    - (4) UHF 236.6, 243.0, 304.5 MC
  - (b) Mobile Control
    - (1) VHF - 8 channel
    - (2) UHF - 18 channel & G
  - (c) LF Radio Range, CAA, BGR, 239 KC VHF and UHF voice facilities
  - (d) LF homing beacon BGR, 260 KC
  - (e) Omni-Range, CAA, RGR, 112.7 MC

C O P Y

2. Installed - Operational

(a) GCA is operational. This unit is equipped with VHF channels 137.88, 121.5, 136.6 and 134.10 MC and UHF channels 355.8 and 289.4 MC.

(b) VHF/DF.

3. Installed -non-operational

(a) UHF/DF - Training Status.

4. Programmed.

(a) ILS.

C O P Y

SECTION II  
PERSONNEL ACTIONS

A. Training

1. On 16 Feb 54, this squadron was reorganized under TO 1-1257B and TO 1-1258 as authorized in General Order 70, Headquarters EADF, 20 Nov 53 and General Order 9, Headquarters EADF, 16 Feb 54.

2. Prior to the reorganization of this squadron the following formal schooling was requested:

- a. AN/APX6 IFF Transponder equipment 6 quotas requested.
- b. F-86D aircraft mechanics course 46 quotas requested.
- c. F-86D aircraft electrician course, 3 quotas requested.
- d. F-86D aircraft hydraulic mechanic course 2 quotas requested.
- e. J47-17 jet aircraft engine mechanic course 4 quotas requested.
- f. Zero reader course 1 quota requested.
- g. F-5 auto pilot course, 1 quota requested.
- h. F-5 auto pilot familiarization tour (factory 1 quota requested).
- i. F-86D electronic fuel control system course 2 quotas requested.
- j. F-86D supervisors course 11 quotas requested.
- k. F-5 auto pilot and zero reader course 1 quota requested.

3. An OJT program is set up in this squadron to train the men who will not be able to attend a formal school.

4. Vacancies created by the TO are being filled by formal schooling of assigned personnel, new personnel, and OJT of assigned personnel.

5. All quotas for schools have been met.

6. At present the following number of individuals are in formal school or have completed the courses indicated;

a. Nineteen (19) new production pilots and one (1) conversion pilot have arrived from the F-86D all weather school.

C O P Y

SECTION II (Cont'd)

b. Four (4) pilots are presently attending the F-86D all weather school and one (1) other is on orders for this school.

c. One (1) pilot is presently attending phase I of the instrument school.

d. The armament officer has attended the radar fire control system school for officers'.

e. Three (3) airmen have attended the school for electronic fuel control.

f. One (1) airman has attended the school for F-86D aircraft hydraulic mechanics.

g. Five (5) airmen have attended the jet aircraft engine school for the J-47-17 engine.

h. Twelve (12) airmen have attended the F-86D aircraft mechanics school.

i. Two (2) airmen have attended the zero reader school.

j. Two (2) airmen have attended the E-4 fire control system technical course.

k. Two (2) airmen have attended the school for the D-1 oxygen regulator.

l. Six (6) airmen have attended school for the AN/ARN 18 (ILAS glide path.)

m. Four (4) airmen have attended the F-86D aircraft electronics school.

n. Four (4) NCO's have attended the F-86D supervisors course.

o. Three (3) airmen have attended the course on the AN/APX6.

p. Four (4) airmen have attended the special training course on the seat ejection system.

q. Two (2) airmen have attended the school for the AN/ARN-14 (localizer-onmi)

r. One (1) airman has attended the F-86D factory training course.

s. Two (2) airmen have attended the F-5 auto pilot and zero reader school.

t. One (1) airman has attended the school for the J-2 compass system.

C O P Y

SECTION II (Cont'd)

u. One (1) airman has attended the course for J-47 minor engine repair.

7. Field trips to Burlington and Westover AF Bases have been planned for engineering, armament, supply and associated Tech. Reps. These trips should furnish valuable information as to the problems and solutions of other squadrons who have converted to the F-86D.

B. Manning

At present the squadron is generally below TO strength, but is gradually approaching full strength through automatic assignment. It is believed that the squadron will be fully manned prior to the arrival of the F-86D.

C O P Y

SECTION III  
MATERIEL ACTIONS

A. General Materiel Actions

1. According to information received by the 49th Fighter-Interceptor Squadron by letter from Headquarters, ADC, dated 18 Nov 53, this unit will receive F-86D type aircraft, model -40. It has not been clarified as to the series or the number of modifications which the aircraft this squadron receives have already undergone.

2. The fact that specific and concise information concerning the aircraft and date of conversion has not been received has considerably hampered supply actions which are necessary. Information received from representative of Eastern Air Defense Force is that new table II's, XI's, and XVI's are now being prepared and will be distributed in the near future. An interim table II and XI have been received and all of the items are on requisition. It is felt that although no AFSD or special project action will be given to this unit by AMC, supplies for the F-86D units are so critical that new consideration be given to establishing an AFSD for this unit. The supply precedence rating of XVII-7 now assigned to this squadron is too low to assure the receipt of adequate supplies and equipment without special priorities and special projects being given to this squadron.

3. Two UPREAL's have not been received by this squadron and every effort will be made to obtain the necessary supplies.

B. Squadron Materiel Actions

1. Every effort is being made to requisition with the highest priority action all equipment on the UPREAL pertaining to ground hand-line equipment and aircraft spares. Publications and regulations are now being received.

2. Table II items are being received at Base Supply at the present time.

3. Supply and Maintenance personnel visited the 37th F.I.S. at Burlington, Vermont and much valuable information was gathered by this team. It was felt that another trip to Westover or Andrews AFB, where actual full scale operations are being conducted would provide this team with more accurate information.

4. The supply officer intends to station a well qualified representative from this unit in Base Supply during the last thirty days prior to conversion in order to afford better coordination between this unit and Base Supply.

C O P Y

SECTION III (Cont'd)

C. Wing Materiel Actions

1. Assistance is being rendered in procuring specialized test equipment, flying equipment, and ground handling equipment.

2. Staff visits have been made to the 49th and Dow Air Force Base supply. Every effort will be made to assist in requisitioning Table II, XI and XVI maintenance spare parts.

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C O P Y

HEADQUARTERS  
49TH FIGHTER INTERCEPTOR SQUADRON (ADC)  
Dow Air Force Base  
Bangor, Maine

PERS

15 December 1954

SUBJECT: Movement of 49th Fighter Interceptor Squadron

TO: Commander  
4211th Defense Wing  
Presque Isle Air Force Station  
Presque Isle, Maine

1. The proposed move of the 49th Fighter Interceptor Squadron in the second quarter of fiscal year 1956 appears invalid at this time. This assumption is based on the latest progress report of construction at Hanscom Air Force Base which indicates that four basic requirements will not be complete until after December 1955. The items and projected completion dates are listed below:

- a. Runway extension - - - February 1956
- b. Taxiway extension - - February 1956
- c. Alert Apron - - - - February 1956
- d. Squadron Maintenance Hangar - - April 1956

2. In discussing the possibility that the 49th Fighter Interceptor Squadron might remain at Dow beyond December 1955 with base officials, I discovered that programmed construction at Dow will seriously curtail the units' air defense capability commencing in approximately April of 1955. The reasons are listed below and presented on attachment one.

a. The squadron alert ramp and facilities will become untenable as an alert area in March or April for an indefinite period due to overlay of existing taxiway C and construction of a new taxiway and ramp parallel to and between the present runway and the 49th Fighter Interceptor Squadron area. The specified contract completion time for the entire project is 270 days, but the Dow AIO cannot give a definite program of construction.

b. In addition to the outlined airfield construction for the summer and fall of 1955, new runway construction is scheduled to begin in December of 1955 or early 1956. Authorities at Dow maintain the

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C O P Y

Hq 49th Ftr Intcp Sq PERS Subj: Movement of 49th Fighter Interceptor Squadron

airfield will remain operative but that all weather operation will be extremely hazardous. This is substantiated by the proposal to operate on the present runway 33-15 while constructing a new runway 33-15 and taxiways completely surrounding the present strip.

c. Prior to the start of new runway construction noted in paragraph b, new civilian terminal facilities will be built in the 49th Fighter Interceptor Squadron area.

d. Ground Controlled Approach capabilities will become increasingly curtailed as major construction increases due to the policy of shutting off high voltage equipment during blasting periods. Present problems encountered during limited construction indicate that all weather recovery of jets at Dow during this major reconstruction period will be nearly impossible.

3. I have discussed all of the listed problems with personnel of the 506th SAC Fighter Wing and only one possible solution resulted from the discussion. There is a probability that the alert facilities of the 49th Fighter Interceptor Squadron can be moved to the vicinity of the takeoff end of runway 33 for the remainder of the 49th Squadron's tenancy at Dow. This solution eliminates the excessive and dangerous taxiing for scrambles, but hampers exchange of aircraft between maintenance and alert.

4. There is presently no solution to the problem of GCA shut-down due to blasting since Corps of Engineers directives make it mandatory that GCA shut down.

5. I request command emphasis be placed on preparation of Hanscom Air Force Base for beneficial occupancy at the earliest possible date since physical facilities at Dow Air Force Base cannot adequately support an all weather defense squadron after April of 1955.

JOHN A. BELL  
Major, USAF  
Commander

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C O P Y

Hq 49th FIS PERS Subject: Movement of 49th Fighter Interceptor Squadron

DO (15 Dec 54) 1st Ind

HQ 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. This correspondence is forwarded in accordance with 32nd Air Division message ACFOPR 12036 and through this headquarters at our request.

2. From the contents of this letter and Major Bell's briefing, it is obvious that the all-weather capability of the 49th Fighter-Interceptor Squadron will be limited in the very near future.

3. Since this information is to be at your headquarters as soon as possible it precludes the opportunity for complete explanation of possible solutions in this correspondence. As possible solutions this headquarters considers the possibility of a move to Ethan Allen Air Force Base, becoming tenant on Brunswick Naval Air Station, command action to step-up the construction dates at Hanscom Air Force Base, or remaining at Dow Air Force Base with a limited all weather capability. On the surface, it appears the most plausible solution is to accelerate construction at Hanscom Air Force Base. At your direction this headquarters is prepared to make studies on these suggested solutions.

JAMES F. REED  
Colonel, USAF  
Deputy Commander

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C O P Y

HQ 49th FIS PERS Subj: Movement of 49th FIS

OPR (15 Dec 54)

2d Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. The construction program scheduled to begin at Dow Air Force Base in March or April will seriously handicap the air defense capability of the 49th Fighter-Interceptor Squadron. In addition to this, the runway construction programmed for December 1955 at that base will make all-weather operations extremely hazardous.

2. As a solution to this situation, it is recommended that you reconsider the proposal made by this headquarters to move the 49th Fighter-Interceptor Squadron to Ethan Allen Air Force Base until the construction program would permit operations from Hanscom Air Force Base.

3. If such a move is still unfavorably considered, it is recommended that action be taken to accelerate the construction at Hanscom Air Force Base to enable movement of the 49th Fighter-Interceptor Squadron at the earliest practical date.

1 Incl  
Map of Development Plan

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

3404-54

CONFIDENTIAL

C O P Y

HEADQUARTERS  
517TH AIR DEFENSE GROUP  
Ethan Allen Air Force Base  
Winooski, Vermont

O&T

19 Oct 1954

SUBJECT: Survey of Ethan Allen Air Force Base

TO: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Attached is a letter received from the 506th Strategic Fighter Wing, Dow Air Force Base, Bangor, Maine.

2. On 14 October 1954, a team from the 506th Strategic Fighter Wing, headed by Lt Col Robert S. Williams, USAF, arrived here, hand carrying the above letter. We gave this team general information only, as no clearance from our headquarters was presented.

3. We have not made, nor contemplate making, any plans for the receipt of any aircraft or equipment from the 506th, unless cleared through our higher headquarters. We feel that this base is inadequate to support organizations of this type.

4. Request clarification of this survey and action, if any, required from this Group.

FOR THE COMMANDER:

1 Incl:  
Ltr fr Hq 506th  
Strategic FW, Dow  
AFB, dtd (undtd)

J. C. AUGSBURGER

C O P Y

Hq 517th ADG OMT Subject: Survey of Ethan Allen Air Force Base

DO (19 Oct 54) 1st Ind 27 Oct 1954

HQ 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Reference is made to paragraph 1 of the inclosure (letter from Headquarters 506th Strategic Fighter Wing, subject: "Survey of Ethan Allen Air Force Base"). This headquarters is uncertain of the intent of the Eighth Air Force and in doubt as to the meaning of "an emergency dispersal base" as used in this letter. If the Eighth Air Force intends that the 506th Strategic Fighter Wing use Burlington Airport in an emergency such as hurricane evacuation, a limited number of aircraft could be accommodated. However, if the Eighth Air Force intends to disperse the 506th Strategic Fighter Wing to Burlington Airport concurrent with the declaration of an Air Defense Warning Red or similar situation, a serious situation would arise as all facilities at Ethan Allen Air Force Base are required in direct support of the 37th Fighter-Interceptor Squadron. In addition, the Air National Guard squadron is rapidly becoming full strength. No facilities nor equipment could be made available to other than Air Defense aircraft or aircraft in direct support of the air defense mission.

2. Any action contemplated by the Eighth Air Force to use either Ethan Allen Air Force Base or Presque Isle Air Force Base during initial phases of a military emergency other than augmentation of air defense forces should be cleared through ADC Headquarters. This headquarters requests coordination in the early stages of planning for projects such as this.

FOR THE COMMANDER:

1 Incl:  
n/c

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

C O P Y

Hq 517th ADG O&T Subject: Survey of Ethan Allen Air Force Base

OOT-FO (19 Oct 54) 2nd Ind 1 Nov 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base  
Newburgh, New York

1. This headquarters has received no information concerning  
the team visit referred to in the basic letter.

2. Ethan Allen Air Force Base does not have a capability to  
support a dispersal as indicated in the inclosed letter from the  
506th Strategic Fighter Wing.

3. Request surveys of this type be coordinated through  
appropriate channels to present a concise picture of what should  
be anticipated or prepared for by Air Defense Command Bases.

FOR THE COMMANDER:

1 Incl:  
n/c

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS 506TH STRATEGIC FIGHTER WING  
Dow Air Force Base  
Bangor, Maine

WMD

19 Oct 1954

SUBJECT: Survey of Ethan Allen AF Base

TO: Commander  
517th Air Defense Group  
Ethan Allen Air Force Base  
Winooski, Vermont

1. In accordance with authority received from Headquarters Eighth Air Force, Lt Col Robert S. Williams, USAF, has been directed to conduct a survey of Ethan Allen Air Force Base, to determine the suitability of this facility as an emergency dispersal base for the 506th Strategic Fighter Wing. Lt Colonel Williams will be accompanied by a party of seven people.

2. The purpose of this visit is to determine the availability of the following:

a. POL:

- (1) 110,000 gallons - 100/130 avgas.
- (2) 65,000 gallons - JP-4 fuel.
- (3) 600 gallons - 1100 engine oil.
- (4) 40 gallons - MIL-L-7808 oil.
- (5) 15 pounds grease, ANG-5, MIL-L-3545, Amendment No. 1, Royal Engineering Company.

b. Gases and Chemicals:

- (1) 42 cylinders oxygen gas.
- (2) 100 gallons, liquid oxygen.
- (3) 4 cylinders nitrogen.
- (4) 55 gallons alcohol MIL-A-6091.
- (5) 20 gallons hydraulic fluid. MIL-O-5606 or AN-VVO-366.

INCL 1

C O P Y

WDM Subj: Survey of Ethan Allen AF Base

c. Quarters, medical facilities and messing facilities for approximately 200 officers and 500 airmen.

d. Parking facilities for approximately 80 F-34F and 20 KB-29 aircraft.

e. Cargo, towing, fuel servicing and personnel carrying vehicles and snow removal equipment.

f. Ground handling Equipment:

- (1) Jacks.
- (2) Hoists.
- (3) Stands.
- (4) (4) Hydraulic Test Units.
- (5) Tow Bars.
- (6) Compressors.
- (7) APU's.
- (8) Ground Heaters.
- (9) Oxygen Servicing.
- (10) Night Lighting.
- (11) Aft Section Cradles.
- (12) Engine dollies.

g. Field Maintenance support:

- (1) Specialists.
- (2) Shops
- (3) Engine Build-up.
- (4) Engine Run-In Stand.
- (5) Armament Electronics and Communications.

h. Ammunition:

C O P Y

- (1) 135,000 rounds - .50 caliber API
- (2) 300 units - 14-15 second ATO
- i. Buildings:
  - (1) Office and furniture.
  - (2) Hangars.
  - (3) Briefing Rooms.
  - (4) Personal Equipment and Sensitive Equipment Storage.
  - (5) Warehousing.
- j. Special Weapons support.
- k. Supply support.
- 3. It is also desired that a security survey be conducted.
- 4. Any cooperation in assisting Lt Colonel Williams is solicited.

FOR THE COMMANDER:

JAMES S. COWARD  
Colonel, USBF  
Deputy Wing Commander

SECRET

C O P Y

HEADQUARTERS  
528TH AIR DEFENSE GROUP  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

DO

7 Dec 54

SUBJECT: Permanent Allocation of Two (2) Fighter-Interceptor  
Squadrons (F-89D) to Presque Isle Air Force Base

TO: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. The ADC program indicates that from 3rd quarter of fiscal year 1957, Presque Isle AFB will become a single squadron base with one F-86D Fighter-Interceptor Squadron. It is my considered opinion that Presque Isle AFB should be re-programmed as a two (2) squadron base for a long-range type interceptor such as the F-89D.

2. Presque Isle AFB as the northernmost air defense base in the 32nd Air Division (Defense) area of responsibility occupies a vital tactical position. Programming information available at this level indicates that aside from the one (1) Fighter-Interceptor Squadron allocated to the 528th Air Defense Group at Presque Isle AFB are the units at Otis AFB and Burlington AFB. Therefore, a considerable gap exists across the northern and eastern perimeter of New England, an area which might be called "last ditch" to some of the major industrial target areas. It is understood that programmed Canadian Air Defense units will form a barrier to the North and will be considered available for use in this area should the situation so demand and should aircraft be available. I nevertheless believe that the one Fighter-Interceptor Squadron assigned to the 32nd Air Division (Defense) in this area is insufficient to provide adequate cover for Loring AFB and still be available for general area cover or to provide reinforcement for adjacent areas. Combat turn around time for the F-89D is unknown at present, however, tests so far conducted at Presque Isle AFB seem to indicate that complete combat turn around per aircraft will take approximately 45 minutes. Assuming that the protection of Loring AFB will always carry a high tactical priority and that our turn-around time is our reserve, it follows that one squadron will have a necessarily limited radius of action. This situation leaves the Division Commander but one squadron of fighters at Burlington AFB as a mobile protective unit for the approaches to the vital industrial target area along a line from Buffalo, New York to Boston, Mass. An additional F-89D Fighter-

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C O P Y

Hq 528th AD Gp, Subject: Permanent Allocation of Two (2) Fighter-Interceptor Squadrons (F-89D) to Presque Isle Air Force Base

Interceptor Squadron at Presque Isle AFB would not only help in filling what appears to be a gap between units in southern New England, but would provide the 32nd Air Division Commander with additional and essential tactical mobility.

3. The present and planned organization of Presque Isle AFB is adequate for the support of an additional Fighter-Interceptor Squadron with a very modest increase in men, money and materiel.

4. Since the new master plan for permanent ADC bases is now under development, I believe it extremely important that immediate consideration be given to re-programming Presque Isle AFB as a permanent two (2) squadron base.

FRANK Q. O'CONNOR  
Colonel, USAF  
Commander

ADJ (7 Dec 54)

1st Ind

16 Dec 54

HQ 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Syracuse 6, New York

1. This headquarters concurs in this request and recommends immediate approval.

2. It is felt that we should take full advantage of Presque Isle Air Force Base as our most northeast air defense base and provide maximum air defense in this direction as far ahead of our major industrial and military targets as possible. We want to start hitting them as soon as possible and with as many weapons as possible.

3. Assuming that our greatest danger of air attack will be from the north, we must make maximum effort to train combat units capable of operating effectively under the adverse climatic conditions of the northernmost air defense bases such as Presque Isle Air Force Base.

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C O P Y

Hq 526th ADG, DC, Subject: Permanent Allocation of Two (2) Fighter-Interceptor Squadrons (F-89D) to Presque Isle Air Force Base

4. Since the 49th Fighter-Interceptor Squadron is programmed to leave Dow Air Force Base, it will leave an additional gap in the air defense perimeter to be filled, probably, from Presque Isle.

FOR THE COMMANDER:

JAMES F. REED  
Colonel, USAF  
Deputy Commander

SECRET

C O P Y

MEMO ROUTING SLIP

TO: ODO (For necessary action)

REMARKS: Neither the Group nor the Wing are in a position to recommend deployment. Hence, even though I have written my draft in the form of an indorsement, we should initiate the letter at this level.

RSI (Robert S. Israel)

SECRET

C O P Y

D R A F T

Subject: Permanent Allocation of Two (2) Fighter-Interceptor Squadrons (F-89D) to Presque Isle Air Force Base

1. The mission of the units based upon Presque Isle Air Force Base is dual, to wit: (1) Defense of Loring Air Force Base and (2) The extension of the defenses of the Boston, Niagara, Norfolk urban industrial triangle. These two are not compatible. To effect one, the other must be abandoned, or by splitting forces (of a programmed single squadron) applying ineffectiv forces to each mission.
2. Considering the prime importance of Loring AFB to the SAC retaliatory force, I would be reluctant with but a single squadron at Presque Isle to permit any aircraft from that base to proceed further from it than the normal limits of the radius of action of fighters on local defense (120-150 miles).
3. Yet, the importance of the interception, identification, destruction and disorganization of enemy forces which could be effected from a base as far advanced from the "main line of defense", - Boston, Niagara, is perfectly obvious.
4. Two squadrons at Presque Isle would lend much more flexibility of employment. The allocation of an adequate force to each mission would be possible. To afford maximum flexibility and to simplify logistic support, it is recommended that two squadrons of the F-89D type or longer ranged should be based at Presque Isle Air Force Base, rather than one short range (F-86D) and one long ranged squadron.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

54-4311

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**SECRET**

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OPR

29 Dec 1954

SUBJECT: Permanent Allocation of Two (2) Fighter-Interceptor Squadrons  
to Presque Isle Air Force Base

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. The ADC Program Book indicates that during the 3rd Quarter FY 57, Presque Isle AFB will revert to a single squadron base with a F-86D Fighter-Interceptor Squadron assigned.

2. Since Presque Isle Air Force Base is the 32d Air Division (Defense) northernmost fighter-interceptor base, the mission of units there is dual, to wit: (1) the extension of the defense of the Boston, Niagara, Norfolk urban-industrial triangle and (2) the defense of Loring Air Force Base. These two missions compete for priority. If only one squadron is based at Presque Isle, to properly effect one mission, the other suffers. The alternate would be to weaken our efforts with respect to both missions and consequently fall considerably short of requirements.

3. Although no definite information has been received at this headquarters, it is thought that the programmed employment of "NIKE" units at Loring Air Force Base may have been the basis for reverting Presque Isle Air Force Base to a single squadron base. "NIKE" can be considered an excellent base defense, however, it has a limited range of approximately 25 miles. Considering the prime importance of Loring Air Force Base to the SAC retaliatory forces, with only one fighter-interceptor squadron at Presque Isle I would be reluctant to permit assigned aircraft to proceed further than the normal limits of the radius of action of fighters on local defense (100-150 miles). Yet, the importance of interception, identification, destruction, and disorganization of enemy forces as far away as possible from vital industrial areas is perfectly obvious.

4. Therefore, it is recommended that two (2) squadrons of F-89D type or similar long range aircraft be programmed for that base. Two

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C O P Y

OPR Subj: Permanent Allocation of Two (2) Fighter-Interceptor Squadrons to Presque Isle Air Force Base

of these squadrons would lend more flexibility to the employment of assigned forces and allow the allocation of adequate effort for each mission assigned.

5. The present and planned organization of Presque Isle Air Force Base would be adequate for the support of two fighter-interceptor squadrons with a modest increase in men, money, and material.

6. I believe it is extremely important that immediate consideration be given to this proposed re-programming of Presque Isle Air Force Base for a permanent two (2) fighter-interceptor squadron base, since the new master plan for permanent ADC bases is now under development.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

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Hq 32d ADiv (Def) OPR Ssubject: Permanent Allocation of Two (2)  
Fighter-Interceptor Squadrons to Presque Isle Air Force Base

EAOPR-2 (29 Dec 54)

1st Ind

21 Feb 55

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. Your correspondence which contained a proposal to make Presque Isle AFB a two squadron base has been reviewed by this headquarters and we agree with you in principle; however, informal discussion of this subject with Headquarters ADC indicates that the present fighter-interceptor program will not provide for your proposed deployment.

2. The over-all deployment of fighter-interceptor forces is under constant review at Headquarters ADC as well as at this headquarters to insure that our weapons deployment remains in consonance with such changes in air defense concept as may be developed. The number of squadrons and type of weapons which may be authorized to perform the air defense mission is also a determining factor in weapons deployment which must be considered, since for example, if your proposal was adopted, the assignment of an additional squadron to Presque Isle AFB on a permanent basis would necessitate the reduction of forces in another geographical area which is considered inadvisable at this time.

3. The ADC fighter-interceptor program, 17 January 1955, indicates that Presque Isle AFB is scheduled to remain a one squadron base following the deployment of the 82d Fighter-Interceptor Squadron to the Azores in 20FY57. The 318th Fighter-Interceptor Squadron which will remain at Presque Isle AFB will be equipped with F-89D air craft and re-equipped with F-89D/H aircraft 420FY58.

4. This 1st Indorsement is classified Secret in accordance with the provisions of paragraph 23b, AFR 205-1.

DONALD B. SMITH  
Brigadier General, USAF  
Vice Commander

54-4417

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**HISTORICAL REPORT  
of the  
32d AIR DIVISION (DEFENSE)**

July-Dec 1954  
V. 5  
K-DIV-32-111



**THE AIR DEFENSE OF A SECTOR  
JULY through DECEMBER 1954**

SUPPORTING DOCUMENTS IV

**HISTORICAL OFFICE  
SYRACUSE AIR FORCE STATION, NEW YORK**

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HISTORICAL REPORT  
OF THE 32D AIR DIVISION (DEFENSE)  
Number Seventeen

THE AIR DEFENSE OF A SECTOR  
July through December 1954

RCS: 1-AF-D2

SUPPORTING DOCUMENTS  
VOLUME IV (Documents 197 thru 243)

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C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADOOT-B 686

9 January 1954

SUBJECT: (Uncl) Emergency Airfields for Fighter-Interceptor Operations

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. One aspect of our air defense planning that requires more emphasis is the development of an operational plan which will assure this command the retention of our air defense capabilities during periods of emergency. As visualized, such an emergency would exist during periods of heavy saturation raids or when our bases have been rendered untenable through sabotage or bombing.
2. The continuance of operations under such conditions is mandatory. Our first concern is to alleviate the strain placed on the facilities at bases where more than one squadron is stationed. Under certain raid conditions scramble and recovery delays will not permit maximum effective use of more than one squadron operating from a single landing strip. During periods of operational stress, it may be desirable to re-deploy all but one of these squadrons, and operate on an emergency basis utilizing auxiliary landing strips and facilities. The feasibility of such a plan is predicated on advanced warning. It is possible that sufficient information from strategic intelligence sources and our DEW facilities will be available to permit implementation of such a plan.
3. Our secondary consideration is the development of a plan wherein all fighter squadrons could be redeployed to an auxiliary landing facility during periods of emergency. The degree of operations from such facilities may vary from an emergency landing to a sustained operation. It is foreseeable that, unless such measures are taken, exploitation of maximum fighter-interceptor capability may not be realized.
4. Air Defense Force commanders are requested to assist in the development of this plan. A discussion for the development thereof is attached as Inclosure No. 1. It is requested that major field commanders:

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ADOOOT-B 686, Subj: (U) Emergency Airfields for Fighter-Interceptor Squadrons

a. Report by 1 March 1954 for each squadron stationed at a multiple squadron base:

- (1) Proposed location of auxiliary landing and control facilities for each squadron under the following concepts of operation:
  - (a) A one-time operation from an emergency landing facility to recover and reservice aircraft.
  - (b) A sustained operation for a period of 10 to 15 days.
  - (c) A semi-permanent operation for an indefinite period.
- (2) Proposed methods of operation under paragraphs 4a (1) (a), (b) and (c) above.
- (3) Facility requirements for operation under paragraphs 4a (1), (a), (b) and (c) above.
- (4) Comments and recommendations.

b. Forward a similar report by 1 April 1954 for each fighter-interceptor squadron not included in paragraph 4a above.

BY ORDER OF THE COMMANDER:

1 Incl  
Discussion

/s/t/ JARRED V. CRABB  
Maj Gen, USAF  
Chief of Staff

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C O P Y

Hq ADC ADOOT-B 686 Subject: Emergency Airfields for Fighter-Interceptor Operations

EACOT-FO (9 Jan 54) 1st Ind 15 Feb 1954

Hq EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

1. Correspondence forwarded for necessary planning as indicated herein.
2. The development of operational plans for redeployment of interceptor units under emergency conditions has been a matter of concern for some time; however, this headquarters envisions the necessary planning for and the implementation of redeployments under the conditions specified in paragraph 1, not so as to increase operational effectiveness but to escape destruction of interceptor weapons on the ground and to maintain an air defense operation at an auxiliary base pending the repair of permanent facilities at the home station.
3. It is desired that plans be developed establishing the minimum support and facilities requirements necessary to conduct an effective air defense operation as directed in paragraph 4a and 4b of basic with the exception of plans for semi-permanent operations required by paragraph 4a (1) (c) which will be held in abeyance pending further instructions.
4. This headquarters is taking action to recommend deletion of the requirement to submit plans for semi-permanent operations at deployment bases. The feasibility of planning for extended operations at such bases is questionable in view of the apparent necessity for establishing additional and in some cases duplicate requirements and construction of facilities peculiar to air defense operations. As noted in basic correspondence, stockpiling of critical items will not be considered.
5. Special consideration will be given to redeployments from tenant bases inasmuch as minimum support and required facilities will be available from the base concerned.
6. It is considered that all redeployments should be of the shortest possible duration, not to exceed a two week period, and primary emphasis should be placed on efforts to return the permanent base to an operational status rather than expend substantial effort to improve auxiliary fields to suitable standards.

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EAOOT-FO Subject, Emergency Airfields for Fighter-Interceptor Operations (contd)

7. A list of factors to consider in preparation of redeployment plans is attached. Although the list is not all inclusive, the major points of consideration are outlined.

8. In the event it becomes necessary to visit the selected bases, care will be exercised in the selection of EADF representatives. When discussing the purpose of the visit, it is mandatory that the persons contacted be assured that they are not being asked to commit their base facilities in any manner, and it must be clearly explained that the purpose of the survey is to obtain data to determine the feasibility of temporarily redeploying interceptor squadrons to maintain an operational capability in the event damage or other operational considerations dictate a move from the permanent base.

9. Headquarters Air Defense Command has granted an extension of the suspense date for submission of plans under paragraph 4a of basic. Final plans will arrive this headquarters not later than 15 March 1954. Plans submitted under paragraph 4b will arrive this headquarters not later than 23 March 1954.

10. Your recommendations relative to the feasibility of the basic concept and suggestions for the development of workable plans and procedures are encouraged.

11. Contents of this indorsement are classified Secret in accordance with paragraph 23 of AFR 205-1.

BY ORDER OF THE COMMANDER:

2 Incls  
1. n/c  
Added 1 Incl  
2. Redeployment Planning  
Factors for Determination  
of Add Rqmts

JOHN L. WARREN  
Colonel, USAF  
Adjutant

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DISCUSSION

Purpose: To develop and implement procedures which will assure the maximum effectiveness of fighter-interceptor forces during periods of stress and emergency.

Emphasis should be placed on the development of plans wherein the redeployment to an auxiliary field of one or two squadrons can be accomplished prior to an expected attack, during an emergency or the initial air battle for recovery and reservice. Subsequent operations from these facilities should be expected.

Utilization of the facilities from other services, major air commands and/or agencies affords an excellent opportunity that should be taken advantage of and exploited to the utmost. It appears desirable to consider the utilization of those ANG bases where units having an M-Day assignment to this command are stationed. Sustained operations by our regular assigned units from these facilities may have some disadvantage subsequent to M-Day because of the similar nature of ANG operations during this period. However, our primary concern is the first air battle; and the fact that participation by the ANG during this period may be limited should outweigh this disadvantage. The establishment of operational requirements for facilities at these bases may assist the ANG in becoming fully equipped. This would prove advantageous to this command and to our best interests. In this respect, all planning for additional equipment, etc., should be on an austerity basis. Stockpiling of critical items will not be considered.

Consideration should be given to the requirements necessary for a one time operation, sustained operation (10 to 15 days) or a semi-permanent move. However, due to the location of some of our bases with respect to available auxiliary facilities, the use of suitable portions of federal and state highways should be considered. Instances of this nature are the least desirable and equipment, etc., should be held to a minimum.

A general list of factors to be considered in airfield selection and planning operations from emergency airfields is included for your information.

a. Airfields selection:

- (1) Should be as close to the parent base as possible but not further than 100 miles.
- (2) Limit the special equipment and hangar shelter at the emergency facility, utilizing the parent base for base maintenance.
- (3) Procedures for delivery of needed supplies and equipment during this period. Utilization of L-20 aircraft and helicopters should not be overlooked.

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b. Temporary housing for personnel utilizing available buildings and/or tents.

c. Messing facilities utilizing existing facilities, field kitchens and/or commercial sources.

d. Storage facilities, ground handling equipment, spare parts, etc. Temporary storage for ammunition facilities can be constructed by sandbagging. Use of emergency rations, etc., should be considered.

e. Adequate delivery of aviation fuel through utilization of organic, government or commercial facilities. Contracts can be initiated to be implemented on an on-call basis, these to include any suitable carrier.

f. Radio and wire communications in support of emergency air strips can be provided as follows:

(1) Radio

- (a) Provided UHF control tower facilities are not available at the emergency field, such facilities should be provided by deployment of an UHF equipped mobile runway control vehicle from the nearest ADC base.
- (b) If the main fighter base is rendered unusable by any reason and provided that the GCA facility is of a mobile type and is intact, arrangements should be made to deploy the GCA unit to the emergency field.
- (c) To back up the wire scramble circuit to the emergency field, arrangements should be made to make use of radio equipment available at such fields or deploy an SCR 399 or SCR 188 to the emergency field. This equipment could possibly be made available from base supply stocks.

(2) Wire

- (a) Scramble circuits to alternate airfields can be furnished by means of toll terminals or engineered circuits.
- g. Emergency airfield lighting by using home-made flare pots.
- h. Factors listed above are not all inclusive and will of necessity be applicable only in some instances.

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REDEPLOYMENT PLANNING FACTORS FOR DETERMINATION OF ADDITIONAL REQUIREMENTS

1. Airfield Selection
  - a. Distance from home station
  - b. Runway length
  - c. Ramp space required
  - d. Field lighting
  - d. Operationally controlled by
2. Physical Structures
  - a. Maintenance hangar (existing or interim shelter)
  - b. Housing and messing (civilian support)
  - c. Operations and alert center
3. Recovery Facilities (Minimum requirements)
  - a. GCA or ILS (effect of RAPCONs at permanent base)
  - b. LF or Omni Range
  - c. Proposed scramble and recovery (general)
  - d. Other navigational or recovery aids
4. Controlling AC&W Squadron
  - a. Designation
  - b. Control capabilities
5. Logistics
  - a. POL requirements (quantity, storage and delivery)
  - b. Oxygen (storage and resupply)
  - c. Spare engines
  - d. Spare parts (re-supply)

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- e. Ammo storage (facilities, temperature control, number of rounds, resupply)
  - f. Starting units
  - g. Electronic test equipment (FCS)
  - h. Ground handling and test equipment
  - i. Crash vehicles (base or civilian)
  - j. Snow removal (base or civilian contract)
6. Communications
- a. Scramble circuit requirements (toll terminal or engineered circuits)
  - b. Tower communications
  - c. Back-up for scramble net
  - d. Cabling and power (GCA, lighting, alert center, hangar, etc)
  - e. Navigational aids
  - f. On base telephone requirements
7. Transportation
- a. Personnel
  - b. GCA (if required at auxiliary base)
  - c. Unit equipment
  - d. Resupply (aerial and ground)

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

FB&R

15 Mar 54

SUBJECT: (Unclassified) Emergency Airfield for Fighter-Interceptor Squadron

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. In accordance with 1st Indorsement Letter, ADOOT-B 686, Headquarters Air Defense Command, Subject: (Unclassified)"Emergency Airfields for Fighter-Interceptor Squadrons" the following information is submitted for your approval.

a. 437th or 58th Fighter-Interceptor Squadron, Otis Air Force Base, Maine (Responsibility for designating squadron to deploy will be delegated to the 4707th Defense Wing). The same airfield will be utilized for one time operation or sustained operation for a period of 10 to 15 days.

- (1) Airfield-Logan International Airport, Boston, Massachusetts.
- (2) Due to location of Logan airfield in reference to Otis AFB there will be no operational changes.
- (3) Facilities required for emergency operations are adequate with the exception of communications. Two "Hot-Line" circuits would have to be established between Logan airfield and P-10, one status line and one scramble line.
- (4) Logistics:
  - (1) Unit TO&E Equipment would be sufficient for emergency operations.
  - (2) Refueling would be accomplished by the 102nd Fighter-Interceptor Wing (ANG), Logan International Airport.

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PO&R Subj: (Uncl) Emerg Airfields for F/I Squs (Contd)

- (3) Logistic support would be furnished by parent base.

b. 74th or 57th Fighter-Interceptor Squadron, Presque Isle Air Force Base (Responsibility for designating squadron to deploy will be delegated to the 471st Defense Wing). The same airfield will be utilized for one time operation or sustained operation for a period of 10 to 15 days.

- (1) Airfield-Limestone AFB, Maine
- (2) There would be no changes in operational procedures due to location of emergency base.
- (3) Facilities required for emergency operations would be adequate with the exception of communication. Two "Hot-Line" circuits would have to be established between Limestone AFB and P-65, (one status line and one scramble line).
- (4) Logistics:
  - (1) Unit TO&E equipment would be sufficient to maintain emergency operations for required period.
  - (2) Refueling would be accomplished by Limestone AFB, Maine.
  - (3) Support would be furnished by parent base.

2. In order to meet the criteria established by ADC for emergency airfields it will be necessary to deploy one of the fighter squadrons from Presque Isle AFB to Limestone AFB, Maine, since no other suitable airfields are within the 100 mile radius. However, this headquarters does not deem it advisable as Limestone AFB would be considered a primary target over Presque Isle AFB.

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3. It is recommended that the suspense date on this project be extended to allow time for a more extensive study of airfield and facilities that could be used in cases of emergency.

FOR THE COMMANDER:

FREDERICK E. YORK  
Major, USAF  
Adjutant

54-152

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

PO&R

23 Mar 54

SUBJECT: (Unclassified) Emergency Airfield for Fighter-Interceptor Squadrons

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. In accordance with ADOOT-B, 1st Indorsement of letter, Headquarters ADC, Subject: (Unclassified) Emergency Airfields for Fighter-Interceptor Squadrons, the following information is submitted:

a. 27th Fighter-Interceptor Squadron, Griffiss AFB, New York.

- (1) Syracuse Air Force Station, Syracuse, New York.
- (2) There will be no operational changes due to the location of the emergency airport.
- (3) Facilities required for emergency operations are adequate with the exception of communications. Two hot-line circuits would have to be installed between Syracuse Air Force Station and P-49; (one status line and one scramble line.)
- (4) Logistics:
  - (a) Unit TO&E equipment would be sufficient for emergency operations.
  - (b) Refueling to be accomplished by the 108th Air National Guard Squadron or by commercial contractw
  - (c) Logistic support would be furnished by parent base.

b. 60th Fighter-Interceptor Squadron, Westover AFB, Massachusetts.

- (1) Hanscom AFB, Bedford, Massachusetts.
- (2) There will be no operational changes due to the location of the emergency airport.

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C O P Y

Hq 32 D AD(D) PO&R Subj: (Uncl) Emerg Airfield for F/I Sq

- (3) Facilities required for emergency operations are adequate with the exception of communications. Two hot-line circuits would have to be installed between Hanscom AFB and F-10, (one status line and one scramble line).
- (4) Logistics:
  - (a) Unit TO&E equipment would be sufficient for emergency operations.
  - (b) Refueling would be accomplished by Air Research & Development Command.
  - (c) Logistic support would be furnished by parent base.
- c. 37th Fighter-Interceptor Squadron, Ethan Allen AFB, Vermont.
  - (1) St. Hubert, Canada.
  - (2) There will be no operational changes due to the location of the emergency airport.
  - (3) Facilities required for emergency operations are adequate with the exception of communications. One hot-line circuit would have to be installed between St. Hubert and P-14, (one hot-line has been installed to date).
  - (4) Logistics:
    - (a) Unit TO&E equipment would be sufficient for emergency operations.
    - (b) Refueling would be accomplished by the RCAF in accordance with present agreements.
    - (c) Logistic support would be furnished by parent base.
- d. 49th Fighter-Interceptor Squadron, Dow AFB, Maine.
  - (1) Brunswick Naval Air Station, Brunswick, Maine.
  - (2) There will be no operational changes due to the location of the emergency airport.

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HQ 32d AD(D) PO&R, SUBJ: (Uncl) Emerg Airfield for F/I Sq

- (3) Facilities required for emergency operations are adequate with the exception of communications. Two hot-line circuits would have to be installed between P-13 and Brunswick Naval Air Station, (one status line and one scramble line).
- (4) Logistics:
  - (a) Unit TO&E equipment would be sufficient for emergency operations.
  - (b) Refueling to be accomplished by Brunswick Naval Air Station.
  - (c) Logistic support would be furnished by parent base.
- e. 47th Fighter-Interceptor Squadron, Niagara Falls, New York.
  - (1) Buffalo Municipal Airport, Buffalo, New York.
  - (2) Due to location of emergency airport in reference to Niagara Falls airport there would be no change in operations procedures.
  - (3) Facilities required for emergency operations are adequate with the exception of communications. Two hot-line circuits would have to be installed between Buffalo Municipal Airport and P-21, (one status line and one scramble line).
  - (4) Logistics:
    - (a) Unit TO&E equipment would be sufficient for emergency operations.
    - (b) Refueling would be accomplished by civilian contract.
    - (c) Logistic support would be furnished by parent base.
- f. All squadrons would use the redeployment airfield for 15 day operations.

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HQ 32D AD(D) PO&R, SUBJ: (Uncl) Emerg Airfield for F/I Sq

2. This organization will have completed a survey of all airfields within its area of responsibility by 1 April. At that time a more complete study of emergency airfields can be submitted.

FOR THE COMMANDER:

FREDERICK E. YORK  
Major, USAF  
Adjutant

54-264

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOOT-OW

5 Apr 1954

SUBJECT: (Unclassified) Emergency Airfields for Fighter-Interceptor  
Operations

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Reference is made to Air Defense Command letter, subject: Emergency Airfields for Fighter-Interceptor Operations, ADOOT-B 686, 9 January 1954, and 1st Indorsement, this headquarters, 15 February 1954.
2. The Emergency Deployment Plans for interceptor squadrons of your command are being returned for revision in view of additional information received from Headquarters Air Defense Command, suggested planning factors submitted by the 26th and 30th Air Divisions and for the addition of planning factors omitted from squadron plans.
3. Reference is made to paragraph 4a (1) (c) of above cited letter. In revised plans, provisions for semi-permanent deployment will be included. Air Defense Command's interpretation of semi-permanent is that "it is a variation, time-wise, of one to 15 day deployment". For planning purposes, a period of 16 days to 2 months will be considered semi-permanent.
4. It is desired that each plan contain a statement to the effect that the airfield facilities, maintenance facilities, housing, messing, operations, alert center, recovery facilities, controlling AC&W Squadron, logistics and communications data would be applicable to any EADF interceptor squadron that might be deployed to the selected base. If this statement cannot be made, the reason should be given. Complete information on various bases will give the air division commander more latitude in selection of bases in the event deployment becomes necessary.
5. Unless there is no alternative, no two squadrons should plan to use the same emergency deployment bases simultaneously.

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EAOOT-OW Subject: (Uncl) Emergency Airfields for Fighter-Interceptor Operations (Cont'd)

6. Copies of the 433d and 42d Fighter-Interceptor Squadrons' plans and Annex B from all squadrons' plans of the 4703th Defense Wing are attached. The contents of this letter and the above cited ADC letter and 1st Indorsement thereto, together with the reproduced plans, will be used as guides in the revision of original squadron emergency deployment plans.

7. Emergency Deployment Plans will be forwarded to arrive at this headquarters no later than 10 May 1954.

8. This correspondence is classified Secret in accordance with paragraph 23c, AFR 205-1.

BY ORDER OF THE COMMANDER:

3 Incls

1. Plan for Emerg Deployment for Present Two-Sq Bases w/Annex B (11 cys)
2. Ltr 32d ADiv (Def), subj as above, 15 Mar 54
3. Ltr 32d ADiv (Def), subj as above, 23 Mar 54

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

54-564

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
STEWART AIR FORCE BASE, NEWBURGH, N.Y.

EACOT-OW

23 Jul 1954

SUBJECT: Utilization of Automatic Pilot (F-86D)

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. The automatic pilot in F86D aircraft assigned to this command will be checked prior to utilization under IFR conditions. If this prior check is not completed, the automatic pilot will remain in the off position until a minimum altitude of 10,000 feet has been reached.

2. The restrictions imposed in paragraph 1 above are necessary in view of possible automatic pilot malfunction which could in turn place the interceptor in such an attitude as to make recovery extremely difficult.

3. In the event of a valid emergency necessitating the use of the automatic pilot, this restriction may be waived.

BY ORDER OF THE COMMANDER:

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

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C O P Y

Hq EADF, EACOT-OW, Subj: Utilization of Automatic Pilot (F-86D)

OCT-FO (23 Jul 54) 1st Ind 28 Jul 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth,  
Massachusetts  
Commander, 4711th Defense Wing, Presque Isle AFB, Presque Isle, Me.  
Commander, Headquarters Squadron Section, 32d Air Division (Defense),  
Syracuse Air Force Station, Syracuse, New York, Attn: Flt Ops

1. Forwarded for your information and dissemination to subordinate unit of your command.
2. Desire emphasis be placed on this matter to insure cognizance of all rated personnel flying subject aircraft.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

C O P Y

47TH FIGHTER INTERCEPTOR SQUADRON  
Niagara Falls Municipal Airport  
Niagara Falls, New York

23 August 1954

SUBJECT: P-86-D-7 Mobile Training Detachment

TO: Commander  
518th Air Defense Group  
Niagara Falls Municipal Airport  
Niagara Falls, New York

1. In reference to letter, file GA, subject, same as above, dated 15 July 1954, the following information is forwarded for your perusal concerning deficiencies and constructive criticism of P-86D-7 Mobile Training Detachment.
2. Said detachment arrived this station on 1954. Inasmuch as there was no officer in charge, and no data pertaining to his arrival, co-ordination was effected with the NCOIC of subject detachment on 22 July to arrange for courses commencing 27 July. This unit emphasized its desire of absorbing maximum benefit from the course. Personnel detailed to the course were withdrawn from other duties and relieved of squadron details during the periods of scheduled classes.
3. No instrument, hydraulic or I.E.C. instructors were initially available; therefore, these courses were tentatively scheduled. I.E.C instructor arrived 22 July 1954, however, being also the only engine instructor his duties are being utilized solely as engine instructor. Hydraulic course is being conducted by a North American Technical Representative assigned to this unit, however, an MTD hydraulic instructor is scheduled to arrive 23 August. Instrument course was conducted by one of our assigned Instrument Specialists.
4. Instructors conducted classes during the first week of training on the basis that our personnel were well qualified and little effort was focused toward a planned training program. In other words, instructors asked the students what questions were prevalent. This procedure resulted in few questions and early completion of the course phase. Repeated instructions by this unit to conduct a full course outline has brought forth a marked increase in the value of subject MTD.
5. Classroom instruction of the E-4 Fire Control System was attended by a Technical Representative and a Technical Instructor for the purpose of answering any questions arising which could not be answered by the instructor.

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FIS Subj: F-86D-7 Mobile Training Detachment

Formal classes being conducted by the aforementioned were cancelled to allow full benefit of the MTD course of instruction. An evaluation of the E-4 FCS capabilities indicates that with proficient instructors and maximum use of mock-up equipment, this course would be ideal for transitioning personnel with little or no knowledge or experience of this system. Since the course must be taught at 3 skill level, its value to 32250D or 32271D personnel is considered negligible. The instructors provided for this course do not possess a thorough knowledge of the theory and operation of the Fire Control System, and therefore are unable to answer queries advanced by the students. This, coupled with the fact that information is sometimes presented that is wholly or partially incorrect, has resulted in a lack of interest by the students. None of the instructors have had any line experience in maintenance of the Fire Control System. Since most of the work done by the students in their normal duties consists of adjustments and inspections performed on the line, it is unfortunate that the instructors have not had like experience. Inasmuch as the MTD course has interrupted OJT training, and said MTD course itself is inadequate, this course has been dropped from the scheduled classes.

6. The mock-up equipment used by the MTD in many cases do not apply to our -35 and -40 block number aircraft. This naturally is expected, however, in several cases the instructors are not well informed as to the main differences between the systems represented by the mock-up equipment and our assigned aircraft.

7. Many of the difficulties aforementioned are a result of this being a newly formed detachment. Instructors arrived at various times over a two week period and had not had the opportunity to work together as a team. In addition Captain Roy G. Baker, Detachment Commander, arrived after classes had been scheduled and did not know the calibre of instruction materiel or the policies and practices exhibited by his instructors. Captain Baker has done an excellent job of fulfilling the desires of this unit in presenting technical data in the most effective manner within the capabilities of his instructors.

8. Due to insufficient classroom space on this station, the MTD classes are being conducted in the readiness hangar. The noise resulting from the performance of required maintenance in subject hangar decreases the effectiveness of, and often causes delay in, the classroom instruction. A request by this unit to conduct MTD classes in one cell of the alert hangar, thereby decreasing distractions due to noise, was disapproved due to Air Defense Command Policy.

RUFUS WOODY, JR  
Lt Colonel, USAF  
Commander

C O P Y

47th FIS, Nia Falls Muni Aprt, Nia Falls, NY, Subj: F-86D-7 Mobile  
Training Detachment

DGCO (23 Aug 54) 1st Ind

HEADQUARTERS, 518TH AIR DEFENSE GROUP, Niagara Falls, Municipal Airport,  
Niagara Falls, New York

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth,  
Massachusetts

1. Information contained in basic letter was made known to Colonel  
Just of Chanute Air Force Base during a recent visit which he made to  
this base.

2. This is forwarded to your headquarters for your information  
and any action deemed appropriate. As pointed out in paragraph 1, basic,  
this is intended to be constructive and to be of benefit to Mobile Train-  
ing Units and or to other organizations which they serve.

STANLEY E. MATTHEWS  
Colonel, USAF  
Commander

DWEMP-T (23 Aug 54) 2nd Ind

HEADQUARTERS, 4707TH AIR DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts, 7 Sep 1954

TO: Commander, 32d Air Division (Defense), Hancock Field, Eastwood  
Station 6, Syracuse, New York

Attention is invited to the basic communication and the preceding  
indorsement.

FOR THE COMMANDER:

GEORGE N. LEITNER  
Captain, USAF  
Adjutant

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C O P Y

47th FIS, Nis Moni Apt, Nis Falls, NY, Subj: F-86D-7 Mobile  
Training Detachment

OOT-PO (23 Aug 54) 3rd Ind 11 Sep 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

Forwarded for any action deemed appropriate.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
520TH AIR DEFENSE GROUP  
Presque Isle Air Force Base  
Presque Isle, Maine

DO

SUBJECT: Simulator and MTD Schedules

TO: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. F-89-3 MTD presently conducting classes at Presque Isle Air Force Base, Maine is scheduled to terminate classes and depart 25 January 1955.

2. Request that F-89-3 MTD remain at Presque Isle until 10 February 1955 as outlined in ADC Simulator and MTD Schedules effective 1 July 1954 to facilitate completion of training for the 82nd Fighter-Interceptor Squadron which at the present time is still in the process of returning from an overseas assignment.

FRANK Q. O'CONNOR  
Colonel, USAF  
Commander

DO-O&T (5 Nov 54) 1st Ind

HQ 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

Recommend approval.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

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Hq 528th AD Gp, DO, Subject: Simulator and MTD Schedules

OCT-FO (5 Nov 54) 2nd Ind

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Recommend approval.
2. F-89-3 MTD will complete one hundred and twenty (120) days temporary duty at Presque Isle Air Force Base on 25 January 1955. Period of temporary duty began on 27 September 1954 and is based on Air Defense Command message ADOOT-C 27270 to the Technical Training Air Force.
3. Request coordination be initiated to extend the temporary duty period of F-89-3 MTD until 10 February 1955. This extension will coincide with MTD schedules forwarded by your headquarters under cover letter, EA00T-TW, subject, Simulator and MTD Schedules, dated 17 July 1954.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

EA00T-TW (5 Nov 54) 3rd Ind

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado  
Springs, Colorado

Recommend approval.

FOR THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

B/L Hq 528th AD Gp DO Subject: Simulator and MTD Schedules

ADOOT-C (5 Nov 54) 4th Ind

HEADQUARTERS AIR DEFENSE COMMAND, Ent AFB, Colorado Springs, Colorado

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Request approved.
2. MTD F-89D-3 is scheduled to depart Presque Isle AFB on or about 12 February 1955 for Otis AFB, Massachusetts.
3. MTD F-94C-6 presently assigned 528th Air Defense Group will be returned to Chanute AFB, Illinois on or about 24 January 1955.

BY ORDER OF THE COMMANDER:

JOHN J. HAYES  
CWO, USAF  
Asst Command Adj

EAOOT-TW (5 Nov 54) 5th Ind

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

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OOT-FO (5 Nov 54) 6th Ind 5 Jan 55

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, 5711th Air Defense Wing, Presque Isle AFB, Presque  
Isle, Maine

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-FO

23 July 1954

SUBJECT: Non-Utilization of Flight Simulator

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Mass

1. In reference to Engineers Report on S-2A F-86D Flight Simulator from 60th Fighter-Interceptor Squadron, Westover Air Force Base, Massachusetts, dated 1 June - 3 July 1954, the following is noted.

a. Section K.

- (1) 600 hours required for three phases of training.
- (2) 583 hours were available for three phases of training.
- (3) 46 hours were utilized for three phases of training.
- (4) 150 hours were lost due to maintenance and power failure.

b. Section L., also states 46 hours was total accomplishment in all phases of training.

2. In a and b above indicates that 537 hours of flight simulator training were not effectively utilized.

3. Desire that the validity of this report be checked with Commander, 60th Fighter-Interceptor Squadron and if correct the matter of non-utilization be explained.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOOT-TW

29 Oct 1954

SUBJECT: Local Expenditure of 2.75 Practice Rockets

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. Reference is made to paragraph 5, letter this headquarters, EAMAC-ARS, 13 October 1954, subject as above.
2. Practice 2.75 inch rockets requisitioned in accordance with the above cited letter for the remainder of the Calendar Year 1954 may be expended at the discretion of the unit commanders concerned for familiarization/functional test or local air-to-air scored firing, where facilities are available.
3. It is recommended that several loads be retained at bases possessing adequate storage facilities for use in future air-to-air firing.
4. Instructions for the expenditure of practice rockets during the quarterly periods of Calendar Year 1955 will be issued at a later date. Instructions for this period are being held in abeyance pending approval by Headquarters Air Defense Command of the proposed EADF rocketry training program. Details of this program will be furnished your headquarters.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

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Hq EADF EACOT-TW Subj: Local Expenditure of 2.75 Practice Rockets

OOT-FO (29 Oct 54) 1st Ind 2 Nov 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse AFS, Syracuse 6,  
New York

TO: Commander, 4707th Air Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine

1. Forwarded for your information and guidance.
2. Information concerning the proposed EADF rocketry training program will be forwarded upon receipt by this headquarters.

BY ORDER OF THE COMMANDER:

ARCHIE T. SHERBERT, JR.  
2nd Lt., USAF  
Assistant Adjutant

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOCT-TW

13 Sep 54

SUBJECT: Standardized Commentary for Fighter-Interceptor Crews

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. The Air Defense Command and Air Training Command have mutually agreed upon certain changes in pilot/RO standard commentary. These changes are effective immediately and will be incorporated in future UPDs and Tactics and Techniques Manuals.

2. The changes are as indicated in Enclosure 1 hereto, an extract from the ADC UPD 10-1. It is desired that these changes be disseminated to appropriate fighter-interceptor squadrons for immediate implementation.

BY ORDER OF THE COMMANDER:

1 Incl:  
Extract Unit Proficiency  
Directive 10-1

J. W. FOUNTAIN, JR  
Major, USAF  
Asst Adjutant

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HQ EADF, EACOT-TM, Subj: Standardized Commentary for Fighter-Interceptor Crews

OCT-FO (13 Sep 54) 1st Ind 16 Sep 1954 .

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, 4707th Air Defense Wing, Otis AFB, Falmouth, Mass.  
Commander, 4711th Air Defense Wing, Presque Isle AFB, Presque  
Isle, Maine

1. Forwarded for your information and dissemination are pilot/RO standard commentary changes.
2. It is desired that these changes be implemented immediately upon receipt.

BY ORDER OF THE COMMANDER:

1 Incl:  
Extract Unit  
Proficiency Directive  
10-1 ( cys)

EVERITT W. HOWE  
Major, USAF  
Adjutant

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EXTRACT UNIT PROFICIENCY DIRECTIVE 10-1

PART 4

RECOMMENDED STANDARD COMMENTARY FOR ADC UNITS

1. Purpose. The following commentary is published as a guide in an effort to standardize crew procedures for relaying instructions and information during an airborne radar interception.

2. Requirements. There are two (2) types of pilot-radar observer commentaries, Directive and Descriptive. Directive commentary takes precedence over descriptive commentary. Radar observers will not hesitate to break off descriptive to give directive commentary. The pilot is responsible for the execution of directive commentary within the safe limits of the aircraft.

a. Directive Commentary.

- (1) Directive commentary is used when the situation calls for a change of the aircraft direction, speed or altitude.
- (2) When giving a directive commentary, the radar observer will modulate his voice to make the directive commentary distinctive from the descriptive commentary.
- (3) The pilot will, when possible, repeat or acknowledge all directive commentary to assure understanding.
- (4) The pilot will execute the commands as quickly as possible.
- (5) The pilot will immediately advise the radar observer when speed and altitude changes have been accomplished, i.e., "Speed Set" and "Altitude Set". Radar observer will give the pilot "Roger" acknowledgment on speed or altitude set.
- (6) The following directive commentary vocabulary will be used by combat crews assigned this command.

Port - left  
Starboard - right

Incl #1

b. Descriptive Commentary.

- (1) Descriptive commentary is used to inform the pilot of the position of the target in relation to the interceptor and to provide a description of the target's movements.

\*(a) Descriptive commentary used to inform the pilot of the position of the target will be given in the following sequence:

1. Azimuth
2. Elevation
3. Range
4. Overtake

Example: Target 20° Port, 10° Above, 10,000 yards, 80 overtake.

- (2) Descriptive commentary used to inform the pilot of the target's movements will be of a general nature.

Example: "This is a beam approach", "Target is crossing from Starboard to Port", "Target is climbing", "Target is approximately 1,000 feet above us", etc.

3. Elevation Differential. Pilots and radar observers can use the following method to calculate altitude differential (AD) for any range.

Target 5° above -  $1/4 \times$  Target range in yds AD in feet  
Target 10° above -  $1/2 \times$  Target range in yds AD in feet  
Target 15° above -  $3/4 \times$  Target range in yds AD in feet  
Target 20° above - Target range in yds AD in feet

Example/ Target 4000 yards range 10° above  $1/2 \times 4000$  yards 2000 feet above.

\*4. Standard Directive Commentary Terms.

TURNS COMMANDS

"Port" or "Starboard"                      20° Bank

"Port Hard" or "Starboard Hard"	40° Bank
"Harder"	Increase 20°
"Port Hard as Possible" or "Starboard Hard as Possible"	Maximum possible maintaining airspeed, altitude
"Ease-off"	Decrease bank until R/O commands "Hold Turn" or a "Steady" is completed.
"Steady"	Roll out of turn
"Hold Turn"	Maintain present bank
<u>ELEVATION COMMANDS</u>	
"Climb"	Climb 1000 FPM (Maintain airspeed)
"Climb More"	Increase climb 1000 FPM (Maintain airspeed)
"Nose Up"	Maximum climb (not required to maintain airspeed)
"Go Down"	Go down 1000 FPM (Maintain airspeed)
"Down More"	Increase rate of descent 1000 FPM (Maintain airspeed)
"Dive"	Maximum dive (not required to maintain airspeed)
"Climb _____ feet" or "Go Down _____ feet"	Go up or down the number of feet indicated.
"Level-off a Little"	Decrease climb or descent 1000 FPM
"Level-off"	Return to level flight (Pilot replies "Level")
"Hold Climb" or "Hold Descent"	Maintain present rate of climb or descent
<u>COMMANDS FOR SPEED CONTROL</u>	
"Buster"	100% RPM (W/O AB)

"100% W/AB"	100% W/AB
"Hold Speed"	Maintain present airspeed (Pilot replies "Speed Set")
"Throttle Right Back"	65% RPM, Speed Brakes down
"Increase speed _____"	Pilot repeats command and increases power as necessary. When speed is attained, pilot says, "Speed Set." R/O repeats "Speed Set."
"Throttle Back _____"	Pilot repeats command and decreases power as necessary. When speed is attained, pilot says, "Speed Set." R/O repeats "Speed Set."

NOTE: The pilot will notify the R/O when the limitations of the aircraft are reached or when making any changes in the flight altitude not directed by the R/O.

*"Overshoot" Port or Starboard from parallel flight	Hard as possible turn (Port or Starboard) - increase throttle to 100%, make a 60° heading change, make a hard turn (40° bank and a 90° heading change in the opposite direction, "Hold Speed", hold new heading for 5 seconds or two sweeps of trace. If no contact is obtained, <u>Hard Turn</u> in same direction as preceding turn for a heading change of 30°, maintain heading for 5 seconds or two sweeps of the trace. If no contact is obtained, <u>Hard Turn</u> in opposite direction for a heading change of 60° - the last turn will put the fighter on an approximate parallel to his original heading.
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\*Indicates those sections containing changes.

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C O P Y

37TH FIGHTER INTERCEPTOR SQUADRON  
Ethan Allen Air Force Base  
Wincooki, Vermont

18 October 1954

From: Senior Naval Officer, 37th Fighter Interceptor Squadron  
TO: Chief of Naval Operations (Attn: OP-05A-2B)  
VIA: (1) Commander, 37th Fighter Interceptor Squadron  
(2) Commander, 517th Air Defense Group  
(3) Commander, 4711th Air Defense Wing  
(4) Commander, 328 Air Division (Defense)  
(5) Commander, Eastern Air Defense Force  
(6) Commander, Air Defense Command  
(7) Commander, United States Air Force

Subj: Tour of duty with the U. S. Air Force, Report on.

Encl: (A) (Unclassified) Minor Air Force Items recommended for U.S. Navy adoption.

1. Each interceptor squadron has a number of technical representatives assigned. At present there are two North American Aviation technical representatives, two General Electric technical representative, one Hughes technical representative, one Lear technical representative, and two Philco technical instructors assigned here. When a squadron is in a transition period (the 37th went from F-51 to F-86D's) the aid given by these specialists is invaluable. These men are factory trained, trained at the locale and by the men that design and manufacture the various components. In many cases these men come straight from the factory out to the working units in the field. In addition to having first hand knowledge of their company's product they also have direct communications with the factory. This serves a two-fold purpose. First, if the representative finds any malfunction, any failure, or can come up with better or shorter maintenance methods then he can submit the deficiency or the maintenance improvement direct to the factory. This has saved many many dollars in that a civilian representative can notify the factory of any part malfunction immediately and thus the factory is in a position to take corrective action immediately without waiting for the routine Unsatisfactory Report to go through channels. And secondly, this information can be passed on to all the technical representatives directly and thus keep everyone up to date on all developments. In many cases the technical representative gets information on how to stop a component's failure months before a Technical Order comes out. Then, in actuality the mechanic that performs the work on the aircraft is kept current by the technical representatives. In addition, and particularly during the transition period (the technical representative may report to a unit two or three months before the unit is due to receive new equipment to set up a training

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program, mock-ups, spare parts, etc.) the technical representatives set up and supervise the on-the-job training program. This consists of class room work, manuals, mock-ups, and work on the component.

2. The North American Aviation technical representatives are actually North American Aviation men but their pay and travel are paid by the Air Force. They are actually hired by the Air Force and work for the Air Force on the F-86D airframe.

3. The General Electric technical representatives work for and are paid by General Electric. They are assigned to a squadron for administration and for duty of advising and instructing in the operation and maintenance of Air Force equipment (J-47E-17 engines) at no direct cost to the government. In other words, their pay is figured into the basic cost of an engine and they are placed in the field by General Electric to see that proper maintenance is pulled on their engines, to instruct and advise, and to effectively carry out the company's guarantee of its product.

4. One Philco technical instructor is assigned to the squadron and one Philco technical instructor is assigned to Group. The technical instructor differs from the technical representative in that the former is primarily an instructor and as such is responsible for training the communication and electronic personnel in the basic and working concepts of all related gear. The technical representative's primary job is as a specialist for his company's product and actually does more supervision and on-the-job training trouble shooting of this gear. The technical instructor is responsible to the Air Force for the supervision and instruction of all electronic gear regardless of the manufacture. His contract states that he will be utilized as the commander sees fit. The main justification of a technical instructor and to an extent of a technical representative is the large turnover of personnel. These civilians are essential as long as there are too few "displaced-civilians" and until the majority of personnel are career men and are assigned to a squadron and become an integral part of a unit, part of a team that is kept together.

5. Another civilian technical representative is the Lear Automatic pilot man. However, he is assigned to an area rather than to an individual squadron. His main function is the upkeep of the auto-pilots and the training and supervision of the auto-pilot personnel. Here again, however, due to the large turnover and the overall shortage of trained personnel the Lear technical representative feels that a full time Lear technical representative assigned to this squadron is justified and would prove very beneficial.

6. The F-86D uses a Hughes E-4 Fire Control System. This system is based on a beam attack, under any weather conditions, rather than on a curve pursuit attack. Disadvantages are obvious, the OI station

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C O P Y

Subj: Tour of Duty with the U.S. Air Force, Report on, 18 Oct 54

has to vector the aircraft into the proper position for a beam attack (today after working with this squadron for a year with the F-86D the GCI site often has difficulty setting the interceptor up for a beam attack. On some of our exercises the "bogie" has deviated from his proposed flight schedule and the site has been unable to make an interception. All that is necessary to confuse the site is for the bogie to come within radar sight of the GCI station and then circle three or four times to completely foul up the interception. Of course, an even easier way to nullify the fighter's potentialities is for the bogie to fly into the area without his IFF turned on. In most cases the station cannot pick up a jet aircraft without IFF. In addition the unknown's altitude cannot even be closely approximated by the GCI station. After a year's training these and many similar short comings should have been ironed out.", if the intercepted aircraft picks the interceptor up with its radar or sees him visually (which is sometimes hard to do even when the interception is expected) all it has to do is change course and the kill probability is greatly lessened. Even though the bogie may see the interceptor and turn into him maybe the interceptor won't get a kill but at least he'll have made the bomber change course and this in itself is a delaying action which may prove decisive if the chips are down. One advantage of the beam attack is that it is the safest for the interceptor pilot - the bomber can't train guns on him except for the shortest possible time. Also the beam position provides a larger target than the tail shot.

7. The reliability of the fire control system leaves a lot to be desired (it is not for the writer to say whether this is due to a poorly designed system, poor maintenance, lack of spare parts, or lack of properly trained radar repairman) as has been borne out by the overall in-commission rate for the system of sixty percent and the fact that up to as high as half of the interceptors that do get airborne do not get "kills". In many cases (due to poor GCI procedure, poor radar reception, or poor pilot technique) a target is not even picked up by the system (pilot technique is definitely a factor here notwithstanding the other two limitations - unless the pilot does a thorough job of searching with the radar by burying his head in the radar set and concentrating on the run he will miss picking the target up on a great many otherwise good runs. The pilot can't spend half his time looking visually for other aircraft. If the pilot had more faith in the system and felt the GCI station was absolutely reliable then he would be more apt to adhere to the aforementioned creed. Also, more concentrated competitive training would alleviate this situation.) On many exercise T-33's (TV2's) are utilized as targets. Because of the poor pick up of jet type fighter on the radar these T-33's are provided with a rotating radar reflector to help correct this deficiency.

8. The squadron's biggest headache is maintenance and availability. It is so poor that we are extremely lucky to get 300 hours

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Subj: Tour of duty with the U. S. Air Force, Report on., 18 Oct 54

flying time a month with 26 F-86D's and forty or more pilots. The F-86D is so complicated and properly skilled maintenance personnel are at such a premium that upkeep has been one big nightmare. Overall availability (i.e., aircraft that are in-commission, combat ready, and are actually ready for flight) has been something like 30% at the best for the last eight months. Total F-86D flying time for this period amounted to 3593 hours, 449 hours per month average, or 11.8 hours per month per pilot present for duty. (Actually the squadron is authorized 53 rated pilots.) Minimum proficiency requirement as set up by higher command is twenty hours F-86D time per month per pilot. My F-86D average for this period came to 13.6 hours per month (in addition I averaged 4.7 hours per month in the T-33 for an overall monthly flying average of 18.3 hours. My total time since I joined the squadron 3 November 1953 has consisted of 111 hours F-86D time and 70 hours T-33 time for a total flying time of 189 hours).

9. This lack of ability to meet these minimum requirements as set up by higher headquarters in addition to the fact that we have not and do not practice rocket firing (a trip to Yuma next January will provide the squadron with the first opportunity to see if the fire control system can hit anything after most of the pilots have been standing alert and intercepting all kinds of unknown aircraft for periods up to a year.) does not promote the greatest of confidence in the capabilities of this aircraft as a destroyer of enemy aircraft. It's a damn fast aircraft and a good one, but, it has to be flown more than nine or ten hours per month (which is about what the Second Lieutenants have been averaging), and the pilots must fire its ordnance once in awhile to get the most out of it and prove its worth.

10. During the aforementioned eight month period the following averages were also made:

- a. Average sorties lost due to weather.....233
- b. Average sorties lost due to maintenance.....118
- c. Average sorties lost due to other cause..... 17
- d. Overall average number of sorties lost per mo. 368
- e. Average AOCF (AOG) rate per month..... 18%

In other words, just about half the number of scheduled sorties were lost chiefly to weather and maintenance. Thus, if all scheduled flights had gotten airborne the minimum requirement of twenty hours per month per assigned pilot would have just about been met. But, if more aircraft were available for flight then many many more flights would have been scheduled. With only a total of about 30 sorties per day (including night flying) being scheduled for 26 aircraft one can readily see why the sorties lost due to maintenance are not very high in comparison. The largest number of scheduled sorties lost was due to weather: bad weather, periods of forecast doubtful weather, and runway conditions (ice and snow). Anytime the weather is doubtful or is IFR but still well above field minimums, flying is suspended. As

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the nearest bonafide alternate is 140 miles away (Westover Air Force Base) local flying can't be accomplished during these periods of forecast doubtful weather. The actual weather has been lousy. We have had some sort of rain on 52 of the last 135 days. Clear weather has been the exception. And only recently has the take-off minimums for active air defense mission scrambles been lowered to white card minimums.

11. Maintenance had had several problems; personnel, shortage of and lack of proper skill levels, spare parts and supplies, location of flight line (three miles away from the main base), motivation, the complexity of the aircraft itself. A normal routine 50 hour inspection has been cut from five to seven days to three or four days during the past few months (it takes this long even though the engine is just removed and replaced with another engine that has been built-up). It is hoped that this time can be stabilized at a constant three days. A new system just now going into effect is expected to cut this time in half every other 50 hour inspection. This system is based on not removing the engine every 50 hours (removing it only every 100 hours) but pulling the inspection on the engine and the aircraft with just the tail section removed.

12. The maintenance situation is definitely on the up-swing. The obstacles created a year ago by the transition from F-51's to F-16D's have proven very difficult and are taking much time to overcome. Here again it is lack of adequate personnel, lack of adequately trained personnel, and the high turnover of the personnel about the time they are becoming proficient and obtaining a high skill level, due to discharges and transfers.

13. A white elephant handed the squadron by the logistic support people proved to be a big one and certainly was not necessary. Basic spare parts allowances were not filled nor were stock levels maintained until months after the arrival of the Dog. This stock level has today not been obtained on many spare parts (note: overall AOCF rate for the past eight months has been 13% per month or almost an average of five aircraft have been grounded every day due to lack of parts. This has dropped from a peak of 23% in May and June to 13% in August and September.) Action should have been taken to bring these levels up to par at least two months prior to the arrival of the first dog. In addition, the logistic support activities should have fulfilled its obligations and had the necessary spare parts on hand with the first Dog's arrival and should have maintained adequate stock levels ever since. Remember, this was not a new aircraft to the Air Force as some 1000 F-16D's had been delivered to operating activities over a two year period previous to their arrival here.

14. Along with this shortage of spare parts has been the shortage of ordinary supplies (screws, bolts, nuts, etc.) and special and hand tools. Once again it is a case of improper logistic planning. One

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C O P Y

Subj: Tour of duty with the U.S. Air Force, Report on. 18 Oct 54

good shortage example is ground power and lack of sufficient APUs. The squadron is authorized ten APUs of which several are constantly out of commission. The squadron moved into a new hangar some seven months ago and yet today sufficient ground power for test and radar is not available. So, these meager few APUs must be thinly spread between the alert hangar, the maintenance personnel and the flight line personnel (to start the aircraft with, after all, that's their primary purpose.)

15. Perhaps the greatest hinderance to maintenance has been the unscheduled maintenance. Trying to schedule maintenance on aircraft that often requires a week to make a 50 hour inspection is in itself tedious. But when this same aircraft takes between 65 and 70 percent of all the time allotted for maintenance for unscheduled maintenance the situation indeed becomes acute. It is interesting to note that not once has an aircraft assigned to the 37th gone from one 50 hour inspection to the next without the tail section being pulled for unscheduled maintenance (pulling and replacing the tail section alone is a full days job).

16. After writing up the justification for civilian technical representatives and then pointing out a few major discrepancies such as poor maintenance and low flying time, the reader may get the impression that these are in contradiction with one another. They definitely are not. The picture would indeed be much blacker if technical representatives are so all powerful and the answer to a maintenance nightmare then why the overall low availability? Maybe the real answer is multi-fold and cannot be answered by the writer. Part of this "why" may be found in the indirect contributing factors: discipline of the man, lack of responsibilities of the NCOs, pride in the organization, living conditions, poor transportation, poor messing facilities, familiarity of the equipment, lack of sufficiently trained men, complexity of the aircraft and equipment, "I don't give a Damn" attitude, shortage of parts and supplies. Of the above reasons certainly shortage of skilled personnel and shortage of spare parts are very large contributing factors to the maintenance shortcomings. A man can't be pulled straight out of milking cows and become an electronic fuel control specialist on the Dog in the matter of a few months. Neither can an electrician on an F-94C step right in and start electrically trouble-shooting an F-86D. When the chips are down and aircraft are wanting for repairs it is very difficult to GJT a man and still repair the aircraft in the quickest time. With operations breathing down maintenance's neck the situation becomes even more critical. It is amazing that an aircraft such as the Dog with all its all weather flight and engine instruments can be expected stay in commission with two semi-skilled airmen to maintain the instruments on 26 aircraft. This has been the story for the 37th for a year now.

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C O P Y

Subj: Tour of duty with the U.S. Air Force, Report on, 18 Oct 54

17. As for the spare parts and supply shortage: the base supply system and organization has been checked thoroughly and passed with flying colors (on paper they were spotless, but we still don't have adequate supplies) and yet this is one of maintenance's worst sore spots even though the F-86D has been out in the field for some three years - in this case the field consists of better than 1500 F-86Ds.

Advance copy to:  
CNO (OP-05A20)

W. C. DECKER  
Lt., US Navy  
Senior Naval Officer, 37thFIS

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C O P Y

ENCLOSURE A to Senior Naval Officer, 37th FIS ltr of 10 Oct 54.

Minor Air Force items recommended for U.S. Navy adoption.

1. The Air Force flying suit is far superior to the Navy's. The Air Force suit has six zippered pockets, a pencil holder for three pencils on the left arm, and a chert clip on the left thigh. In addition, the winter suit (same as the summer suit except it is wool instead of khaki) has pockets to keep the hands warm when not flying.

2. The Air Force one piece helmet is more comfortable, much easier and faster to put on and take off and the one piece visor attached to it provides complete unrestricted visibility.

3. A great deal of per diem is available through ferrying aircraft, trips to Westover AFB to the altitude chamber, simulator, or other short course, annual squadron deployment to Yuma for gunnery, conferences held at other bases, etc. Several hundred dollars per pilot per year is allocated for this purpose. Similarly, it would seem that Navy fighter squadrons deploying to El Centro from Miramar or MAF Pett field should be eligible for per diem.

4. Leave policy. An Air Force squadron commander is authorized to grant as many days leave as an officer has on the books (60 days) to the officer, and in an emergency this could actually be extended for as much as 45 days of advance leave. Without higher authority approval the commanding officer of a Navy squadron may grant an officer up to 15 days leave.

5. Each Air Force fighter squadron has two or three T33's (TVE) assigned to and maintained by the squadron. These are used for area familiarization, transition, cross country flights, target aircraft, and instrument training and checks. In addition to the above uses these aircraft are available for pilot proficiency in case of the grounding of the tactical aircraft.

ENCLOSURE A

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C O P Y

37th Ftr Inter Sq, Subj: Tour of Duty with the US Air Force

FIS-OPS (18 Oct 54) 1st Ind

Hq 37TH FIGHTER INTERCEPTOR SQUADRON, Ethan Allen Air Force Base,  
Winooski, Vermont

TO: Commander, 517th Air Defense Group, Ethan Allen Air Force Base,  
Winooski, Vermont.

Forwarded.

RAYMOND P. STEWART  
Major, USAF  
Commander

COMDR (18 Oct 54) 2nd Ind

Hq 517TH AIR DEFENSE GROUP, Ethan Allen AFB, Winooski, Vermont

TO: Commander, 4711th Air Defense Wing, Presque Isle Air Force Base,  
Presque Isle, Maine

Noted.

HARRY L. DOWNING  
Colonel, USAF  
Commander

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C O P Y

37th Ftr-Intcp Sq., Subj: Tour of Duty with the U.S. Air Force.

DC (18 Oct 54) 3rd Ind

HQ 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

Reference paragraph 6 of this report, this headquarters is of the opinion that Mr. Decker has had very little, if any, cross-training with the ACW Squadron that provides CCI for the 37th Fighter-Interceptor Squadron resulting in a lack of understanding of the problems and equipment capability of a radar site.

JAMES F. REED  
Colonel, USAF  
Deputy Commander

cc-FO (18 Oct 54) 4th Ind

HEADQUARTERS 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York, 9 Dec 1954

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

Noted.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

SECRET

C O P Y

TO: Commanding Officer  
60th Fighter Interceptor Squadron  
Westover Air Force Base  
Massachusetts

SUBJECT: RAF/USAF Exchange Scheme - End of Tour Report

In accordance with provisions of the USAF/RAF Exchange Scheme, the attached final report of my tour of duty as an Exchange Officer is submitted for your approval and onward transmission through channels to Headquarters, USAF.

2. As this report will eventually be passed to the Air Ministry it is requested that comments on any recommendations contained therein and any expressions of opinion on the establishment of an Exchange Post in your Unit may be added.

3. I take this opportunity to acknowledge the help which has been afforded me during my tour of duty by yourself and your staff.

J. DELL  
Flight Lieutenant  
Royal Air Force

C O P Y

B/L fr Flight Lieutenant J. L. Dell, Royal Air Force, Subj: RAF/USAF  
Exchange Scheme - End of Tour Report

FS6000

1st Ind

60TH FIGHTER INTERCEPTOR SQUADRON, 4707TH DEFENSE WING, Westover Air  
Force Base, Massachusetts, 19 August 1954

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth, Mass

1. I concur with the attached End of Tour Report submitted by Flight Lieutenant J. L. Dell, RAF.
2. Reference paragraph 7 of subject report, I feel that exchange officers should be assigned duties which are commensurate with rank, experience and ability rather than attempt to divide their tour into phases as originally planned. This makes it possible for the exchange officer to become part and parcel of the unit to which he is attached rather than a temporary understudy in the various career fields. As a Flight Commander, Lt Dell occupied a position which provided a good vantage point for observing the "workings" of a USAF Fighter Squadron. In addition the squadron made good use of his experience as a jet fighter pilot and his natural ability to absorb and put into practice the all-weather concept using a single seat all-weather fighter.
3. Reference paragraph 17, I agree that we are far behind on scrambling and recovering large numbers of fighters simultaneously. This is primarily due to the heavy volume of non-tactical traffic which makes it mandatory to adhere to separation procedures in the interest of flight safety. In the event of war or a military emergency however, this problem could no doubt be resolved overnight.
4. By USAF standards, Flight Lieutenant Dell is an outstanding officer and the success of his tour can be attributed directly to his spirit of willful cooperation and his ability to readily adapt himself to his surroundings. I wish to commend and offer my appreciation to the Royal Air Force for providing such an exceptionally well qualified officer for the Exchange program.
5. I believe the Exchange program is doing much to promote good will and better understanding between the nations concerned and strongly endorse the continuance of this program.

ALPHONSE J. COLEMAN  
Major, USAF  
Commander

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C O P Y

B/L fr Flight Lieutenant J.L. Dell, Royal Air Force, Subj: RAF/USAF  
Exchange Scheme - End of Tour Report

DWOOT (undated)                      2nd Ind                      26 August 1954

HEADQUARTERS, 4707TH DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts

TO: Commander, 32d Air Division (Defense), Syracuse Air Force  
Station, Eastwood Station 6, Syracuse, New York

1. I concur with the End of Tour Report of Flight Lieutenant  
Dell and the comments contained in the preceding indorsements.

2. The "snake" climb and descent referred to in paragraph 17 of  
the report, according to discussion on the subject with Flight Lieu-  
tenant Dell, is not accomplished with airborne radar as is the  
maneuver commonly referred to as "snake" climb and descent within the  
USAF. The maneuver as used by the RAF is used, with various modifi-  
cations, at many USAF bases where facilities and traffic permit.

1 Incl:                                      RICHARD A. LEGG  
End of Tour Rept USAF/                      Colonel, USAF  
RAF Exchange Scheme                      Commander

OOT (undated)                      3rd Ind

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

I concur with the End of Tour Report of Flight Lieutenant J. L.  
Dell, Royal Air Force, and comments contained in preceding insorsments.

1 Incl:                                      ROBERT S. ISRAEL, JR.  
n/c    Colonel, USAF  
Commander

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C O P Y

COMMUNICATIONS FACILITIES AND NAVIGATIONAL AIDS  
PROGRAMMED AND INSTALLED AT  
BASES SUPPORTING 32ND AIR DIVISION  
FLYING UNITS

(Extracted from report of EADF facilities, August 1954)

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C O P Y

DOW AIR FORCE BASE (SAC)  
49th F/I Sq (4711th Def Wg)  
F-36F

I. Communications Facilities and Navigational Aids Programmed and Installed at Dow Air Force Base

A. Navigational Aids Installed:

1. UHF Control Tower - Operational
2. VHF/DF (AN/URD-2) - Operational
3. LF Radio Range - Operational (CAA Operated)
4. VOR Omni Range - Operational (CAA Operated)
5. UHF/DF (AN/CRD-6) - RNFP
6. LF Homing Beacon (CAA Operated)
7. GCA AN/CPN-4 - Operational on training status.

B. Additional Navigational Aids Programmed:

1. ILS (MRN-7, Localizer, and MRN-8, Glide Path)
  - a. Authority: PC 55-3-I, Page 1, Facility No. 2227
  - b. Precedence Rating: 13-015-21
  - c. C&E Scheme Identifier: Scheme is presently being prepared by 1st AACS I&M Sq, Tinker AFB
  - d. Status: Required construction not completed. Site survey completed. Land acquisition being accomplished for required real estate.
  - e. Estimated Completion Date: Operational 60 days after completion of required construction and availability of equipment.
2. TACAN (AN/URN-3)
  - a. Authority: PC 55-3-I, Page 1, Facility No. 2243
  - b. Precedence Rating: Unknown
  - c. C&E Scheme Identifier: Unknown
  - d. Status: Unknown

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C. Communications Facilities Installed:

1. Telephone Service Provided by SAC - (Adequate)
2. AIRCOMNET TTY Service (Plan 51) - Installed and operational.  
(SAC Operated - available to 49th F/I Squadron)
3. Commercial TTY Service (TWX) - Installed and Operational.  
(SAC Operated - available to 49th F/I Squadron)
4. Tactical TTY circuit to 4711th Defense Wing - Installed and Operational.
5. Class "A" Crypto Facilities - Available through Air Base Squadron

D. Additional Communications Facilities Programmed:

No information available as this base is operated by SAC

E. Effect on Units Due to Lack of Adequate Facilities:

Tactical and alert facilities adequately supported by telephone.

F. Summary of Action Taken to Obtain Programmed Facilities and Assistance Rendered to Subordinate Units of this Headquarters.

This base is not under control of this command. The progress of installation is obtained through reports from unit assigned to this base. Action by SAC Base Commander is considered adequate.

G. Interim Measures Being Taken Where Inadequate or no Facilities Exist:

Not Applicable.

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ETHAN ALLEN AIR FORCE BASE (CAA)  
BURLINGTON MUNICIPAL AIRPORT  
37th F/I Sq (4711th Def Wg)  
F-06D

- II. Communications Facilities and Navigational Aids Programmed and Installed at Ethan Allen Air Force Base
- A. Navigational Aids Installed:
1. UHF Control Tower - Operational (CAA Operated)
  2. ILS - Operational
  3. VHF/DF (AN/URD-2) - Operational (CAA Operated)
  4. LF Radio Range - Operational (CAA Operated)
  5. VOR Omni Range - Operational (CAA Operated)
  6. UHF/DF (AN/CRD-6) Installed awaiting flight check
  7. GCA AN/MPN-1 (Interim) Operational on training status
- B. Additional Navigational Aids Programmed:
1. Perm UHF Control Tower - Operational
  2. GCA (AN/MPN-11B)
    - a. Authority: PC 55-3-I, Page 1, Facility No. 2221
    - b. Precedence Rating: 18-067-19
    - c. C&E Scheme Identifier: ADC-EADF-90-CGMM
    - d. Status: Required construction completed. AN/MPN-11B, SN 88 shipped from SMAMA, 29 June 1954
    - e. Estimated Completion Date: Operational 30 days after receipt of equipment
  3. TACAN (AN/URN-3)
    - a. Authority: PC 55-3-I, Page 2, Facility No. 2243
    - b. Precedence Rating: Unknown
    - c. C&E Scheme Identifier: Unknown
    - d. Status: Unknown

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G. Communications Facilities Installed:

1. 300 line dial telephone exchange-- Installed and operational.
2. Tactical TTY circuit to 4711th Def Wg - Installed and operational.
3. Class "A" Crypto Facilities - Available through 517th Air Def Gp.

D. Summary of Action Taken to Obtain Programmed Facilities and Assistance Rendered to Subordinate Units of this Headquarters.

This headquarters, through monthly reports from the units, is closely monitoring installation progress and giving assistance wherever possible to speed delivery of essential navigational aids.

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GRIFFISS AIR FORCE BASE (ARDC)  
27th F/I Sq (4711th def wg)  
F-94C

III. Communications Facilities and Navigational Aids Programmed and  
Installed At Griffiss Air Force Base

A. Navigational Aids Installed:

1. UHF Control Tower - Operational
2. GCA (AN/MPN-1) - Operational
3. VHF/DF - Operational
4. LF Range (Utica) - Operational (CAA Operated)
5. Perm GCA (AN/FPN-16) - Installed - Operational for test  
purposes only
6. Radar Surveillance (AN/CPN-18) - Installed - Operational  
for test purposes only
7. UHF/DF (AN/CRD-6) - Installed - Awaiting flight check
8. Radar Beacon (AN/CPN-6) - Operational

B. Additional Navigational Aids Programmed:

1. LF Radio Beacon
  - a. Authority: PC 55-3-I, Page 2, Facility No. 2247
  - b. Precedence Rating: 4-090-20
  - c. C&E Scheme Identifier: CE53-ARDC-RME-AACS-1-HB
  - d. Status: Required construction not started due to acq-  
uisition of required real estate. Equipment not avail-  
able
  - e. Estimated Completion Date: Operational 30 days after  
completion of required construction and delivery of  
equipment
2. Radar Beacon (AN/FPN-13)
  - a. Authority: PC 55-3-I, Page 2, Facility No 2244
  - b. Precedence Rating: 11-012-10

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- c. C&E Scheme Identifier: AMC-GRF-330-COMM
  - d. Status: Required construction not started due to acquisition of required real estate. Equipment not available
  - e. Estimated Completion Date: Operational 30 days after completion of required construction and delivery of equipment
2. Radar Beacon (AN/FPN-13)
- a. Authority: PC 55-3-I, Page 2, Facility No. 2244
  - b. Precedence Rating: 11-012-10
  - c. C&E Scheme Identifier: AMC-GRF-330-COMM
  - d. Status: Equipment not available. Site survey completed. Required construction not completed.
  - e. Estimated Completion Date: Operational 30 days after completion of required construction and delivery of equipment, 4th qtr FY 55
3. VOR Range (AN/FPN-12)
- a. Authority: PC 55-3-I, Page 2, Facility No. 2242
  - b. Precedence Rating: 4-090-20
  - c. C&E Scheme Identifier: AMC-GRIFFISS-205-COMM
  - d. Status: Equipment partially available. Required construction held in abeyance pending acquisition of required real estate, which is being held up due to lack of funds.
  - e. Estimated Completion Date: Operational 30 days after completion of required construction and availability of equipment
4. ILS (MRN-7, Localizer, and MRN-8, Glide Path)
- a. Authority: PC 55-3-I, Page 2, Facility No. 2227
  - b. Precedence Rating: 11-012-10
  - c. C&E Scheme Identifier: CE53-ARDC-RWE-AACS-3IL
  - d. Status: This equipment will replace the old type SCS-51 equipment when available.

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- e. Estimated Completion Date: Operational 60 days after of equipment.
- 5. TACAN (AN/URN-3)
  - a. Authority: PC 55-3-I, Page 2, Facility No. 2244
  - b. Precedence Rating: Unknown
  - c. C&E Scheme Identifier: Unknown
  - d. Status: Unknown
  - e. Estimated Completion Date: Unknown
- C. Communications Facilities Installed:
  - 1. Telephone Service Provided by ARDC - (Adequate)
  - 2. AIRCOMNET TTY Service (Plan 51) - Installed and operational (AMC operated - available to 27th F/I Sq)
  - 3. Commercial TTY Service (TWX) - Installed and operational (AMC operated - available to 27th F/I Sq)
  - 4. Tactical TTY Circuit to 4711th Def Wg - Installed and operational.
  - 5. Class "A" Crypto Facilities - Available through AMC Base Unit.
- D. Additional Communications Facilities Programmed:

1200 line dial PBS. (Augmentation). Cable construction in support of navigational aids scheme approved with estimated completion date 4th qtr FY 54.
- E. Effect on Units Due to Lack of Adequate Facilities:

None
- F. Summary of Action Taken to Obtain Programmed Facilities and Assistance Rendered to Subordinate Units of this Headquarters:

No direct action taken since this base is AMC operated. Program is recorded at this headquarters through reports from units assigned to that base.

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C O P Y

NIAGARA FALLS MUNICIPAL AIRPORT (CAA)  
47th F/I Squadron (4707th Def Wg)  
F-86D

IV. Communications Facilities and Navigational Aids Programmed and Installed at Niagara Falls Municipal Airport.

A. Navigational Aids Installed:

1. UHF Control Tower - Operational
2. ILS - Operational (CAA Operated)
3. VHF/DF - Operational (CAA Operated)
4. LF Radio Range - Operational (CAA Operated)
5. GCA (AN/CPN-4) - installed - training status

B. Additional Navigational Aids Programmed:

1. UHF/DF (AN/ORD-6)
  - a. Authority: PC-55-3-I, Page 1, Facility No. 2201
  - b. Precedence Rating: 4-125
  - c. C&E Scheme Identifier: CE-53-ADC-GFS-AACS-1-CA
  - d. Status: CRD installed utilizing temporary cable installation. New York Telephone Company will not install cable due to excessive voltage - Oklahoma City Air Materiel Area working on this problem. Spiral 4 cable installed as an interim measure.
2. TACAN (AN/URN-3)
  - a. Authority: PC 55-3-I, Page 1, Facility 2243
  - b. Precedence Rating: Unknown
  - c. C&E Scheme Identifier: Unknown
  - d. Status: Unknwon

C. Communications Facilities Installed:

1. 300-line Telephone Exchange - Installed and Operational (adequate).

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2. Tactical TTY Service to 4707th Def Wg - Installed and operational.
  3. Crypto Facilities - Class "A" Crypto Facilities available through 518th Air Defense Group.
- D. Additional Communications Facilities Programmed:
1. 200-line addition to Dial Telephone Exchange:
    - a. Authority: PC 55-3-I, Facility No. 0021
    - b. Precedence Rating: Unknown
    - c. C&E Scheme Identifier: Unknown
    - d. Status: No action has been taken on this expansion as yet. Programmed for FY 54.
    - e. Estimated Completion Date: Unknown
  2. Conduit for installation of navigational aids cable presently being installed.
- E. Effect on Units Due to Lack of Adequate Facilities:
- Tactical and alert facilities are adequately supported, but new construction will be without telephone facilities other than locally procured field expedients.
- F. Summary of Action Taken to Obtain Programmed Facilities and Assistance Rendered to Subordinate Units of this Headquarters:
1. The navigational aids projects are recorded through monthly reports from the units. No emergency action is felt required.
  2. Constant contact maintained with AMC to keep current on status of cable projects.
- G. Interim Measures Being Taken Where Inadequate or no Facilities Exists:
- None

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C O P Y

OTIS AIR FORCE BASE (EADF)  
58th F/I Squadron (4707th DeG Wg)  
437th F/I Squadron (14707th Def Wg)  
F-89D

V. Communications Facilities and Navigational Aids Programmed and Installed at Otis Air Force Base

A. Navigational Aids Installed:

1. UHF Control Tower - Operational
2. GCA (MPN-1) - Operational
3. VHF/DF - Operational
4. Permanent GCA (AN/FPN-16) - Installed. On training status pending completion of RATOC (IFR Room) equipment.
5. Radar Surveillance (AN/CPN-18) - Installed. On training status pending completion of RATCC (IFR Room) equipment.
6. Radio Beacon - Operational
7. UHF/DF - Operational (interim) training status
8. ILS (SCS-51) - Installed

B. Additional Navigational Aids Programmed:

1. LF Homer Beacon (500 Watts):
  - a. Authority: PC 55-3-I, Page 2, Facility No. 2248
  - b. Precedence Rating: 4-090-7
  - c. C&E Scheme Identifier: ConAC-1AF-5/1-COMM
  - d. Status: Required construction completed. Equipment not available
  - e. Estimated Completion Date: Operational 30 days after completion of required construction and delivery of equipment.

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2. ILS (MRN-7, Localizer, and MRN-8, Glide Path):
  - a. Authority: PC 55-3-I, Page 2, Facility No. 2227
  - b. Precedence Rating: 4-090-7
  - c. C&E Scheme Identifier: Scheme presently being prepared by 1st AACS I&M Squadron, Tinker AFB
  - d. Status: This new equipment will replace SCS-51 old type ILS equipment which is presently being installed as an interim facility. Required construction completed.
  - e. Estimated Completion Date: I&M team has been requested to complete installation.
3. TACAN (AN/URN-3)
  - a. Authority: PC 55-3-I, Page 2, Facility No. 2243
  - b. Precedence Rating: Unknown
  - c. C&E Scheme Identifier: CE53-ADC-FMH-AACS-6-TN
  - d. Status: Unknown
- C. Communications Facilities Installed:
  1. 1600-line Dial Telephone Exchange - Installed (800 lines in operation).
  2. AIRCOMNET TTY Service (Plan 51) - Installed and Operational.
  3. Tactical TTY Circuit to 32nd ADiv - Installed and Operational.
  4. Class "A" Crypto Facilities - Available through 564th Air Def Gp.
  5. Outside Telephone Plant - Installed and Operational.
- D. Additional Communications Facilities Programmed:

None

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E. Effect on Units Due to Lack of Adequate Facilities:

Operational GCA and homing beacon allow all-weather flying. Lack of other facilities limits the handling of traffic in volume. It is not felt that this shortage will prevent the units from performing their mission.

F. Summary of Action Taken to Obtain Programmed Facilities and Assistance Rendered to Subordinate Units of this Headquarters:

This headquarters closely monitors project action through monthly report from the units. Priority shipment of SCS-51 will increase capabilities of this base during instrument flying conditions.

G. Interim Measures Being Taken Where Inadequate or no Facilities Exist:

1. Headquarters has requested RAFD expedite the shipment of this T/5 FRC equipment to complete high power beacon project.
2. Partial telephone support of new construction being furnished through locally procured field expedients.

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C O P Y

PRESQUE ISLE AIR FORCE BASE  
57th F/I Sq (4711th Def Wg) F-94C

VI. Communications Facilities and Navigational Aids Programmed and Installed at Presque Isle AFB.

A. Navigational Aids Installed:

1. UHF Control Tower - Operational (CAA Operated)
2. GCA (AN/CPN-4) - Operational
3. VHF/DF - Operational
4. LF Radio Range - Operational (CAA Operated)
5. VOR Range - Operational (CAA Operated)

B. Additional Navigational Aids Programmed:

1. ILS (SCS-51 - Old type equipment).
  - a. Authority: PC-55-3-I, Page 1, Facility No. 2226
  - b. Precedence Rating: 4-090-17
  - c. C&E Scheme Identifier: CE-53-ADC-PQI-AACS-1-IL
  - d. Status: Required construction not completed. Equipment partially available. USAF has directed AACS to give priority to the installation and AMC has been directed to give priority shipment to this equipment.
  - e. Estimated Completion Date: Operational 60 days after receipt of equipment and completion of required construction.
2. UHF/DF(AN/CRD-6)
  - a. Authority: PC 55-3-I, Page 1, Facility No. 2201
  - b. Precedence Rating: 4-125
  - c. C&E Scheme Identifier: CE-53-ADC-PQI-AACS-3-CA
  - d. Status: Required construction completed. Equipment available.
  - e. Estimated Completion Date: Operational 30 days

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CONFIDENTIAL

C O P Y

3. TACAN (AN/URN-3)
  - a. Authority: PC 55-3-I, Page 2, Facility No. 2243
  - b. Precedence Rating: Unknown
  - c. C&E Scheme Identifier: Unknown
  - d. Status: Unknown
  - e. Estimated Completion Date: Unknown
- C. Communications Facilities Installed:
  1. 350-line Automatic Dial Telephone System - Installed and Operational.
  2. Commercial TTY Service (TWX) - Installed and Operational.
  3. Tactical TTY Circuit to 32nd Air Division - Installed and Operational.
  4. Class "A" Crypto Facilities - Available through 528th Air Def Gp.
- D. Additional Communications Facilities Programmed:
  1. Outside Telephone Plant:
    - a. Authority: PC 55-3-I, Facility No. 0002
    - b. Precedence Rating: Notapplicable.
    - c. C&E Scheme Identifier: CE-53-ADC-PQI-AMCMA-1-IP&OP
    - d. Status: Cable presently being installed by New England Bell Telephone Company.
- E. Effect on Units Due to Lack of Adequate Facilities:

Sufficient navigational aids are available to preclude curtailment of unit operation. With completion of programmed navigational aids unit operations will be more flexible.
- F. Summary of Action taken to Obtain Programmed Facilities and Assistance Rendered to Subordinate Units of this headquarters:

Navigational Aids Installation Program is progressing normally.

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C O P Y

- G. Interim Measures being Taken Where Inadequate or no Facilities Exist:

Communications to new construction will necessarily be by locally procured field expedient, as an interim measure.

CONFIDENTIAL

CONFIDENTIAL

C O P Y

WESTOVER AIR FORCE BASE (MATS)  
60th F/I Squadron (4707th Def Wg)  
F-86D

VII. Communications Facilities and Navigational Aids Programmed and Installed at Westover Air Force Base

A. Navigational Aids Installed:

1. UHF Control Tower - Operational
2. GCA (MPN-1) - Operational
3. Permanent GCA (FPN-16) - Installed - Operational (training status VHF only)
4. Radar Surveillance - Installed - Operational (trainign status VHF only)
5. VHF/DF (AN/URD-2-) - Operational
6. LF Radio Range - Operational
7. LF Radio Range - Operational
8. Radar Beacon (AN/CPN-6) - Operational
9. UHF/DF (AN/CRD-6) - Installed (interim)

B. Additional Navigational Aids Programmed:

1. Radar Beacon (AN/FPN-13)
  - a. Authority: PC 55-3-I, Page 2, Facility No. 2244
  - b. Precedence Rating: 17-022-30
  - c. C&E Scheme Identifier: CE53-MATS-CEE-AACS-3-RC
  - d. Status: Required construction completed. Equipment available, but expected by 1st Quarter FY 55.
  - e. Estimated Completion Date: Operational 30 days after receipt of equipment and completion of required construction.
2. TACAN (AN/URN-3)

16

CONFIDENTIAL

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CONFIDENTIAL

C O P Y

- a. Authority: FC 55-3-I, Page 1, Facility 2243
- b. Precedence Rating: Unknown
- c. C&E Scheme Identifier: Unknown
- d. Status: Unknown

C. Communications Facilities Installed:

- 1. Telephone Service provided by MATS - (Adequate)
- 2. AIRCOMNET Facilities (Plan 51) - Installed and Operational
- 3. Commercial TTY Service (TWX) - Installed and Operational
- 4. Tactical TTY Circuit to 4707th Defense Wing - Installed and operational.
- 5. Class "A" Crypto Facilities - Available through MATS.

D. Additional Communications Facilities Programmed:

Base Telephone system scheduled for expansion to 1200 lines in the near future with an ultimate 1600 lines in 1956.

E. Effect on Unit Due to Lack of Adequate Facilities:

Sufficient Navigational Aids operational to meet unit requirement.

F. Summary of Action Taken to Obtain Programmed Facilities and Assistance Rendered to Subordinate Units of this Headquarters:

This base is not under control of this headquarters, but status of installed navigational aids and progress of programmed Navigational aids are recorded through monthly reports from the unit.

G. Interim Measures Being Taken where Inadequate or no Facilities Exist:

No interim action required.

CONFIDENTIAL

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EA00T-IV

21 Sep 1954

SUBJECT: GCA Approaches

TO: Commander  
38d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. This headquarters is in receipt of correspondence from Headquarters 1892d AACS Group indicating the number of GCA Approaches at certain EADF bases has fallen below the minimum requirements specified in Air Defense Command Regulation 60-2, 26 March 1954.

2. It is of paramount importance that bases of this command provide the maximum number of practice approaches to GCA personnel if the best possible and most efficient service is to be rendered the users. The most important phase in the training of GCA operators is the actual control exercised when conducting practice approaches. This training cannot be provided by AACS but must be furnished by the bases served.

3. It is desired that Defense Group Commanders give this problem their personal attention to preclude a lowering of GCA efficiency during the coming winter months.

4. Reference ADC Regulation 60-2, Defense Group Commanders will notify this headquarters when the minimum number of GCA approaches specified are not met for any one month period with the reasons therefore.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

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C O P Y

Hq, SADF, SAOVI-W, Subject: GCA Approaches

OOT-FO (21 Sep 54)

1st Ind

24 Sep 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, 4707th Air Defense Wing, Otis Air Force Base, Falmouth,  
Mass  
Commander, 4711th Air Defense Wing, Presque Isle Air Force Base,  
Presque Isle, Maine

1. Forwarded for your information and action deemed necessary.
2. The importance of maintaining GCA units at a high degree of proficiency cannot be over emphasized. This proficiency can only be maintained through continual practice.
3. Desire Defense Group Commanders insure that minimum requirements specified in ADC Regulation 60-2 are accomplished whenever possible.

BY ORDER OF THE COMMANDER:

EVERETT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, NY

EAOT-3F

2 Dec 54

SUBJECT: Radar Approach Control, Otis Air Force Base

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. References: Letter, Headquarters USAF, AF00T-00-FL, Subject: Operation of USAF Radar Approach Control Centers (RAPCOM), 10 May 1954, enclosure thereto, 1st Indorsement, your headquarters 24 May 1954, and letter, Headquarters USAF, Subject: Operation of Radar Approach Control Centers (CPN-18/FFW-16), 9 June 1953.
2. The recent activation of the CPN-18/FFW-16 radar as a fixed unit at Otis Air Force Base caused that base to conduct extensive local research into the manning of that facility in order that the scope of the approach control authority, when requested, would be approved consistent with the capabilities of the CPN-18 radar equipment and the air defense mission requirements.
3. To exploit the full potential of the RAPCOM facilities installed at Otis Air Force Base, accommodations must be established to control all traffic within a thirty-five mile radius of Otis Air Force Base. During the summer months, May through September, traffic records indicate that approximately fifty percent of the IFR traffic in this area is military, and the remaining fifty percent civil traffic. The civil traffic terminates primarily at Martha's Vineyard, Nantucket, Hyannis, New Bedford and Boston. The military traffic terminates at Otis Air Force Base. During the winter months, October through April, IFR traffic is predominately military.
4. Preliminary local coordination has indicated that commercial carriers are extremely reluctant to accept air traffic control procedures which would permit them to come under the complete jurisdiction of a military approach control authority. This reluctance is apparently based on the fact that CAA is primarily responsible for providing Air traffic control services to all civil aviation agencies.

C O P Y

EA00T-3F Subject: Radar Approach Control, Otis Air Force Base (cont'd)

5. It is apparent from the above referenced letters that utilization of the CFM-10 equipment to its fullest extent is highly desirable. It is also apparent that this can be accomplished in either of the ways:

a. CMA can be charged with the operational responsibility of the CFM-10 or,

b. AACS can be charged with the operational responsibility of the CFM-10 and delegated that authority reserved by CMA (i.e., "..... At most locations where CMA operation is planned, adequate control of jet operations from high altitudes will require that the RAPCON be delegated control of all aircraft within a block of airspace of the size determined necessary for maximum utilization of the radar....").

6. Full utilization of the CFM-10 capability would be beneficial to the air defense mission at present. In the foreseeable future it would be absolutely essential for the rapid recovery of interceptors under void conditions. In order to prevent saturation of the airspace involved, which would prove a detriment to the air defense mission, it is recommended that necessary arrangements be accomplished with CMA and AACS for the following:

a. CMA to be operationally responsible for the CFM-10 radar of the RAPCON.

b. AACS to be operationally responsible for the FIM-10 radar of the RAPCON.

FOR THE COMMANDER:

REN D. MCGHEEHEAD  
1st Lt., USAF  
Asst Adjutant

C O P Y

B/L EADF, EA00T-SF, Subj: Radar Approach Control, Otis Air Force Base

AD00T-C (8 Dec 54) 1st Ind 6 Jan 55

HEADQUARTERS AIR DEFENSE COMMAND, Ent AFB, Colorado Springs, Colorado

TO: Director of Operations, Headquarters USAF, Washington 25, D. C.

1. This headquarters concurs with the proposed request. Utilization of full RAPCON capabilities will substantially expedite Scramble and Recovery procedures in the Otis area as well as other enroute and terminal aircraft.
2. Discussions between the Boston ARTC and Otis Air Force Base indicate that assignment of one CAA supervisor per shift on the CPN-18 Surveillance Radar portion of the RAPCON, would satisfy CAA requirements for Radar Control of enroute traffic.

FOR THE COMMANDER:

THOMAS C. SAVAGE  
Major, USAF  
Asst Command Adj

C O, P Y

B/L fr Hq EADF, EAOOT-SF, Subj: Radar Approach Control, Otis AFB

AFOOP-OC-A

2nd Ind

Dept of the Air Force, Hq USAF, Washington 25, D. C.

TO: Commander, Air Defense Command, Eht Air Force Base, Colorado Springs, Colorado

1. This Headquarters agrees that full utilization of the RAPCON facilities at Otis Air Force Base would benefit all users of the air-space in the area.
2. Coordination is being effected with the CAA Washington Office to determine whether the civil or military will operate the approach control function at Otis Air Force Base to the extent desired.
3. Reference paragraph 2, 1st Indorsement, it is not considered desirable to employ CAA supervisory controllers for USAF operated facilities. The CAA Washington Office concurs in this view.
4. Until such time as determination is made as to who will operate the Otis CPN-18 facility, the Chief Controller, Boston Center should be advised of the action being taken by USAF to improve the personnel situation at critical locations. Specifically, reference is made to:
  - a. Development of the USAF Air Traffic Control Qualification Program which has been approved by the CAA. Implementation is scheduled for 1 February 1955. This action will insure the highest standards of Air Traffic Control performance.
  - b. Implementation on 1 January 1955 of centralized control of personnel by headquarters AACS to alleviate instability of personnel at critical locations.
  - c. The extensive on-the-job training program of Air Force Control Personnel at CAA facilities, including the Boston Center. Currently, approximately 460 airmen have participated in this program.
5. You will be advised of results of negotiations with the CAA.

BY ORDER OF THE CHIEF OF STAFF:

PAUL A. JONES  
Colonel, USAF  
Deputy Ops & Commitments Div, D/O

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C O P Y

B/L EADF, EAOOT-SF, Subj: Radar Approach Control, Otis AFB

ADOOT-C (8 Dec 54) 3rd Ind 7 Feb 1955

HEADQUARTERS AIR DEFENSE COMMAND, Ent AFB, Colorado Springs, Colorado

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

JJH

EAOOT-SF (8 Dec 54) 4th Ind 17 Feb 55

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

Your attention is directed to 2nd Indorsement from Headquarters  
USAF.

BY ORDER OF THE COMMANDER:

BEND MOORHEAD  
Captain, USAF  
Asst Adjutant

OOTn (8 Dec 54) 5th Ind 23 Feb 1955

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, 4707th Air Defense Wing, Otis Air Force Base, Falmouth,  
Massachusetts

Forwarded for your information and action deemed necessary.

BY ORDER OF THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EA00T-0W

SUBJECT: Staff Visit to Griffiss Air Force Base, Rome, New York

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. A recent staff visit by personnel of the 12th Weather Squadron to Griffiss Air Force Base revealed the following discrepancies:

a. Alert crews of the 27th Fighter-Interceptor Squadron are personally briefed on current and forecast weather only on Tuesday and Friday of each week, a requirement established by this squadron. Alert commitments and training flights of this squadron are such as to warrant a minimum of two such briefings daily. A recommendation to this effect was made to the 27th Fighter-Interceptor Squadron Operations Officer.

b. Coordination between the Commander, 27th Fighter-Interceptor Squadron, and the weather station at Griffiss Air Force Base has apparently not been effected to provide for terminal and area MET Watch during training and cross-country flights.

2. Desire this headquarters be advised if any difficulties are encountered in resolving these discrepancies.

BY ORDER OF THE COMMANDER:

BRN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

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C O P Y

Hq EADP HQOUT-OW Subject: Staff Visit to Griffiss Air Force Base,  
Rome, New York

OUT-F (2 Oct 54) 1st Ind

HEADQUARTERS, 3RD AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, 4711th Air Defense Wing, Presque Isle Air Force Base,  
Presque Isle, Maine

1. Forwarded for your information and necessary action.
2. Desire necessary coordination be initiated to insure that all aircrew personnel receive a weather briefing by the Griffiss Air Force Base Weather station, at least once each day.
3. This headquarters will be advised of any difficulties encountered in resolving necessary coordination between Griffiss Air Force Base Weather station and the 27th Fighter-Interceptor Squadron.

BY ORDER OF THE COMMANDER:

EVERETT W. HOWE  
Major, USAF  
Adjutant

DC-OWT (2 Oct 54) 2nd Ind

Hq 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 27th Fighter-Interceptor Squadron, Griffiss Air Force  
Base, Rome, New York

For compliance with provisions of 1st Indorsement.

BY ORDER OF THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

C O P Y

NRADP 28002-EM Subject: Staff Visit to Griffiss Air Force Base,  
Rome, New York

IFS 27-018

3rd Ind

27 October 1954

HEADQUARTERS, 27th FIGHTER-INTERCEPTOR SQUADRON, Griffiss AFB, New York

TO: Commander, 4711th Defense Wing, Presque Isle AFB, Presque Isle,  
Maine

1. So much of par 1a. of the basic correspondence to pertain to the weather briefing received by the 27th Fighter Interceptor Squadron alert crews is incorrect. Although this unit has a general aircrew briefing on Tuesdays and Fridays only, each alert flight commander is and has been required to report to the base weather station for a thorough weather briefing prior to going on alert. This procedure, now in effect for some months, has proven thoroughly satisfactory. However, to assure undeviating compliance with current policies and to assure the maximum dissemination of weather information, the commander of the local weather detachment has been requested to provide a complete weather briefing to the crews at the alert hangar at 0800 and 1800 daily.

2. The intent of par 2 of the 1st indorsement is not clear in that a strict interpretation would require that all crews, regardless of duty status, receive a weather briefing every day, Sunday and holidays included. This is considered both unnecessary and undesirable. Pending further clarification this squadron will continue to comply with ADC Regulation 55-13, ADC Regulation 105-1 and RADP Regulation 55-24.

3. The commander, Detachment 12, 6th Weather Group, Griffiss AFB has been requested to provide terminal and area MET watch for all jet traffic terminating at Griffiss AFB. The 27th Fighter Interceptor Squadron has offered to assist in devising procedures for this service.

4. In the past, Detachment 12, 6th Weather Group has cooperated wholeheartedly with the 27th Fighter Interceptor Squadron and has been quick to render any requested assistance. There is no reason to believe that such will not be the case in the future.

FOR THE COMMANDER:

PENNY C. MEDLOCK  
1st Lt., USAF  
Adjutant

C O P Y

3. EADF SACOT-OW Subject: Staff Visit to Griffiss Air Force Base, NY

DO (2 Oct 54) 4th Ind

HQ WYLLIE AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse 6, New York

1. The action indicated in paragraph 1 of 3rd Indorsement is considered adequate.
2. No clarification of paragraph 2 of first indorsement is requested. Obviously crews not on alert or scheduled for training flights will not require weather briefings.
3. Coordination between Detachment 12 and the 27th Fighter-Interceptor Squadron has been good and there is no reason to believe it will be otherwise in the future.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

OOT-FO (2 Oct 54) 5th Ind 16 Nov 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

Corrective action taken by the 27th Fighter-Interceptor Squadron is considered adequate.

FOR THE COMMANDER:

EVERITT W. HOME  
Major, USAF  
Adjutant

5

C O P Y

HEADQUARTERS  
4707TH AIR DEFENSE WING  
Otis Air Force Base, Falmouth, Mass.

DWOOT

30 Dec 1954

SUBJECT: Weather Dissemination

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse, New York

1. In accordance with instructions contained in paragraph 3, letter Headquarters, Eastern Air Defense Force, EA00T-OW, 29 November 1954, Subject: Weather Dissemination, subordinate units of this wing were queried.
2. The overall comments from these units indicate that procedures for weather dissemination have been reviewed and found to conform with existing regulations.
3. A review of existing facilities for weather dissemination was considered adequate except at Otis Air Force Base for pilot to fore-caster UHF radio facilities. The equipment has been programmed for the base and was originally scheduled to be installed on or about 1 November 1954. Repeated delays in receipt of this equipment have been experienced.
4. It is recommended that the requirements for briefing aircrews on alert be established and published in Eastern Air Defense Force directives, rather than 12th Weather Squadron Directives. Specific reference is made to the requirements established in 12th Weather Squadron Letter 55-161, dated 18 November 1954.

FOR THE COMMANDER:

GEORGE N. LEITNER  
Captain, USAF  
Adjutant

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C O P Y

Hq 4707th ADW, Subject: Weather Dissemination

OOT-FO (30 Dec 54) 1st Ind 5 Jan 1955

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

Forwarded per instructions contained in referenced Eastern Air  
Defense Force letter.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EA00T-0W

29 Nov 54

SUBJECT: Weather Dissemination

TO: Commander  
32nd Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. Recent staff visits to interceptor squadrons by personnel of the 12th Weather Squadron have revealed that concerned commanders are not complying fully with the provisions of current ADC and EADF regulations governing the dissemination of weather information.

2. It is desired that air divisions (Defense) have weather dissemination procedures at all echelons reviewed for conformance with existing regulations. At the same time, a review of existing facilities for weather dissemination is requested.

3. Desire your comments and/or recommendations relative to the adequacy of present facilities and regulations be forwarded to this headquarters.

BY ORDER OF THE COMMANDER:

Info by  
Comdr, 12th Wea Sq  
Stewart AFB

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

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Hq EADF, EACOOT-OW, Subject: Weather Dissemination

COOT-FO 929 Nov 54) 1st Ind 3 Dec 1954

HEADQUARTERS 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, 4707th Air Defense Wing, Otis Air Force Base, Falmouth,  
Mass  
Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine

1. Forwarded for your information and necessary action.
2. Desire your comments and/or recommendations be forwarded to this headquarters.

BY ORDER OF THE COMMANDER:

EVERETT W. HOWE  
Major, USAF  
Adjutant

EACOOT (29 Nov 54) 2nd Ind

HEADQUARTERS, 4707TH AIR DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts, 8 December 1954

TO: See Distribution

1. Forwarded for your information and necessary action.
2. Desire your comments and/or recommendations be forwarded to this headquarters.

BY ORDER OF THE COMMANDER:

DISTRIBUTION:  
"B" 1, 2 & 3 only

GEORGE W. LEINER  
Captain, USAF  
Adjutant

2

C O P Y

Hq EADF SACVT-GW Subject: Weather Dissemination

FS600P (29 Nov 54) 3rd Ind 12 Jan 55

60TH FIGHTER-INTERCEPTOR SQUADRON, Westover AFB, Massachusetts

TO: Commander, 4707th Air Defense Wing, Otis AFB, Massachusetts

1. In compliance with basic letter, a review of present facilities for weather dissemination reveals the following:

a. Existing weather is recorded hourly on EADF Form 2 for nine possible recovery bases including home station.

b. Hourly sequence and local forecast is received over telegraph located in alert hangar.

c. Surface weather map received daily covering a 24 hour period.

d. 33d Air Division area weather forecast received by electrical means as issued.

e. Pilot reports of in-flight weather are given to base weather station for dissemination.

f. Prior to assuming alert responsibility pilots receive weather briefing from duty forecaster.

g. Special weather briefings are conducted by representatives of base weather station during periods of unusual weather phenomenon, and at least every 24 hours during training exercises.

2. All weather received or requested is covered during briefing and posted for individual reference. On the basis of past and present requirements current weather facilities are considered adequate.

FOR THE COMMANDER:

L. E. SCHMIDT  
Captain, USAF  
Adjutant

C O P Y

By EADF BROOK-CM Subject: Weather Discrimination

DWD (29 Nov 54) 4th Ind

HEADQUARTERS, 470TH AIR DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts, 10 Jan 1955

TO: Commander, 322 Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. Since no comments on the adequacy of regulations as requested in paragraph 3, basic letter, were included in the preceding indorsement, the 60th Fighter-Interceptor Squadron was queried verbally as to comments they desired to include. The only comment received was on the word "secondary" as used in paragraph 3(c) of EADF Regulation 55-24 to define weather minima.

2. The term secondary as used is confusing. Other units of this wing also have voiced concern over the use of this term. Individual pilots, when questioned on this subject, became confused when trying to describe "secondary minima". Suggest that the term precipitation minima would be equally appropriate and would eliminate existing confusion.

FOR THE COMMANDER:

GEORGE R. LEITNER  
Captain, USAF  
Adjutant

OCT-FO (29 November 1954) 5th Ind 29 Jan 1955

HEADQUARTERS, 322 AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Forwarded in compliance with basic letter are comments of the 60th Fighter-Interceptor Squadron.

2. Concur with the comments in paragraph 3, 4th Indorsement.

FOR THE COMMANDER:

MERRITT W. HOWE  
Major, USAF  
Adjutant

COPY

HEADQUARTERS  
36TH AIR DEFENSE GROUP  
Otis Air Force Base, Falmouth, Mass.

OPR

25 October 1954

SUBJECT: Weather Briefing of Alert Pilots

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. Reference is made to teletype message OPR 35 from Commander, 12th Weather Squadron, Stewart Air Force Base, to Commander, 12th Weather Detachment, Otis Air Force Base, time and date group M132123Z, October. This message states that effective immediately, informal briefings of pilots and crews on alert will be conducted at intervals of three hours supplemented by intermediate telephone briefings, and a deviation from this requirement is granted only when conditions are clear and unrestricted and forecast to remain so for a period in excess of twelve hours, during which time three hour interval telephone briefings may be used. The basis of imposing this requirement appears to be based on the result of two independent services which concluded that the experience level of pilots, controllers and forecasters is extremely low, and that alert pilots were too frequently airborne with no conception of weather to be encountered on intercept and return to base.

2. The program outlined above appears to be exceedingly ambitious in view of the critical shortage of qualified weather forecasters. It requires approximately fifteen minutes as a minimum for the weather forecaster to proceed from the base weather station to the alert hangar to conduct such a briefing. The present manning of the weather detachment at this station is not manned by forecaster personnel during a period when briefings of alert crews are being conducted. Sudden and unexpected weather deterioration is not uncommon at Otis Air Force Base; therefore, it will be extremely difficult for the weather forecaster on duty to conduct briefings as required and properly evaluate the weather observations taken in compliance with paragraph 5c, EADFR 55-24, which states in part, "Fifteen minute local extra observations will be provided when weather becomes marginal or falls below established minimums, and provide flight watch for all ADC training flights and for all administrative flights to and from the base, except that no-forecaster-on-duty responsibilities may be passed to the Air Division Staff Weather Officer for training flights on an individual request basis."

C O P Y

Hq 564th AD Gp, OPR, Subj: Weather Briefing of Alert Pilots

3. It is believed that the weather forecaster on duty can best support the tactical and training flying mission of this base by remaining in the weather station where he can be required to keep abreast of all weather trends, screen all incoming weather information, identify the imminence of any unexpected weather deterioration and take immediate action to issue appropriate warnings and advisories through the communications facilities at his disposal. These facilities include a direct line to the alert hangar and to both fighter squadron operations and the local GCI station, as well as the 328 Air Division. Also, teletypewriter is utilized for passing weather information, from the weather station to the alert hangar, fighter squadron operations, control tower and CCA unit. Any delay in issuing weather advisories could very easily prove extremely hazardous during marginal weather conditions. With the critical range of jet aircraft, every minute lost in conveying the current weather information to the appropriate controlling agencies may result in the potential loss of an aircraft and crew. Further, it is anticipated that pilot to forecaster UHF communications facilities will be provided at this station on or about 1 November 1954. This facility will require the forecaster to be on duty in the weather station at any time aircraft are airborne and within radio contact of this base. Once this facility is installed, pilots will expect it to be available when conditions are critical in order that they may make prompt and sound decisions.

4. It is recommended that the requirement imposed by referenced message be reviewed and re-considered, or that sufficient forecaster personnel be assigned to this weather detachment in order that there will be a weather forecaster on duty in the weather station at all times.

Luther H. Richmond  
Colonel, USAF  
Commander

C O P Y

Hq 564th AD Gp, OTR, Subject: Weather Briefing of Alert Pilots

DWOO (25 Oct 54) 1st Ind

HEADQUARTERS, 4707TH AIR DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. I concur.
2. The requirement of briefing the pilots and crews on alert at intervals of three hours will be extremely difficult to accomplish. The concept of a weather briefing for aircrews at a fixed schedule is foreign to the accepted procedure. When aircrew personnel are ready to receive weather information (prior to coming on duty, change in existing weather conditions, etc.) the accepted procedure is for the aircrew personnel to then ask for this information from the weather personnel.
3. It is conceivable to lose the value of a weather briefing by virtue of repetition, i.e. every three hours.
4. The primary requirement that must be met is that the duty forecaster be on duty and available at his duty position which is the weather office.

LUTHER H. RICHMOND  
Colonel, USAF  
Commander

C O P Y

Hq 564th AD Gp, OPR, Subj: Weather Briefing of Alert Pilots

OCT-FO (23 Oct 54) 2nd Ind 19 Nov 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Concur with basic letter and indorsement.
2. Commanders at all levels are responsible for insuring all aircrew personnel are briefed on the weather (all phases) before going on alert (ref ADCR 55-13).
3. As the basic letter points up, the basis for three hour briefing in the low experience level of personnel. The squadron commander is the most logical person to determine the experience level of his personnel and as such is responsible to establish the frequency of weather briefings (ref ADCR 105-1).
4. Pilots are sensible enough to want to be able to return safely from a mission and will heed weather briefings when the weather warrants. However, if they are subjected to briefings too often the importance of retaining what they receive loses its effect.
5. Any time there is a significant change in weather trend, the base weather forecaster could relay this trend to the CIC of the alert flight and accomplish the desired results.

ROBERT S. ISRAEL, JR  
Colonel, USAF  
Commander

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C O P Y

Hq 564th AD Gp OFR Subject: Weather Briefing of Alert Pilots

EAGOT-OW (25 Oct 54) 3rd Ind

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 12th Weather Squadron, Stewart Air Force Base,  
Newburgh, New York

1. This headquarters concurs with the principle of providing alert pilots with timely weather information.
2. Request your comments on the basic letter and indorsements thereto. Specifically request a remark on the following items as presented by the Commanders of the 564th Air Defense Group, the 4707th Air Defense Wing, and the 328 Air Division (Defense):
  - a. "Critical shortage of qualified weather forecasters".
  - b. "No forecaster on duty during periods of marginal weather" while the forecaster is conducting the weather briefing required once each three hours.
  - c. Shortage of forecasters for planned pilot-to-forecaster service.

FOR THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

Hq 564th AD Gp Subject: Weather Briefing of Alert Pilots

Opr (25 Oct 54) 4th Ind

12TH WEATHER SQUADRON (WATS), Stewart Air Force Base, N. Y.

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base, NY

1. Reference paragraph 1, basic letter. The requirement for three (3) hourly briefings was determined by Staff Visits, to Fighter-Interceptor Squadrons - alert hangars, made by 3rd Weather Group and ADC operations personnel. It was noted that the pilots on alert quite frequently had little or no knowledge of the current weather situation and its effect on active air defense missions. This information was furnished the 12th Weather Squadron with a request to initiate a program to give more frequent personal briefings to pilots on alert. The objective being to aid the pilot in the accomplishment of his mission. It was not the intent to infringe upon any commanders prerogative in establishing this program. Revised instructions to weather detachments now require obtaining approval of the appropriate Air Defense Group and/or Fighter-Interceptor Squadron Commander before implementation of this program. These revised instructions also take into consideration the status of alert and the actual weather conditions; the frequency of briefings vary accordingly.

2. The statement of "Critical shortage of qualified weather forecasters" is not justified. Detachment 12, Otis AFB, is authorized 5 officer forecasters, with 4 presently assigned. Another officer is enroute to this station from overseas. There are 2 airman forecaster spaces authorized with 3 presently assigned. One airman is TDY to school and is due to return 1 January 1955. A total of seven forecasters is authorized. Seven forecasters are assigned and one (1) additional forecaster is enroute. The present forecaster space authorizations for this detachment are sufficient to provide the required weather support.

3. Reference is made to paragraph 2b and c. "No forecaster on duty during periods of marginal weather" and shortage of forecasters for planned pilot-to-forecaster service. These statements are misleading. With seven weather forecasters authorized and effective, it is possible to arrange work schedules where there are two forecasters on duty during sixteen hours per day. During this period there can always be a forecaster in the weather station while these briefings are being conducted. The remaining eight hours (2300 to 0700) would be covered by only one forecaster. There is little or no transient traffic or local night flying during this period. The briefing times can be so scheduled that the forecaster would be absent from the weather station only once during this shift. The forecaster will actually be out of contact only a relatively few minutes - the time enroute. The forecaster's presence does not contribute to dissemination

C O P Y

H2 564th AD Gp, Subject: Weather Briefing of Alert Pilots

of local observations, this is done by the observer. The trend forecast, appended to recovery base observations, can be prepared in advance. Additional guidance, on proper utilization of assigned forecasters, is being furnished this Detachment Commander.

4. The program of weather briefing for alert pilots has been received with enthusiasm at other EADF bases.

BERNARD F. FORSTER  
Lt Colonel, USAF  
Commander

EACOT-OW (25 Oct 54) 5th Ind

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. This correspondence is returned for your appropriate action.
2. Information listed in the preceding indorsement indicates the program is feasible. If this particular weather service is not desired, a comparable arrangement will be made with the Commander, 12th Weather Detachment.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR  
Major, USAF  
Asst Adjutant

Hq 564th AD Gp, OPR, Subject: Weather Briefing at Alert Pilots

OCT-FO (25 Oct 54)

6th Ind

22 Dec 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, 4707th Air Defense Wing, Otis Air Force Base, Falmouth,  
Massachusetts

Returned for your appropriate action as directed by the preceding  
indorsement.

BY ORDER OF THE COMMANDER:

EVERETT W. HOWE  
Major, USAF  
Adjutant

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT

23 December 1954

SUBJECT: Scramble Action Under Averse Runway Conditions

TO: SEE DISTRIBUTION

1. Eastern Air Defense Force Regulation 55-12, dated 7 October 1954 defines runway conditions as follows:

a. Condition 1. "interceptors can be operated without undue hazard relative to airfield surface conditions."

b. Condition 2. "operation of assigned interceptors would be unusually hazardous due to surface conditions of runways, taxiways, and/or alert aprons."

c. Condition 3. "successful takeoffs by the assigned interceptors is highly improbable because of surface conditions of runways, taxiways, and/or alert aprons."

2. Runway condition 1 requires no further explanation and as such is not a matter of concern at this time.

3. When an airbase is reporting runway condition 2, as pointed out in 32d Air Division (Defense) message ACFOOT-FC 12003, dated 1 December 1954, scramble action will be on active air defense missions only. As a scramble against any unknown aircraft is considered an active air defense mission, further clarification of scramble action during this runway condition is considered advisable. It must be remembered that operation of interceptors during this period is unusually hazardous, and anticipated scramble action must be weighed against this possibility. The following minimum points must be considered before initiating action:

a. Interceptors will, under the majority of condition 2 scrambles, require recovery at another base.

b. Position and direction of flight.

- (1) Is any correlation possible
- (2) Number and speed
- (3) Other possible radar returns

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HQ 32D AD(D) OOT Subj: Scramble Action Under Adverse Runway Conditions

(4) Proximity to radio fix with possible position reporting in a matter of a very few minutes.

(5) Possible correlation through ADCC.

4. Directors must use common sense and mature judgment in considering scramble action to insure the successful accomplishment of the assigned mission and the safe recovery of the interceptor.

5. Runway condition 3 requires mandatory scramble action through this headquarters. As successful operation under this condition is considered improbable, scramble action will be initiated only during extreme situations.

BY ORDER OF THE COMMANDER:

**DISTRIBUTION:**

Wgs (2 cy ea)  
Gps (2 cy ea)  
FIB (2 cy ea)  
ACW SQ (2 cy ea)

*Everitt W. Howe*

EVERITT W. HOWE  
Major, USAF  
Adjutant

HEADQUARTERS  
303 AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

9 DEC 1954

OOT-FO

SUBJECT: <sup>✓</sup> EADF Regulation 55-12

TO: SEE DISTRIBUTION

The following message sent to units of this command is forwarded for your information.

/Unclassified/ACFOOT-FO 12003. Ref WADFR 55-12, dated 7 Oct 54. The following policy will apply for scramble action under various runway conditions. /1/ Condition 1. Normal scramble action. /2/ Condition 2. Scramble w/b on active Air Defense areas only. /3/ Condition 3. When runway conditions are in this category, scramble w/b on a mandatory basis only.

FOR THE COMMANDER:

*Everitt W. Howe*

DISTRIBUTION:

Comdr, 101st FIW, Me ANG  
Dow AFB, Bangor, Me (3cys)  
Comdr, 102d FIW, Mass ANG  
Logan Muni Aprt, Boston, Mass  
(3 cys)  
Comdr, 107th FIW, NY ANG, Niagara  
Falls Muni Aprt, Niagara Falls, NY  
(3 cys)  
Comdr, 101st FIS, Mass ANG Logan  
Muni Aprt, Boston, Mass  
Comdr, 131st FIS, Barnes Muni Aprt  
Westfield, Mass  
Comdr, 133d FIS, Grenier AFB, N.H.  
Comdr, 138th FIS, Hancock Field  
Syracuse 6, New York  
Adj Gen, St of Massachusetts  
Boston 15, Mass  
Adj Gen, St of New York  
Albany, New York  
Adj Gen, St of Me, Augusta, Maine  
Adj Gen, St of New Hampshire  
Concord, N. H.

EVERITT W HOWE  
Major, USAF  
Adjutant

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C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
EAST AIR FORCE BASE  
Colorado Springs, Colorado

ADOOT-C

15 December 1954

SUBJECT: Weather Observations for Landing Aircraft

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. In line with USAF's recent emphasis on weather observations for landing aircraft, weather personnel from this headquarters have organized a survey team to visit our bases and completely re-evaluate the "runway observation program".
2. This team plans to survey the requirements for the installation of a permanent weather observation site to take observations most representative of the actual weather conditions encountered by pilots on the final approach and landings.
3. The success of this program depends on the co-operation of base commanders to insure the adequacy of base facilities necessary to improve weather service to landing aircraft.
4. This team will commence operation in the near future and base commanders will be notified of their proposed arrival date.

BY ORDER OF THE COMMANDER:

NORMAN H. WRIGHT  
1st Lt., USAF  
Asst Command Adj

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

14 January 1955

Brigadier General Donald B. Smith  
Vice Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Don:

Your letter of 7 January was on a subject which has been covered by considerable discussion by various officers of my staff during the past few months. We are extremely interested in it, however, we have found many varied circumstances which would be quite difficult to cover in one regulation.

We have the problem of not only survival in the freezing waters of the North Atlantic and the Great Lakes but also of survival in the heavy snows and swamps of the North Woods. Actually, the Great Lakes do not present a consistent problem, as from approximately 1 January to 15 March they are frequently frozen over and will support considerable weight.

I suggest that:

- a. Aircrews at Presque Isle be required to wear winter clothing and carry arctic survival kits on all missions in the Presque Isle area.
- b. Crews at Dow be required to wear winter clothing with Mk IV Immersion Suit plus a survival kit on all missions.
- c. Crews at Burlington be required to wear winter clothing and survival kit.
- d. Alert crews at Westover be required to wear immersion suits and dinghies as they are sometimes scrambled for unknowns in the Cape Cod area. Other crews at Westover would be required to wear winter clothing and survival kit.
- e. Crews at Otis be required to wear Mk IV Immersion Suits and dinghies.

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C O P Y

f. Crews at Griffiss and Niagara be required to wear Mae Wests, winter clothing and survival kit.

For your information, pilots have used the Mk IV Immersion Suit while standing alert in Korea and although they objected to it at first, they eventually became accustomed to the initial discomfort and did not object. Needless to say the best convincer is to have a friend bail out over water and survive because of the MkIV suit. We should not forget that a pilot who normally stands alert for six to eight hours without an immersion suit cannot be expected to stand the same alert for more than four to six hours at a time when he is wearing it. Also, it was found in Korea that there were no necessity for wearing the inner liner suit with the Mk IV Imersion Suit. They discovered that a pilot wearing a heavy winter uniform with two or three pairs of woollen socks plus a light jacket and flying suit would be just as comfortable and no more restricted than was the case with the regular fitted inner liner.

Similarly it was found it was a reasonably simple matter to tie a pair of moccasins in the pockets of the legs so that the pilot could use them should he have occasion to walk any great distance.

Each division has a different and varied problem at each base. I therefore recommend that the division be held responsible for the prescription of survival equipment according to season and environs.

You mention a separate problem concerning the use of the anti-G suit on all flights in tactical and T-33 aircraft. For approximately a year and a half I required all aircrews to wear G suits whenever flying tactical aircraft. Because of ADCR 55-3, this requirement has been allowed to lapse.

I do not feel that it is necessary to wear a G suit in the T-33 unless airobatics are to be performed or if the aircraft is to be operated in some other manner which would require stress other than normal straight and level, instrument or navigational flight. I do feel that the anti-G suit should be worn in all tactical types, particularly in active air defense.

Sincerely,

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

CONFIDENTIAL

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OIN

30 November 1954

SUBJECT: ADC Route Weather Forecast

TO: See Distribution

1. The following information is furnished as an explanation of the daily ADC route weather forecast provided by the 3d Weather Group to your unit as a supplement to Intelligence briefings.
2. The two routes pertaining to this Division are designated 5 and 5A with route wind zones as indicated in Incl 1.
3. Factors affecting the forecast:
  - a. The forecast is issued once daily by 0600Z and verifies twenty-one hours later at 0300Z the following day.
  - b. Forecast winds are average tail wind components for the prescribed numbered zones at approximately 18,000 Ft. Positive values are for tail winds and negative for head winds.
  - c. The ETE is figured for the average wind assuming a true air speed of 220 knots (TU-4). The distance for route 5 is 3610 n.m. and for route 5A is 4110 n.m.
4. Interpretation of the forecast should consider the following factors:
  - a. The ADC Route Forecast is of general weather conditions within the takeoff area. (Kola Peninsula)
  - b. The indicated routes may not be what the enemy might choose.
  - c. An error in ETE of 5 percent or from 30 to 50 minutes may be expected.

CONFIDENTIAL

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54-4027

*CONFIDENTIAL*

Hq 32d Air Div (D) OIN Subj: ADC Route Weather Forecast

d. The forecast is primarily intended as an intelligence supplement and has little operational value.

BY ORDER OF THE COMMANDER:

*Everitt W. Howe*  
EVERITT W. HOWE  
Major, USAF  
Adjutant

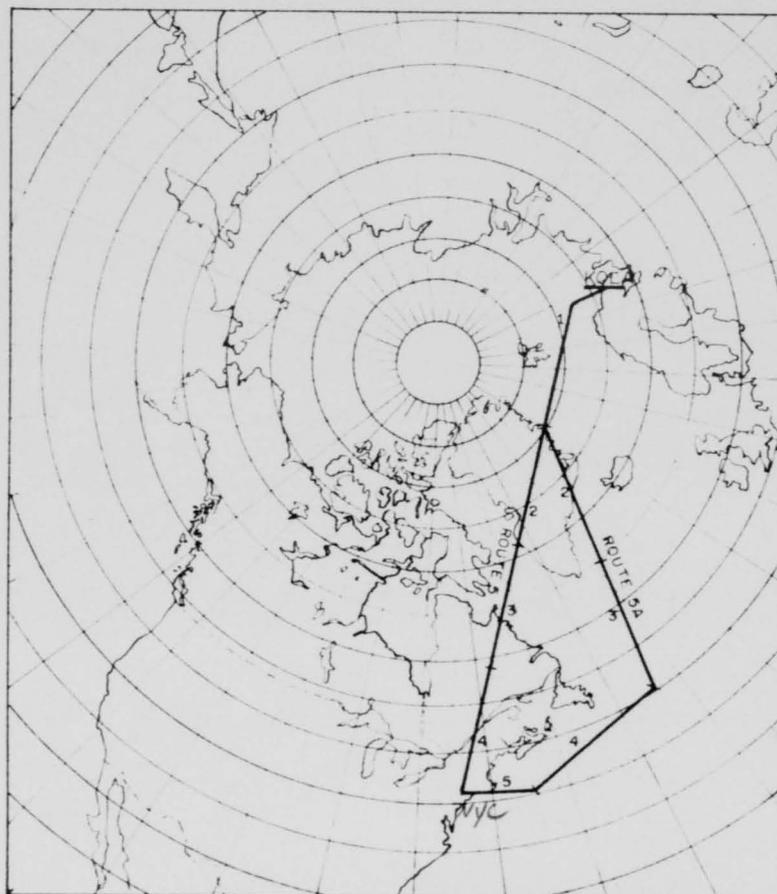
1 Incl  
1. Route Chart

DISTRIBUTION:  
Intelligence Officers, Air Defense Wings  
Intelligence Officers, Air Defense Groups  
Intelligence Officers, Fighter-Interceptor Squadrons  
Intelligence Officers, AC&W Squadrons

*CONFIDENTIAL*

54-4029

CONFIDENTIAL



CONFIDENTIAL  
54-4029

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C O P Y

HEADQUARTERS  
107TH FIGHTER GROUP, NYANG  
Hancock Field  
Syracuse, New York

15 June 1954

SUBJECT: Scheduling Agency for Oswego Danger Area

TO: 27th Fighter Interceptor Squadron  
Griffiss Air Force Base  
Rome, New York

1. Scheduling of gunnery flights in the Oswego Danger area has been the responsibility of your headquarters while the National Guard Air Base at Hancock Field has been charged with the responsibility of air-sea rescue.
2. In a recent visit to EADF headquarters we were advised that your unit would no longer be using the Oswego range inasmuch as your aircraft were rocket equipped. In view of this it was suggested that the 107th Fighter Interceptor Group, NYANG, Hancock Field be designated as the scheduling agency.
3. It is requested that you delegate the scheduling of flights to this headquarters for the period of 1 July through 1 November 1954. This period encompasses the summer field training periods for three Wings who will be based at Hancock Field.

LAWRENCE J. DISSETTE  
Lt Colonel, NYANG  
Commander

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C O P Y

Hq 107th Ftr Gp Subject: Scheduling Agency for Oswego Danger Area

FIS27-OPR (15 Jun 54) 1st Ind

HQ 27TH FIGHTER-INTERCEPTOR SQUADRON, Griffiss AFB, New York, 21 Jun 54

TO: Commander, 107th Fighter Group, NYANG, Hancock Field, Syracuse,  
New York

1. This headquarters is awaiting a reply to a letter submitted through our command channels recommending transfer of scheduling authority for the Oswego Danger Area.

2. It is suggested that you contact the Operations Section of 32d Air Division (Defense) Headquarters at Hancock Field relative to the present status of our request for change in scheduling authority and your recommendations thereto. Such action will probably gain the most expedient answer to your request.

FOR THE COMMANDER:

DONALD L. FREE  
2nd Lt., USAF  
Adjutant

(15 Jun 54) 2nd Ind

HQS 107TH FTR INTCP GP, NYANG, Hancock Field, Syracuse, New York

TO: Hqs 32D Air Division, Eastwood Station 6, Syracuse, New York,  
Attn: Operations Section

1. Reference basic communication and 1st Indorsement.
2. In view of limited time available before field training request expeditious clarification of scheduling agency.

LAWRENCE J. DISSETTE  
Lt Colonel, NYANG  
Commander

C O P Y

Hq 107th Ftr Gp Subject: Scheduling Agency for Oswego Danger Area

OOT-FO (15 Jun 54) 3rd Ind 26 Jun 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Forwarded for your information and approval.
2. Correspondence requesting that scheduling authority for the  
Oswego New York Danger Area be transferred to COMAC or 1st Air Force  
was forwarded to your headquarters on 28 February 1954. No reply  
has been received to date.

FOR THE COMMANDER:

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

C O P Y

Hq 107th Ftr Gp Subject: Scheduling Agency for Oswego Danger Area

EACOT-SF (15 Jun 54) 4th Indg 6 Jul 1954

Hq EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

1. Reference: Message this headquarters, EACOT-SF 20247, 26 June 1954.
2. Responsibility for operation of the Oswego Gunnery Range (D-70) is being turned over to Headquarters CONAC.
3. Recommend correspondence pertaining to scheduling authority and use of said range be sent to Headquarters CONAC, Mitchel Air Force Base, New York.

BY ORDER OF THE COMMANDER:

1 Incl: J. W. FOUNTAIN, JR.  
Msg fr Hq EADF, Major, USAF  
EACOT-SF, 26 Jun 54 Asst Adjutant

OOT-FO (15 Jun 54) 5th Ind 8 Jul 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

TO: Commander, 107th Fighter Group, NYANG, Hancock Field, Syracuse, N.Y.

1. Reference basic letter and 2d indorsement requesting use of Oswego Gunnery Range, correspondence pertaining to scheduling of subject range should be forwarded to Headquarters CONAC, Mitchel Air Force Base, New York.
2. Reference paragraph 2, 4th indorsement, this headquarters no longer has responsibility for Operation of Oswego Gunnery Range (D-70).

FOR THE COMMANDER:

1 Incl: HENRY R. BROWN  
n/c Major, USAF  
Adjutant

4

C O P Y

FM HQ EADF STEWART AFB NY  
TO 98R/COMDR 27 FIS GRIFFISS AFB NY  
INFO 38GA/COMDR 32 ADD SYRACUSE AFB NY  
AJOA/COMDR 4711DW PIAPB ME  
/UNCLASSIFIED/BAOOT-SF 20247. HQ COMAC WILL ACCEPT RESPONSIBILITY FOR  
THE OPR OF OSWEGO GNR RG /D-70/. ADC WILL REQ USAF APPR AND EFFECT  
ASSIGNMENT OF SUBJ RG TO THAT CGMD. DESIRE YOU FWD A CCMPLE FILE ON  
THE OSWEGO DANGER AREA TO THIS HQ NOT LATER THAN 1 JUL 1954.  
26/1606Z JUN 54

COPY

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OCT-FO

11 Aug 1954

SUBJECT: Brief for Deployed Forces

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

Commander  
4711th Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Request you prepare and maintain in a current status for each base within your command a package brief to include the below listed information.
2. Subject briefs will be maintained in sufficient copies for distribution to units deployed to your bases.
3. One copy of package brief for each base within your command will be forwarded to this headquarters.
4. Package briefs for each base will include:
  - a. Operations:
    - (1) Location of base hangars and weather station
    - (2) Alert apron
    - (3) Scramble and Recovery Procedures
    - (4) Approval VFR air traffic control procedures
    - (5) Alternate recovery bases
    - (6) Communication facilities to include hot lines, crypto, commercial toll lines, administrative and tactical teletype facilities.
    - (7) Facilities for handling and safeguarding classified equipment and documents

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C O P Y

OCT-FO Subject: Brief for Deployed Forces

- (8) Firing in-butts
- (9) Space available for deployed units' headquarters and operations
- (10) Navigational aids on base and in the immediate vicinity to include GCA, ILS, FPI, GCI assist, commercial radio stations and CAA radio ranges.
- (11) Operational Reporting Requirements (ADCR 55-20 and EADFR 55-18).

b. Maintenance:

- (1) Base responsibilities
- (2) Hangar and shop space
- (3) Available equipment
- (4) Maintenance procedures

c. Aircraft Servicing:

- (1) Refueling priority
- (2) Tow bars
- (3) Compressor units
- (4) Battery servicing
- (5) Oxygen servicing (high and low pressure, adapters, etc).
- (6) Starter Generators
- (7) Cockpit ladders
- (8) Tank, hydraulic servicing and bleeding

d. Supply:

- (1) Location of Service stocks and BASO
- (2) Procedures-expendable, reparable
- (3) Plans for support beyond 5 day period

C O P Y

OOT-FO Subject: Brief for Deployed Forces'

e. Armament and Ammunition:

- (1) Reserve levels by type
- (2) Rearmament facilities

f. Materiel Services:

- (1) Messing facilities and schedules
- (2) PX, clothing sales, theater

g. Special Services

- (1) Recreation, equipment, service club

h. Transportation

- (1) Base policies
- (2) Flight line vehicles

i. (1) Building and space assignment - airmen.

- (2) Building and space assignment - officers.

j. Remarks:

- (1) Any item not covered above but deemed pertinent to operations by the commander.

BY ORDER OF THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

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HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
STEWART AIR FORCE BASE, NEWBURGH, N.Y.

EACOT-OW

5 Aug 1954

SUBJECT: Radiation Effects of APS-20B Radar

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Reference our letter, subject as above, 29 June 1954.
2. Enclosed is a copy of an Interdepartmental Communication of the Lockheed Aircraft Corporation, subject: AN/APS-20B Radar Hazards, February 5, 1954 which provides additional information on hazards connected with ground operation of AN/APS -20B Radar.

BY ORDER OF THE COMMANDER:

1 Encl  
Cy of Lockheed Acft  
Corp. Interdepartmental  
Comm, subj: AN/APS-20B  
Radar Hazards, Feb 5, 1954

/s/ James R. Worline  
/t/ JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

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HQ MAJF, MAJOT-OW, Subj: radiation effects of AFS-40B radar

OOT-FO (5 Aug 54)

1st Ind

12 Aug 54

HQ 3d AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood Station 6,  
Syracuse, New York

TO: All Defense wings, Defense Groups, Fighter-Interceptor Squadrons

For your information:

BY ORDER OF THE COMMANDER:

1 Incl  
n/c

*Everitt W. Howe*  
EVERITT W. HOWE  
Major, USAF  
Adjutant

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LOCKHEED AIRCRAFT CORPORATION  
California Division  
Interdepartmental Communication

TO: G. A. Fitzpatrick

February 5, 1954

From: Clarence L. Johnson

Subject: AN/APS 20-B RADAR HAZARDS

References: (a) IDC Rempt to Wagner, same subject, dated 1-28-54  
(b) IDC Fire Chief & Chief Safety Engineer to Folden and Hurt, subject: APS=20B Radar Beam-Explosion and Fire Hazard, dated 1-18-54

Since the issuance of the referenced letters, studies made jointly by your personnel and ours in working out methods for the application of the restrictions set forth in the use of AN/APS-20B Radar, have led to a practical solution of the problem from both a safety and an operational standpoint.

As a result of these studies, Engineering is satisfied that AN/APS-20B Radar can be operated in a manner which overcomes the safety hazards outlined in references (a) and (b) provided the precautions noted below are strictly adhered to at all times.

It is to be noted that AN/APS-20B is the most powerful Airborne Radar Gear currently used in this area, and therefore, other radar may be used safely under these restrictions. The following applies to the Ground Operation of AN/APS-20B Search Radar in P2V, WV-2, WV-3, RC-121C and RC-121D airplanes:

1. A minimum distance of 130 ft should be maintained between the above type aircraft with their radar operating and fueling operations and/or fuel in open containers.
2. There is no danger from the AN/APS-20B radar's operation at any distance for the following:
  - a. Fuel trucks with capped tanks, vented or unvented, whether the truck is in motion or stationary in the vicinity of the operating radar.
  - b. Aircraft with or without fuel when not being fueled or defueled or having a fuel screen check. In other words, the fumes given out from fuel system vents or created by normal leaks are too weak and dissipated to create a hazard. Parked aircraft not being fueled, defueled, or undergoing fuel screen check, and/or taxiing aircraft are in no danger from these radar beams.

Incl # 1

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Subject: AN/APS-20B Radar Hazards

February 5, 1954  
Page 2

3. A continuously policed housekeeping program should be placed into effect. Areas within a 275 ft radius from any of the AN/APS-20B ground checkout stations should be kept free of all trash, metal scrap, oily rags, etc., that is, such items should be placed in appropriate metal containers.
4. At no time shall an AN/APS-20B radar system be operated on the ground at a peak power greater than 1.8 megawatts. This should be rigidly enforced by supervision.
5. Supervision should enforce a program controlling the over-all operation of AN/APS-20B radar. In other words, the operation of this equipment should be kept at an absolute minimum consistent with aircraft ground checkout requirements.
6. Suitable warning devices should be used at each of the stations assigned to AN/APS-20B radar checkouts.
7. Supervision should permit authorized personnel only to enter the AN/APS-20B radar operation areas. While AN/APS-20B is operating, personnel outside the airplane should stay at least 35 feet from the antenna.

On the basis of conversation with several Management members of your organization, it is our understanding that immediate steps will be taken to operate AN/APS-20B in accordance with the above by providing detailed instructions, training of personnel and adequate warning and protective devices.

Our Electronics Staff Engineers are available to you for consultation, technical advice, and general guidance in making this operation safe, sound and practical.

/s/ J. WASSALL  
/t/ CLARENCE L. JOHNSON  
Chief Engineer

CLJ:

cc: R. B. Bias  
J. F. Hatton  
J. K. Hull  
J. N. Katenhausen  
J. M. O'Connor  
D. M. Wilder

C O P Y

HEADQUARTERS FIRST ARMY  
GOVERNORS ISLAND, NEW YORK 4, NEW YORK

AHFKC (7) 600

6 JUL 1954

SUBJECT: Control of Danger Area D-22

TO: Commanding Officer  
Otis Air Force Base  
Falmouth, Massachusetts

1. First Army and Otis Air Force Base were assigned joint usage of Danger Area D-22 by the subcommittee on Airspace, Air Coordinating Committee, Washington, D. C. (Meeting No. 238, 19 June 1951 - Case 4376).

2. In view of the fact that Antiaircraft Artillery units at Camp Wellfleet, Massachusetts fire into and through this danger area from 0830 - 1130 and 1330 - 1630 daily Mondays - Fridays and from 0830 - 1130 daily on Saturdays, except possibly during the months of December and January, information is requested from you as to your requirements for this danger area. If your requirements are negative, this headquarters proposes recommending to the Airspace subcommittee that First Army be the sole using agency of this danger area.

3. In the event that Otis Air Base has requirements for this danger area, recommend that a written agreement be made between Otis Air Force Base and Camp Wellfleet, stating that Camp Wellfleet is authorized to use this area until such time as Otis Air Base requests its use, or vice-versa.

FOR THE COMMANDING GENERAL:

CHARLES D. WHITHEAD  
Lt Col, AGC  
Asst AG

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C O P Y

Hq 1st Army, AMFKC (7) 600 Subject: Control of Danger Area D-22

OPR (6 Jul 54) 1st Ind 13 Jul 1954

HEADQUARTERS, 564TH AIR DEFENSE GROUP, Otis Air Force Base, Falmouth,  
Massachusetts

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth,  
Massachusetts

1. This headquarters poses no objection to Headquarters First Army being the sole using agency of danger area D-22.
2. The armament system of UE aircraft now assigned and programmed for organization of this station are such that no requirement exists for danger area D-22.

FOR THE COMMANDER:

BRUCE K. LEFORD  
Captain, USAF  
Adjutant

DWOOT (6 Jul 54) 2nd Ind

HEADQUARTERS, 4707TH DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts 16 Jul 1954

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

Recommend this correspondence be forwarded to Headquarters, First  
Army through the Air Force Member of the Regional Airspace Sub-committee.

FOR THE COMMANDER:

GEORGE K. LEITNER  
Captain, USAF  
Adjutant

C O P Y

Hq 1st Army, AHFKC (7) 600 Subject: Control of Danger Area D-22

OOB-FO (6 Jul 54)

3rd Ind

21 Jul 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Forwarded for necessary action.
2. Concur with recommendation of 2nd indorsement.

FOR THIS COMMANDER:

HENRY R. BROWN  
Major, USEF  
Adjutant

C O P Y

NARRATIVE HISTORY OF THE 15TH AAA GROUP SINCE 30 JUNE 1954

1. Since 30 June 1954 the 15th AA A Group has continued to carry on its Primary Mission of providing the Antiaircraft Artillery Defense for the Bgston area. In addition to the three battalions previously assigned to the Group, the 548th Skysweeper Battalion entered the defense on 1 October 1954.

2. The 548th Skysweeper Battalion presently is stationed at Loring AFB, Maine. Since the Battalion moved into Loring under adverse weather conditions, there were a number of problems encountered. Snow was on the ground and the temperature was consistently low. Due to such weather, time was increased considerably before initial operations began. Aside from the problems of weather, the battalion suffered from a lack of school-trained officers and enlisted men. In spite of all difficulties, the advent of the 548th Battalion has increased the defense of Boston considerably. The Early Warning capabilities of the group has been extended at least five hundred (500) miles as a result of the surveillance radars attached to the subject battalion. It must be understood that adequate Early Warning systems, located at Loring AFB, adds much in terms of minutes, to the total defense of the East. Upon receipt of data from the 548th, it is transmitted immediately to all organizations which comprise the pattern of Eastern Antiaircraft Defense.

3. On 5 January 1955, the 514th AAA Gun Battalion converted to Guided Missiles. It is the opinion of group that this conversion marks definite progress. In addition to strengthening the defense, Guided Missiles indicate advancement in the projected plan of continental US protection. It is felt that the state of training of the assigned personnel is above average and morale is high because of the nature of such an assignment.

4. There have been no significant changes relative to the 16th AAA Bn (Gun) (90mm) and the 605th AAA Bn (Gun)(90mm)(Static). These Battalions have participated in two service practices since July 54 and firing records lend evidence to the continued high state of preparedness this Group strives to maintain. With regards to the increasingly high rate of turnover in personnel, it is felt that officers and men reflect great credit upon themselves by exerting extreme efforts in maintaining alert and meaningful vigilance.

5. The coordinated efforts of the Primary AAOC and the ADCC at Loring AFB, have meant much to the smooth functioning of the Group during exercises, engagements and other practices. From apparent indications, the efficiency of assigned personnel has shown steady improvement.

Inclosure 1

C O P Y

6. Presently, the defense of the area with respect to firing batteries is this: Eight (8) 90mm gun batteries from the 16th AAA Bn and 605th AAA Bn combined, four (4) NIKE batteries of the 514th Missile Bn and three (3) Skysweeper (75mm) batteries from the 548th AAA Bn at Loring.

7. Problems incidental to location of NIKE units have been numerous so far as relations with the civilian populace is concerned. The Group exercised foresight in this matter, therefore a Group Project Officer was appointed to deal with subject problems. The Project Officer has dealt with matters relative to real estate, explosive capabilities of the NIKE, effectiveness of coordinated air defense and other such related interest. At this date, the Group has been able to resolve all differences.

8. The personnel situation has been less than ideal at any period between 30 June 1954 and this date. Units of this command have not realized less than a 25% shortage in assigned personnel at any given time. Presently SOPs are in effect outlining procedures that will facilitate maximum states of readiness in spite of reduced manpower.

9. Practice exercises have meant much to the effective training of all personnel. It has been noted that personnel exercise great interest in training purposes when it has been explained that they are responsible for successful operation of the Army's phase of continental defense.

10. It is felt that the 15th AAA Group has it's problems and will continue to have them, but in light of the steady progress that has been realized since 30 June 1954, it does not appear that our primary mission will be altered immensely by problems such as those previously experienced.

CONFIDENTIAL

C O P Y

HEADQUARTERS  
2D ANTI-AIRCRAFT ARTILLERY GROUP (S)  
Fort Niagara  
Youngstown, New York

660.2

29 April 1955

SUBJECT: AAA Defense Niagara Falls - Buffalo (U)

TO: Lt Colonel James N. Lewis  
AAA Representative  
32d Air Division  
Syracuse, New York

In compliance to your telephone request of Captain Noble of this command, the following data is submitted:

- a. During the period of 30 June 1954 to 31 December 1954, tactical units of this defense consisted of two gun battalions equipped with 90mm guns and M33 FCS. With the exception of the periods during which the gun batteries vacated gun sites to conduct service practice at the firing range, approximately one week per battery, all units were operational throughout the period indicated above.
- b. There have been no changes in communications or procedures between the AACC and the associated ADDC.
- c. The first phase of the Nike Defense Plan for the Niagara Defense Area provided for one Nike battalion of four Nike batteries to be located in the Niagara Falls area. Construction of the sites for these units began in July 1954, with construction scheduled for completion by March 1955. However, due to unseasonal weather conditions construction progress has been retarded to the extent that the Nike sites will not be available for troop occupancy until June - July 1955. The 44th AAA Gun Battalion converted to the 44th AAA Missile Battalion on 22 March 1955, and is scheduled to occupy the Nike sites presently under construction when completed. The initial phase of the coordinated Nike and Gun defense of this area will consist of one Nike battalion and one 90mm gun battalion.
- d. The second phase of the Nike defense plan for this area is to expand the defense area to include Niagara Falls and Buffalo into a single coordinated defense. Two additional Nike battalions will be located in the general vicinity of Niagara Falls and Buffalo. All sites have been selected and preliminary engineering plans have been prepared and approved. It is contemplated that construction for these sites will begin in August 1955, with a completion date of July 1956. Two new Nike battalions will be activated to man these positions with a scheduled on-site date of August 1956.

2-C-756-55

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CONFIDENTIAL

C O P Y

660.2

29 April 1955

Subject: AAA Defense Niagara Falls - Buffalo (U)

e. In addition to the three Regular Army Nike battalions and the one 90mm gun battalion composing the defense outlined in paragraph d above, the defense will be augmented with two National Guard Battalions armed with 90mm guns and M33 Fire Control Systems. One of these battalions will be located in the Niagara Falls area, and the other in the Buffalo area. It is anticipated that two of the National Guard batteries will be on-site in the Niagara Falls area in September 1955. The remaining batteries will not be on site until approximately June 1956.

f. This headquarters has not received authority to occupy AAA sites in Canada, and is not aware of any action being taken by higher headquarters to acquire such authority. Current Operations Plans of higher headquarters contain a mutual agreement between Canada and the United States whereby authority for engagement of enemy aircraft over Canada is authorized.

g. There is no apparent significant deterrent to the accomplishment of the desired training within the command. However, it is believed that training could be improved by providing more frequent command-wide air defense exercises employing high performance, medium and heavy type aircraft, simulating air strikes against specific AAA defended areas.

FOR THE COMMANDING OFFICER:

KENNETH J. KNAPP, JR.  
Major, Arty  
Adjutant

RECLASSIFICATION DATA  
CANNOT BE PREDETERMINED

CONFIDENTIAL

C O P Y

515TH ANTI-AIRCRAFT ARTILLERY CONTROL DETACHMENT  
762D AIRCRAFT CONTROL AND WARNING SQUADRON  
NORTH TRURO AIR FORCE STATION  
North Truro, Massachusetts

AC3AAA

19 August 1954

SUBJECT: "Big Photo" Tracks

TO: Commanding Officer  
515th AAA Operation Detachment (Static)  
ATTN: AAA Liaison Officer  
Fort Banks  
Winthrop, Massachusetts

1. It has been noted at this station that during the period from 3 June 1954 to 15 August 1954, fifteen (15) "Big Photo" tracks have come within fifty (50) miles of the center of the Boston Anti-aircraft Defense and have not diverted to simulate a bomb run on that defense in accordance with the provisions of Air Defense Command Regulation 51-4, Annex III, paragraph 2b, dated 12 March 1954.
2. In view of the potential training for AAA which exists in the flights of said mission aircraft, it is requested that procedures be established to facilitate conformance to relevant section of Air Defense Command Regulation 51-4.

ROBERT M. SPIES  
2nd Lt., ~~USA~~ Arty  
Officer in Charge

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C O P Y

OFFICE OF THE AA REPRESENTATIVE  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

31 July 1954

SUBJECT: Monthly Activities Report (July)

TO: Commanding General  
Eastern Army Antiaircraft Command  
Stewart Air Force Base  
Newburgh, New York  
Attn: G-3

1. During the period of this report, the following units were visited:

Hq Eastern Army Antiaircraft Command  
Hq 56th AAA Brigade  
Hq 2d AAA Group  
56th AAOD  
AA Det and 763d AC&W Squadron

2. From my position at the 32d Air Division ADCC, it appeared that "Exercise Check Point" was of great value to the AAA defenses of Boston and Niagara Falls. Both areas received a large number of tracks for the first time since I have been in this assignment.

3. The excellent cooperation which I received from officers and airmen of the ADCC was very helpful. Two airmen were assigned on a 24-hour basis to pass EW plots and assist me in any way possible. These airmen did fine work all through the exercise.

4. Initially, conveyes were not posted on time and I believe this was due to an overload of work received by the status clerks. Subsequently, the Chief Controller straightened out the matter successfully. AAA status reports were posted on time throughout the exercise.

5. I believe this exercise pointed out the fact that there should be an additional officer (AAA) assigned on TDY during future exercises. Except for the airmen working for me, there was no relief. I believe also that at least one NCO, either SFC or M/Sgt should be assigned to me on a permanent basis. He should be administrative and know how to

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COPY

Office of the AA Rep, 32d AD(D) Subject: Monthly Activities Report (Jul)

type. There is sufficient work to keep him fairly busy during the day. In addition, he could substitute for me during my inspections away from division headquarters.

6. The AAA detachment at the 762d AC&W Squadron, North Truro, Mass., still has but one officer assigned. He has been alone now for several months. He had 2 officers assigned on TDY during "Exercise Check Point". I mentioned this matter to Colonel Woodbury and was informed that he would take action.

7. On 6 July, I was asked to conduct a briefing for GOC representatives from the State of New Hampshire. The briefing consisted of a short talk concerning my duties. A similar briefing was given on 15 July for the Governor of the State of Maine. The Mayor of the city of Syracuse was also present at this time.

8. Tracking missions flown by the 4713th Radar Evaluation (ECM) Flight continued during July. Although one mission was cancelled the week after "Exercise Check Point", three were flown on successive days during the week of 19 July. Each defense area continues to have approximately four hours tracking time from each mission.

9. I depart for 20 days leave on 26 July. During this period, Mr Lawrence Collins (Col, USAR) FCDA representative has agreed to fill in for me where possible. I do not plan to be away from my home for any period longer than 48 hours.

JAMES N. LEWIS  
Lt Col GS  
AA Representative

C O P Y

OFFICE OF THE AA REPRESENTATIVE  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

31 August 1954

SUBJECT: Monthly Activities Report (August)

TO: Commanding General  
Eastern Army Antiaircraft Command  
Stewart Air Force Base  
Newburgh, New York

1. During the period of this report, the following units were visited:

Hq 56th AAA Brigade . . . . . Ft Totten, N.Y.  
Hq 15th AAA Group . . . . . Ft Banks, Mass  
515th AAOD . . . . . Ft Banks, Mass

2. The following exercises, missions and projects were available for participation or actually utilized by AA units:

Various Dates . . . . . Big Photo, Big Crater  
5 August . . . . . Pogo Stick #3  
10 August . . . . . Freak Show Able  
10 August . . . . . Think Fast #7  
10 August . . . . . Sweet Lucy  
13 August . . . . . Freak Show Charley  
20 August . . . . . Wing Ding  
26 August . . . . . Think Fast #8

3. A request was received from 3-3, 15th AAA Group, for two (2) aircraft in September and October to enable AA units to complete ATT. I expect to be able to fulfill this request after a visit to the 4713th Radar Evaluation (ECM) Flight, Griffiss AFB, Rome, New York during next week.

4. Inclosure #1 was given to me by the CO, 515th AAOD. I advised forwarding this letter by indorsement to your headquarters so that appropriate action could be taken.

5. Due to various reasons, only one "Mince-Pie" tracking mission was flown in this period. I have been assured, however, that effective next month, activities of the 4713th Radar Evaluation (ECM) Flight should

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C O P Y

Office of the AA Rep, 32d AD(D) Subject: Monthly Activities Report  
(August), 31 August 1954

return to normal, and we shall receive our weekly mission over both areas.

6. I now have direct telephone communication with the AACC's at Ft. Niagara, New York and Ft. Banks, Massachusetts. These lines were installed while I was on leave. They were requested by the 32d Air Division (Def) prior to "Exercise Check Point" for early warning purposes, but were not authorized until recently. These lines have been installed on a full timebasis.

7. Lieutenant Commander Bernard Sevilla has been assigned to this headquarters as Naval Liaison Officer.

8. I returned from leave of absence on 16 August 1954.

L Incl:  
Ltr to 515th AAOD  
dtd 19 Aug 54, subj:  
"Big Photo" Tracks

JAMES N. LEWIS  
Lt Col., GS  
AA Representative

C O P Y

OFFICE OF THE AA REPRESENTATIVE  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

30 September 1954

SUBJECT: Monthly Activities Report (September)

TO: Commanding General  
Eastern Army Antiaircraft Command  
Stewart Air Force Base  
Newburgh, New York

1. During the period of this report, the following units were visited:

Hq Eastern Army Antiaircraft Command . . . Newburgh, N. Y.  
Hq 56th AAA Brigade . . . . . Ft Totten, N.Y.  
Hq 2d AAA Group . . . . . Ft Niagara, N.Y.  
Hq 15th AAA Group . . . . . Ft Banks, Mass.  
56th AAOD . . . . . Ft Niagara, N.Y.  
515th AAOD . . . . . Ft Banks, Mass.  
762d ACMW Sq . . . . . North Truro, Mass.  
763rd ACMW Sq . . . . . Lockport, N.Y.  
4713th Radar Evaluation (ECM) Flight . . . Rome, N. Y.

2. During this month, one flight of two B-29's was furnished the 2d AAA Group for ATT detection phase test. Two more flights are scheduled for this month. These missions are each of approximately twelve hours duration.

3. I attended a conference at 2d AAA Group on 2 September regarding the clarification of operational, logistical and administrative matters prior to that unit coming under the jurisdiction of 53d AAA Brigade. The conference was composed of staff officers from 53d and 56th AAA Brigades in addition to those of the 2d AAA Group.

4. On 23 September, I spoke to the Commanding Officer of the AAA unit at Loring (Limestone) AFB and informed him that the 56th AAA Brigade (Capt Klaver) had requested me to pass any necessary messages to him via the telephone. It is now possible for me to speak to the 56th AAA Brigade through the 26th Air Division.

5. Major General Burnell visited this headquarters on 21 September. He was briefed by Colonel Israel, Commander, and Colonel Ingenuhutt.

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C O P Y

Office of the AA Representative 32d AD(D), 30 Sep 54  
SUBJECT: Monthly Activities Report (Sep)

Deputy for Operations. In addition, a short briefing was given by the Naval Liaison Officer, Lieutenant Commander Sevilla, and I briefed the General on my duties.

6. Lt Col Palizza, your headquarters, visited this headquarters on 24 September and was introduced to the Commander and Vice-Commander. He also visited the ADCC.

7. Two Air Force Officers from the 4713th Radar Evaluation (ECM) Flight, Griffiss AFB, spent approximately three days with the 15th AAA Group, conducting ECM Ground Training.

8. I believe it would be beneficial to AA Representatives if we could be placed upon the distribution list of ARAACOM for Operational Directives. Frequently, such information is not known until a visit to the Brigade is made. Such a distribution would keep the AA Representatives up to date on all operational matters.

JAMES H. LEWIS  
Lt Col GS  
AA Representative

C O P Y

OFFICE OF THE AA REPRESENTATIVE  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

1 November 1954

SUBJECT: Monthly Activities Report (October)

TO: Commanding General  
Eastern Army Antiaircraft Command  
Stewart Air Force Base  
Newburgh, New York

1. During the period of this report, the following units were visited:

Hq Eastern Army Antiaircraft Command  
Hq 53d AAA Brigade  
Hq 2d AAA Group  
4713th Radar Evaluation (ECM) Flight  
56th AACD  
AA Controller Det & 763d ACMW Squadron

2. The ATF detection phase test flights by the 4713th Radar Evaluation (ECM) Flight were completed this month for Boston Area AAA units. Similar flights have been set up in November for units in Niagara Falls area.

3. A request was received from the 2d AAA Group for calibrating of radar sets by the 4713th Radar Evaluation (ECM) Flight. The commander of that unit informed me that a formal request must be initiated by the 2d AAA Group and submitted to Headquarters EADF.

4. a. On 14 October, I accompanied Colonel Israel, Division Commander, on a courtesy call to the 2d AAA Group. Included in the party were Colonel Matthews, Commander, 47th Fighter Interceptor Squadron, Niagara Falls, and Lt. Commander Sevilla, Naval Liaison Officer at this division. A briefing was given by Colonel Harvey, Commanding Officer, 2d AAA Group. Photographs were taken of the party by representatives of the Buffalo Evening News.

b. Visits were made to the AACD and the Guided Missile site. A visit was also made to the Naval Air Station, Niagara Falls.

5. A request was received from the Executive Officer, 548th AAA Bn (Lt) (75-mm) (Mbl) concerning certain items of communication equipment to be issued that unit. The matter was turned over to Captain Watson, your headquarters, and he supplied the answer.

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C O P Y

Office of the AA Rep, 32d AD(D) Subject: Monthly Activities Report  
(October), 1 November 1954

6. I attended the EADF ACUW Operations Officers Conference from  
19 to 20 October.

7. A request was received from Colonel James F. Reed, Deputy  
Commander, 4711th Air Defense Wing, Presque Isle AFB, for information  
regarding co-location of AAOC at Caswell AFS. Correspondence on the  
subject had been initiated by Colonel Israel. Copies of this corres-  
pondence and forwarding indorsements were obtained from Lt Colonel  
Pulizza and mailed to Colonel Reed.

8. During Exercise "Bull Market" I had occasion to speak over  
the telephone with a Commander Savides on the staff of the Commander,  
Naval Destroyer Force, Newport, Rhode Island. He told me that his AAA  
personnel were quite pleased with the excellent work of passing AAA  
information to them during the exercise. I passed this compliment to  
the Boston AAOC and our Artillery Controller Detachment.

9. A request was received from Captain Woodward, 2d AAA Group,  
for information as to whether this division could take vertical photos  
of long range sites. The matter was taken up with the Deputy for Oper-  
ations and, because of the detailed work required, photo equipment on  
hand could not accomplish the work. Captain Woodward will request  
this assistance through the 1st Antisircraft Regional Command.

10. The director, C&E, has requested ACMW Squadron to report any  
radio failure of one hour or more on FM radio back-up circuits to  
AAOC's. He desired by means of this report to have a 24-hour check on  
all such equipment.

JAMES N. LEWIS  
Lt Col, GS  
AA Representative

C O P Y

DISPOSITION FORM

SUBJECT: Incident of Transportation of  
High Explosives

TO: AAA LIAISON OFFICER FROM: CPM/GOLDBERG 124 30 Nov 54

Per your request, a copy of the following report submitted to the Provost Marshal by the OD is forwarded.

(a) At 1830 EST, 23 Nov, the OD, LT HAWKS, received a call from Capt Wyncoop, Director on duty at the 654th AC&W Squadron, Brunswick, Maine, stating that a truck carrying 306 cases of high explosive 75mm ammunition had broken down at Lewiston, Maine and that the driver had requested an armed guard be supplied. The truck was now parked in the Lewiston Fairgrounds. The driver had contacted Mr. EARL QWAAK, representative of Smith and Sullivan Trucking Co. Boston Mass. who in turn contacted Mr. Sam Nash, Bureau of Ordnance, Washington, D.C. for assistance. Mr. Nash had advised that the nearest military installation be contacted for the purpose of supplying guards for the vehicle. Evidently, Capt Wyncoop was initially contacted and in as much as the 654th AC&W Sqdn is a small installation dependent upon the Brunswick NAS for support, he contacted Mr. Wilcox, Navy JOD for assistance. According to Capt Wyncoop's report, this cooperation was refused. Capt Wyncoop then contacted LT HAWKS who in turn contacted the Division PM. Col Clark, Division Deputy Commander, was contacted and the 654th was notified to supply the required guards if no assistance could be received from the NAVAL installation. The required guards were furnished by the 654th AC&W Squadron.

GOLDBERG/264

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C O P Y

OFFICE OF THE AA REPRESENTATIVE  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

1 December 1954

SUBJECT: Monthly Activities Report (November)

TO: Commanding General  
Eastern Army Antiaircraft Command  
Stewart Air Force Base  
Newburgh, New York

1. During the period of this report, the following units were visited:

Hq Eastern Army Antiaircraft Command  
Hq 1st Antiaircraft Regional Command  
Hq 15th AAA Group  
515th AAOD  
AA Controller Detachment and 762d AC&W Squadron  
Hq 2d AAA Group  
56th AAOD  
AA Controller Detachment and 763d AC&W Squadron

2. Lt. Col. Anderson, G3, 1st Antiaircraft Regional Command, informed me that Major General Burnell desired to have the direct line from my station to his headquarters placed on a full period talk status. Since this line is only activated during major exercises or emergencies, it is very difficult for me to keep the 1st Antiaircraft Regional Command up to date on the current situation. I discussed the question with the Director, Communications and Electronics, this headquarters. He stated that the Air Defense Command was the approving authority to activate this line. He suggested that a formal request be sent direct to Headquarters Eastern Air Defense Force by the Commanding General, 1st Antiaircraft Regional Command. I forwarded this information to Lt Col Anderson by telephone (through Colonel Deems).

3. The matter of possible re-siting of A/N TFS-1D's of the 2d AAA Group was discussed with the Commanding Officer and S-3 of the 2d AAA Group and the Commander, 762d AC&W Squadron, as directed by Colonel Smith. The Group has one radar which could be loaned to the AC&W Squadron providing they operate and maintain it. Major Kallman, Commander, 762d AC&W Squadron, said he would like to have it but does not have sufficient personnel. The AAA states that these radars are required by their battalions in order to operate successfully during sector control. Further, they do not have the extra operating and maintenance

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C O P Y

Office of the AA Rep, 32d AD(D) Subject: Monthly Activities Report  
(November), 1 December 1954

personnel which would be necessary were these radars sited as requested. Finally, it appears that, due to the NIKE program, surveillance sites are subject to possible changes. In view of these facts, I do not believe it would be feasible at this stime to carry out the suggestions of the Operations Officer, 762d AC&W Squadron.

4. At the request of the Deputy for Operations, this headquarters, I have written a short article on the problems of "Conveys" and a possible solution for presentation to the Operations Officer, Headquarters EADF, who is expected to visit here shortly. (Copy will be forwarded). The Commander of this division is very much concerned with early warning notification to AAA defenses.

5. a. On 24 November, I received a report from the Division Provost Marshal concerning the breakdown of a civilian truck loaded with 75-mm ammunition for Loring AFB. I passed this information to Boston AAOC requesting that the S-3 be informed.

b. At 1600 hours the same day, I received a call from a Major Lutz, 654th AC&W Squadron at Brunswick, Maine, stating that the truck was parked at State Fair Grounds in Lewiston, Maine. He said it required a bearing which could not be delivered before Sunday. A state law would not permit its movement without an escort. The driver was attempting to have a guard furnished by the U. S. Navy at Brunswick (who refused to do so initially) to replace one which had been furnished by the Air Force. I asked Major Lutz to notify the Commanding Officer, 548th AAA Battalion at Loring AFB of the situation, and suggested he inform the driver to request Maine State Police protection meanwhile. I then notified Lt. Harrington at Boston AAOC of the situation. Major Lutz was unable to contact the 548th, so I forwarded the message through the ADCC.

c. On 26 November, I received a long distance call from Mr. Earl Kwaak, representing the Smith and Solomon Trucking Company. He had been with the truck in question. He said the truck had arrived at Limestone that day. He told me that the truck was escorted by a Mr. Joseph Flynn, Commissioner of Insurance, State of Maine up to the time it broke down. Then Mr. Flynn notified him no escort could be furnished before Sunday, 28 November because of the holiday and weekend. Mr Kwaak argued, however, and then Mr. Flynn agreed to furnish the escort.

d. Mr. Kwaak said the truck was parked in the State Fair Ground less than 500 feet from a residential area until it was finally moved. He did have a State Trooper guarding it forawhile until he was removed by orders from Augusta.

C O P Y

Office of the AA Rep, 32d AD(D) Subject: Monthly Activities Report  
(November), 1 December 1954

e. Mr. Kwak stated definitely that the Navy at Brunswick refused initially to furnish any guard because they said it was an Air Force matter.

f. He praised Major Lutz and Captain Synncoop very highly for the excellent cooperation given during his difficulties. It appears that they were responsible for posting a guard on his vehicle. I should say that Mr. Kwak was a very angry man due to the way he was treated by various agencies.

g. A copy of the Provost Marshal's report is attached. I suggest that a letter of appreciation be sent to the Air Force officers mentioned, through this division, for the excellent manner in which they cooperated. An extra copy of the IM report is attached for the U.S. Navy Liaison Officer at Headquarters EADF, as requested.

6. a. A message from Headquarters EADF requesting information on AAA tracking missions was received at this headquarters. Headquarters EADF is conducting a study on amount, frequency and utilization of all missions provided by this division and the 4713th Radar Evaluation (ECM) Flight in order to determine firm date on past accomplishments and methods of providing and scheduling training required to satisfy future requirements of EASTARAACOM.

b. At the request of the Fighter Operations section, I asked the S-3's of both AAA defenses to submit information and comments relative to this matter. FO section has also requested compliance from the Air Defense Wings in this area. AAA units have complied as of 1 December.

Atchmt

JAMES N. LEWIS  
Lt Col., GS  
AA Representative

C O P Y

OFFICE OF THE AA REPRESENTATIVE  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

4 January 1955

SUBJECT: Monthly Activities Report (December)

TO: Commanding General  
Eastern Army Antiaircraft Command  
Stewart Air Force Base  
Newburgh, New York

1. During the period of this report, the following units were visited:

Hq 35th AAA Brigade  
Hq 19th AAA Group  
Hq 3d AAA Group  
AAA Controller Detachment & 647th AC&W Squadron  
AAA Controller Detachment & 771st AC&W Squadron  
Hq 503d AAOD  
Hq 179th AAOD

2. My inspection trip with Lt. Col Deems was very informative and gave us an opportunity to exchange information. We were able to discuss matters of mutual importance and exchange ideas concerning our visits.

3. I attended the 32d Air Division (Def) Commanders' Conference at this station on 9 - 10 December.

4. The O&T section at this headquarters has been studying its role of supplying tracking missions to our AAA units. They feel that we are getting more than the 6-hour minimum, as set forth in paragraphs 4a and 6, Training Memorandum No. 7, your headquarters, dated 20 April 1954, and that there is a duplication of effort. However, our own units feel they are not getting sufficient additional missions strictly in accordance with TM No. 7. A check by the Boston and Niagara Falls AAOC's for approximately one week showed less than 6 hours over each site. The Division is drafting a letter to Headquarters EADF setting forth details and requesting that B-47 type aircraft be provided for these missions by another USAF agency.

5. Information received from Boston and Niagara Falls AAOC's relative to the December ARAACOM exercise indicates slight improvement

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C O P Y

Office of the AA Rep, 32d AD(D), Subject: Monthly Activities Report  
(December), 4 January 1955

over the previous mission. A copy of this information is being  
forwarded separately.

JEAMES N. LEWIS  
Lt Colonel, GS  
AA Representative

COPY

AA-OP-ERUS  
Memorandum of  
Agreements  
Part II

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

HEADQUARTERS  
ARMY ANTI-AIRCRAFT COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

15 July 1952

MUTUAL AGREEMENT FOR THE AIR DEFENSE OF THE UNITED STATES

3. OPERATIONAL CONCEPTS:

a. At each echelon of the Air Defense Command, which will exercise operational control over army elements, an Army officer with an Army Staff section of appropriate size will serve as the anti-aircraft element on the staff of the respective air defense commander. The Army officer will, in addition, serve as the principle anti-aircraft advisor to the air defense commander concerned.

4. RESPONSIBILITIES - AIR DEFENSE COMMAND:

m. Provide necessary wire circuits between AA Operation Centers and appropriate Air Defense Command agencies and supply the radio back-up equipment at the Air Force end of the circuit as well as the necessary operating frequency.

n. Provide space for use by AA representatives furnished in accordance with paragraph 3a.

5. RESPONSIBILITIES - ARMY ANTI-AIRCRAFT COMMAND:

a. Ascertain the requirements of the Air Defense Command for Army participation in air defense and take appropriate action to fulfill these requirements.

g. Provide anti-aircraft advisers at appropriate echelons of the Air Defense Command.

l. Provide necessary equipment at each Anti-aircraft Operations Center to complete the radio back-up nets between Anti-aircraft Operations Center and appropriate Air Defense Command agencies, and furnish the teller personnel necessary to operate the terminals of these nets at both the Air Defense Command agencies and the Anti-aircraft Operations Centers.

Incl #1

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C O P Y

AA-OP-ERUS  
Memorandums of  
Agreements  
Part II

HEADQUARTERS ADC

HEADQUARTERS AA COMD

m. Present to the Department of the Army requirements from the Air Defense Command and support which cannot be met from resources available to the Army Antiaircraft Command.

B. W. CHIDLAW  
General, USAF  
Air Defense Command

JOHN T. LEWIS  
Lieutenant General, USA  
Army Antiaircraft Command

"A CERTIFIED TRUE COPY"

ALLEN C. DURGEN  
Captain, USAF

C O P Y

HEADQUARTERS  
EASTERN ARMY ANTI-AIRCRAFT COMMAND  
Stewart Air Force Base  
Newburgh, New York

EAAC-OPR 210.4

12 Feb 1954

SUBJECT: Letter of Instruction

TO: Lt Col James N. Lewis  
AAA Representative  
32d Air Division (Defense)  
Hancock Airport Eastwood Station 6  
Syracuse, New York

\* \* \* \* \*

1. d. Insure by frequent inspections that antiaircraft personnel who are on duty at Air Defense Direction Centers within the 32d Air Division (Defense) area, comply with pertinent policies and directives of this command and determine the adequacy of personnel and directives for the effective performance of the antiaircraft defense mission.

\* \* \* \* \*

BY COMMAND OF BRIGADIER GENERAL MEYERS:

Copies furnished  
2 - 56th AAA Brig  
2 - 32d Air Div (Def)  
2 - Comdr, Eastern Sea  
Frontier  
2 - EADF  
2 - First Army

RICHARD H. COMSTOCK  
Colonel, GS  
Chief of Staff

"A TRUE EXTRACT COPY"

ALLEN C. DURGIN  
Captain, USAF

Incl #2

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OPR

11 Dec 1954

SUBJECT: Procurement of Army Antiaircraft Personnel

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Reference is made to inclosures 1 and 2 which delineate Air Force and AAA responsibilities relative to joint operations in the Air Defense Mission.
2. This headquarters has complied with the responsibilities attributed to Air Defense Command Units in that spaces and facilities have been made available to AAA Personnel.
3. AAA has provided a Liaison Officer in the grade of Lieutenant Colonel. The liaison officer in specific compliance with inclosure 2 and in the normal performance of his duties is absent from this headquarters on the average of 50% of normal duty hours. In his absence the AAA liaison function and AAA communications terminals located in the ccc must be manned as an additional duty by airmen of the CQC during routine operation and requires the detailing of three airmen on a full time basis during exercises. This condition has the following adverse effects on the mission of this headquarters.
  - a. The commander is deprived of AAA liaison advice over one half the operational period.
  - b. AAA Staff matters that arise in these periods must be deferred pending return of the liaison officer or be acted on by Air Force personnel who are not experienced in AAA operations.
  - c. Necessity to cover AAA communication lines with airmen aggravates an already critical personnel situation within the CQC.
4. It is urgently requested that your headquarters contact proper authority to procure the following AAA personnel for assignment to this

C O P Y

Hq 32d AD(D) OPR Subject: Procurement of Army Antiaircraft Personnel  
headquarters to afford continuous coverage of the AAA Liaison function  
in support of the Air Defense Mission.

one (1) M/Sgt 1502  
one (1) SFC 1510

FOR THE COMMANDER:

2 Incls:

1. Eastern AAA Command  
1 Apr 53, AA-OP-EHUS,  
Extract of Part II
2. Extract Ltr, Eastern  
AAA Command, 12 Feb  
54, Subj: Ltr of Instr

EVERITT W. HOWE  
Major, USAF  
Adjutant

SECRET

COPY

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OCAA

20 Aug 54

SUBJECT: Supplement to SCATER - Tactical Military Flights (Uncl)

TOL Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Reference:

- a. EADF letter, same subject, file EA0CT-08, dated 20 May 1954.
- b. EADF 2d indorsement dated 1 July 1954, file EA0CT-08, to EADF secret letter, subject: (Uncl) SCATER - MATS Requirements for Air Navigation Aids During a Military Emergency, dated 25 February 1954.

2. As prescribed in reference "a", inclosed are two (2) copies of supplement to 32d-SCATER - Tactical Military Flights, and attachments thereto, for the Boston and Cleveland ARTC Center areas. Seven (7) copies of the inclosure and a copy of this letter have been forwarded to Headquarters, ADC.

3. Navigation aids listed in the attachments are as requested by the major commands concerned, except as follows:

- a. Utica EMRLZ, requested by MATS, is omitted as authorized by paragraph 1.e of reference "b".
- b. Manchester SBRAZ, requested by MATS and SAC, is non-existent and was omitted as authorized in paragraph 1.e. of reference "b". In lieu thereof, the Manchester MH has been substituted. At the present, this aid is unattended and must be manually controlled. However, the Base Commander, Grenier AFB, and the Director of Aeronautics, State of New Hampshire (operator of the aid), have established plans to remotely control this aid from the Grenier Tower. At that time, this aid can be made available. A note to the effect that the aid is not available until remotely controlled by the Grenier Tower is contained in the Boston ARTC Center area attachment to the inclosure.

c. Squantum MRLWZ, requested by the Navy, is omitted, as this aid is remotely controlled in a cluster of other aids. To turn this aid on and off, as may be required, would result in the other aids in

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C O P Y

Hq 32d Air Div (Def) OCAA Subject: Supplement to SCATER - Tactical  
Military Flights (Uncl)

the cluster, which are not required for tactical purposes, to be turned on and off simultaneously.

d. The Nantucket HHW, requested by AMC, has been omitted. In view of the fact that this station provides a signal service area of approximately 2000 miles, it is not considered to be a desirable aid to be left on. Otis AFB MH has been substituted in lieu thereof.

e. Boston SBRAZ, requested by MATS, has been omitted. The MATS request listed this aid as a "miscellaneous aid". In view of its proximity to a critical target area, it is not considered desirable that the aid be made available.

4. It is recommended that the major commands concerned be notified of the procedures contained in the inclosure; particularly the changes, as outlined above, in their requested list of aids.

5. The aids listed in the attachments will be made available, as specified in the inclosure, until such time a consolidated single list of aids, as outlined in paragraph 1.g of reference "a", is received.

FOR THE COMMANDER:

1 Incl:  
Memo fr ADLO, 32d AD(D)  
dtd 19 Aug 54, subj:  
Suppl to 32-SCATER -  
Tactical Military Flights  
(Uncl) w/2 atchmts (2 cys ea)

EVERITT W. HOWE  
Major, USAF  
Adjutant

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C O P Y

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON 25 D.C.

AFOOP-OC-FL

28 Jul 1954

SUBJECT: Air Traffic Control

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base, New York

1. This Headquarters advised all major commands of the increase in air traffic control problems associated with jet operations in a series of three communications:

- a. Letter, subject: "Control of Air Force VFR Operations" dated 1 August 1952 (only to EI Commands).
- b. Letter, subject: "Air Traffic Control Procedures" dated 9 April 1954.
- c. TWX, AINAJCIMS 522/54, 8 April 1954

Each of the above stressed the extreme importance of taking every step possible to eliminate the probability of mid-air collision. To assist in realizing this goal the implementation of a program of Air Traffic Control improvement at each Air Force Base was directed.

2. In order that the importance of this program may again be brought to the attention of all concerned, this Headquarters desires to inform commanders of the following Air Force projects that are in being or under development to assist them in establishing safer and more expeditious methods of handling air traffic:

- a. A plan to establish an Air Traffic Control Section within the Directorate of Operations is presently under consideration. It is anticipated that this section will study, coordinate and advise on all matters pertaining to Air Traffic Control.
- b. Highly qualified civilian Air Traffic Control specialists have been hired for EI AACS Wings and Groups. These personnel are available as consultants to base commanders for assistance in all Air Traffic Control problems and procedures.
- c. Negotiations are in progress with the CAA to provide Air traffic control specialists for 15 selected EI locations on a test basis.
- d. Air Force membership on each Regional Air Space Subcommittee is to be made a full time duty for a senior Headquarters USAF Officer experienced in jet operations.

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C O P Y

e. A two week executive type Air Traffic Control course has been established at the CAA Training Center at Oklahoma City for indoctrination of Air Forces personnel with general Air Traffic control problems and procedures.

f. A program has been undertaken to familiarize CAA traffic control personnel with jet operations and problems.

g. Recently separation and clearance criteria for instrument approach procedures were reduced. These changes will be reflected in the AWC publications: "Criteria for standard Instrument Approach Procedures."

h. Within two years there will be 68 Radar Approach Control Centers (RAPCONS) established at Air Force Bases. These will provide more positive approach and departure control by use of a specially designed radar equipment and thoroughly trained personnel.

3. For general information and guidance, the following are longer range programs:

a. The TACAN (Tactical Control and Navigation) system is programmed for implementation in 1957. This system will provide a tactical and airways navigational capability with static-free azimuth and distance information.

b. VOLSCAN (Volumetric Scanning) if proven operationally suitable will be employed in the RAPCONS. This system will automatically position a number of mixed aircraft types in an Airdrome Control Zone in proper sequence and will control them to the final approach gates to permit touchdown at 30 second intervals.

c. The operation of high altitude traffic control centers has been under discussion between Headquarters AACS and the CAA. It is envisaged that there should be but four or six associated centers with a system of periphery radio communications to control all traffic above 25,000 feet.

4. The above projects are only a part of a large program being conducted by governmental and independent aviation agencies. While this work is uncessing it still remains the responsibility of the using agencies to avail themselves of what is already at hand. Complacency because of the present low Air Force accident rate cannot be tolerated. Each commander must continue his efforts to profitably utilize the electronic aids and control procedures that are available.

5. A tightening of air discipline must be effected. VFR and simulated IFR traffic must be more closely regulated. In keeping with

C O P Y

this policy it is desired that every commander review the letter of 1 August 1952. Any previous action taken as a result of the directives contained therein should be revised or reconsidered in light of changes in facilities, field conditions or the more liberal criteria now authorized.

BY ORDER OF THE CHIEF OF STAFF:

R. E. KOON  
BRIGADIER GENERAL, USAF  
Deputy Director of Operations, DCS/O

COPY

Hq USAF AFOOP-OC-FL Subject: Air Traffic Control

EAOOT-SF (28 Jul 54) 1st Ind 12 August 1954

Hq EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Basic letter and enclosures are forwarded for your information and necessary action. Specific attention should be given to paragraphs 4 and 5 of basic letter.

2. Enclosures attached comprise the series of communications referred to in paragraph 1 of basic correspondence.

BY ORDER OF THE COMMANDER:

3 Incls:

1. Ltr, USAF  
AFOOP-FL,  
Subj: Con of AF  
VFR Oprs, 1 Aug 52
2. Ltr, USAF  
AFOOP-OC-FL,  
Subj: Air Traffic  
Con Procedures,  
9 Apr 54
3. Msg, ADC,  
ADOOT-C 12779,  
20 Apr 54

JOHN L. WARREN  
Colonel USAF  
Actg Vice Commander

C O P Y

Hq USAF AFOOP-OC-FL Subject: Air Traffic Control

OCT-FO (28 Jul 54) 2nd Ind 18 Aug 54

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Defense Wing, Presque Isle AFB, Presque  
Isle, Maine

For your information and necessary action.

BY ORDER OF THE COMMANDER:

3 Incls  
n/c

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
Washington 25, D. C.

AFOOP-FL

SUBJECT: Control of Air Force VFR Operations

TO: Commander General  
Air Defense Command  
Ent Air Force Base  
Colorado

1. This Headquarters has become seriously concerned with the number of air collision accidents occurring during VFR operations, particularly in the vicinity of airports. It is apparent that present procedures governing VFR flight, especially in congested areas, require modification to meet the requirements of modern high speed aircraft and the increasing volume of air traffic.

2. Member agencies of the Air Coordinating Committee have recognized this problem and are attempting to determine workable revisions to present safety standards, and air traffic control procedures which will improve air safety, particularly during VFR operations. In participating in the ACC consideration of this problem, the Air Force is pressing for an early decision which will permit effective control of VFR traffic in congested areas. The possibility exists that an attempt to control military traffic in VFR conditions in an area where civil air traffic is predominant and uncontrolled would result in danger to the controlled element; therefore, it is not recommended that control in such areas be attempted.

3. In the interim it is desired that Air Force Base Commanders take the initiative to establish agreements on a local basis with the CAA and other aviation agencies which will minimize the possibility of air collisions under VFR conditions. Agreements such as designated approaches and departures to and from airports, and the establishment of local training areas, remote from other traffic when practicable, can help improve the safety of VFR operations. Such arrangements should be publicized locally by both civil and military agencies for the information of all pilots and transmitted to transient aircraft by tower operators. In consonance with such arrangements as are agreed upon, and with due consideration of the proportions of civil and Air Force traffic in the areas, it is desired that Air Force Base Commanders establish as great a degree of control of Air Force VFR operations as is feasible in the local area.

Incl #1

C O P Y

AFOOP-FL Subject: Control of Air Force VFR Operations

4. It is desired that a general tightening of air discipline be implemented and this Headquarters directs that you take action to regulate and control VFR traffic at your stations where military traffic is predominant.

BY COMMAND OF THE CHIEF OF STAFF:

R. M. RAMEY  
Major General, USAF  
Director of Operations, DCS/O

C O P Y

DEPARTMENT OF THE AIR FORCE  
Washington 25, D.C.

AFOOP-OC-FL

9 April 1954

SUBJECT: Air Traffic Control Procedures

TO: Commander  
Air Defense Command  
Bnt Air Force Base  
Colorado Springs, Colorado

1. As the number of jet aircraft in the Air Force inventory continues to increase, the problems associated with Air Traffic Control will become untenable unless steps are taken to develop adequate procedures to handle them. The capabilities and limitations of jet aircraft are not yet understood by all agencies responsible for air traffic control, or unfortunately, by all senior Air Force officers. Traffic control procedures which were developed for conventional, propeller-driven aircraft with comparatively slow speeds, low altitudes of operation, and relatively no limit on the time element are entirely inadequate for jet operations. Each echelon of command must be made aware of this fact, and must assist in the development of procedures that will be adequate for jet operations, yet sufficiently flexible to incorporate conventional traffic into the system.

2. This headquarters is attempting to provide a solution to this problem by working with the Civil Aeronautics Administration and other users of the air space. Action has been initiated to revise the Air Force-Navy Civil manuals "Criteria for Standard Instrument Approach Procedures" and "Procedures for the Control of Air Traffic". Existing traffic separation standards will be reviewed with the thought in mind of reducing them in order to increase the amount of traffic in the controlled airspace. Radar traffic control procedures are being developed which will materially reduce the problem.

3. Pending the development of adequate procedures on a national scale, local commanders must assist in alleviating the current problem by:

a. Improving local terminal area procedures through negotiation with Air Traffic Control Centers and other local users of the airspace.

b. Utilizing to a greater extent, and listening to the professional advice of qualified air traffic control personnel available to them through their AACS units.

Incl #2

C O P Y

c. Developing, in coordination with AACS, expedited traffic control procedures for their tactical missions, and then converting these procedures insofar as possible to itinerant operations into their bases. Headquarters, AACS, has developed expedited procedures for one major command. These procedures are available and can be utilized by all commands in solving their tactical traffic control problem.

4. Request that the importance of this matter be brought to the attention of your subordinate commanders, and that action be initiated in accordance with paragraph 3 above. Further request that your comments and recommendations concerning solutions to the over-all jet traffic control problem be forwarded to this Headquarters.

BY ORDER OF THE CHIEF OF STAFF:

R. M. RAMEY  
MAJOR GENERAL, USAF  
Dir of Oprs, Office of  
Deputy Chief of Staff, Operations

C O P Y

FM COMDR ADC ENT AFB COLO  
TO JEPNB/COMDR EADF STEWART AFB NY  
JEDKCF/COMDR CADF MO  
JWFMC/COMDR WADF HAMILTON AFB CALIF  
JWFOY/COMDR 4750TH TNG WG YUMA CNTY APBT ARIZ  
ZEN/COMDR 4600TH ABG ENT AFB COLO  
ADCOOT-C 12779. FOL HQ USAF MSG AFOOP-OC-FL AINAJCOMS 522/54, 8 APR  
54, QUOTED FYI AND NEC ACTION: "RECENT MID AIR COLLISIONS INVOLVING  
VISUAL FLT RULE ACFT PRACTICING SIMULATED INST FLY MAKESIT NEC THAT  
POSITIVE ACTION BE TAKEN TO REDUCE THE HAZARD TO SIMULATED INST TNG  
ACFT. REQ THAT ACTION BE TAKEN TO: (A) REQUIRE ALL PILTS OF YOUR COMD,  
WHEN FLY SIMULATED INST UNDER VFR COMD, TO CONTACT THE APPROPRIATE  
TRAF CON AGENCY FOR: PRIOR TO UTIL A RAD PAC IN CONTROLLED AIRSPACE,  
AND (B) INDOC ALL PILTS IN THE FACT THAT AN IFR FLT PLAN PROTECTS AND  
PROVIDES THE ACFT FR VFR TRAF, AND IT IS THE PILTS RESP WHEN FLY IN  
VFR COND EVEN THOUGH OF AN IFR FLT PLAN TO AVIOD COLLISION W/OTHER  
ACFT. AS AN ADDLSAFETY ACT, THIS HQ PROPOSES THAT THE POLAROID  
OR PLASTIC INST HOOD THAT IS ATTCH TO THE WINDSHIELD AND CRPT  
WINDOWS NOT BE USED, AND THAT THE WELDERS TYPE HOOD OR OTHER SUITABLE  
HOOD THAT DOES NOT REST THE SAFETY OBSR VIEW BE USED INSTEAD.  
20/2008Z APR JEDEN

Incl #3

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STANDARD FORM NO. 64

*Office Memorandum* • UNITED STATES GOVERNMENT

TO : Chief Controller, Boston ARTC Center

DATE: 12 November 1954

FROM : CAA ADLO, 32d AD(D)

SUBJECT: Handling of ADIZ Flight Movement Information

To conform with ADC Regulation 55-12, Identification of Air Movements, the 32d Air Division (Defense) requests that the following procedures replace those contained in my memorandum dated 18 November 1952 and supplements thereto as of 0001Z, 1 December 1954:

1. Use the following "Correlation Points" and "Correlation Lines" for computing and passing flight movement data required for flight plan correlation:
  - a. Outer Correlation Points: Sterling; Ottawa; Montreal; Roxton; Megantic; Quebec City; Mt. Joli; Fredericton; Saint Johns; Yarmouth; Mackerel 1; Dogfish 1; Guppie 1; Flounder 1; Bowfin 1 and Skats 1 reporting points.
  - b. Outer Correlation Line: A line extending between the Outer Correlation Points via the western boundary of Canadian Control Channel No. 11 and the Nantucket-Azores and Nantucket-Bermuda MCIS Outer Reporting Lines.
  - c. Inner Correlation Points: Watertown; Massena; Plattsburg; Burlington; Kakadjo (or Millinocket); Presque Isle; Limestone; Houlton; Orient; Topsfield (or Bangor); Bangor; Lurcher; South Bangor; Pike 1; Bel; Mackerel 2; Dogfish 2 (or Cod); Guppie 2; Flounder 2; Bowfin 1 (or Seal) and Skats 2 reporting points.
  - d. Inner Correlation Line: A line extending between the Inner Correlation Points.
  - e. Where point of departure or "turn around" for round-robin or "abort" flights is located along or on the inner side of the Outer Correlation Line, the airport of departure or reporting point nearest which turn-around is effected will be considered as the Outer Correlation Point, and the next reporting point along route of flight will be considered as the Inner Correlation Point.
2. Flight movement information shall consist of the following and be passed to ADDC's in the order listed:
  - a. Aircraft Identification (company abbreviation and trip number or registration, as appropriate).

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To: Chief Controller, Boston ARTC Center

12 November 1954

- b. Type of Aircraft (and number, if in formation).
- c. Airport of Departure.
- d. Route (that portion from Outer Correlation Line to first reporting point after leaving ADIZ).
- e. Destination.
- f. Pilot's and AMIS' estimates at Outer Correlation Point (see Note 1).
- g. Altitude.
- h. Estimated Ground Speed (in knots).
- i. Pilot's reported time over Outer Correlation Point and pilot's and AMIS' estimate over Inner Correlation Point (see Note 1).
- j. Any amendments to the above occurring after initial information has been passed.

(NOTE 1: Where the airport of departure or "turn-around point" is used as the Outer Correlation Point, the time of departure or turn-around is to be passed in lieu of estimates. Where the route of flight does not pass over a Correlation Point, aircraft's estimated time of crossing the Correlation Line in relation to the nearest Correlation Point will be used; i.e., "ESTIMATED OUTER (or Inner) CORRELATION LINE (number of miles) (direction) OF (name of Outer (or Inner) Correlation Point)". Pilot and AMIS estimates are to be passed as "PILOT ESTIMATES (name of Correlation Point) AT (time). AMIS ESTIMATE IS (time)."

3. Provide flight movement information for all known aircraft penetrating and/or operating in the Bangor Domestic ADIZ, and within that portion of the International Boundary and Atlantic ADIZ's within the 32d Air Division (Defense) Sector as follows:

- a. Information for aircraft departing from within or penetrating the Bangor ADIZ and operating on a course between 270° and 90° true (clockwise), and aircraft proceeding "outbound" from the United States via the International Boundary or Atlantic Ocean ADIZ's will be passed to ADDC's only upon request.
- b. Information for aircraft penetrating the United States from Canada or via the Atlantic Ocean ADIZ, or aircraft penetrating and/or

To: Chief Controller, Boston ARTC Center

12 November 1954

operating in the Bangor ADIZ on a course between 90° and 270° true (clockwise) will be passed only to the ADDC within whose subsector aircraft will initially penetrate or operate. Amendments to flight plane occurring after initial information has been forwarded will be passed to the ADDC within whose subsector the amendment will be effective. Information for those aircraft departing, or amendments occurring, from points along or on the inner side of the Outer Correlation Line will be passed as soon as practicable after receipt. Information for aircraft penetrating via the Outer Correlation Line will normally be passed approximately ten (10) minutes prior to the estimated time over the Outer Correlation Line. Where the information is not available to permit passing within the desired ten (10) minute limit, it will, of course, be passed as soon as practicable after receipt.

4. Post pertinent movement information for those movements listed in 3.b at Correlation and/or other reporting points along or adjacent to the route of flight within the ADIZ so that current information will be immediately available to an ADDC if required. Pertinent information for those movements listed in 3.a need be posted only at minimum reporting points required to provide current information immediately if requested by an ADDC. (NOTE: Reference paragraph 13, SCAT MANOP, information relative to movements listed in 3.a is desirable of the air division; therefore, operations should be counted in the same manner as for movements listed in 3.b).

5. Information for aircraft operating outside of an ADIZ but within the Center's area of responsibility whose actions are considered to be suspicious by an ADDC will be passed to an ADDC upon request when information is available and Center workload and personnel permit.

6. Periodically, the ADCC may, for the purpose of testing the detection and/or identification capabilities of one or more ADDC's, request that movement information for penetrating military aircraft be withheld from an ADDC and passed directly to the ADCC. Replies to queries from an ADDC on such movements will be negative until specified by the ADCC.

7. Assist in the processing of alleged violations of ADIZ's as prescribed in paragraph 4.c, ADR 55-24 - Procedures for Processing Alleged Violations of Identification Zones and/or Airspace Reservation Regulations - dated 12 October 1954. (Copies have been forwarded by separate cover). When a violation is indicated after coordination specified in paragraph 4.b.(c) of this regulation, assign a violation reference number. A separate series of violation reference numbers should be maintained for each Air Division (Defense) with which the Center is associated. Violation Reference No. 1 should be assigned to the first alleged violation to occur after these procedures are implemented.

To: Chief Controller, Boston ARTC Center

12 November 1954

8. When an ADDC reports that an Incident Report is being filed because of malfunctioning of these flight movement passing service procedures, accumulate and hold in abeyance all pertinent information so that it may be correlated with the Incident Report when received from this office.

The New York Center is being provided with a copy of this memorandum and requested to provide the services listed herein to the 762d AC&W Squadron for those movements penetrating that portion of the Atlantic ADIZ within the division's sector of responsibility from the New York Oceanic Control Area.

Coordination should be effected with the adjacent Canadian ATC Centers for providing flight movement information for those aircraft penetrating from Canada so that it may be passed to the ADDC as prescribed in paragraph 3.b. Arrangements should also be made with the Canadian Centers to signal the appropriate ADDC by voice call, where interphone circuits have been provided for that purpose, so that the ADDC may receive the movement information simultaneously with it being passed to AMIS.

The division is providing each AC&W Squadron with a copy of this memorandum and the following information and instructions:

1. Flight movement information for movements listed in paragraphs 3.a and 5 will not be requested by an ADDC unless the actions of such aircraft are considered suspicious.
2. Flight information passed by ARTC Centers (AMIS) will contain speed in knots; time in GMT, and distance in statute miles—except for oceanic operations, distance will be in nautical miles.
3. Queries to ARTC Centers (AMIS) relative to aircraft movements shall be held to a minimum commensurate with the identification of required targets, processing of alleged violations as prescribed by ADGR 55-24, and reporting of malfunction of the flight information passing service.
4. Queries relative to aircraft movements within Canada will not be directed to the Canadian ATC Center, but will be directed to the adjacent Canadian ADDC or associated U. S. ARTC Center. Queries relative to air movements within the U. S., adjacent coastal waters, and New York Oceanic Control Area will be directed to the appropriate U. S. ARTC Center.
5. When flight plan information is not received, received late or incomplete and/or other malfunctions of the flight information passing service are encountered by an ADDC, the ADDC will notify the appropriate U. S. ARTC Center (AMIS) of the pertinent information and to the effect that an Incident Report is being filed.

To: Chief Controller, Boston ARTC Center

12 November 1954

6. The alleged violation number assigned by the ARTC will be passed by the ADDC to the ADCC with other pertinent information prescribed in paragraph 4.b.(3).(a), ADG Regulation 55-24.

7. Estimated ground speeds, as submitted by AMIS, are based on previous position reports normally to reporting points preceding the time the flight movement information is passed to the ADDC. Therefore, ADDC's must utilize the reported time over the Outer Correlation Point and the estimated time over the Inner Correlation Point to determine a current estimated ground speed.

8. Both the pilot and AMIS estimates over or in relation to correlation or other appropriate reporting points should be used to determine time tolerances, and such tolerances should be predicated on the estimate time nearest to the aircraft's relative position.

9. Aircraft operating across that portion of the U. S./Canadian boundary for which no International Boundary ADIZ is established at altitudes not above 4000 feet above the immediate terrain are not required, by regulations, to file a VFR or DVFR flight plan. Therefore, there may be many operations within this area which will require identification for which AMIS will not have any flight movement information.

10. ADDC's having receiver drops on the Boston-Montreal or Boston-Moncton interphone circuits will normally be requested by the Canadian Center to monitor movement information as it is being passed to Boston. Acknowledgment of receipt of such information by the ADDC is required. This acknowledgment will eliminate the necessity of AMIS repassing the information.

The revised subsector boundary chart forwarded with my memorandum dated 28 May 1954 is still current.

cc: New York Ctr



O. B. TOMLIN  
NY-396B

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OCT-A

SUBJECT: Letter of Transmittal

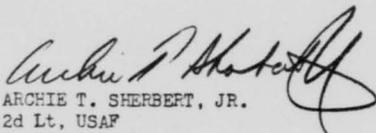
TO: Commanders, All AC&W Squadrons and Fighter Squadrons

The inclosed letter from the Chief, Technical Services and Planning Branch of the Civil Aeronautics Administration is forwarded for your information.

BY ORDER OF THE COMMANDER:

1 Incl:  
a/s

Info:  
Air Defense Wings

  
ARCHIE T. SHERBERT, JR.  
2d Lt, USAF  
Asst Adjutant

226 2

1928

DEPARTMENT OF COMMERCE  
CIVIL AERONAUTICS ADMINISTRATION  
REGION ONE  
New York International Airport  
Federal Building  
Jamaica, N. Y.

0-54-133(C)  
October 25, 1954

TO : A. O. D. Facilities, Region 1  
FROM : Chief, Technical Services and Planning Branch  
SUBJECT: Regulations of the Administrator, Part 620, Security Control  
of Air Traffic

During the recent Air Defense Liaison Officers' meeting at Norton Air Force Base, California, it was learned that the subject regulations are somewhat generally misunderstood in two important particulars:

1. Part 620 encourages all pilots to comply with DVFR requirements, regardless of altitude, even though aircraft entering or operating within an ADIZ at an altitude less than 4,000 feet above the terrain are not required to comply with the security rules. The emphasis placed on encouraging voluntary compliance apparently has caused many facility personnel to insist that civil pilots file DVFR, regardless of altitude. Any such misunderstanding should be corrected.
2. Our facility personnel are asking all pilots entering ADIZ's for estimated time of penetration even though both Part 620 and the companion military regulation clearly indicate that a routine position report with an estimate for the next reporting point is the normal and preferred procedure. It is the responsibility of AMIS personnel to prepare estimates required by Air Defense Command radar facilities based primarily on flight plan data, supplemented or corrected by position reports forwarded to the AMIS. An ETP forwarded by a pilot may or may not be useful to the ADC radar facility.

All personnel should be instructed to review Regulations of the Administrator, Part 620, and requested to stop soliciting ETP's on ADIZ operations.

- The elimination of the above-mentioned misunderstandings should greatly reduce congestion reported on many air-ground communications channels.

s/t/ H. W. Albrecht  
Chief, Technical Services & Planning Branch, NY-381

C OF Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-A

13 Nov 1954

SUBJECT: Handling of ADIZ Flight Movement Information

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Mass

Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Transmitted herewith for your information and dissemination are copies of CAA Memo containing instructions for processing of flight movements information for flights within an ADIZ.
2. Request all movements identification personnel of the ACW squadron be thoroughly briefed on contents of this memo.
3. Flight Plan correlation maps should be prepared to include all correlation points and correlation lines pertinent to the individual station, and provide for preplot of a minimum of fifteen minutes prior to reaching the correlation points or line.

BY ORDER OF THE COMMANDER:

1 Incl:  
CAA Memo  
(12 Nov 54)

ARCHIE T. SHERBERT, JR.  
2nd Lt., USAF  
Asst Adjutant

226 ?

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

COT-A

16 Nov 1954

SUBJECT: ✓ Combat Readiness Reporting (RCS: 1-ADC-V8)

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. It is requested that consideration be given to the advisability of recommending modification to ADGM 55-6.
2. To present a more comprehensive estimate of individual units' combat capability there should be an indication of:
  - a. Percentage of airspace within the ADIZ's with radar calibrated limits for high, medium and low altitude.
  - b. Flight Plan correlation rate.
  - c. Percentage of actual tracking time in relation to theoretical tracking time.
3. The above information could be incorporated into a revised ADC Form 75A.

FOR THE COMMANDER:

EVERETT W. HOWE  
Major, USAF  
Adjutant

227 0

1931

C O P Y

Hq, EADP EACOM SUBJECT: ✓ Combat Readiness Reporting (RCS: 1-ADC-78)

OCT-A (16 Nov 1954)

1st Ind

23 Nov 54

Hq, Eastern Air Defense Force, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. With respect to recommendations contained in paragraphs 2 and 3 basic communication, desire additional information and clarification of your recommendations as follows:
  - a. Paragraph 2. Provide an example in each case of the manner in which you recommend that the information be reported, method of computation, and indicate how your recommendations would add to the value of subject report.
  - b. Paragraph 3. Desire that you provide this hq a sample revised ADC Form 75A incorporating your recommended modifications.
2. Desire that you dispatch the additional information and clarifications requested in paragraph 1 above to reach this hq not later than 8 Dec 1954.
3. It is the policy of this headquarters to encourage recommendations which will improve existing combat readiness reports. Your efforts in this connection are fully recognized at this headquarters.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

HQ EADP, EADCS Subj: <sup>✓</sup> Combat Readiness Reporting (CRS: 1-ADC-78)

OOT-A (16 Nov 54)

2d Ind

7 Dec 1954

HEADQUARTERS, 320 AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Reference paragraph 2a of basic letter, percentage of ADIZ covered at high, medium and low altitudes would be reported on ADC Form 75 as shown in inclosed sample form. This percentage figure would be arrived at by estimating amount of coverage within ADIZ in each subsector at specified altitudes, i.e., 10,000, 24,000, 40,000 feet. The resultant figure would indicate station coverage and serve as an indication of areas where more search capabilities are necessary.

2. Reference paragraph 2b, flight plan correlation rate would be submitted on ADC Form 75 as shown in inclosed sample. Method of computation is as follows: flight plans correlated are divided by flight plans received to arrive at correlation rate. This resultant percentage figure gives an indication of the identification effectiveness of each ADDC.

3. Reference paragraph 2c, this procedure is generally known as quality control and could be incorporated into ADC Form 75 as shown in the sample form. The quality control figure is arrived at by dividing the actual pick-up range of a given target by the calibrated range for the same size target at the same altitude. When the resultant figure is below 85% this division considers that the set is not functioning satisfactorily. This percentage would be used on ADC Form 75A to indicate the general effectiveness of the radar. While percentages would change considerably due to weather, alertness of scope readers, etc., the percentages over a period of a month would give an average indication.

FOR THE COMMANDER:

1 Incl  
Sample, ADC Form 75

EVERETT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HQ, 32d Air Div (Def), OAT-A, Subject: <sup>✓</sup>Combat Readiness Reporting  
(RCS: 1-ADC-V8)

EACSM (16 Nov 54)

3d Ind

22 Dec 54

Hq. EASTERN AIR DEFENSE FORCE, STEWART AIR FORCE BASE, NEWBURGH, N. Y.

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado  
Springs, Colorado

1. Reference is made to recommendations by Commander, 32d Air Division (Defense) for modification of ADCM 55-6 and ADC Form 75 contained in basic communications and further clarification of those recommendations contained in 2d Indorsement and inclosure thereto.

2. In accordance with the expressed policy of your headquarters of encouraging constructive suggestions for improvements to ADCM 55-6, all suggestions are forwarded, along with comments or recommendations of this headquarters, to your headquarters for final consideration.

3. a. Reference paragraph 1, 2d Indorsement. It is recognized that some AC&W Squadrons are unable to search all of the portion of the ADIZ which lies within the sub-sector but in many cases these deficiencies are offset by the ability of other stations to cover those areas. Submission of the data in the method proposed will not indicate whether a certain area is covered by another station or not covered at all. Coverage of our radar installations is available at headquarters, Eastern Air Defense Force and Headquarters, Air Defense Command and should be just as available at division level. Superimposing radar coverage on a map which shows the ADIZs would provide the same information and is, in fact, available on call. Figures indicating individual station coverage do not necessarily reflect the effectiveness of the Air Defense system, particularly operating under the double perimeter concept. They are of value for planning purposes and have been considered in programming radar equipments to be added to our air defense system.

b. Reference paragraph 2, 2d Indorsement. Identification effectiveness of a specific squadron cannot be reflected in the flight plan correlation rate alone. This method of identification is only one of several which are provided to the AC&W Squadrons. If it is intended to report correlation effectiveness, it will first be necessary to eliminate the duplication which results when a single flight plan is received by more than one AC&W Squadron. The percentage of flight plans successfully correlated is also a measure of the efficiency of our CAA working agreements, adequacy of our communications circuits, and the ability of individual pilots to meet their time and distance

C O P Y

Hq, 32d Air Div (Def), OOT-A, Subject: <sup>✓</sup> Combat Readiness Reporting  
(HCS: 1-ADC-78)

ERCSM (16 Nov 54)

3d Ind (Contd)

requirements. Also to be considered are aircraft which do not meet flight plan correlation criteria, but which are identified through an IGLS maneuver or by VHF/DF contact (26th Air Division (Defense)). A better measure of the effectiveness of the air defense identification method is the running count of unknowns within EADF maintained by the COC.

c. Reference paragraph 3, 2d Indorsement. Viewed from a system effectiveness viewpoint, quality control figures do not appear to be a valid measure. Except at perimeter stations our direction centers can see far beyond the boundaries of their sub-sector under normal operating conditions. Even if a radar's performance falls below what we consider an acceptable level, maintenance-wise, the chances are good that detection capability in the air space over that sub-sector is still adequate from a system standpoint. Quality control figures are basically of interest to the people whose job it is to keep the radar at peak performance. As a measure of system's effectiveness, their use could be most misleading. Generally speaking, the recommendations in the basic letter do not appear to distinguish between measuring the effectiveness of the air defense system and measuring the performance of an individual station. There can be no question but that the performance of individual stations affect the capability of the air defense system. However, we believe that individual station performance can best be evaluated by special inspections and staff visits. Due to the complexity and the interdependence of the elements which make up an air defense system, it appears that measuring system effectiveness by adding up figures which indicate the effectiveness of individual components of that system in specific areas is as invalid as would be an attempt to evaluate the effectiveness of an individual component from the systems overall functioning.

4. This headquarters does not concur in the proposed changes to subject report for the reasons stated in paragraphs 3a, b, and c, above.

FOR THE COMMANDER;

1 Incl  
n/c

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

Hq 32d Air Div, OCE-A, Subj: Combat Readiness Reporting (RCS: 1-ADC-VB)

ADCEA ( 16 Nov 54)

4th Ind

25 Jan 1955

Headquarters Air Defense Command, Ent Air Force Base, Colorado Springs,  
Colo.

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, N.Y.

1. The interest of the 32d Air Division in Combat Readiness Measurement, as shown by their constructive suggestion, is commendable.

2. The changes suggested will not be integrated into the current Combat Readiness Reporting System for the reasons set forth in the 3rd Indorsement. The principles underlying the suggested changes, however, will be restudied for possible use in the next revision to the ADC Combat Readiness Reporting Manual.

BY ORDER OF THE COMMANDER:

W/d 1 Incl

JOHN J. RAYES  
CWO, USAF  
Asst Command Adj

EACFA (16 Nov 54)

5 th Ind

1 Feb 1955

HEADQUARTERS, EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh,  
N.Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

J.W. F.

COPY

DEPARTMENT OF COMMERCE  
CIVIL AERONAUTICS ADMINISTRATION  
REGION ONE  
New York International Airport  
Federal Building  
Jamaica, N.Y.

TO : A.O.D. Facilities, Region 1  
FROM : Chief, Technical Services and Planning Branch  
SUBJECT: International Aircraft Markings

0-54-121(B)  
September 23, 1954

The table below lists all official aircraft markings as prescribed by the various countries and ICAO. This list includes all nationality marks that have been formally notified to ICAO up to May 3, 1954. Any future amendments or modifications to this table will be issued as they become available.

Afghanistan	YA	Jordan	TJ
Argentina	LV	Korea Republic	HL
Australia	VH	Lebanon	OD
Austria	OE	Liberia	EL
Belgium	OO	Libya	5A
Bolivia	CP	Luxembourg	LX
Brazil	PP, PT	Mexico	XA, XB, XC
Burma	XY, XZ	Netherlands	PH
Canada	CF	Netherlands Antilles	PJ
Ceylon	4R	Surinam	PZ
Chile	CC	New Guinea	JZ
China (Taipei)	B	New Zealand	ZK, ZL, ZM
Columbia	HK	Nicaragua	AN
Cuba	CU	Norway	LN
Czechoslovakia	OK	Pakistan	AP
Denmark	OY	*Panama	HP
Dominican Republic	HI	Paraguay	ZP
*Ecuador	HC	Peru	OB
Egypt	SU	Philippine Republic	PI
El Salvador	YS	Poland	SP
Ethiopia	ET	Portugal	CS, CR
Finland	OH	*Saudi Arabia	HZ
France	F	Spain	EC
Greece	SX	Sweden	SE
Guatemala	TG	Switzerland	HB
Haiti	HE	Syria	YK
Honduras	XH	Thailand	HS
Iceland	TF	Turkey	TC
India	VT	Union of South Africa	ZS, ZT, ZU
Indonesia	PK	United Kingdom	G
Iran	EP	Colonies & Protectorates	VP, VQ, VR
Iraq	YI	United States	N
Ireland	EI, EJ	Uruguay	CK
Israel	4X	Venezuela	YV
Italy	I		
Japan	JA		

\*Non-contracting States.

H.W. Albrecht  
Chief, Technical Services and Planning Branch, NY-381 228 1

CONFIDENTIAL

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-A

1954

SUBJECT: (Unclassified) Instalation of Beacon in Civil Airline  
Aircraft

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Mass

1. Transmitted herewith for your information is an information copy of letter, Headquarters Air Defense Command, subject as above, dated 3 December 1954 with 1st Indorsement, Headquarters Eastern Air Defense Force.

2. It is requested that the 763d AC&W Squadron be informed of the contents of basic letter in event detection is made of aircraft involved in this test.

3. The contents of this letter of transmittal are unclassified. When Inclosure is withdrawn or not attached the classification of CONFIDENTIAL on this letter will be cancelled.

BY ORDER OF THE COMMANDER:

1 Incl:  
as/

EVERITT W. HOWE  
Major, USAF  
Adjutant

3412-54

228 2

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CONFIDENTIAL

C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
ENT AIR FORCE BASE  
Colorado Springs, Colorado

ADCOOT-C

3 Dec 1954

SUBJECT: (U) Installation of Beacon in Civil Airlines Aircraft

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Information has been received from Air Transport Association of America that initial installation of radar beacon-IFF will be made in Lake Central Airlines' aircraft. The first installation was completed week of 22 November.

2. Installation is in conformance with the Joint Chiefs of Staff specifications and will be installed in each aircraft of the Lake Central airlines which operates into and makes 18 scheduled arrivals and departures at Indianapolis. Copies of Lake Central's schedule will be forwarded when available.

3. The transponder installed in the civil aircraft will reply to Mode III interrogation from the military Mark X IFF system. The transponder can only be interrogated by a ground unit operating in Mode III. The reply will appear as four blips covering approximately a two mile distance on a PPI scope. There is a possibility that this may be confused with the emergency reply which also consists of four blips; however, the emergency reply occupies approximately 48 micro seconds or 5 miles on a scope. A positive check would be:

a. If the four-blip reply is received while interrogating on Mode III, switch to Mode I; and emergency will continue to show on all modes; the transponder in civil aircraft will show only on Mode III.

b. Any four-blip returns received while operating in Mode I or II can be assumed to be valid emergency returns.

4. Since most AC&W units operate primarily on Mode I, it will be necessary for one scope in the surveillance section operating at maximum range to interrogate on Mode III. The AC&W units covering the Lake Central Airlines operational areas are:

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C O P Y

P-53 Rockville, Indiana  
P-62 Brockfield, Ohio  
P-63 Claysburg, Penna.  
P-67 Ft Custer, Mich  
P-31 Williams Bay, Wisc.

5. Air Transport Association of America has requested information regarding the performance of the beacons in Lake Central Airlines' aircraft. Detailed information is not desired. Request that special attention be given to tracking of Lake Central Airlines' aircraft equipped with IFF beacon, and that a summary report of the operations be forwarded through this command, to Director, Air Navigation Development Board, Attention: Colonel J. Francis Taylor (AC-2), each two weeks beginning 6 December 1954.

BY ORDER OF THE COMMANDER:

Info cys to: C. F. HUMPHREYS  
CADF, WADF, AOC-RCAF- Captain, USAF  
ADC St Huberts Asst Command Adj

EAOOT-OS (3 Dec 54) 1st Ind 16 Dec 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 30th Air Division (Defense), Willow Run Air Force Station, Belleville, Michigan

1. Forwarded for your information and necessary action.
2. Reports required by paragraph 5, basic letter, will be forwarded direct by units concerned through Headquarters ADC with info copy this headquarters, ATTN: EAOOT-OS.
3. The contents of this indorsement are unclassified.

BY ORDER OF THE COMMANDER:

Info Cy: BEN D. MOORHEAD  
Comdr, 32d AD(D) 1st Lt., USAF  
Asst Adjutant

2

CONFIDENTIAL

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1 9 4 0

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-FO

3 November 1954

SUBJECT: SAC DAILY ADDITIVE LIST

TO: SEE DISTRIBUTION

The following EADF message is quoted for your information and guidance: "UNCLASSIFIED"/EA00T-OS 36513. The following ADC message, ADOOT-C35350, is forwarded for immediate dissemination to all applicable units: "Effective immediately, SACDAL system will not be used or applied in the identification of SAC aircraft or in the filing of flight plans by SAC aircraft. Pending finalization of SAC plans and coordination with CAA, all SAC aircraft will use five digit true-tail number plus prefix "Air Force".

FOR THE COMMANDER:

DISTRIBUTION: EVERITT W HOWE  
101 FIS, Logan Muni Aprt, Major, USAF  
Boston, Mass Adjutant  
131 FIS, Barnes Aprt, Westfield, Mass  
133 FIS, Grenier AFB, Manchester, NH  
138 FIS, Hancock Fld, Syracuse, N Y  
Adjutant General, State of Mass,  
Boston, Mass  
Adjutant General, State of NH, Concord, NH  
Adjutant General, State of NY, Albany, NY

INFO:  
101 FIW, ME ANG  
102 FIW, MASS ANG  
107 FIW, NY ANG  
134 FIS, VT ANG  
Adjutant General, State of Me,  
Augusta, Me  
Adjutant General, State of VT,  
Montpelier, VT

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CONFIDENTIAL

C O P Y

766TH AIRCRAFT CONTROL AND WARNING SQUADRON (ADC)  
CASWELL AIR FORCE STATION  
Limestone, Maine

ACU OPS

16 Nov 54

SUBJECT: Identification of Strategic Air Command (SAC) Aircraft

TO: Commander  
4711th Air Defense Wing  
Presque Isle, Air Force Base  
Presque Isle, Maine

1. Due to the geographical location of this unit with proximity to the Bangor ADIZ, considerable difficulty is quite frequently experienced in identifying SAC aircraft. This pertains primarily to B-47 and KC-97 type aircraft returning to the ZI from overseas and refueling operations within Canada.

2. During the past six (6) to nine (9) months in which several large movements of SAC aircraft have been observed, this unit has not received adequate flight plan information for performing positive identification. Normally no progress reports are received prior to detection, or prior to overlap tell plots from adjacent Canadian stations. The flight plan information received is quite vague and frequently received four (4) to ten (10) hours in advance, or in some instances late.

3. Some three (3) to four (4) months ago several high speed, high altitude aircraft were detected on a penetration heading to the EADE area. One interceptor was scrambled to intercept and identify the lead aircraft. Simultaneous with time of intercept a flight plan was received. On 9 November 1954 flight plan information on fifteen (15) B-47's was received approximately eight (8) hours in advance. Information received was for three (3) flights of five (5) aircraft each with forty (40) minute separation, the lead aircraft estimating Limestone at 1834Z with "no wind" conditions. The first aircraft were detected 105 miles from this station at 1802Z. This left thirty-two (32) minutes remaining for covering 105 miles. This track could not be correlated based on speed of B-47 aircraft. A speed of 185 miles per hour would have correlated, however this is nowhere near the speed of B-47 aircraft. This track was called unknown as it was not within the criteria established for identification. Upon being intercepted, the identification was reported as a B-47 refueling with a KC-97 type aircraft.

3247-54

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CONFIDENTIAL

C O P Y

Ltr Hq 766th AC&W Sq, Caswell AF Sta, Limestone, Me., Subj: Identification of Strategic Air Command (SAC) Aircraft (Cont'd)

4. In conjunction with this movement of aircraft twenty-one (21) KC-97 aircraft were engaged in refueling this flight. Moncton AMIS had advised all refueling would be performed from Chatham N.B. and east. As observed on radar the majority of the refueling operation was performed from Chatham N.B. and west. In brief there was no similarity between three (3) flights of aircraft of five (5) each and aircraft as observed and plotted at this station. Aircraft were observed on various headings, orbiting, various speeds and various altitudes. Positive identification under these conditions appears impossible at this time.

5. On 13 November 1954 a movement of fourteen (14) B-47's were returning to the ZI. Flight plan inciated CNSL direct LIZ <sup>one</sup> (1) flight of six (6), two (2) flights of four (4). In the second flight one (1) of the four (4) was detected approximately thirty-five (35) miles south of the remainder of the flight. This aircraft was called unknown, due to being outside of identification limits. It was later reported this aircraft had cancelled IFR flight Plan and was positioning for a GCA at Loring Air Force Base. This occurred between Fredericton and Houlton radio. In the third flight one (1) of the aircraft was twenty-two (22) minutes behind the remainder of the flight necessitating calling it unknown. A total of seven (7) B-47's have been declared unknown by this unit for this month.

6. Conversation with SAC personnel indicates position reports are made over HF radio to distant points. In all probability these position reports do not reach AirDefense units in the EADF area in sufficient time to be of any value in identification.

7. It is difficult to make sound recommendations to alleviate all problems involved, due to lack of knowlege of all contributing factors. If the following suggestion could be applied it appears it would assist this station in performing identification.

a. Complete flight plan information be forwarded in sufficient time and to include:

- (1) Number of aircraft
- (2) Type
- (3) Interval between aircraft or flights
- (4) True airspeed
- (5) Checkpoint or ADIZ estimate on each flight

(2)

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Ltr Hq 766th AC&W Sq, Caswell AF Sta, Limestone, Me., Subj: Identification of Strategic Air Command (SAC) Aircraft (Cont'd)

b. All aircraft or elements make a progress report at or in vicinity of Goosebay or Harmon with estimate of next check point. All progress reports received in NEAC be forwarded without delay.

c. All aircraft or elements make a position report on UHF to nearest facility within Bangor ADIZ at earliest time contact can be established.

d. Any and all times flight plan indicates a flight or aircraft, that aircraft remain in flights "within reasonable distance" until reaching destination, or revision is confirmed.

FOR THE COMMANDER:

s/t/ DOYLE F. BOUTWELL  
Captain, USAF  
Adjutant

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C O P Y

Hq 766th AC&W Sq ACU OPS Subject: Identification of Strategic Air  
Command (SAC) Aircraft

DO (16 Nov 54) 1st Ind 23 Nov 1954

HQ 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Strategic Air Command aircraft returning from overseas via the North Atlantic route enter the Bangor ADIZ in the 766th AC&W Squadron's sub-sector of responsibility. This headquarters recommends that the 766th AC&W Squadron be made a "master station" for handling SAC aircraft returning from overseas and during refueling operations. This would be similar to a "master station" for the Multiple Corridor Identification System.

2. To make it possible for the 766th AC&W Squadron to handle these aircraft as a "master station", it would be necessary to have direct communications with the aircraft. It is recommended that the 766th be authorized HF radio equipment. It is also recommended that higher headquarters coordinate with SAC to establish frequencies and to make it mandatory for SAC aircraft to contact the "master station" giving pertinent information so that the aircraft may be correlated as friendly aircraft.

3. It is felt that the saving in scrambles will pay for the additional HF radio equipment.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

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C O P Y

Hq 766th AC&W Sg ACU OPS Subject: Identification of Strategic Air  
Command (SAC) Aircraft

OOT\_A (16 Nov 54)

2d Ind

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. The difficulties elaborated upon in basic letter have long been a source of considerable concern to this headquarters and undoubtedly many other divisions.
2. Block airspace reservations, as are obtained for flights such as these, does not permit accurate flight plan correlation. All other available means of effecting positive identification are likewise unacceptable for assurance.
3. The possibility of enemy aircraft infiltrating a formation or being mistakenly identified as the expected friendly flight is too great to accept as a calculated risk. As there are few strategic targets in the Maritime provinces of the continent beyond Loring AFB this is an extremely difficult target to insure against attack. Being on the perimeter of the area where serious resistance to attack may be made, it would, without a doubt, be one of the first targets to suffer an attack. Due to this vulnerability, it is agreed that a means must be devised to increase our identification capability in this problem area.
4. The recommendations contained in the 1st Indorsement to the basic letter would aid considerably in accomplishing this objective. However, the possibility of compromise of SAC movements would be increased and would limit the application of procedure to the minimum required in the interest of air defense operations.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

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C O P Y

Hq 766th ACWRON Subject: Identification of Strategic Air Command  
(SAC) Aircraft

EAOCTLOS (16 Nov 54) 3d Ind 22 Dec 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado  
Springs, Colorado

1. Concur.
2. Recommend action be taken to develop a method mutually acceptable to SAC and ADC to improve identification procedures for SAC aircraft in perimeter areas.
3. This indorsement is Unclassified.

FOR THE COMMANDER:

Info cy  
Comdr, 32d Air Div (Def)

BEN D. MOORHEAD  
1st Lt, USAF  
Asst Adjutant

C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADOOOT-C

9 Dec 1954

SUBJECT: Misuse of Flight Following

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. During recent months it has been noted that many pilots of this command are failing to comply with air traffic control regulations while being "flight followed" by AC&W radar. Correspondence received from the Civil Aeronautics Administration and Headquarters USAF reveals the primary causes of violations to be failure to maintain a listing watch on ATC frequencies, failure to make position reports to ATC facilities, and changes in altitude during IFR flight without ATC approval.

2. The safety value of "flight following" is well recognized. Incorrect use of this assistance, however, causes excessive delays to other civil and military traffic. The congestion problem thus created causes a hazard of sufficient magnitude to negate the value of flight following to this command.

3. Attention is invited to letter, this headquarters, file ADOOT-C, Subject: Position Reporting to GCI Stations, dated 23 January 1954. It is requested that immediate action be taken to reiterate to all pilots and directors their respective responsibilities in the conduct of "flight following". Failure to comply with appropriate air traffic control procedures will be cause for disciplinary action.

BY ORDER OF THE COMMANDER:

JOHN J. HAYES  
CWO, USAF  
Asst Command Adj

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C O P Y

Hq ADC ADOOT-C Subject: Misuses of Flight Following

EAOOT-TW (9 Dec 54) 1st Ind

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Def), Syracuse AFS, Syracuse 6, N. Y.

1. Forwarded for your compliance and dissemination to all pilots and directors of your command.

2. Message referred to in paragraph 3, basic, is Air Defense Command policy on flight following which is included in EADF Regulation 60-13, 5 December 1953.

BY ORDER OF THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

OOT-FO (9 Dec 54) 2nd Ind

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, 4707th Air Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine

Forwarded for your compliance and dissemination to all pilots and directors of your command.

BY ORDER OF THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OCT

27 Oct 1954

SUBJECT: Route of Flight Information - Direct Flights

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. The following Civil Aeronautics Administration letter subject as above dated 27 September 1954 is quoted for your information and dissemination:

"We have been advised that many flight plans involving IFR direct flights do not contain a sufficient number of fixes to completely describe the route of flight or to insure adequate en route position reporting. While it is not expected that personnel check the complete flight plan to determine that all fixes meet the requirements as to spacing, in many cases the omission should be obvious, especially when a flight plan covering extended flight merely contains the word "direct" between departure and destination.

Personnel receiving flight plans which obviously do not contain the required route of flight data should immediately initiate a request for the necessary additional information so that it will be available to the controller when the pilot requests a clearance.

Since most of the complaints refer to military aircraft, it is believed that much can be done to clear up the problem during routine visits to military bases. It would be explained that the procedures for flights above 17,200 feet, outlined on page 127 of the USAF/USN Supplementary Flight Information Document for the North American Area, were the result of an agreement between the CAA and the military agencies to relieve the pilot of the necessity of reporting over all compulsory reporting points and to reduce congestion on the air/ground channels.

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OOT Sbj: Route of Flight Information - Direct Flights

It is suggested that facility personnel be instructed to familiarize operations officers with our needs and assist them in selecting a set of reporting points for any routes which are regularly used from their bases.

2. Proper reporting procedures are outlined in AFR 60-16 as amended and under the "Pilot Procedures with Flight Service, using Plan 62" section of the radio facility chart.

BY ORDER OF THE COMMANDER:

ARCHIE T. SHERBERT, JR.  
2nd Lt, USAF  
Asst Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

O O T

SUBJECT: Proposed ADC Standardization Regulations

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Proposed ADC Standardization Regulations forwarded to this headquarters with ADC cover letter, subject: ADC Standardization Regulations, dated 14 September 1954, have been reviewed by well qualified air crew personnel of this command. The following additions, corrections and/or deletions are recommended.

a. Proposed ADC Regulation 55- (Standardization of Operating Procedures).

(1) Comment: Recommend any changes or amendments to this series of proposed regulations be accomplished on a page for page basis.

b. Proposed ADC Regulation 55- (Standard Alert Procedures).

(1) Reference paragraph 4. General: Delete the words "senior alert pilot" and substitute therefore "designated alert commander".

(2) Reference paragraph 6a (4): Knee pads required as an item of personal equipment are not presently an item of issue.

(3) Reference paragraph 6c(2): Delete the words "senior alert pilot" and substitute therefore, "designated alert commander".

c. Proposed ADC Regulation 60- (Formation Flying).

(1) Reference paragraph 9: Delete the second sentence and insert therefore "squadron commander will insure that the ability of each pilot has been checked by qualified supervisory personnel prior to engaging in formation acrobatics".

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- d. Proposed ADC Regulation 55-14 (Mobile Control Units).
- (1) Reference paragraph 3d: Delete the first sentence of this paragraph and substitute therefore:
- "The mobile control unit will be manned by a pilot with following minimum experience: 500 hours total time, 100 hours jet time and 50 hours in UE aircraft or will be the most qualified pilots as designated by the squadron commander."
- e. Proposed ADC Regulation 60-3 (Navigation "Cross Country Flights").
- (1) Reference paragraph 10. Flight Following: Add the following: "Channel 10 GCI Common shall be utilized for the exclusive use of flight following".
- (2) Supplement No I.
- (a) Reference paragraph 5. Flight Leaders: Delete the words "three supervised cross country flights" and insert therefore "three cross country flights with three landings at fields other than home base".
- (3) Supplement No II: No comment.
- (4) Supplement No III:
- (a) Reference paragraph 4b: Delete the words "and possess at least 25 hours F-89D time".
- (b) Reference paragraph 4c: Delete the words "and repack and install drogue chute (when applicable)".
- (c) Reference paragraph 5. Flight Leaders: Delete the words "three supervised cross country flights" and insert therefore the words "three cross country flights with three landings at fields other than home base".
- (d) Reference paragraph 6a: Add (7) Altimeter.
- f. Proposed ADC Regulation 55- (Aircraft Questionnaire)
- (1) No comment.
- (2) Supplement No I: No Comment.
- (3) Supplement No II: No comment.

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- (4) Supplement No III: Add "Paragraph 5. Special Subjects. All questionnaires will be revised according to TO 01-F09D-1, as applicable to specific series of aircraft".
- g. Proposed ADC Regulation 60- (Aircraft Check List)
  - (1) No comment.
  - (2) Supplement No I: No comment.
  - (3) Supplement No II: Suggest amplified check list be reaccomplished in the form utilized for the F-09D.
  - (4) Supplement No III: Subject amplified check list is not applicable to F-09D-35 and subsequent models.
- h. Proposed ADC Regulation 60-1 (Acrobatics and simulated combat).
  - (1) No comment.
  - (2) Supplement No I. No comment.
  - (3) Supplement No II. Reference paragraph 1 Purpose: Add "excluding attack phases utilize 85 Fire Control System".
  - (4) Supplement No III.
    - (a) Reference paragraph 5a. Delete the last three words "will be avoided" and substitute therefore "are prohibited".
    - (b) Reference paragraph 5b: Delete the words "until he has at least 10 hours F-09D time" and substitute therefore "other than those outlined in ADCR 51-(Flying Training F-09D check out and transition)".
- i. Proposed ADC Regulation 51- (Check out and transition)
  - (1) No comment.
  - (2) Supplement No I. No comment.
  - (3) Supplement No II. Reference paragraph 5, Transition: Delete the words "pilots re-checking out" and substitute therefore "pilots not current".

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- (4) Supplement No. III. Recommend this supplement be rewritten in entirety.
  - (5) Supplement No. IA. No comment.
- J. Proposed ADC Regulation 60- (Instrument Flights)
- (1) No comment.
  - (2) Supplement No. I. No comment.
  - (3) Supplement No. II.
    - (a) Reference paragraph 6: Delete title "Chase Aircraft" and first sentence and substitute therefore "Safety Observer". No F-94C hooded flights will be conducted without a designated safety observer aboard, unless accompanied by a chase aircraft."
    - (b) Comment. It is felt that the radar observers are qualified to perform the functions of safety observers. In addition the training mission will be seriously hampered if the radar observers are not authorized to act in this capacity.
  - (4) Supplement No. III. Delete paragraph 6 and 7 and substitute therefore, the following paragraph. "6. For pilots flying solo the following restrictions and procedures will be adhered to:
    - (a) Chase Aircraft. No F-94D hooded flight will be conducted without a chase aircraft to act as safety observer. The pilot of the chase aircraft will be responsible for insuring that the flight remains clear of clouds, other aircraft, and terrain. He will also be responsible for navigation and for checking the gear down on the instrument aircraft on GCA's, low approaches, and IAS's. A chase pilot may order the pilot of the instrument aircraft to terminate his hooded flight and take any other action necessary to insure safety of flight.
    - (b) Chase Plane's Position. The chase pilot will position himself where he can best clear the instrument aircraft. The optimum position for the chase aircraft is approximately two hundred

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(200) yards eastern of, one hundred (100) yards to the side of, and slightly below the instrument aircraft. Chase pilot should move in closer for low approaches, GCA's and IIAS's.

3. Proposed ADC Regulation 50- (Standards for training for Air Defense)

- (1) No comment
- (2) Supplement No I.
  - (a) Reference paragraph 4b(2). Turn-around requirements of 15 minutes for four aircraft is unrealistic with present regulations governing rearming of aircraft with 2.75 FFARs.
  - (b) Reference paragraph 5a(1)(e). Entire paragraph is unrealistic and should be rewritten to include "aircraft will take-off and climb to assigned altitude in shortest possible time."
  - (c) Reference paragraph 5a(1)(4). Recommend the words "Two" and "element" be deleted. F-86D aircraft are scrambled under normal conditions as individual aircraft.
- (3) Supplement No II.
  - (a) Reference paragraph 5b(4). Delete the words "visual attacks will be in accordance with approved day fighter attacks".
  - (b) Reference paragraph 5b(5). Delete in entirety.
- (4) Supplement No III.
  - (a) Reference paragraph 5b(4). Delete in entirety.
  - (b) Reference paragraph 6a(1)(j). Delete the words "three" and "four".
  - (c) Reference paragraph 6a(1)(h). Delete in entirety.
  - (d) Reference paragraph 6a(1)(m). Delete in entirety.
  - (e) Paragraph 6a(1)(c). Delete and substitute therefore "performing acrobatics in accordance with ADCR 60-1".

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l. Proposed ADC Regulation 60- (Approach and Landing Patterns)

(1) Comment.

- (a) Reference paragraph 4a(1). Recommend the words "descending left hand turn" be deleted and the words "level left hand turn" substituted "therefore".
- (b) Reference paragraph 7. Radio Failure. Delete this paragraph and rewrite as follows: "in the event of radio failure, pilot will execute a standard entry into traffic and rock his wings. He will continue down full length of active runway and turn onto down wind leg observing the control tower throughout for visual signals."
- (c) Reference paragraph 8 Touch Down. Delete paragraph as written and rewrite as follows: "All aircraft will touch down within the first 1500 feet of the run way".
- (d) Reference paragraph 10. Modifications. Delete paragraph as written and rewrite as follows: "Base Commanders will modify the basic landing pattern as necessary in the interests of flight safety and/or public relations."

(2) Supplement No I. Recommend this supplement be deleted.

(3) Supplement No II. Recommend this supplement be deleted.

(4) Supplement No III. Recommend this supplement be deleted.

(5) Supplement No XIV. Recommend this supplement be deleted.

(6) It is recommended that the above supplements be deleted as they are restrictive in nature and do not take into consideration varying circumstances.

m. Proposed ADC Regulation 55-2 (Standards for determining combat ready aircraft, combat ready air crews, alert qualified air crews, combat ready directors and alert qualified directors)

(1) No comment.

(2) Supplement No I.

- (a) Reference paragraph 3a. Add after the words "standardization check" the following words "and has a minimum of five hours actual weather time".

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- (b) Reference paragraph 3a(1)(c)1b: Recommend subject paragraph be changed to a total of 40 day attacks and the proportionate break downs be deleted.
  - (c) Reference paragraph 3a(1)(c)3b: Recommend subject paragraph be changed to a total of 15 night attacks and the proportionate break downs be deleted.
  - (d) Reference paragraph 3a(1)(c)2c: Recommend this paragraph be changed to read "One alternate base recovery" with no time element involved.
  - (e) Reference paragraph 3b(2): Recommend this paragraph be changed to 500 hours first pilot time.
  - (f) Reference paragraph 3b(4): Recommend this paragraph be changed to read six months in place of one year.
  - (g) Reference paragraph 3b(5): Recommend this paragraph be deleted and the following substituted: "jet instrument card and a minimum of twenty hours actual weather time".
  - (h) Reference paragraph 3b(6)(a): Recommend this paragraph be changed to require only 75 intercepts and 10 below 3000 feet under day VFR conditions.
  - (i) Reference paragraph 3b(6)(b): Recommend this paragraph be changed to require only 50 intercepts.
  - (j) Reference paragraph 3b(7): Recommend this paragraph be deleted and the following substituted therefore "Ten unit proficiency training at a weapons Training Center to include one automatic flying pass".
- (3) Supplement No II.
- (a) Reference paragraph 3c: Recommend subject paragraph be rewritten as follows: "To be certified as alert qualified an F-94C pilot must have a minimum of five hours weather time or complete one of the following three categories of requirements".

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- (b) Reference paragraph 3a(3): Delete the three subparagraphs and substitute the following subparagraphs:
  - (1) Standardization check in T-33 prior to flying the F-94C.
  - (2) Satisfactorily complete an instrument check in a T-33 under the supervision of a flight commander or an instrument pilot prior to flying the F-94C.
  - (3) One local day transition mission in an F-94C.
  - (4) Two day radar transition mission in the F-94C utilizing GCI.
  - (5) Two night transition missions in the F-94C utilizing airborne radar and GCI.
- (c) Reference paragraph 3b(2): Recommend change to 500 hours first pilot time.
- (d) Reference paragraph 3b(4): Recommend change to six months in place of one year.
- (e) Reference paragraph 3b(5): Recommend this paragraph be deleted and the following substituted therefore "possess current jet instrument card and have a minimum of 20 hours actual weather time".
- (f) Reference paragraph 3b(6)(a): Recommend change as outlined in paragraph 1m(2)(h) above.
- (g) Reference paragraph 3b(6)(b): Recommend change as outlined in paragraph 1m(2)(i) above.
- (h) Reference paragraph 3b(7): Recommend change as outlined in paragraph 1m(2)(j) above.
- (i) Reference paragraph 3d(2): Change to 300 hours flying time.
- (j) Reference paragraph 3d(3): Substitute six months in place of one year.
- (k) Reference paragraph 3d(4): Delete and refer to requirements in 1M(2)(h) and 1m(2)(i).

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- (1) Reference paragraph 3d(5): Delete and change to requirement in lm(2)(j).
- (m) Reference paragraph 3e: Add sub paragraph "(5) IFF".
- (4) Supplement No III.
  - (a) Reference paragraph 3a. Alert Qualified Pilots. Recommend this paragraph be deleted and the following substituted therefore. "To be certified as alert qualified, an F-89D pilot must have a minimum of five hours actual weather time and have completed one of the following three categories of requirements".
  - (b) Reference paragraph 3a(3). Delete sub paragraphs (b) (c) (d) (e) and substitute as follows: "(b) Satisfactory completion of a jet instrument check under the supervision of an instrument check pilot. (c) One local transition mission (day) in F-89D aircraft. (d) Two radar transition mission (night) utilizing GCI".
  - (c) Reference paragraph 3h(2). Change to read 500 hours first pilot time.
  - (d) Reference paragraph 3b(4). Substitute six months in place of one year.
  - (e) Reference paragraph 3b(5). Recommend this paragraph be deleted and the following substituted therefore. "Possess a current jet instrument card and have flown a minimum of 20 hours of actual weather time".
  - (f) Reference paragraph 3b(6). Recommend change as outlined in lm(2)(h) and (i) above.
  - (g) Reference paragraph 3b(7): Recommend change as outlined in lm(2)(j) above.
  - (h) Reference paragraph 3d(2): Change to 300 hours.
  - (i) Reference paragraph 3d(3). Change to six months in place of one year.
  - (j) Reference paragraph 3d(4). Recommend change as outlined in lm(2)(h) and (i) above.

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- (k) Reference paragraph 34(f). Recommend change as outlined in b(2)(j) above.
- (l) Reference paragraph 3e: Recommend the following sub paragraphs be added. "(9) IFF, (10) VOR, (11) ILS".
- (5) Supplement No XXI
  - (a) Recommend that this supplement be revised to conform with ADC Regulation 50-22. This headquarters does not feel that such a category as "Alert qualified directors" exists. If the Director is capable of controlling aircraft to the target, utilizing prescribed procedures, he would be combat ready. If he could not accomplish this task he would not be considered as "Alert qualified".

2. It is highly recommended by this headquarters that subject proposed ADC Standardization Regulations be designed to allow changes on a page for page basis (similar to the procedures used for Technical Orders).

FORMER COMMANDER:

1 Incl: EVERETT W. HOWE  
12 ADCRs: 60-, Checklists; Major, USAF  
30-, Tng Stds; 55-, Standard- Commander  
ization of Operating Pros;  
60-, Aerobatics & Simulated  
combat; 51-, Checkout & Trans-  
ition; 55-, Acft Questionnaire;  
55-, Criteria for Combat Ready  
& Alert Qualified Aircrews &  
Directors and for Combat Ready  
Acft; 55-14, Mobile Control;  
60-, Formation Flying; 60-,  
Approach & LDg Patterns; 60-,  
Navigation Flt

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-A

30 Jun 1954

SUBJECT: (Unclassified) Identification in Air Defense

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. Following classified messages, this headquarters, are rescinded upon receipt of this correspondence.

- a. ACFOOT-A 3029, 11 March 1954
- b. ACFOOT-A 5002, 3 May 1954
- c. ACFOOT-A 6003, 1 June 1954 (Sent to Commander 4707th Defense Wing only)

2. The concept of identification as contained in EADFR 55-1 is a desirable and logical step forward in operation of the Air Defense system. However, as the result of tests now being conducted, it is evident that a requirement exists for the establishment of a policy to insure that hostile aircraft are not permitted to proceed unchallenged to their target if they were successful in penetrating the Canadian defense net undetected. All available sources of information to identify unknown and suspicious aircraft must be exploited.

3. As previously advised, flight plans are available only for those aircraft crossing the International Boundary ADIZ or entering or operating within the Bangor ADIZ on a DVFR or IFR flight plan. Other flights which originate in Canada within the Canadian ADIZ may be correlated by flight plan obtainable from the RCAF AC&W system. Flights originating within Canada, not in the Canadian ADIZ above 4000', are permitted to operate cross-border without flight plans. It is in turn these flights which pose the major problem of segregating those aircraft on which no information is available from possible hostiles which may have penetrated the Canadian defenses undetected.

4. To alleviate this problem as much as possible, proper use must be made of the authorized means of identification. (i.e., speed and altitude, visual observation, single or twin engine aircraft, etc., as specified in paragraph 3a, EADFR 55-1.) Inversely, in relation to identification based on ground observer corps sightings, any

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Hq 32D AD(D) OOT-A Subj: (Uncl) Identification in Air Defense

aircraft reported by the ground observer corps to be four or more engine will be declared unknown unless positive identification is available. Scramble will be ordered immediately, regardless of lack of radar correlation or point of origin, provided aircraft is heading toward a target area.

5. It is again emphasized that every effort must be made to identify every aircraft penetrating the United States Boundary on which there is any question as to friendly or hostile intent.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt, USAF  
Asst Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

ODO

21 Sep 1954

SUBJECT: (Unclassified) Identification in Air Defense

TO: Commander, 4707th Air Defense Wing, Otis Air Force Base,  
Falmouth, Massachusetts  
Commander, 4711th Air Defense Wing, Presque Isle Air Force  
Base, Presque Isle, Maine

1. This letter supersedes our letter, subject as above, dated 30 June 1954.
2. Changes in policy and procedure as reflected in the recently published ADCR 55-12 and EADFR 55-1 necessitate a reappraisal of our responsibilities and role in identification.
3. Regulations have limited our responsibility for identification to those aircraft operating into or within an air defense identification zone. This concept of identification is promulgated on the assumption that to penetrate our defenses a hostile aircraft would necessarily first have to penetrate the perimeter area of the Canadian identification zones. This reidentification in the ADIZs is a supplementary precaution.
4. Attempt to establish positive identification of every aircraft is an unrealistic approach to defense requirements. It is evident that local flights within airport control zones and certain other areas of traffic, saturation is far beyond our identification capability. In addition, light aircraft operating at very slow speeds and low altitudes can not be tracked for sufficient time to permit a controlled intercept and would be a waste of effort as they do not pose a threat to our security. For these reasons, free space has been designated south of 44 degrees North in the western part of the sector, and south of the 46 degrees North below 4000 feet within the Canadian ADIZ. Regulations governing operation within the Bangor and Atlantic ADIZ are well known and will not be elaborated upon.
5. Except for deletion of identification function for the 763rd and 656th AC&W squadrons previously, there is no change in our inherent responsibility. It is specifically stated that positive identification is required of every penetrating aircraft operating within or into an ADIZ. "Positive identification" is interpreted as type, serial number, departure point, and destination. The means to identify by flight plan correlation is available for every aircraft complying with CAA Regulations and operating above 4000 feet in the ADIZ. Aircraft operating in Canada above the

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ODO Hq 32d Air Div (D), Syr, N.Y. Subj: (Uncl) Identification in Air Defense

44 degrees North parallel operate under the same rules and flight plan data is available to RCAF AC&W units. As aircraft below 4000 feet are free to operate without a flight plan in all areas except across the International Boundary ADIZ, our only means to identify is by intercept. To prevent depletion of our interceptor potential, discretion should be exercised by our directors and attempt be made to identify by other authorized means. These include GOC Filter Center flight movement information; identification as a single or twin engine aircraft by GOC or other qualified observer; direction; true air speed; and previous identification.

6. Those aircraft which do not meet identification criteria must be closely scrutinized and all those of a suspicious nature declared unknown and acted upon accordingly. It has been proven that B-29 aircraft can penetrate the Canadian defenses either undetected or misidentified. As long as radar capability restrictions prevent detection at extremely low or extremely high altitudes, the possibility will exist that hostile aircraft must initially be detected by our own radar. For this reason, we must continue to treat as unknown, every target whose action are suspicious or on which positive identification is not available.

ROBERT S. ISREAL, JR.  
Colonel, USAF  
Commander

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C O P Y

HEADQUARTERS  
32D AIR DIVISION(DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

21 Sep 1954

Major General M. R. Nelson  
Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Nellie:

Reference is made to my previous letter dated 23 April 1954 stating concern relative to the concept of identification of aircraft penetrating from Canada. There has been no apparent change to warrant relaxation of the necessity to reidentify all penetrating aircraft.

Position identification of aircraft penetrating an ADIZ, as is required by ADC regulation, presents ramifications which are not apparent on the surface of this seemingly direct statement. The means to identify those operating on a DVFR or IFR flight plan is readily available, but those which concern us - the ones attempting penetration without detection - can too easily accomplish their purpose. Several penetration missions were conducted by your headquarters whereby B-29 aircraft of the 4713th Radar Evaluation Flight penetrated the Canadian Security Identification Zone at low altitude. Some of these tracks were passed to this sector as "friendly by point of origin"; others were not detected until they penetrated the Bangor ADIZ where they were declared suspicious and intercepted; while others were detected and properly identified by the RCAF AC&W unit.

Since the Canadian Ground Observer Corps coverage in the Security Identification Zone is on standby status until an emergency exists, we cannot be dependent upon detection and identification within the SIZ to provide information of the initial attack. It is an accepted fact that at the present time radar coverage of the SIZ is meager at low altitudes. Until such time as a guarantee of sufficient coverage of the perimeter approaches can be made, I consider it necessary to continue my present policy of reidentification.

Sincerely,

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

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3 Nov 1954

Colonel Robert S. Israel, Jr.  
Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

Dear Bob:

Reference is made to your letter, 21 September 1954, stating concern relative to the concept of identification of aircraft penetrating from Canada. I am aware of the possibility of aircraft being able to penetrate the Eastern Air Defense Force region from the North through the Canadian system without being detected or, being detected, the possibility of incorrect identification. Tests have proven, however, that low flying aircraft on routes planned to circumnavigate radar coverage can and have penetrated our other perimeters without detection. Such penetrations will remain possible until the Gap Filler Program is completed and the Ground Observer Corps perimeter Sky Watch area is effectively manned.

We have taken the following actions to increase the capability of detection along the United States/Canada border and through the SIZ.

a. RCAF Air Defence Command has agreed to co-ordinate with this headquarters for the inclusion of the Canadian Great Lakes carriers in the expansion of Great Lakes Ground Observer Corps Program.

b. Air Defense Command has been requested to investigate the possibility of operating the RCAF ground Observer Corps in the FIZ and SIZ on a twenty-four hour watch. To date, no reply has been received.

c. The RCAF Air Defence Command has been requested to supply additional data to enable this headquarters to complete the evaluation of the SIZ. Upon receipt of this information, re-evaluation will be made of the 1 May 1954 ADIZ and CADIZ and appropriate recommendations will be submitted to Headquarters Air Defense Command as necessary. We must recognize that our partnership with RCAF Air Defence Command is still a relatively new experiment in international relationships. The concept of a Security Identification Zone in Canada has

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been accepted by the State Department, USAF, Air Defense Command and this headquarters. To establish a blanket policy of re-identification constitutes a rejection of the work and planning of these agencies and indicates a lack of confidence not, I believe, warranted by the circumstances.

I do not feel that EADF Regulation 55-1 usurps your authority as air division (defense) commander to positively identify aircraft within your sector. Although ADC Regulation 55-12, paragraph 6a(6) states that normally tracks passed by adjacent aircraft control and warning units as friendly will be accepted as such, paragraph 6b(3) establishes the criteria for re-identification on tracks which indicate abnormality to the extent that further investigation is deemed advisable. You may identify and re-identify tracks within your sector as often as you consider necessary. Our current regulations provide you this freedom of action. However, I feel that the security provided by the present identification procedures on your northern border is equivalent to that which you experience elsewhere and that a command policy requiring mandatory re-identification is inappropriate.

Sincerely,

M. R. NELSON  
Major General, USAF  
Commander

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C O P Y

DEPARTMENT OF NATIONAL DEFENCE

Royal Canadian Air Force

St Hubert, Que, 9 Nov 54

Commander  
Hq Eastern Air Defense Force, USAF  
Stewart Air Force Base  
Newburgh, N. Y. U.S.A.

Security Identification Zone - Statistics

1. Reference is made to your letter EA00T-TS dated 28 Sep 54.
2. With reference to para 3(a) of your letter, statistics regarding the detection capability in the area in question are not available. However, reference to radar evaluation charts for the area in question indicates solid radar coverage at altitudes above four thousand feet.
3. The identification capability on all detected air traffic for the period 1 May to 31 Aug 54 at all altitudes, penetrating or originating within the SIZ on a southbound heading is as follows:
  - a. Total number of tracks - 745
  - b. Track identification
    - (1) Flight plan correlation - 472 or 63.2%
    - (2) Correlation by maneuver - 152 or 20.4%
    - (3) Identification by Interception - 6 or .8%
  - c. Total tracks remaining unknown - 115 or 15.4%
  - d. Over-all percentage effectiveness - 84.6%.
4. If your headquarters considers that the detection capability data (number detected versus number flight plans received) essential to finalizing your report, action will be implemented by this headquarters to procure and forward such data upon request. It is pointed out, however, that the procurement of this data would require a considerable period of time inasmuch as the recording of such data has not previously been a requirement within this command.

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s/t/ (D.H. Evans) S/L  
for AOC, ADC  
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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EACOT-TS

3 Dec 1954

SUBJECT: (Unclassified) RCAF PIZ and SIZ Identifications Statistics

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. Reference is made to our letter to your headquarters, EACOT-TS, subject: "Evaluation of B-29 SIZ Penetration Missions", 23 September 1954, and letter, this headquarters, to RCAF Air Defence Command, information copy your headquarters, EACOT-TS, subject: "PIZ and SIZ identification Statistics", 28 September 1954.

2. A copy of the reply to our letter to RCAF Air Defence Command requesting further statistics is attached for your information.

3. The over-all percent of effectiveness for identification for the SIZ and area above the SIZ (4,000 feet up) of 84.6 percent is only slightly less than the 86 to 94 percent achieved monthly throughout EADF region. The identification effectiveness should increase as more RCAF interceptors become available and as EADF interceptors are used north of the United States-Canada boundary under the provisions of ADC Regulations 55-10 and 55-35. Informal reports indicate the effectiveness was greater than 95 percent in October.

4. In view of the above and in response to their query, this headquarters has dispatched a message to RCAF Air Defence Command informing them that the interim procedures for flight plan dissemination by Department of Transport ATC Centers, agreed to at the conference on SIZ held at your headquarters on 26 May 1954, may be discontinued.

5. This correspondence is classified Confidential in accordance with paragraph 24a(8), Air Force Regulation 205-1.

BY ORDER OF THE COMMANDER:

1 Encl  
Ltr RCAF Dept of Natl Def,  
S64-42-1 (w/C Ops ACW), subj:  
SIZ-Stats, 9 Nov 54. (Secret)

BEN D. MOORHEAD  
1st Lt, USAF  
Asst Adjutant

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C O P Y

DISFO FORM

Subj: Identification Effectiveness

TO OCO  
OCC  
ODO

From: Oot-A/SANTMYER/091 7 Dec 54 1

1. The identification effectiveness appears excellent and almost comparable to our own. However, this is the identification effectiveness of detected tracks only, not all known traffic.

2. The flight plan correlation percentage of 63.2% is percent of total tracks which were observed and identified by this means. There is no reflection as to number of flight plans correlated in relation to number of flight plans received.

3. If coverage above 4000' is solid, as stated, then the ones below 4000' are our only concern now. The fallacy of predicting coverage from calibration charts is that it does not reflect valleys and considerable other areas which are blocked out.

4. Believe that the concern voiced over this identification concept has served a very useful purpose in making the RCAF cognizant of the responsibility it has placed upon them and also has indicated the importance we place upon identification.

5. The "interim procedure" referred to in paragraph 4 of EADF letter is agreement by Montreal ARTCC to continue to forward all available penetration flight plans, although they were not required to furnish this service under Canadian Dept. of Transport agreements. Our agreement with Boston remains the same; all IFR & DVER flight plans received will continue to be processed by AMIS and put into the system.

SHELTON/090

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT

1 Sep 1954

SUBJECT: Cooperation between Adjacent AC&W Stations

TO: Commander, 4707th Defense Wing, Otis Air Force Base,  
Falmouth, Massachusetts  
Commander, 4711th Defense Wing, Presque Isle Air Force  
Base, Presque Isle, Maine

1. You fully realize that cooperation between all units in a successful air defense system is an absolute necessity. This is especially true at the AC&W squadron level, where prompt and complete coordination with adjacent stations will preclude any friction and produce the teamwork that we are all seeking.

2. The fact that AC&W stations are under different defense wings is no excuse for the failure of these stations to cooperate with one another. They are members of the same team. Despite numerous letters on the subject from this headquarters, a lack of cooperation and coordination is still being noted between the 654th and 765th AC&W squadrons. The following instances, revealing differences and the lack of coordination between P-65 and P-13, have been noted by this headquarters.

a. On 27 June 1954, P-65 was carrying track WK-56 which was approaching the P-13 sub-sector. P-13 told P-65 to disregard further overlays of this track even though P-13 was off the air at the time. P-13 dead-reckoned the track until they became operational some ten minutes later. P-13 was then forced to call track WK-56 unknown since it had deviated from its intended course due to a thunderstorm. Investigation by the ADCC revealed that P-65 had been painting track WK-56 when it had changed its course. This unknown could have been avoided if P-13 had requested plots from P-65 until they could have become operational or if P-65 had notified P-13 when WK-56 changed its course.

b. On 25 August 1954, during exercise "Think Fast #6", P-65 was receiving condition five electronic jamming and as a result lost the exercise aircraft that they were carrying at the time. The targets were faded and dead-reckoned with apparently no attempt made to determine whether P-13 was painting the target aircraft. Investigation by the ADCC revealed that P-13 had carried the track when P-65

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C O P Y

Hq 32d Air Div (Def) OOT Subject: Cooperation between Adjacent  
AC&W Stations

was experiencing jamming. It is obvious that had P-65 queried P-13  
regarding the exercise track, the track could have been carried  
through both sub-sectors despite the effectiveness of the jamming.

3. Numerous other differences between these two stations have  
been noted and resolved by the senior controller on duty at the ADCC.  
The fact that there have been so many such cases is causing con-  
siderable concern. It is therefore requested that each Wing Commander  
concerned take immediate personal action to rectify this situation.

WILLIAM H. CLARK  
Colonel, USAF  
Deputy Commander

C O P Y

Hq 32d AD OOT Subject: Cooperation between Adjacent AC&W Stations

DO (1 Sep 54) 1st Ind 16 Sep 1954

Hq 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 765th AC&W Squadron, Charleston Air Force Station,  
Charleston, Maine

1. Forwarded for your comments and return to this headquarters.
2. I desire that your comments be complete and concise including any actions you have taken to date to rectify the situation and improve the air defense capability.

JAMES F. REED  
Colonel, USAF  
Commander

OOT (1 Sep 54) 2nd Ind

Hq 765TH AIRCRAFT CONTROL AND WARNING SQUADRON, CHARLESTON AIR FORCE  
STATION, MAINE, 22 September 1954

TO: Commander, 4711th Defense Wing, Presque Isle Air Force Base,  
Maine

1. On 13 September 1954, 654th Aircraft Control and Warning Squadron and 765th Aircraft Control and Warning Squadron Commanders, Operations Officers and Radar Maintenance Officers met at the 765th Aircraft Control and Warning Squadron to discuss past differences and present problems. It was resolved that communications difficulties were responsible for many incidents.

- a. The inability of P-13 teller to ring P-65 teller.
- b. Initial contact was established on surveillance lines by P-13 to inform P-65 that traffic was to be passed over the teller lines.
- c. P-13 teller utilizing same circuit for teller with P-10 and P-65.

2. To alleviate this discrepancy that has existed, P-65 now has a continual open circuit with one teller directly connected to one teller at P-13. These tellers functions are to tell and record information only between the two stations.

C O P Y

Hq 32d AD(D) OOT Subject: Cooperation between Adjacent AC&W Stations

3. On cross telling information, discrepancies in track plotting were noted to be as far off as twenty miles. Such discrepancies between the two sites can only lead to doubt and possibilities of calling friendly tracks unknown. This problem has existed and been noted by 32nd AD(D). This one problem has resulted in needless scrambles that have been of much concern. 4711th Defense Wing TWX DO 392-E, dated 07/1800Z May 1954 authorized as meeting that was held at 4711th Air Defense Wing for the purpose of discussing this problem. This problem is now more serious due to Nantucket MCIS being conducted by both squadrons.

4. The radar VHF limitations and capabilities of P-65 over the Yarmouth area of the Nantucket MCIS is proven to be greater than that of P-13. There now exists the continual overlap plotting of this area to P-13 by P-65 and the identification of Nantucket MCIS flights by P-65 within P-13 subsector. During heavy traffic over Yarmouth the correlation of the cross plots to P-13 by P-65 is extremely difficult when P-13 does make radar contact, due to the existing discrepancies of radar plotting of these tracks.

a. Season and weather, altitude and time of day vary these discrepancies.

b. This discrepancy exists also between P-65 and P-13 and P-10, ie. (One aircraft will be cross told to P-13 within their area by P-65 and P-10. Although it is one aircraft, plot data will show three different tracks. The only consistency being general direction, time and distance being as much as five minutes and/or twenty miles.

c. In the past two (2) years the southern boundary line of P-65 has been changed twice.

5. It is strongly felt that the Yarmouth area if returned to P-65 would solve any ambiguity that now exists. Yarmouth range station is a vertex of all Lurcher, South Bangor and Pike #1 flight plans. Approximately 60 miles southwest of the Yarmouth range these aircraft will have separated to correlate with P-13 information and begin to be entering the P-13 radar coverage. With the ever increasing dependability of the Canadian radar station at Halifax, information by the direct line that exists between P-65 and C-11, it is felt that better coverage and correlation would exist.

6. The mutual problem of local traffic at Dow AFB, Bangor, Maine, was discussed. This problem cannot be considered one station's responsibility. Separate island type responsibility cannot exist and still maintain an efficient Air Defense. There now exists at Dow AFB one wing of F-84 aircraft, one wing of National Guard F-94 aircraft, one

C O P Y

Hq 765th AC&W Sq, Subj: Cooperation between Adjacent AC&W Stations  
(2nd Ind Cont'd)

squadron of KB-29 tanker aircraft and one squadron of F-86 aircraft and their supporting type aircraft. All of these aircraft have been local flying in their local flying area of the state of Maine. Considering the tremendous amount of local flying that now exists at Dow AFB, Bangor Maine the amount of trouble involved that would hamper the mission of P-13 and P-65 is negligible. The identification of locals at this station is performed in a manner conducive to ready identification as prescribed in Air Force Regulation 60-22. Upon occasion the supporting aircraft and the KB-29's present a problem due to lack of airborne equipment. Steps have been taken to rectify this situation, letter of 2 April 1954 to Commander 506th Strategic Fighter Wing, Attention: Operations Officer, Dow Air Force Base, subject: Identification of 506th Strategic Fighter Wing Aircraft in Air Defense. This problem that is existing is a mutual problem that involves both stations which are located in Maine.

7. Weekly discussion of operational problems that exist are discussed by the Operations Officers of both P-13 and P-65 and any deviation from existing regulations are quickly rectified. It is felt by this station that these weekly meetings, the open teller circuits between P-13 and P-65, the elimination of P-10 from the P-13 teller line to P-65, the return of Yarmouth area to P-65's subsector and the realization of the mutual responsibility for the ready identification and control of Dow AFB locals will aid in eliminating the existing friction and differences that exist between the 654th AC&W Squadron and the 765th AC&W Squadron.

NORMAN H. WEED  
Captain, USAF  
Commander

C O P Y

Hq 32d Air Div (D' OCT Subject: Cooperation between Adjacent AC&W  
Stations

DC (1 Sep 54) 3d Ind 30 Sep 1954

HQ 4711TH AIR DEFENSEWING, Presque Isle AFB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Reference paragraph 1, 2nd Indorsement, this headquarters concurs with the fact that many of the incidents could be directly traced to communications difficulties. Captain Barrows, during a staff visit to P-65, monitored the teller line between P-65 and P-13. He noted at this particular time that P-13 was also receiving plots from P-10, consequently, P-13 kept telling P-65 to standby. This situation, of course, keeps the air defense picture behind time and is bound to cause confusion and friction between the two sites. This situation was brought to Major Mack's attention at 32nd Air Division and since P-65 and P-13 now have a continual open circuit with the teller on each end taking information only from each other, as noted in paragraph 2, 2nd Indorsement, it is felt by this headquarters that many of the past problems between the two sites will be resolved.

2. The conference that was held at this headquarters for the purpose of discussing plotting errors, as mentioned in paragraph 3, 2nd Indorsement, was conducted on 13 May 1954. The observations made at this conference were as follows: It was determined that a combination of human error, weather, ducting, refractions and multiple patterns accounted for most of the errors. A possibility existed that the plotting boards of adjacent stations did not coincide, but the error is so small it would be negligible. Of the combination that accounted for the errors, all but one, human error, was peculiar to the radar itself. This peculiarity has always existed and probably will not be resolved in the near future. Knowing this, it left one tangible to work with -- human error. A test was conducted during the Lincoln project to determine the amount of error that would be induced into the air defense system through human error. Expert scope readers, plotters, and recorders were used during this test. After the scope man picked the target up, passed it to the plotter and was recorded by the recorder, the error averaged from 7 to 10 miles. It was decided that through proper supervision and using the 4 digit georef grid system instead of the 2 digit system to cross tell tracks, we could better this average. One operation "Hypodermic" mission was conducted by this headquarters with necessary overlays made at each AC&W Squadron to determine how successful we had been. The error averaged between 7 and 10 miles. This mission was not flown over water and therefore we could not determine the over-water errors that have existed between P-65,

C O P Y

Hq 32d Air Div (D) OOT Subject: Cooperation between Adjacent AC&W  
Stations

DO (1 Sep 54) 3d Ind (Cont'd) 30 Sep 1954

P-13 and P-10. Incidentally, the results of this conference and mission were made known to Colonel Israel through a personal letter from Colonel Beckwith.

3. Because we know it is impossible to obliterate these errors, this headquarters concurs with the recommendation made in paragraph 5, 2nd Indorsement. This subsector of responsibility over the Yarmouth area was taken away from P-65's control primarily because they could not paint much of the traffic in this area. However, since the installation of the CU-315/FPS-3 duplexer (installed approximately the 21st of July) the maximum pick-up range of the set was considerably increased. It is believed, therefore, that if this subsector of responsibility is given back to P-65, they would pick-up practically all of the traffic and would not have to cross tell these tracks to P-13.

JAMES F. REED  
Colonel, USAF  
Deputy Commander

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-A

SUBJECT: Warning Telling Procedure

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Mass

Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Recent visits by the Division Inspector and his representatives have revealed that many AC&W Squadrons are not complying with paragraph 6b, 32d ADR 55-30.
2. The procedure outlined in the referenced paragraph was designed primarily to insure sufficient warning time to adjacent subsectors to permit those ADDC's to take action against high-fast targets. With a two hundred knot target, an ADDC can normally issue scramble order based on their own radar intelligence. However, with targets of four to five hundred knots, it is readily evident that when radar detection is made, it is normally too late for the station making the detection to perform a successful intercept. With a target of four hundred and fifty knots being detected at one hundred and fifty miles, there is only twenty minutes from time of detection until the target passed the radar station. Mathematically, it can be proven that this is sufficient time in which to scramble and intercept; however, how many times has this been accomplished? Unknowns as well as faker aircraft continually go thru the system, unchallenged.
3. With identification scramble prerogative normally delegated to the ADDC it is imperative that unknown, hostile or faker track information be warning told at the earliest possible moment. When centralized scramble control is exercised by the ADDC, deficiencies in warning telling are minimized. However, the capability to revert to decentralized control must be maintained in event of loss of communications. This makes it mandatory that warning telling not be relaxed during centralized control periods anymore than during normal periods.

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Hq 32d AD(D) OOT-A Subject: Warning Telling Procedure

4. It is desired that AC&W Squadrons make a concerted effort to properly indoctrinate their personnel on this regulation and insure future compliance.

BY ORDER OF THE COMMANDER:

s/t/ EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOZ-A

6 Oct 1954

SUBJECT: Discrepancies in Plotting

TO: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Following compilation of data gathered during the mission conducted in accordance with 32d AD(D) Operations Order 28-54, it has been established that plotting discrepancies result in target position reports from the 765th ACW Squadron.

2. Actual target positions, as cross checked with the 694th and 766th ACW Squadrons, as well as navigators fixes, indicate a variance of plus seven ( $\pm 7$ ) degrees. The most likely causes of this variance would be either that the polar grid of the vertical plotting board is oriented seven degrees right of true north or that the radar is improperly oriented. Other possible cause may be a twisting of the PPI scope face plate seven degrees left of true north.

3. It is requested that this condition be thoroughly explored and corrective action taken to alleviate the variance.

BY ORDER OF THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

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Hq, 32d AD(D) OOT-A Subject: Discrepancies in Plotting

RI-CSE-O (6 Oct 54) 1st Inl 14 October 1954

HQ, 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 765th ACMW Squadron, Charleston Air Force Station,  
Charleston, Maine

1. It is requested that the 7<sup>th</sup> discrepancy reported in basic letter be investigated.
2. The possible error sources enumerated in paragraph 2 should be thoroughly checked and corrective action taken. Should there be any difficulties, this headquarters will render all possible assistance.
3. It is also requested that this headquarters be advised as to corrective action.

BY ORDER OF THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

C O P Y

Hq 32d AB(D) OCT-A Subject: Discrepancies in Plotting

CAS (25 Oct 54) 2nd Ind

Hq 765th ACGW Squadron, Charleston Air Force Station, Charleston, W. Va.

TO: Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine

1. Investigation was made of the variance in azimuth position reports from this station.

a. PFI presentation was compared with scope photographs taken during calibration of this station by the 1st Radar Calibration Squadron on 17 July 1953. Angel marks, range marks, and permanent echoes were found to exactly coincide.

b. Orientation of PFI scope face plate is discounted as a source of error since angle marks are used at this site for azimuth data rather than face plate markings.

c. Orientation of the polar and rectangular grid system on the vertical plotting board was checked for accuracy by comparing with a sectional aeronautical chart and also with coverage diagrams, included in the mentioned Radar Calibration report. The two sets of coordinates of the board were found to be relatively accurate and oriented properly.

d. An attempt was made to identify prominent PE's on the radar scope and compare the azimuth and range with the corresponding points on the sectional chart. Seventeen points were checked throughout 360 degrees with excellent range correlation. However, a consistent positive angular error was noted, the average being 6.4 degrees.

e. Since it is difficult to exactly locate the center of PE return on the sectional chart a further correlation was attempted by utilizing aircraft returns over known locations. Two F-86's from Dow AFB were requested to call in when directly over each of six designated check points. Azimuth and range of flight blip on scope was then compared to location on sectional charts. The comparison showed excellent correlation with less than one degree variation and accurate range.

2. In view of the discrepancies observed in PE locations and yet accurate positioning of aircraft, we are unable to verify or explain the 47 degree variation. It is suggested that the radar be recalibrated by the 4713th Radar Evaluation (RCM) Flight or further assistance be rendered.

FOR THE COMMANDER:

JOHN H. LA GRANGE  
1st Lt., USAF  
Adjutant

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C O P Y

Hq 32d AD(D) OOT-A Subject: Discrepancies in Plotting

DO-Comm (6 Oct 54) 3rd Ind 10 Nov 1954

HQ 4711TH AIR DEFENSE WING, Presque Isle AFB, Maine

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

In view of inability to resolve the discrepancy locally, enclose  
in request for recalibration.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

OOT-A (6 Oct 54) 4th Ind 16 Nov 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. It is requested that a recalibration be made of the 765th ACW  
Squadron, Charleston AFS, Maine.

2. Reason for request is result of findings as stated in basic  
letter and paragraph 1d and e, 2nd Indorsement, Headquarters, 765th  
ACW Squadron.

FOR THE COMMANDER:

EVERETT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

CCG

4 Feb 1955

SUBJECT: Cooperation Between Adjacent AC&W Squadrons

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. It has again become necessary to remind all AC&W Squadrons that we must have complete cooperation between sites if we are to carry out our assigned mission successfully. In order for the AC&W system to operate efficiently, adjacent stations must go out of their way to cooperate with one another. I still note instances where failure to communicate between adjacent sites is the primary cause for delayed identification and missed intercepts. The following is the latest of these incidents to be brought to my attention:

Track PD6D was detected at 2151Z on 26 January 1955. When this track appeared on the plotting board at the ADCC, P-10 was questioned as to what action they were taking. Personnel at P-10 stated that the track was not in their area of responsibility and that they were not taking action until the track entered their area. The Director at P-13 stated that he had not been advised of PD6 and had not called it unknown. By this time (2204Z) however, P-10 detected a track in the P-13 subsector (A29D), on which P-13 could furnish no identification. This track was later determined to be the same aircraft that was reported by the picket vessel to P-10 as PD6. Due to the existing confusion through lack of acceptance of responsibility and poor coordination, the ADCC Controller was unable to intelligently evaluate the track and direct a scramble until 2210Z, 19 minutes after detection. The fact that the target was an SA-16 does not nullify the seriousness of situations of this type.

2. While this episode involved only two AC&W squadrons and a picket vessel, instances occur almost daily where some AC&W Squadron fails to cooperate or coordinate with an adjacent site.

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Hq 32d AD(D) COG Subject: Cooperation Between Adjacent AC&W Squadrons

3. Cooperation and coordination between adjacent AC&W stations is being given special emphasis in the ADDC-ADCC cross training program. However, I feel that this problem can best be solved by impressing its importance upon every Officer and Airman in every ADDC. Instances such as that outlined above are inexcusable and adversely effect the operational efficiency of the Division. Lack of cooperation between the AC&W sites cannot be tolerated.

4. Inclosed is a list of previous action taken by this headquarters concerning the lack of coordination between AC&W squadrons.

1 Incl:  
a/s

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

C O P Y

1. The following is a list of previous action concerning the lack of coordination between AC&W sites:

a. Subject: Staff Visit to 765th AC&W & 654th AC&W Squadrons  
b. Date: 19-20 July 1954  
Discussed: Lt Col Fuller and Major Mack discussed discrepancies which had been evident between P-13 and P-65. Corrective action was promised by both Commanders.

b. Subject: Review of Operational Procedures  
Date: 27 July 1954  
To: Both Air Defense Wings  
Contents: Gave a summary of an incident involving a B-47 penetrating the division area and the importance of warning telling and earlyscramble against high, fast moving jet targets.

c. Subject: Cooperation Between Adjacent AC&W Stations  
Date: 1 September 1954  
Contents: Pointed out the importance of cooperation and gave two examples in detail where P-13 and P-65 had displayed a definite lack of coordination.

d. Subject: Proficiency Training  
Date: 8 September 1954  
To: Both Air Defense Wings  
Contents: Pointed out deficiencies in AC&W Units and specified regulations that should be reviewed. Lack of coordination was pointed out as one deficiency.

e. Subject: Personnel Error in Reporting and Tactical Action  
Date: 26 January 1955  
To: 4707th Air Defense Wing  
Contents: Overlays and Cover Sheets on a track in the P-10 and P013 area. P-13 did not know that Otis AFB was on condition #2.

INCL #1

COPY

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

23 Dec 54

EAOOT-OS

SUBJECT: Nantucket Multiple Corridor Identification System

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. Attention is invited to the pilot's comments on the enclosed MCIS chart.
2. Since participation in the MCIS program is voluntary, the damage which could result when the pilot concerned talks to other civilian pilots is obvious.
3. It is desired that the procedure used in the identification of the aircraft concerned be investigated and the results forwarded to this headquarters at the earliest possible date.

BYORDER OF THE COMMANDER:

1 Encl  
Pilot Chart  
ADC Env Nr -7677

J. W. FOUNTAIN JR  
Major, USAF  
Asst Adjutant

240 1

1988

C O P Y

Hq EADF EA00T-OS Subject: Nantucket Multiple Corridor Identification System

OOT-A (23 Dec 54) 1st Ind 30 Dec 54

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, NY

1. In compliance with basic letter, the following information is submitted:

a. Flight plan for SW N 6582C was received at the 654th AC&W Squadron from Boston AMIS as a normal flight plan with no ADC number. Therefore, it was processed as a normal flight plan and identification was made on the basis of criteria contained in paragraph 6a(1), ADCR 55-12.

b. The first indication that this aircraft was on an MCIS flight plan was when the pilot called "Air Defense Radar" on 121.5 mcs when passing North Nantucket Intersection. He advised at time that he had an ADC MCIS number. The 762d AC&W Squadron then requested the code word, verified it against the master list, and advised the pilot that identification was complete.

2. It is highly recommended that briefing instructions emphasize to aircrews that they should proceed in accordance with their ATC clearance until contacted by air defense radar, rather than attempt initial contact. Although familiar with MCIS procedure, aircrews have no knowledge of ramifications involved which might result in negative contact, such as: failure of responsible agencies to pass the ADC number with the flight plan; inoperative radar, resulting in negative detection; administrative errors whereby conflicting data in the envelope and on the master list preclude identification by code word since the aircraft appears to be in the wrong corridor. These factors continue to be the cause of frequent criticism of the system by pilots and results in derogatory reflection on subordinate units of this command for deficiencies over which they exercise no control. It is requested that cognizance be taken of these factors when reviewing the pilot questionnaires.

FOR THE COMMANDER:

1 Incl:  
N/c

EVERITT W. HOWE  
Major, USAF  
Adjutant

2

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOOT-OS

28 Sep 54

SUBJECT: Nantucket Multiple Corridor Identification System

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. This headquarters received the MCIS pilot questionnaire from the pilot of Pan American DC-6B, Flight #071, 8 September 1954. The pilot stated that he was requested by Yarmouth radio on 121.5 to "authenticate". He also stated that identification was completed at Yarmouth which was prior to his penetration of the Atlantic ADIZ.

2. Apparently, a radar station or a CAA facility requested Yarmouth to relay the request for code word or maneuver to the pilot. This is in violation of the arrangements which were made with DOT concerning Nantucket MCIS. Those arrangements specifically state that DOT facilities will pass only the ADC number with the flight plan. Requests to "identify code word" or to "execute identification maneuver" should be initiated only by air defense or CAA facilities.

3. Since this identification system is based on the position report over Yarmouth and the estimate to the inner reporting line, identification should not be completed until after the aircraft has passed Yarmouth.

4. Desire this information be brought to the attention of ACW squadrons concerned.

BY ORDER OF THE COMMANDER:

1 Encl  
Ltr to CAA ARTCC,  
EAOOT-OS, subj as abv

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

240

1990

C O P Y

Hq EADF EA00T-OS Subject: Nantucket Multiple Corridor Identification System

OOT-A (28 Sep 54) 1st Ind 15 Oct 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, N.Y.

1. Information contained in basic letter has been brought to the attention of all AC&W Squadrons concerned.
2. This headquarters does not anticipate any future occurrences of this type where AC&W Squadrons are at fault.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OCAA

16 August 1954

SUBJECT: AC&W Squadron Supplementary Operating Instructions -  
Nantucket Multiple Corridor Identification System

TO: Commander, 654th AC&W Squadron, Brunswick Naval Air  
Station, Brunswick, Maine  
Commander, 762d AC&W Squadron, North Truro Air Force  
Station, North Truro, Massachusetts  
Commander, 765th AC&W Squadron, Charleston Air Force  
Station, Charleston, Maine

1. Reference Nantucket MCIS/New York IMIS meeting held at this headquarters on 3 August 1954, the following information and procedures are provided to supplement and clarify AC&W Squadron Operating Instructions, Nantucket Multiple Corridor Identification System; short title: Nantucket MCIS, revised 12 April 1954.

a. The 765th AC&W Squadron will be the "Master Station" for the Yarmouth Fan. The 762d AC&W Squadron will continue to be the "Master Station" for the Bermuda and Azores Fans and, in addition, will serve as an "Associated Station" to the 765th AC&W Squadron for the Yarmouth Fan. The 654th AC&W Squadron will serve as an "Associated Station" to both the 765th and 762d AC&W Squadron "Master Stations". (Note: The 773d AC&W Squadron will continue to serve as an "Associated Station" to the 762d AC&W Squadron "Master Station". Copies of this letter and inclosures have been forwarded to Headquarters, 27th Air Division (Defense), for dissemination to the 773d AC&W Squadron).

b. The 762d AC&W Squadron will immediately forward to the 765th, 654th and 773d AC&W Squadrons a current copy of the MCIS MASTER CHECK SHEET (ADC envelope numbers, corridor assignments, code words, maneuvers, etc.). Subsequent amendments to the Check Sheet will be forwarded direct from Headquarters, EADF, to the AC&W Squadrons.

c. "Master Stations" will record pertinent data for all tracks (MCIS and NON-MCIS) penetrating and/or operating in their sub-sectors within the Atlantic ADIZ for which identification is required. "Associated Stations" will record only the pertinent data which they must provide the "Master Station". Pertinent data will be recorded on the "MCIS Daily Traffic Summary Log" (Inclosure 1) as prescribed in the "Instructions for Preparing MCIS Daily Traffic Summary Log" (Inclosure 2). (Note: The 762d AC&W Squadron will maintain the MCIS Daily

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C O P Y

Hq 32d AD(D), OCAA, Subject: AC&W Squadron Supplementary Operating Instructions - Nantucket Multiple Corridor Identification System

Traffic Summary Log for the Azores/Bermuda Fan as "Master Station", and a separate log as an "Associated Station" for the Yarmouth Fan).

d. Operations Officers will review the MCIS Daily Traffic Summary Logs daily and take immediate appropriate action to correct any discrepancies noted on the part of ADDC personnel. "Master Stations" will then have the logs typed in triplicate and make the following distribution not later than Tuesday of each week: original and one (1) copy to Headquarters, EADF, attention: OOT; and One (1) copy to this headquarters, attention: OOT-A. The working copy of the log will be retained in the Squadron for future reference, if required. "Associated Stations" need not submit copies of the log. However, working copies are to be retained in the Squadron files for future reference, if required.

e. MCIS flights detected, which are within time/distance tolerance and with whom communication cannot be established, will be identified by normal flight plan correlation. However, every effort is to be made to obtain the code word. Although, normally, a station is allotted two (2) minutes to establish a track and only one (1) minute to make identification, tracks on which an MCIS flight plan is available will be allotted an additional five (5) minutes to effect identification. Therefore, if the ADDC making initial radar pick-up cannot establish communication and obtain the code word within three (3) minutes after track has been established, the remaining two (2) minutes will be utilized to attempt contact through the Boston ARTC Center. At the end of the five-Minute period, the track will either be declared "friendly" on time and distance criteria, or declared "unknown". If the code word has not been obtained by the time the track is cross-told, the adjacent ADDC will be so advised (column 10.A, Inclosure 1), and they will attempt to establish communication and obtain code word. This method will be applied until either the code word is obtained or the aircraft has departed from MCIS.

f. When an MCIS flight has been identified by either the code word or maneuver, every effort will be extended to notify the pilot that identification has been accomplished. Where applicable, the general procedures outlined in "e" above will be followed to accomplish this notification.

g. In cross-telling track data, the adjacent ADDC will, in all cases, be notified of the current identification status (column 10.A, Inclosure 1). Any change in the identification status will be reported immediately to the "Master Station".

C O P Y

Hq 32d AD(D) OCAA Subject: AC&W Squadron Supplementary Operating Instructions - Nantucket Multiple Corridor Identification System,

h. The identification maneuver is to be requested only of MCIS flights not meeting time/distance tolerances or when required to resolve ambiguities created by two or more aircraft being within the same time/distance tolerances, and where accurate D/F is not available. The code word is not to be requested when a maneuver is required.

i. Tactical action for MCIS flights requiring identification maneuvers may be reported as "NS-MCIS" (no scramble-MCIS) for a maximum of five (5) additional minutes after the expiration of the one (1) minute normally allowed to effect identification. In the event the ADDC making initial radar pick-up cannot establish direct communication with the aircraft within two (2) of this additional five (5) minutes, instructions to "EXECUTE IDENTIFICATION MANEUVER", prefixed by aircraft identification, will be broadcast blind for a minimum of at least one (1) minute. If the aircraft has not started the maneuver at the expiration of the additional five (5) minutes, it will be declared "unknown", and appropriate tactical action will be initiated.

j. ARTC Center approval will be obtained prior to requesting aircraft (either direct or by blind broadcast) to execute identification maneuver. Where the ARTC Center cannot approve the maneuver due to air traffic conditions, other appropriate tactical action will be initiated immediately.

2. The supplementary instructions and procedures contained in paragraphs "e" and "f" were to be implemented upon receipt of our message, ACFOOT-A 8020. The remaining instructions and procedures are to be implemented at 0001Z, 22 August 1954. Commanders, AC&W Squadrons concerned, are directed to effect necessary coordination and personnel indoctrination to insure implementation with a minimum of effort.

3. To facilitate implementation and application of these instructions and procedures, the cooperation of the Boston ARTC Center for the following assistance has been requested:

a. Submit all flight plans penetrating via or in proximity to the Yarmouth Fan to the 765th AC&W Squadron ADDC, and those penetrating via or in proximity to the Azores/Bermuda Fans to the 762d AC&W Squadron ADDC.

b. Attempt to establish communication and obtain code word, either through Center radio, company ground station, CAA INSAC, etc., when requested by either a "Master Station" or "Associated Station". (See "e" above).

C O P Y

Hq 32d AD(D) OGAA Subject: AC&W Squadron Supplementary Operating Instructions - Nantucket Multiple Corridor Identification System

c. Notify the appropriate "Master Station" and, if different, the ADDC within whose subsector the aircraft is operating, when code word is received. Also, notify the "Master Station" when communications cannot be established or, if established, the agency establishing communication; i.e., "BOS" (Center); "CO" (Company), etc.; time established (column 7.B (1) and (2), Inclosure 1); and time such agency "requested" and "received" code word (column 8.A and B, Inclosure 1).

4. To determine the effectiveness, correct any deficiencies and to develop recommendations for improvement of this system, it is essential that all aspects be analyzed thoroughly. To accomplish this, it is imperative that the MCIS Daily Traffic Summary Log be prepared in detail and complete accuracy. When so completed, evaluation of this log will provide: (1) Total number of aircraft operating within the airspace encompassed by or immediately adjacent to the MCIS. (2) Total number of participants; non-participants and aircraft for which flight plan was not received. (3) Total number of non-participants departing from briefing and non-briefing terminals. (4) Total number of non-participants departing from briefing terminals due to increased mileage. (5) Routes prior to, within or adjacent to, and immediately after MCIS. (6) Maximum, minimum and normal radar coverage. (7) Conformance and non-conformance with time/distance tolerances. (8) Current and required direct communication effectiveness. (9) Relative comparison of identification capabilities.

BY ORDER OF THE COMMANDER:

2 Incls:	EVERITT W. HOWE
1. MCIS Daily Traffic Summary Log	Major, USAF
2. Instructions for Preparing MCIS Daily Traffic Summary Log	Adjutant

Info cy:  
comdr, 4711th Def Wg

AC&W SQUADRON

INSTRUCTIONS FOR PREPARING MCIS DAILY TRAFFIC SUMMARY LOG

1. COLUMN 1 - FLIGHT MOVEMENT:

- a. "Track #": ADCC assigned track number.
- b. "ADC #": ADC envelope number, including letter suffix, for MCIS flight. Insert "NP" (non-participant) for non-MCIS flights and no flight plan tracks.
- c. "CORR": Assigned corridor for MCIS flights. Use first letter of appropriate Fan (ADC envelope number suffix and corridor number; i.e., T-2, B-3, A-1, etc.). Insert ditto marks (") for non-MCIS flights and no flight plan tracks.

2. COLUMN 2 - FLIGHT MOVEMENT:

- a. "IDENT": Aircraft (flight plan) identification. Use company abbreviation and trip number for commercial carriers; i.e., PAA-150, TWA-179, etc. If flight plan is not received, insert "NO FP".
- b. "Type": Type of aircraft. Include number of aircraft involved for formation flights; i.e., 3 B-36's; 2 PBV's, etc. If flight plan is not received, insert ditto marks (").

3. COLUMN 3 - FLIGHT MOVEMENT:

- a. "DEP" (Departure): Airport of departure. If flight plan is not received, insert "UNK".
- b. "ROUTE (Route)": Insert the appropriate "release reporting point" for MCIS flights; i.e., "ACK" (Nantucket); "XLU-2" (Lurcher-2); "N-ACK" (North Nantucket), or "Pike 2". Non-MCIS flights penetrating by the Atlantic Ocean, insert the appropriate oceanic boundary reporting point; i.e., "XSL" (Seal); "XEL" (Eel) or "XCD" (Cod). For flights penetrating by Yarmouth, insert the reporting point at which entry into the U. S. is made; i.e. "ACK" (Nantucket) or "BOS" (Boston). If flight plan is not received, insert ditto marks (").
- c. "DEST" (Destination): Airport of destination. If flight plan is not received, insert ditto marks (").

4. COLUMN 4 - IP (INITIAL PICK-UP):

- a. "STA" (Station): "P" designator of the ADCC making initial radar pick-up.
- b. "Time": Time (Z) initial radar pick-up was made.

- c. "GEOREF": The position of initial pick-up in GEOREF code.
5. COLUMN 5 - ALT (ALTITUDE):
- a. "FP" (Flight Plan): The altitude specified in the flight plan. If flight plan is not received, insert "UNK".
- b. "RDR" (Radar): The altitude indicated by radar. Where same as flight plan altitude, or if no flight plan received, insert ditto marks (").
6. COLUMN 6 - TOL (TOLERANCE):
- a. "Time": Deviation from flight plan time recorded in minutes early (E) or late (L); i.e. 3E, 5L, etc. When on time, insert "O/T". If flight plan not received, insert "UNK".
- (NOTE: Deviation in time for MCIS flights is to be determined at the initial pick-up point and must be based on the estimated ground speed predicated on the pilot's reported position over the last reporting point and estimate to the next reporting point.)
- b. "DIST" (Distance): Deviation from flight plan route recorded in nautical miles right (R) or left (L) of route; i.e., 5R, 10L, etc. Where on course, insert "O/C". If flight plan not received, insert ditto marks (").
- (NOTE: Deviation from route for MCIS flights is to be determined from the center-line of the assigned corridor, and for non-MCIS flights from the center-line of the control area extension or other specified route of flight).
7. COLUMN 7 - RDO CTC (RADIO CONTACT):
- a. "Initiated":
- (1) "STA" (Station): "P" designator of ADDC attempting to establish initial radio contact. Insert "NA" for non-MCIS and no flight plan tracks.
- (NOTE: Where different from ADDC making initial radar pick-up (column 4.A) explain in "Remarks" column).
- (2) "Time": Time (Z) initial radio contact was attempted. Insert ditto marks (") for non-MCIS and no flight plan tracks.
- b. "ESTB" (Established):
- (1) "STA" (Station): "P" designator of ADDC or abbreviation of agency establishing initial radio contact. Where initial radio contact is established by or through Boston AETCC, insert "BOS" for the Center or the abbreviation of the agency which the Center advises

DATE: 16 August 1954

2

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radio contact was established. If radio contact was not established, insert "NO CTC" (No Contact). Insert "NA" if non-MCIS or no flight plan tracks.

- (2) "Time": Time (Z) initial radio contact was established. If radio contact was not established ("NO CTC", 7.B.(1)), and for non-MCIS and no flight plan tracks, insert ditto marks ("").

8. COLUMN 8 - CODE WORD:

- a. "RQSTD" (Requested): Time (Z) station or agency establishing initial contact with aircraft requested pilot to transmit code word. If radio contact could not be established (7.B), insert "NO CTC". If maneuver is required for identification (column 9) or for non-MCIS and no flight plan tracks, insert "NA".
- b. "RCVD" (Received): Time (Z) pilot transmits the code word. If radio contact was not established (7.B) or if maneuver (column 9) is required for identification, and for non-MCIS and no flight plan tracks, insert ditto marks ("").

(NOTE: If the ADDC or agency requesting and/or receiving code word is different from 7.B.(1), specify in "Remarks" column).

9. COLUMN 9 - MANEUVER:

a. "RQSTD" (Requested):

- (1) "STA" (Station): "P" designator of the ADDC that issues or broadcasts instructions to aircraft to execute identification maneuver. Insert "NA" for MCIS flights identified by time/distance tolerance and/or code word, or non-MCIS and no flight plan tracks.
- (2) "Time": Time (Z) that instructions to execute maneuver were issued or broadcast. When "NA" is inserted in 9.A.(1), insert ditto marks ("").

b. "Action":

- (1) "Started": Time (Z) maneuver was detected to have started. Insert "NA" for MCIS flights not required to execute maneuver and non-MCIS and no flight plan tracks.
- (2) "CMPLD" (Completed): Time maneuver was detected to have been completed. When "NA" is inserted in 9.B.(1), insert ditto marks ("").

(NOTE: Where the start and/or completion of maneuver is detected by an ADDC other than listed in 9.A.(1), specify in "Remarks" column).

10. COLUMN 10 - IDENT (IDENTIFICATION):

- a. "STAT" (Status): Identification status. One of the following symbols, as appropriate, will be inserted for each track: "FP" - identification by flight plan correlation. "CW" - identification by code word. "IM" - identified by identification maneuver. "INC" - identified by intercept. "UNK" - target unknown; not identified.
- b. "Pilot ADVZD" (Pilot Advised): Time (Z) pilot advised that "identification completed".

11. COLUMN 11 - REMARKS:

- a. In addition to the comments required by 7.A.(1), 8.B and 9.B.(2), the following appropriate comments will be inserted in the "Remarks" column:

- (1) Where radio contact is established, the signal strength to be inserted by "S", numerical strength 1 through 5; i.e. S1, S2, etc.
- (2) When fades occur, the "P" designator of the ADDC in whose subsector the fade is effected and the GEOREF position thereof, and the "P" designator of the ADDC in whose subsector subsequent pick-up is made and the GEOREF position thereof is to be inserted; i.e. "Fade P-65 JP 2050, Pick-up P-13 GP 0530".
- (3) Where scramble action is required and identification accomplished prior to intercept, insert "Scramble-IPI" (identified prior to intercept).
- (4) Where two-way radio contact cannot be established for identification maneuver and instructions to execute the maneuver are broadcast, insert "IM BDCST Blind".
- (5) Where target remains unknown and no scramble action is taken, indicate other tactical action; i.e., NSCA, NSWX, NSOR, etc.
- (6) Where a maneuver is required to resolve ambiguities for a MOIS flight within time/tolerance, insert "IM-AMB" and list other tracks involved.
- (7) Any other remarks that will assist in the evaluation of the system.

Where necessary, remarks are to be continued on the reverse side of the log. In such cases, the marginal number will be used as a prefix.

DATE: 16 August 1954

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1999

C O P Y

654TH AIRCRAFT CONTROL AND WARNING SQUADRON  
U.S. NAVAL AIR STATION  
Brunswick, Maine

OT

8 November 1954

SUBJECT: Multiple Corridor Identification System

TO: Commander  
32d Air Division (DEFENSE)  
ATTN: Operations and Training Officer  
Syracuse Air Force Station  
Syracuse 6, New York

1. The picket vessels are being utilized for the completion of MCIS identification and, while greatly contributing to the extension of our radio communications have caused some confusion as evidenced in the MCIS pilots questionnaires.
2. There is reason to believe that picket vessels have requested code words without the knowledge of AC&W and that they may have received code words and for some reason, not informed AC&W.
3. The pilot questionnaires also indicate that the picket vessels are confusing the pilots through use of picket vessel call signs.
4. In view of the foregoing the following recommendations are forwarded for your considerations:
  - a. Continue to use Picket Vessels for the extension of communication ranges but have the picket vessels request Code Words only when requested to do so by an AC&W unit.
  - b. Have the picket vessel use the "Air Defense Radar" identity for this purpose as does AC&W.
  - c. Insure that the picket vessel makes every attempt to inform the AC&W Unit requesting action of the results of said action.

FOR THE COMMANDER:

Info: Comdr, 4707th ADW

CECEL H. RAMSEY, JR.  
2nd Lt., USAF  
Adjutant

243

2000

C O P Y

Hq 654th AC&W OT Subject: Multiple Corridor Identification System

OOT-A (8 Nov 54) 1st Ind 19 Nov 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse AFS, Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh,  
New York

1. Forwarded for consideration.

2. In addition to the recommendations contained in paragraph 4 of basic letter, it is recommended that Picket Vessel personnel be briefed on MCIS procedure prior to going on site. Past incidents have necessitated attempt to brief these personnel thru the HF net.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

EAOOT-OS (8 Nov 54) 2d Ind 8 Dec 54

Hq EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. Plans are being developed to hold a meeting with representatives of Eastern Sea Frontier and COMCORTON 16 in the near future. Representatives from the 26th and 32d Air Divisions (Defense) and the ACM squadrons concerned with Nantucket MCIS or New York IMIS will be invited. The objective of the meeting will be to outline Picket Vessel procedures for the conduct of these programs.

2. The recommendations above will be discussed at the planned meeting.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

Hq 654th ACMW OT Subject: Multiple Corridor Identification System

OOT-A (8 Nov 54) 3d Ind 13 Dec 1954

Hq 32d AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, 4707th Air Defense Wing, Otis AFB, Falmouth, Mass.

Attention invited to preceding indorsement.

BY ORDER OF THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

978.

**SECRET**

**HISTORICAL REPORT  
of the  
32d AIR DIVISION (DEFENSE)**



**THE AIR DEFENSE OF A SECTOR  
JULY through DECEMBER 1954**

SUPPORTING DOCUMENTS V

**HISTORICAL OFFICE  
SYRACUSE AIR FORCE STATION, NEW YORK**

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HISTORICAL REPORT  
OF THE 32D AIR DIVISION (DEFENSE)  
Number Seventeen

THE AIR DEFENSE OF A SECTOR  
July through December 1954

RCS: 1-AF-D2

SUPPORTING DOCUMENTS  
VOLUME V (Documents 244/1 thru 265/1)

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CONFIDENTIAL

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-A

16 Apr 1954

SUBJECT: Emergency Scrambles

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. For some time it has been apparent that an unnecessary calculated risk is being accepted during periods of inclement weather. Along the extremities of our radar search capability, to the north and seaward, unknown aircraft have penetrated our defense without positive identification or countering action. The tracks are passed through operations channels with the familiar phrase "No scramble, weather". This action, or lack of action, by our defense team permits the unknown to proceed unchallenged to vital target areas.

2. Often, scramble could have been ordered from a perimeter base, identification completed and the interceptor recovered inland. The weather along coastal areas frequently precludes scramble from a base, due to established minimums, but permits safe operation inland. By scrambling from an inland base for a coastal area target, excessive intercept time is consumed and also results in the distance being beyond the radius of action.

3. With the restrictions imposed by paragraph 4f, EADFR 55-14, scramble is precluded without declaration of an air defense readiness or warning. This restriction in turn prevents commanders from exercising responsibility for identification by refusing to grant authority to meet this inherent obligation.

4. It is recommended that the term "Emergency Scramble" be deleted from all current directives and permit commanders to govern scramble decisions based on track characteristics and the tactical situation.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

CONFIDENTIAL

1325-54

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CONFIDENTIAL

C O P Y

Hq 32d ADiv (Def) OOT-A Subject: Emergency Scrambles

EACOT-CW (no date) 1st Ind 24 May 1954  
HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York  
TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Paragraphs 3d and 4b of EADFR 55-14 have been amended to afford air division commanders scramble authority commensurate with that provided by ADOR 55-30.

2. This Indorsement is Unclassified.

s/t/ GEORGE F. SMITH  
Brigadier General, USAF  
Vice Commander

OOT-A (no date) 2nd Ind  
HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York 28 Jun 1954

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Defense Wing, Presque Isle AFB, Maine

1. Forwarded for your information and appropriate action.

2. Reference is made to message this headquarters, ACFOOT-PO 5072 (Unclassified), 19 May 1954 which advised of rescision of paragraphs 3d and 4b, EADFR 55-14.

3. Request director and aircrew personnel be advised of change of policy and be briefed on proper terminology for issuance of scramble orders

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt. USAF  
Asst Adjutant

CONFIDENTIAL

1325-54

C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-FO

10 Jun 54

SUBJECT: Scramble and Recovery Weather Minima

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Reference your message EA00T-OW 17703, the following scramble and recovery weather minima for each Fighter-Interceptor Squadron is submitted:

<u>SQUADRON</u>	<u>BASE</u>	<u>CEILING</u>	<u>PRECIPITATION CEILING</u>
27th Ftr-Intcp Sq	Griffiss AFB, Rome, NY	1500-3 Day 1500-3 Night	1500-8 Day 1500-8 Night
37th Ftr-Intcp Sq	Burlington Muni Aprt Burlington Vt.	2000-3 Day 2000-3 Night	2000-3 Day 2000-5 Night
47th Ftr-Intcp Sq	Niagara Falls Muni Aprt Niagara Falls, NY	1000-3 Day 1000-3 Night	1000-2 Day 1500-2 Night
49th Ftr-Intcp Sq	Dow AFB, Bangor, Me	1000-3 Day 1000-3 Night	1000-3 Day 1000-3 Night
57th Ftr-Intcp Sq	Presque Isle AFB Presque Isle, Me	800-1 Day 1200-2 Night	1200-4 Day 1200-4 Night
58th Ftr-Intcp Sq	Otis ARB, Falmouth Mass	500-1 $\frac{1}{2}$ Day 500-1 $\frac{1}{2}$ Night	1000-3 Day 1000-3 Night
60th Ftr-Intcp Sq	Westover AFB Westover, Mass	800-1 Day 800-2 Night	1500-2 Day 1500-2 Night

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HQ 32D AD(D) OCT-FO Subj: Scramble and Recovery Weather Minima

74th Ftr-Intcp Sq	Presque Isle AFB	800-1 Day	1200-4 Day
	Presque Isle, ME	1200-2 Night	1200-4 Night

437th Ftr-Intcp Sq	Otis AFB, Falmouth	500-1 $\frac{1}{2}$ Day	1000-3 Day
		500- $\frac{1}{2}$ Night	1000-3 Night

FOR THE COMMANDER:

FREDERICK E. YORK  
Lt Colonel, USAF  
Adjutant

C O P Y

138TH FIGHTER INTERCEPTOR SQUADRON  
New York Air National Guard  
Hancock Field  
Syracuse 11, New York

19 August 1954

SUBJECT: ↓ Low Flying Aircraft

TO: Base Operations Officer  
32nd Air Division  
Hancock Field  
Syracuse, New York

1. In the past there have been several instances of low flying jet aircraft over the Pitcher Hill - North Syracuse area just northwest of Hancock Field. This unit has recognized the problem for many years and has SOP's which prohibit aircraft from flying over these areas even though above legal minimums. The situation has reached the point that members of the United States Congress have asked the National Guard Bureau to investigate.

2. Nearly all instances of low flying aircraft are either transit aircraft taking off or aircraft practicing on the ILAS and breaking off over the congested areas.

3. Our squadron SOP requires the pilot to climb straight ahead at a relatively low airspeed (200 kts) to 1500 feet indicated when taking off or practicing ILAS approaches on runway 28.

4. It is requested that your office devise some plan of informing transit aircraft of the serious situation that is developing. The ANG Base Operations is planning to attach a notice to all DD Form 175's. The notice will read "All jet and fighter type aircraft will climb straight out to 1500 feet indicated at 200 knots when using runway 28. A right turn out of traffic will be made. This procedure is necessary to avoid the housing area northwest of Hancock Field".

5. It is assumed that the majority of transit jet traffic is from commands under the jurisdiction of the 32d Air Division. It may be possible to notify the units within your command of the proper procedure to use when taking off or practicing ILAS approaches on runway 28. It is further requested that you advise us of any action taken or contemplated.

JOSEPH C. IRWIN  
Lt Colonel, NYANG  
Commander

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C O P Y

138th FIS NYANG, Syracuse, NY Subject: Low Flying Aircraft

OOT-FO (19 Aug 54) 1st Ind

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 138th Fighter-Interceptor Squadron, New York Air National  
Guard, Hancock Field, Syracuse 11, New York

1. Numerous letters and messages have been sent to units of this  
command concerning subject disturbances outlining procedures to be used  
by jet aircraft operating in the vicinity of Hancock Field.

2. Several senior officers assigned to this headquarters live in  
the Pitcher Hill - North Syracuse area. These officers have observed  
that the aircraft creating the disturbance in that area included airliners.

3.

3. During the recent strike and subsequent reduced flying by  
airliners, the disturbance in the Pitcher Hill - North Syracuse area  
was almost nil. However, during this same period the jet aircraft  
traffic increased ten-fold by Air National Guard Summer Training at  
Hancock Field.

FOR THE COMMANDER:

EVERETT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
764TH AIRCRAFT CONTROL AND WARNING SQUADRON  
ST. ALBANS AIR FORCE STATION  
St. Albans, Vermont

OPNS

SUBJECT: Aircraft Letdown Separation

THRU: Commander  
517th Air Defense Group  
Ethan Allen Air Force Base  
Winooski, Vermont

TO: Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Recent experience with Tactical Doctrine Missions indicates that present CAA Separation minimums hamper the execution of the mission assigned to the 37th Fighter Interceptor Squadron and this squadron.

2. CAA separation of five (5) minutes between aircraft in controlled air space, in effect, results in reduced control time available when a group of F-86D's are scrambled on a mission. For example, if eight (8) F-86D's are scrambled an interval of 35 minutes between the first and eighth fighter would be required for recovery. If the F-86D's have been scrambled on a 30 second interval, as desired by Division Commander, there is a net loss of  $31\frac{1}{2}$  minutes of control time.

3. It is appreciated that under conditions of an actual attack, the CAA minimums could be disregarded. However, it is essential during this period of training that pilot-director teams practice such procedures to maintain adequate proficiency in techniques that make possible efficient air defense under actual combat conditions.

4. It is requested that action be initiated to reduce this separation minimum to at least radar minimums when aircraft are recovered via the ILAS facility at Burlington or by the GCA unit at that field.

W. J. HOLLANDER  
Lt Colonel, USAF  
Commander

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C O P Y

Hq 764th ACSW Sq, St Albans, Vt., Subj: Aircraft Letdown Separation

O&T (20 Aug 54) 1st Ind 15 Sep 54

HQ 517TH AIR DEFENSE GROUP, Ethan Allen Air Force Base, Winooski, Vt.

TO: Commander, 4711th Air Defense Wing, Presque Isle Air Force Base,  
Presque Isle, Maine

1. As long as ATC and CAA approach controls are responsible for the separation and safety of IFR aircraft within control areas, we will continue to have this problem.
2. At this base, control of traffic is delegated from Air Traffic Control to the Burlington Approach Control at 20,000 feet over the Burlington radio range. The normal procedure at this base for the standard jet letdown is to clear the second aircraft for letdown when the first aircraft calls in on leaving the northeast leg of the Burlington range at 5,000 feet. This point generally is reached in 3 to 5 minutes. When the ceilings in the letdown areas are below 5,500 feet, this 3 to 5 minutes will be the time separation between aircraft. When ceilings are above 5,500 feet, the time will be reduced proportionately by the pilot cancelling his IFR clearance and proceeding to the base VFR.
3. On GCI approaches, clearance must be received from Burlington Approach Control by the ADCC prior to letting the aircraft down when using the recovery reference points "A" and "B" to the south, or "C" and "D" to the north. This is a satisfactory system for entry into ILS and GCA; however, the time separation on these letdowns is ordinarily five minutes between aircraft.
4. Under the present agreement of the 32nd Air Division (Defense) SARPS, Burlington Approach Control (CAA) is responsible for IFR aircraft at altitudes of 4,500 feet and below within the control zone. A plan is being worked out with the CAA authorities here for a study to be made of the possibility of waiving these separation requirements under unusual conditions.

HARRY L. DOWNING  
Colonel, USAF  
Commander

C O P Y

Hq 764th ACW S1 OPNS Subj: Aircraft Letdown Separation

DO-OMT (20 Aug 54) 2nd Ind 23 Sep 1954

Hq 4711TH AIR DEFENSE WING, Presque Isle, APB, Maine

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

1. Basic correspondence and first indorsement are forwarded for your consideration and possible assistance.
2. Proper coordination with OJA liaison personnel could alleviate this problem.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

OOT-A (20 Aug 54) 3d Ind 12 Nov 54

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6, New York

TO: Commander, 4711th Air Defense Wing, Presque Isle Air Force Base, Presque Isle, Maine

1. It is recommended that the commanders of the 57th Fighter-Interceptor Squadron and 764th ACW Squadron consult Mr. Derby, Chief, Burlington Combined Station/Tower, in relation to this problem. If satisfactory local arrangement cannot be reached, it is desired that this headquarters be advised. In this respect, reference is made to paragraph 1-0101, "ANG Procedures for the Control of Air Traffic".
2. Informal information indicates that delay is frequently encountered in receiving approach clearances due to ADCC personnel inability to properly copy verbatim clearances when received. It is desired that this item be stressed and personnel proficiency raised to eliminate this one difficulty.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

C O P Y

HEADQUARTERS  
WILMETH AIR DEFENSE WING  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

DO-FS

10 Nov 1954

SUBJECT: Proposed Jet IF Range and ILS Let-Down Procedures For  
Burlington, Vermont

TO: Commander  
384 Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 5  
Syracuse, New York

1. In compliance with AFB 35-24 and your message ACCOT-FO 9101, the following letter from Boston Air Route Traffic Control Center and attachments are forwarded.

2. This headquarters has reviewed the proposed changes indicated on attached forms and JAL-70RNG chart and concurs with them. Of particular importance is the desired altitude change for the penetration turn of the standard jet-letdown on Burlington Radio Range. With the present procedure a descent on the NE leg of the BTV Radio Range to 3000 feet places a jet aircraft entirely too far out to be practical.

3. Request the proposed changes be favorably considered.

1 Incl:  
Ltr fr Boston ARTC  
dtd 29 Oct 54  
w/attachments

JAMES C. BECKWITH  
Colonel, USAF  
Commander

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C O P Y

Hq 4711th ADW, DC-FG, Subj: Proposed Jet IF Range and IIS Let-Down  
Procedures for Burlington, Vermont

OCT-FO (10 Nov 54) 1st Ind

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

Recommend approval.

1 Incl: ROBERT S. ISRAEL, JRE.  
n/c Colonel, USAF  
Commander

EA00T-OF (10 Nov 54) 2nd Ind

Hq EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado  
Springs, Colorado

1. Forwarded for your consideration in accordance with AFM 59-24.
2. This headquarters recommends approval.

FOR THE COMMANDER:

1 Incl: BEN D. MOORHEAD  
n/c 1st Lt., USAF  
Asst Adjutant

C O P Y

B/L Hq 4711th ADG, DC-FS, Subj: Proposed Jet IF Range and ILS Let-Down Procedures for Burlington, Vermont

ADDOPT-C (10 Nov 54) 3rd Ed

HEADQUARTERS AIR DEFENSE COMMAND, Ent AFB, Colorado Springs, Colorado

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base, Newburgh, New York

1. The attached proposed jet penetration and approach procedures are returned for the following corrective action.

a. Pursuant to paragraph 5, AFR 55-24A, dated 12 May 1954, request landing minima be altered to conform with those published in the Burlington, Vermont, Standard Instrument Approach Procedure, AL-70-RNG, dated 28 June 1954. Minima should read as follows:

- (1) Landing Straight in Day 500' 1 mile.
- (2) Landing Straight in Night 500' 1 mile.
- (3) Landing Regular (Circling) Day 600' 1½ mile.
- (4) Landing Regular (Circling) Night 600' 1½ mile.

b. Missed approach procedure, as outlined in Remarks section, differs from that published in the existing Standard Instrument Approach Procedure, AL-70-RNG. Request this headquarters be advised if revised procedure is an operational necessity. Since jet pilots may use either the Jet Instrument Procedure or Standard Instrument Procedure for instrument approach, both charts should reflect a single procedure, safe for both jet and conventional.

2. Four copies of a map of the airport and surrounding area indicating the procedure graphically should be inclosed as specified in paragraph 3, AFR 55-24.

3. Request the return indorsement indicate that the attached procedure has been flight checked and found to be satisfactory.

4. To expedite publication, return of this correspondence direct to this headquarters from the originating agency is authorized.

BY ORDER OF THE COMMANDER:

1 Incl:  
a/c

DAVID F. MUNNS  
Captain, USAF  
Asst Command Adj

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C O P Y

Hq 4711th Air Def Wg, DC-FG, Subject: Proposed Jet IF Range and ILS  
Let-Down Procedures for Burlington, Vermont

EACOT-3F (10 Nov 54) 4th Ind 29 Dec 1954

Hq EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, New York

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. Your attention is directed to the previous indorsement.
2. Desire that a copy of the forthcoming indorsement and enclosures thereto of the originating agency be forwarded direct to this headquarters.

BY ORDER OF THE COMMANDER:

1 Incl:  
n/c

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

OOT-FO (10 Nov 54) 5th Ind 31 Dec 1954

HEADQUARTERS, 32D AIR DIVISION(DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, 4711th Air Defense Wing, Presque Isle Air Force Base,  
Presque Isle, Maine

Forwarded for your information and compliance with the 3rd and  
4th Indorsement.

BY ORDER OF THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

6

C O P Y

DEPARTMENT OF COMMERCE  
CIVIL AERONAUTICS ADMINISTRATION  
Air Route Traffic Control Center  
287 Marginal Street  
East Boston 28, Mass.

25 October 1954

Commander  
517th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

Dear Sir:

Enclosed herewith are five signed copies each of proposed Jet  
IF Range and ILS Let-down Procedures for Burlington, Vermont.  
These procedures have been coordinated with and approved by  
Mr. S. D. Haley, CAA Aviation Safety District Office, Boston,  
Mass.

Your attention is invited to the corrections made on Item 8  
of the ILS Procedure and Item 3 and in remarks of IF Procedure  
to indicate change in missed approach altitude from 10,000 to  
4,500 feet. These changes were made upon authorization of  
Colonel Downing, 517th Air Defense Group, Burlington, Vermont.

Please advise this office when final approval of these proce-  
dures has been obtained and the effective date thereof.

Very truly yours,

Thomas F. Milles  
Chief Air Route Traffic  
Controller

Enclosures

Incl #1

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOOT-OW

SUBJECT: Jet Penetration and Instrument Approach Procedures

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. The attached letter indicates that Headquarters USAF is becoming increasingly concerned with the air traffic control problem and that considerable Headquarters USAF support may be expected regarding suggestions and/or procedures of improving and expediting the control of air traffic. In Colonel Agan's letter of 5 November 1954 to the Air Division (Defense) Deputies for Operations, certain areas of air traffic control were listed for consideration in expediting and improving local procedures.

2. It is desired that the actions directed by the attached letter be initiated immediately and that division Deputies for Operations be prepared to discuss any known or anticipated difficulties in resolving the deficiencies listed in the subject USAF letter at the next Air Division (Defense) Deputies for Operations meeting.

3. The 25th of January 1955 is proposed as a date for the next EADF Air Division (Defense) Deputies for Operations meeting, and in addition to the specific penetration and instrument approach procedures referred to above it is requested that Air Division (Defense) Deputies for Operations be prepared to discuss improvement of air traffic control in the areas outlined in Colonel Agan's letter of 5 November 1954.

4. The date proposed in paragraph 3 above will be confirmed later by message, if suitable for all concerned.

BY ORDER OF THE COMMANDER:

1 Incl  
ltr Hq USAF AFOOP-OC-A  
Subj as abv, 1 Dec 54  
w/3 Incls

JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

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C O P Y

Hq EADF, EAOOT-OW, Subject: Jet Penetration and Instrument Approach  
Procedures

OOT-FO (8 Jan 55) 1st Ind 14 Jan 1955

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, 4707th Air Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine  
Hq Sq Section, 32d Air Division (Defense)

Forwarded for your information and necessary action.

BY ORDER OF THE COMMANDER:

1 Incl:  
n/c

EVERITT W. HOWE  
Major, USAF  
Adjutant

E O P Y

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON 25, D. C.

AFCOP-OC-A

1 Dec 1954

SUBJECT: Jet Penetration and Instrument Approach Procedures

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. This headquarters is currently reviewing all USAF Jet Penetration and Instrument Approach Procedures as published in the US Air Force - US Navy Pilot's Handbook.

2. A study revealed that a major number of air traffic control delays currently being encountered by Jet aircraft are due to the existing letdown procedures. The procedures which are considered to be unsatisfactory fall within the following three categories:

- a. Time-consuming (Inclosure #1).
- b. Inadequate missed approach procedure (Inclosure #2).
- c. Combination of 2a and 2b above (Inclosure #3).

3. At practically all airbases and airports, both conventional and jet aircraft operations are involved. Initially, the navigational facilities serving the terminal areas were installed to serve the conventional type aircraft. Due to the limited number of jet aircraft being operated at that time, jet letdown procedures were established to create the least confliction to the conventional aircraft operations. Very little emphasis was given to developing procedures which would provide for the most expeditious handling of jet aircraft. In many cases the procedures involved penetration into an open quadrant, and upon completion of the penetration procedure, execution of a standard range approach.

4. Since that time, the number of jet aircraft has increased considerably and will continue to increase in the future. This, coupled with the critical jet aircraft and fuel consumption rate at low altitudes, makes it necessary to review the jet penetration and instrument approach procedures. Increased emphasis must be placed on the need for improving the air traffic control capability by reducing the time interval between successive jet approaches and better integration of jet with conventional aircraft operations.

INCL #1

C O P Y

Ltr to all Major ZI Commands, Jet Penetration and Instrument Approach Procedures (Cont'd)

5. At those locations where a high volume of jet operations exists, it may be necessary to install additional letdown facilities to expedite approaches. Where this is required, it is paramount to keep in mind the traffic control requirements of the location. Requests for additional facilities must be fully justified with regard to compatibility in the terminal air traffic control system complex and must be coordinated with the local CAA prior to submission.

6. To establish missed approach procedures permitting more than one aircraft on approach at the same time, utilizing timed approach or darda procedures, adequate alternate missed approach procedures are required. A missed approach procedure requiring return to the approach fix prohibits another aircraft initiating an approach as a confliction would be created if the first aircraft missed the approach.

7. Desire that each major command review the jet penetration and approach procedures at the locations within their respective commands listed in the inclosures with a view toward improving the procedures. In accomplishing this, emphasis should be directed toward devising procedures which will:

- a. Provide for letdowns in the shortest possible time.
- b. Require a minimum amount of maneuvering.
- c. Permit more than one aircraft to be on approach at the same time.

8. Where mutually satisfactory procedures cannot be worked out locally with Civil Aeronautics Administration representatives, the problem should be referred to this Headquarters for further action at this level.

BY ORDER OF THE CHIEF OF STAFF:

3 Incls:

1. Time-consuming
2. Inadequate missed approach procedure
3. Both time-consuming & inadequate missed approach procedure

PAUL A. JONES  
Colonel, USAF  
Deputy Operations & Commitments  
Div., D/O

C O P Y

Time-Consuming Penetration Procedures

1. Amarillo Air Terminal, Amarillo, Texas
2. Ellington Air Force Base, Houston, Texas
3. Ellsworth Air Force Base, Rapid City, South Dakota
4. Gary Air Force Base, San Marcos, Texas
5. Goodfellow Air Force Base, San Angelo, Texas
6. Great Falls Air Force Base, Great Falls, Montana
7. Harlingen Air Force Base, Harlingen, Texas
8. Hill Air Force Base, Ogden, Utah
9. Laughlin Air Force Base, Del Rio, Texas
10. Lowry Air Force Base, Denver, Colorado
11. McConnell Air Force Base, Wichita, Kansas
12. Minneapolis-St. Paul International Airport, Minneapolis, Minn.
13. Mountain Home Air Force Base, Mountain Home, Idaho
14. Nellis Air Force Base, Las Vegas, Nevada
15. Reese Air Force Base, Lubbock, Texas
16. Sioux City Airport, Sioux City, Iowa
17. Sky Harbor Airport, Phoenix, Arizona
18. Vance Air Force Base, Enid, Oklahoma
19. Webb Air Force Base, Big Spring, Texas
20. Williams Air Force Base, Chandler, Arizona
21. Yuma County Airport, Yuma, Arizona
22. Adams Airport, Little Rock, Arkansas
23. Berry Field, Nashville, Tennessee
24. Birmingham Airport, Birmingham, Alabama
25. Chanute Air Force Base, Rantoul, Illinois
26. Craig Air Force Base, Selma, Alabama
27. Donaldson Air Force Base, Greenville, South Carolina
28. Dow Air Force Base, Bangor, Maine
29. Duluth Airport, Duluth, Minnesota
30. Eglin Air Force Base, Valparaiso, Florida
31. Friendship International Airport, Baltimore, Maryland
32. Greenville Air Force Base, Greenville, Mississippi
33. Griffiss Air Force Base, Rome, New York
34. Hunter Air Force Base, Savannah, Georgia
35. Keesler Air Force Base, Biloxi, Mississippi
36. Kellogg Airport, Battlecreek, Michigan
37. Kinross Air Force Base, Sault St Marie, Michigan
38. MacDill Air Force Base, Tampa, Florida
39. Maxwell Air Force Base, Montgomery, Alabama
40. McGhee-Tyson Aerodrome, Knoxville, Tennessee
41. Memphis Airport, Memphis, Tennessee
42. Millinocket Airport, Millinocket, Maine
43. Moody Air Force Base, Valdosta, Georgia

C O P Y

Time-Consuming Penetration Procedures (Cont'd)

44. Niagara Falls Airport, Niagara Falls, New York
45. Palm Beach Air Force Base, West Palm Beach, Florida
46. Patrick Air Force Base, Cocoa, Florida
47. Pope Air Force Base, Fort Bragg, North Carolina
48. Presque Isle Air Force Base, Presque Isle, Maine
49. Robins Air Force Base, Macon, Georgia
50. Scott Air Force Base, Belleville, Illinois
51. Wright-Patterson Air Force Base, Dayton, Ohio

Incl #1 (Cont'd)

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C O P Y

Penetration Procedures with Inadequate Missed Approach

1. Biggs Air Force Base, El Paso, Texas
2. Boise Air Terminal, Boise, Idaho
3. Bowers Aerodrome, Ellensburg, Washington
4. Geiger Field, Spokane, Washington
5. Gray Air Force Base, Killeen Texas
6. Great Falls Airport, Great Falls, Montana
7. Helena Airport, Helena, Montana
8. Kirtland Air Force Base/Municipal Airport, Albuquerque, N.M.
9. Lewiston Airport, Lewiston, Montana
10. Mahlon Sweet Airport, Eugene, Oregon
11. McClellan Air Force Base, Sacramento, California
12. Medford Airport, Medford, Oregon
13. Oxnard Air Force Base, Oxnard, California
14. Paine Air Force Base, Everett, Washington
15. Burlington Airport, Burlington, Vermont
16. Chicago International (O'Hare) Airport, Chicago, Illinois
17. Detroit-Wayne Major Airport, Detroit, Michigan
18. Douglas Airport, Charlotte, North Carolina
19. Hancock Airport, Syracuse, New York
20. McGuire Air Force Base, Wrightstown, New Jersey
21. Mitchel Air Force Base, Hempstead, New York
22. New Castle County Airport, Wilmington, Delaware
23. Otis Air Force Base, Falmouth, Massachusetts
24. Suffolk County Air Force Base, Westhampton Beach, New York
25. Westover Air Force Base, Chicopee Falls, Massachusetts
26. Willow Run Airport, Detroit, Michigan
27. Wheeling-Ohio County Airport, Wheeling, West Virginia
28. Zanesville Airport, Zanesville, Ohio
29. The Dalles Aerodrome, The Dalles, Oregon

Incl #2

2 0 3 0

C O P Y

Penetration Procedures with both Time-Consuming  
and Inadequate Missed Approaches

1. Hamilton Air Force Base, San Rafael, California
2. March Air Force Base, Riverside, California
3. McChord Air Force Base, Tacoma, Washington
4. Bedford Airport, Boston, Massachusetts
5. LaCrosse Aerodrome, LaCrosse, Wisconsin
6. Langley Air Force Base, Hampton, Virginia
7. Stewart Air Force Base, Newburgh, New York

Incl #3

C O P Y

HEADQUARTERS  
510TH AIR DEFENSE GROUP  
Niagara Falls Municipal Airport  
Niagara Falls, New York

DGO

13 July 1954

SUBJECT: Chase Aircraft for VFR Approaches

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. This organization strongly recommends that the policy requiring a chase aircraft for VFR GCAs and ILSs be changed for the following reasons:

a. The GCA operator has positive radar and radio control of the landing aircraft and does advise the pilot of other aircraft in the pilots vicinity. The tower has a direct line to GCA and advises GCA of other local traffic. The tower does not clear other traffic to the initial when GCA has an aircraft on final.

b. On VFR ILS, the control tower has positive radio and visual control of the approaching aircraft from the outer marker to the field. Other aircraft normally enter their initial in this area.

c. With the final controller continually speaking during a GCA final, it is quite difficult for the chase pilot to break in on the controllers transmission to warn the GAC aircraft of other approaching aircraft.

d. The 1500 pound fuel minimum for GCAs and ILSs necessitates an approach with a heavier than normal aircraft. The relatively low airspeed and low power settings and the high angle of attack with gear down on the approach coupled with the low rate of thrust acceleration in the F-86Ds, especially with a heavy fuel load, presents a safety of flight problem in itself in flying the chase aircraft at approach altitudes. This is especially true at night where the chase pilot must fly loose formation in addition to looking for ground obstructions and other aircraft while maintaining safe flying speed.

e. The chase aircraft is in a precarious position should he encounter an emergency in that he is not aligned with the runway and is unable to transmit his emergency in view of GCA channel being keyed. Further, should "Eyelid" malfunction occur in chase aircraft, or pilot be somewhat tardy in advancing throttle, the aircraft is apt to contact the terrain adjacent to the runway which undoubtedly would result in a major accident.

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C O P Y

DGO Subject: Chase Aircraft for VFR Approaches

f. In the local traffic pattern a pilot keeps his head in the cockpit checking airspeeds, gear, etc, almost as much as on a VFR GCA or ILS approach. No chase aircraft is required.

g. The instrument approach and landing training potential is decreased by over one-half. GCAs and ILSs cannot be flown on individual sorties such as test hops, operational checks and missions where elements or flights are broken up into individual sorties for various reasons such as aborts, tracking missions and so on.

2. If the policy requiring a chase aircraft for GCAs and ILSs is not changed for the entire EADF, it is recommended that the policy be changed at fields where local traffic is negligible.

RUFUS WOODY JR  
Lt Colonel, USAF  
Commander

C O P Y

Hq 518th AD Gp DGO Subject: Chase Aircraft for VFR Approaches

DWOOT (13 July 1954) 1st Ind

HEADQUARTERS, 4707TH DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts, 25 Aug 1954

TO: Commander, 32nd Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. I concur with the basic letter.
2. Reference is made to the following 32nd Air Division messages:

ACFOOT-FO 6010  
ACFOOT-FO 6098  
ACFOOT-FO 7035  
ACFOOT-FO 7092

3. The pilot of an observer aircraft flying at landing speeds and attitudes is primarily occupied with maintaining position and has little opportunity to serve his primary purpose of assuring aircraft separation. It is believed that the "unwieldy" formation presented by two aircraft under these flight conditions creates an undue hazard in the traffic pattern.

4. There is no alternative to employing an observer aircraft when the pilot of a tactical aircraft is under the hood. However, in view of existing directives requiring the pilot of the lead aircraft to maintain visual contact during VFR GCA's and ILAS's, it is considered that an observer aircraft becomes a hindrance more than an aid to safe flight.

RICHARD A LEGG  
Colonel, USAF  
Commander

C O P Y

Hq 518th AD Gp DCO Subject: Chase Aircraft for VFR Approaches

OCT (13 Jul 54) 2nd Ind 16 Sep 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. I do not concur with the recommendations contained in the basic letter.
2. The requirement for chase aircraft while performing GCA and ILAS approaches in single seat aircraft has long been a policy of the Air Force. A recent review of accidents indicates this to be a sound policy for present day operation.
3. I feel that there are other points which should be considered in addition to those listed in the basic letter.
  - a. GCA operators have insufficient training at this time to insure positive radar and radio control of landing aircraft; therefore, a chase aircraft is still required to insure maximum safety precautions in GCA and ILAS approaches, GCA surveillance does not always insure adequate separation between aircraft, this is particularly true in areas where small type aircraft are operating in or near the GCA pattern.
  - b. The basic letter states that instrument approach and landing training is decreased by over one-half due to the requirement for chase aircraft. Eastern Air Defense Force message EAOOT-TW 24063, forwarded to subordinate units by 32d Air Division (Defense) message ACPFOOT-FO 7092, states that at least one-third of the GCA approaches will be flown either hooded in T-33 aircraft or under actual instrument conditions in unit equipped aircraft eliminating the necessity for chase aircraft.
4. This headquarters forwarded to all units on 30 August 1954 authority to waive the restriction on modified F-86D aircraft, allowing these aircraft to fly GCA and ILAS approaches with less than 1500 pounds of fuel remaining. The waiver was received by Eastern Air Defense Force message EAOOT-TW 28708.
5. It is believed that chase pilots provide a definite safety measure while accomplishing GCA and ILAS approaches under VFR conditions.

ROBERT S. ISRAEL, JR  
Colonel, USAF  
Commander

C O P Y

Hq 518th Air Defense Group DGO Subject: Chase Aircraft for VFR Approaches

EAOOT-TW (13 Jul 54) 3rd Ind 4 Oct 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York

1. The basic letter and subsequent indorsements were carefully considered before our policy on this subject was revised for F-86D units by our message, EAOOT-TW 32410.

2. Correspondence from subordinate units has indicated that the utilization of chase aircraft during the hours of darkness creates a dangerous situation. The pilot of the chase plane, in addition to acting as an observer for the lead aircraft, must maintain proper separation and closely monitor his own aircraft's attitude by constantly checking his flight instruments. Considering all factors of utilization of aircraft and flight safety, it is believed the chase plane requirement can be safely waived at night under the conditions specified.

3. Your interest and comments on this matter are greatly appreciated.

DONALD B. SMITH  
Brigadier General, USAF  
Vice Commander

OOT-FO (13 Jul 54) 4th Ind 8 Oct 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6, New York

TO: Commander, 4707th Air Defense Wing, Otis Air Force Base, Falmouth, Massachusetts

1. Forwarded for your information and dissemination.
2. Eastern Air Defense Force message EAOOT-TW 32410 was forwarded direct to Air Defense Wings on 28 September 1954.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

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C O P Y

47TH FIGHTER INTERCEPTOR SQUADRON  
Niagara Falls Municipal Airport  
Niagara Falls, New York

3 August 1954

SUBJECT: Minimum Fuel Restriction for Practice ILAS and GCA (F86D)

TO: Commander  
518th Air Defense Group  
Niagara Falls Municipal Airport  
Niagara Falls, New York

1. Since the installation of a fuel system transfer pump override switch has removed the hazard of fuel starvation and subsequent flameout, request this organization be granted a waiver from the 1500 pound minimum fuel restriction for practice ILAS and GCA approaches in the F-86a.
2. By installing this override switch in the cockpit, the pilot can override the sensing switch places the transfer pumps into operation. On aircraft so equipped, it eliminates the possibility of transfer pumps failing to operate due to a faulty sensing switch. This in effect does not allow fuel to become trapped in the aft fuselage cell. By using this switch any time the fuel level reaches 1500 pounds allows for safe flight while at slow airspeeds in a nose high attitude below 1500 pounds.
3. This squadron feels that practicing ILAS and GCAs with fuel loads in excess of 1500 pounds does not present a true problem for practice, therefore a request for a waiver of these minimums be granted for those aircraft having this switch installed in the cockpit.

RUFUS WOODY JR  
Lt Col, USAF  
Commander

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C O P Y

47th FIS, Nia Falls Muni Apt. Nia Falls, NY, Subject: Minimum Fuel  
Restriction for Practice IIAS and GCA (F-86D)

DGO (3 Aug 54) 1st Ind

HEADQUARTERS, 518th Air Defense Group, Niagara Falls Municipal Airport,  
Niagara Falls, New York

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth,  
Massachusetts

Recommend approval be granted for a request for waiver, reference  
paragraph 3, basic letter, due to the added safety factor when fuel  
system transfer pump override switch is installed.

STANLEY E. MATTERS  
Colonel, USAF  
Commander

DWOOT (3 Aug 54) 2nd Ind 13 Aug 54

HEADQUARTERS, 4707TH DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Recommend approval.
2. Necessary procedures will be written to insure correct  
operation of this modification.

RICHARD A. LEGG  
Colonel, USAF  
Commander

C O P Y

47th FIS Subject: Minimum Fuel Restriction for Practice IAS and GCA  
(F-86D)

OCT-FO (3 Aug 54) 3rd Ind 19 Aug 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Recommend approval.
2. Aircraft which have the fuel override switch installed are no longer subject to flame outs caused by fuel becoming trapped in the aft fuselage cell during sustained flight in a nose high attitude.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

EAOOT-TW (3 Aug 54) 4th Ind 30 Aug 54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Approved.
2. Separate message is being forwarded to the air divisions (defense) granting waiver for these F-86D aircraft modified with override switch.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

Hq 47th FIS, Subject: Minimum Fuel Restriction for Practice ILAS and  
GCA (F-86D)

oot-FO (3 Aug 54) 5th Ind 2 Sep 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 5, Syracuse, New York

TO: Commander, 4707th Air Defense Wing, Otis Air Force Base, Falmouth,  
Massachusetts

1. Forwarded for your information and dissemination.
2. Message referenced in paragraph 2 of preceding indorsement was forwarded to your headquarters by message, this headquarters ACFOOT-FO 8083 dated 30 August 1954.

BY ORDER OF THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
304 AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse, New York

OUT-1

14 Dec 1954

SUBJECT: Interceptor Control Procedure

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Consistent with the increasing necessity to reduce extraneous UHF transmissions during interceptor control, it is recommended that a review be made of paragraph (a)(2) and (3), ADCEP 39-30.
2. This directive specifies that interceptor pilots will report when: "steady on all headings, level at assigned altitudes and when required speed set". These transmissions are negligible in assisting the director, as it is readily evident when instructions either have or have not been complied with. What value they provide is negated by the effect produced thru overloading of the communications frequency. Many intercepts are lost during the critical thru-in onto target due to interference blocking out SCI instructions.
3. Communications discipline itself is insufficient to cope with the excessive transmissions which must be made and every extraneous call which can be deleted is to our benefit.
4. It is recommended that the above cited paragraphs be rescinded and amended to read: (c) Follow instructions received from the director and maintain radio silence except when transmissions are necessary to the conduct of the mission". It is realized that this recommendation is a complete reversal of the former practice of encouraging exchange of calls between the interceptor pilot and the director. However, in lieu of sufficient tactical frequencies, this recourse is mandatory for effective control.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OCAA

16 July 1954

SUBJECT: Scramble and Recovery Procedures for Active Air Defense  
Missions - 32d Air Division (Defense) Sector

TO: See Distribution

1. Inclosed are copies (as indicated by distribution) of 32d Air Division (Defense)/Eastern Sea Frontier/CAA First Region Operations Agreement: Scramble and Recovery Procedures for Active Air Defense Missions - 32d Air Division (Defense) Sector, effective 1 August 1954. This Operations Agreement replaces CAA Region/Air Division (Defense) Operations Agreement: Scramble and Recovery Procedures - Active Air Defense Mission Aircraft - 32d Air Division (Defense) Sector; short title: 32-SARPS, dated 9 November 1953.
2. This replacement in Operations Agreement is being effected so as to conform with the standard Operations Agreement format developed for use in the three Air Division (Defense) sectors (26th, 30th and 32d) within the Eastern Air Defense Force region of responsibility. The Basic Section of such Operations Agreement is to be identical for each Air Division (Defense) sector. The annexes will be identical in format, but will deviate in operational procedures, as may be dictated by specific local requirements.
3. Differences between the inclosed and the replaced Operations Agreement are basically in format and text. However, there are minor changes in operational procedures, which are as follows:
  - a. "Radio Failure Procedures", paragraph 7, Basic Section, has been amended to conform with the national "Emergency Radar Interceptor Procedures".
  - b. Weather minima are established by and published in Fighter Interceptor Squadron Operational Directives, and are subject to changes as may be dictated by pilot qualifications, type of equipment, available navigation aids, etc. Therefore, as such minima are variable and are currently published in appropriate Operational Directives, they are omitted from the Basic Section and annexes.
  - c. Standard missed approach procedures are published for each airport and, therefore, reference thereto is omitted.
  - d. All annexes have been modified in format and text to conform with the standard format. Annex E - Dow; Annex D - Griffiss and Annex E -

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Hq 32d Air Div (Def) CCAA Subject: Scramble and Recovery Procedures for  
Active Air Defense Missions - 32d Air Division (Defense) Sector, 16 July 1954

Niagara Falls are amended to provide GCI/GCA recovery procedures. Annex B - Brunswick, paragraph 1.a. is amended to include Victor Airway No. 3 in the airspace reserved for scrambles and recoveries. Annex F - Otis, paragraph 1.a. is amended to include Victor Airway No. 141 in the airspace reservations required for scrambles. The airspace reservation for scramble procedures is predicated on the realignment of Victor Airway No. 141 and Blue Airway No. 4 as recommended in the 8 June 1954 meeting of the New York Regional ASP/ACC Subcommittee. Until such time as these airways are realigned as recommended, the interim temporary procedures established between this headquarters, the 4707th Defense Wing and the Boston ARTC Center for aircraft to remain not above 2000 feet until clear of Victor 141 will remain in effect. In addition, paragraph 2.a was amended by deleting the furthestmost recovery reference point. This deletion allows the ADDC Director more latitude in vectoring aircraft to the final gate for GCI/GCA recovery.

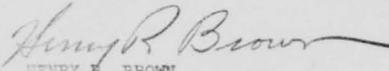
4. Attachments 1 and 2 (charts depicting scramble and recovery procedures) to these annexes are being prepared, and will be forwarded as soon as reproduction and distribution can be made. However, as it is anticipated that considerable time will elapse before distribution can be made, attachments 1 and 2 to the annexes in the replaced Operations Agreement should be amended, as may be required by amendments in the attached annexes, and used until new attachments can be provided.

5. Distribution of the inclosed Operations Agreement to Air National Guard Units, as listed in the distribution list, is made for informational purposes only.

6. The supply of this Operations Agreement is limited. Therefore, recipients desiring additional copies should obtain same by local reproduction.

FOR THE COMMANDER:

Incl  
32d AD(D)/ESF/CAA  
Operations Agreement  
dtd 1 Aug 54

  
HENRY H. BROWN  
Major, USAF  
Adjutant

DISTRIBUTION:  
As specified in the  
Distribution List of  
the inclosed Operations Agreement

32D AIR DIVISION (DEFENSE)  
EASTERN SEA FRONTIER  
CIVIL AERONAUTICS ADMINISTRATION - 1ST REGION

OPERATIONS AGREEMENT

SCRAMBLE AND RECOVERY PROCEDURES  
FOR ACTIVE AIR DEFENSE MISSIONS  
32D AIR DIVISION (DEFENSE) SECTOR

EFFECTIVE: 1 AUGUST 1954

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32D AD(D)/ESF/CAA OPERATIONS AGREEMENT

DISTRIBUTION LIST

NO	AGENCY	NO	AGENCY	NO	AGENCY
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		3	762d AC&W Sq		
		3	763d AC&W Sq		
3	ADC	3	764th AC&W Sq	1	RCAF ADC
3	EADF	3	765th AC&W Sq	1	Toronto ATCC
		3	766th AC&W Sq	1	Moncton ATCC
				1	Montreal ATCC
2	COMEASTSEAFRON			1	DOT ADLO, RCAF
2	COMAIRLANT	1	Hq AACS		
		2	1802d AACS Gp		
		2	1912-9 AACS Det	1	101st ANG Wg
2	4707th Def Wg	2	1916-2 AACS Det	1	102d ANG Wg
2	4711th Def Wg	2	1917-3 AACS Det	1	107th ANG Wg
		2	1917-5 AACS Det		
		2	1917-6 AACS Det		
2	517th AD Gp	2	1974-1 AACS Det	1	101st ANG FIS
2	518th AD Gp	2	1974-2 AACS Det	1	131st ANG FIS
2	528th AD Gp	2	1974-3 AACS Det	1	132d ANG FIS
2	564th AD Gp			1	133d ANG FIS
				1	134th ANG FIS
		2	Burlington CS/T	1	136th ANG FIS
2	Brunswick NAS	2	Buffalo Twr	1	138th ANG FIS
2	Dow AFB	2	Niagara Falls Twr	1	139th ANG FIS
2	Griffiss AFB	3	Cleveland ARTCC		
2	Otis AFB	3	Boston ARTCC		
2	Presque Isle AFB				
2	Westover AFB	2	CAA W-380		
		2	CAA NY-390		
3	27th FIS	1	CAA NY-390A		
3	37th FIS	1	CAA NY-390.4		
3	47th FIS	1	CAA NY-390.8		
3	49th FIS	1	CAA NY-396		
3	57th FIS	1	CAA NY-396A		
3	58th FIS	1	CAA NY-381D		
3	60th FIS	1	CAA NY-227		
3	74th FIS	1	KC-396		
3	437th FIS	1	CAA ASDO - BOS		

32D AD(D)/ESF/CAA OPERATIONS AGREEMENT

LIST OF ANNEXES

ANNEX	IFR SCRAMBLE AND RECOVERY PROCEDURES
A	Burlington (Ethan Allen AFB), Vermont
B	Brunswick NAS, Maine
C	Dow AFB, Maine
D	Griffiss AFB, New York
E	Niagara Falls Airport, New York
F	Otis AFB, Massachusetts
G	Presque Isle AFB, Maine
H	Westover AFB, Massachusetts



32D AIR DIVISION (DEFENSE)  
EASTERN SEA FRONTIER  
CIVIL AERONAUTICS ADMINISTRATION - 1ST REGION

OPERATIONS AGREEMENT

SUBJECT: Scramble and Recovery Procedures for Active Air Defense Missions-  
32d Air Division (Defense) Sector

EFFECTIVE: 1 AUGUST 1954

1. GENERAL:

a. This Operations Agreement replaces CAA Region/Air Division (Defense) Operations Agreement, Scramble and Recovery Procedures - Active Air Defense Mission Aircraft - 32d Air Division (Defense) Sector; short title: 32-SARPS, dated 9 November 1953.

b. General procedures and responsibilities are set forth herein. Specific procedures and responsibilities applicable to individual bases are contained in annexes hereto.

2. PURPOSE:

a. To establish standard operating procedures and responsibilities related to air traffic control of air defense mission aircraft under the operational jurisdiction of the 32d Air Division (Defense).

3. SCOPE:

a. These procedures apply only to the handling of interceptor aircraft while operating on:

- (1) Active air defense missions engaged in the interception of unidentified targets and of "strike" aircraft of a planned air defense exercise. Normally, these missions will be accorded priority over other aircraft movements.
- (2) Training flights to develop and maintain proficiency in these procedures. The term "training flights" shall, for the purpose of this agreement, apply only to flights which depart exclusively to develop and maintain proficiency in these procedures. Administrative, cross-country, local or other such flights are not intended to be covered by these procedures. Training flights will require prior AADC approval and shall be conducted under VFR conditions or with appropriate ATC clearance. (See paragraph 6.d).

32d AD(D)/ESF/GAA Operations Agreement (Cont'd)

4. RESPONSIBILITIES.

a. ADDC Directors will be responsible for:

- (1) Separation of interceptor aircraft from all other air traffic except:
  - (a) When interceptors are operating in VFR weather conditions.
  - (b) When interceptors are executing IFR scramble or recovery within controlled airspace reserved for this purpose as outlined in annexes hereto. Aircraft under GCI radar control operating outside of airspace reserved for scramble and recovery shall not be vectored within controlled airspace (including civil airways) in IFR conditions if the ADDC Director has any doubt that radar separation can be provided from all other air traffic.
  - (c) When interceptors are in visual or AI contact with target.
- (2) Providing standard minimum separation as set forth below between interceptor aircraft operating under GCI radar control and other aircraft.
  - (a) Vertical separation: at least 1000 feet.
  - (b) Lateral radar separation: three (3) miles between aircraft; up to forty (40) miles from the radar, and five (5) miles between aircraft beyond that distance from the radar.
- (3) Coordinating with the appropriate ARTC Center (or Approach Control, if appropriate) when radar separation cannot be provided and interceptors must operate IFR within controlled airspace outside of scramble and recovery corridors, and either obtain an ATC clearance or information as to the altitudes occupied by other IFR flight plan aircraft in the airspace to be traversed, and vector the interceptor aircraft through unoccupied altitudes.
- (4) Separation of two or more formations or flights of interceptors from the time GCI radar control is established except when interceptors are operating in VFR conditions, during visual or AI contact with the target, and when the interceptors are under ATC control.
- (5) Informing pilots of interceptor aircraft of other air traffic in their proximity at all times.
- (6) Notifying the appropriate ARTC Center and/or control tower of

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32d AD(D)/ESF/QAA Operations Agreement (Cont'd)

scrambles, recoveries, radar and radio failure as prescribed herein and as may be required by the circumstances.

- (7) Being thoroughly familiar with established scramble and recovery procedures for each interceptor base within their control capability.
- (8) Keeping informed of the current weather conditions in which interceptors are or may be operating.
- (9) Advising interceptor pilot of an alternate airport of recovery to be used in the event of radio failure when weather conditions may preclude recovery at the base of origin.

b. Interceptor pilots will be responsible for:

- (1) Separation from other aircraft while operating in VFR conditions.
- (2) Keeping ADDC Director informed of in-flight weather conditions. ADDC will be advised prior to encountering and/or immediately after leaving IFR or restricted visibility conditions.
- (3) Separation from target aircraft and other interceptor aircraft during visual or AI contact with the target.

(CAUTION: THE ESTABLISHMENT OF SCRAMBLE AND RECOVERY CORRIDORS DOES NOT PRECLUDE THE POSSIBILITY OF OTHER AIRCRAFT OPERATING VFR WITHIN CONTROLLED AIRSPACE AND VFR OR IFR OUTSIDE OF CONTROLLED AIRSPACE.)

c. Flight Commanders will be responsible for:

- (1) Separation of interceptor aircraft in the same formation.
- (2) Take-off and enroute separation between two or more formations or flights until GCI radar contact is established.
- (3) Obtaining taxi and take-off clearance from the control tower.

d. Air Route Traffic Control Centers will be responsible for:

- (1) Separation of interceptor aircraft from other known IFR flight plan aircraft within control areas while interceptors are operating under ARTC Center control as outlined in annexes hereto, or when control has been accepted as a result of ADDC Director's or pilot's specific request.
- (2) Not clearing other IFR flight plan aircraft to operate within

32d AD(D)/WSF/CAA Operations Agreement (Cont'd)

reserved airspace outlined in annexes hereto without obtaining prior approval from the AADC or control tower, as appropriate.

- (3) Affording the most expeditious scramble and recovery to interceptor aircraft commensurate with safety with respect to other aircraft.

e. Control Towers/Approach Control/GCA will be responsible for:

- (1) Separation of interceptor aircraft from other known aircraft within their area of jurisdiction.
- (2) Coordinate with and obtain ARTC Center clearance when required.
- (3) Affording the most expeditious scramble and recovery to interceptor aircraft commensurate with safety with respect to other aircraft.

5. COMMUNICATIONS:

a. Interceptor aircraft will maintain communications with an AADC except while operating within the jurisdictional limits of a control tower, or while under radar control of an Air Traffic Control facility.

b. In the event communications with an AADC cannot be maintained, communications will be established with a CAA or military communications station, control tower or ARTC Center.

5. PROCEDURES:

a. General:

- (1) AADC Directors and ATC personnel are cautioned that jet aircraft consume excessive fuel at low altitudes and, as a general policy, operations should be conducted at higher altitudes. Also, any appreciable rain on the windshield of most jet aircraft reduces visibility to less than VFR minimum. Therefore, VFR scrambles or recoveries will not be used whenever rain areas will be encountered.

b. Scramble:

- (1) When weather conditions are such that scrambled aircraft will penetrate clouds or restricted visibility areas prior to reaching a point outside of controlled airspace or where the AADC Director can assume responsibility for separation by radar, the AADC Director will specify scramble by IFR procedure; i.e., "SCRAMBLE (Flight Ident) IFR PROCEDURE".

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32d AD(D)/ESF/GAA Operations Agreement (Cont'd)

- (2) When ascent to a point outside of controlled airspace or where ADDC Directors can assume responsibility for separation by radar will not require penetration of clouds or restricted visibility areas, the ADDC Director will specify VFR procedure; i.e., "SCRAMBLE (Flight Ident) VFR VECTOR \_\_\_\_\_ ANGELS \_\_\_\_\_".
- (3) When fighter aircraft are scrambled on a VFR vector and pilot/s determine either before or immediately after becoming airborne that VFR cannot be maintained to the assigned altitude, the flight will maintain VFR or delay take-off as appropriate, inform the tower, and request IFR scramble clearance. If the flight has departed and is on GCI frequency and is unable to climb VFR or outside of controlled airspace, the flight will so inform the Director and maintain VFR. Normally, the flight will then be instructed by the Director to maintain VFR until off airways and until an area is reached where IFR flight may be conducted under GCI radar control with the Controller responsible for maintaining separation.
- (4) When interceptors have been scrambled IFR, vectoring from the scramble corridor to the target area will be accomplished as soon as possible after interceptor aircraft reaches at least 500 feet on top or a point where GCI radar separation from other aircraft can be effected.
- (5) When a scramble is ordered, the ADDC Director will immediately notify the tower (or ARTC Center, if prescribed in appropriate annex hereto), giving the flight identification, number of aircraft, and specifying whether VFR or IFR procedure will be used. Where the ADDC does not have direct voice communications with the ATC agency, this notification will be accomplished by the Squadron alert center.

c. Recovery:

- (1) The ADDC Director shall effect coordination with the Control Tower, Approach Control and/or ARTC Center, as appropriate, as soon as possible after recovery action has been initiated.
- (2) When recovery is to be made at other than the airport of origin, the ADDC Director controlling the aircraft will advise the appropriate ATC agency and Base Commander as soon as possible. If the recovery is to be made in another area, he will notify the ADDC Director of that area, who will follow the procedures outlined above.
- (3) When the airport of recovery is other than the airport of origin, return of the aircraft to the airport of origin will be made in

32d AD(D)/ESF/CAA Operations Agreement (Cont'd)

accordance with VFR or an IFR clearance, except when return to the airport of origin is accomplished after active air defense mission scramble from the airport of recovery.

- (4) When it is necessary to recover interceptor aircraft at an airport for which recovery procedures are not established in annexes hereto, the aircraft will be vectored or will proceed to the radio range station or other primary navigation aid serving such airport at an altitude of at least 500 feet on top or an altitude assigned by the ARTC Center concerned. Descent will be made in accordance with clearance issued by the appropriate ARTC Center.
- (5) If any portion of the recovery will be made other than VFR within controlled airspace, interceptors will follow IFR recovery procedures as outlined in annexes hereto.

d. Training Flights:

- (1) Training flights may be executed as authorized in 3.a.(2). ATC clearances required will be obtained in the same manner as for active air defense missions, except that ATC agencies will issue clearance as normal traffic conditions permit. Agency requesting training flight clearances will designate mission as "Practice Air Defense Scramble and/or Recovery" in request for clearance. Interceptor aircraft will be prepared for prompt take-off when clearance is received. Normally, engines need not be operating while awaiting clearance.
- (2) At the time initial coordination with ATC is accomplished, that agency will be advised of the expected approach time (time aircraft will arrive over the airport for let-down). This may be specified as elapsed time from take-off. Aircraft will be expected to make this time good, as it will be used for normal traffic control planning and for emergency in event of radio failure.
- (3) Flights by higher headquarters conducted for the purpose of determining the proficiency of an ANDC may be handled as training flights.

7. RADIO FAILURE:

a. In the event two-way communications failure is experienced and recovery cannot be effected in accordance with visual flight rules, the procedures set forth herein will be applied.

b. Pilots:

- (1) If an operative receiver is aboard the aircraft but contact cannot

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32d AD(D)/ESF/CAA Operations Agreement (Cont'd)

be established with a ground station due to an inoperative transmitter, atmospheric conditions or distance, switch receiver to VHF 121.5-mcs or UHF 243.00-mcs and fly a triangular pattern to the right of two-minute legs with half-needlewidth turns of 120°. If radar contact is established, instructions will be given to the distressed aircraft on VHF 121.5-mcs or UHF 243.00-mcs.

(a) If instructions are not received, proceed to destination at 500 feet on top or, if not possible, at 25,000 feet.

- (2) If the receiver is inoperative, fly a triangular pattern to the left of two-minute legs with half-needlewidth turns of 120°. If radar contact is established, aircraft can then be dispatched to lead the distressed aircraft to an area of safety. If this system is used, remember that under ideal conditions at least twenty (20) minutes will elapse before fighter assistance can be directed to your locality. Attempt a minimum of two patterns prior to resuming initial course. Resumption of course will not compromise this system, as the aircraft will be tracked from the point of pattern as a distressed aircraft. If interception has not been accomplished twenty (20) minutes after the completion of the emergency pattern, repeat the foregoing procedure.

(a) After completing the above pattern, proceed toward destination at 500 feet on top or, if not possible, at 25,000 feet.

c. The ADDC Director will:

- (1) Upon detection of a pattern to the LEFT, indicating navigation and communications receiver failure, and the air defense situation permits, immediately scramble, or have scrambled, another interceptor aircraft to intercept or assist recovery of the aircraft experiencing radio failure. If possible, AI-equipped aircraft will be used. However, non-AI equipped aircraft may be used if the situation dictates.
- (2) Advise the ARIC Center concerned of the following pertinent information pertaining to any interceptor aircraft known or believed to be experiencing radio receiver failure:
- (a) Mission Identification Code.
  - (b) Type and number aircraft involved.
  - (c) Position.
  - (d) Altitude.

32d AD(D)/ESF/CAA Operations Agreement (Cont'd)

- (e) Route of flight.
- (f) Airport of recovery.
- (g) Enroute radar positions and estimates, as requested by ARTC Center.

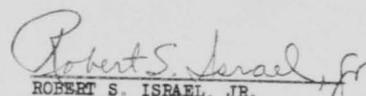
d. The ARTC Center shall, upon receipt of information indicating an interceptor aircraft is experiencing radio failure, initiate necessary action in accordance with existing radio failure procedures.

8. RADAR FAILURE:

a. In the event of radar failure or inability to establish and/or maintain radar control of interceptor aircraft, the ADDC Director shall immediately advise the ARTC Center concerned of the pertinent information listed in paragraph 7 c (2). The ARTC Center will, if appropriate, assume control of the interceptor aircraft.

APPROVED:

  
L. T. DuBOSE  
Vice Admiral, USN  
Commander  
Eastern Sea Frontier

  
ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander  
32d Air Division (Defense)

  
ONIS B. TOMLIN  
Air Defense Liaison Officer  
CAA 1st Region/32d Air Division

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ANNEX A  
32D AD(D)/ESF/CAA  
OPERATIONS AGREEMENT

BURLINGTON AFB, VERMONT

IFR SCRAMBLE AND RECOVERY PROCEDURES

EFFECTIVE: 1 AUGUST 1954

1. RESPONSIBILITY:

a. Burlington Approach Control will be responsible for the control of air traffic operating at 4500 feet and below on Blue Airways No. 4, 18 and 40, and Victor Airway No. 21 between the Boston/Montreal Control Area boundary and the extended centerline of the Huntington and Vergennes Fan Markers.

2. RECOVERY REFERENCE POINTS:

a. Point ALFA: 44°00'N - 73°04'W.

b. Point BRAVO: 44°18'N - 73°08'W.

c. Point COCA: 45°00'N - 73°16'W.

d. Point DELTA: 44°48'N - 73°15'W.

3. SCRAMBLE:

a. Upon receipt of take-off clearance from the control tower, aircraft will proceed VFR or, if not possible, not above 4500 feet on the shortest possible course to outside of controlled airspace east of and on a bearing of 80 degrees magnetic from the Burlington (BTV/323-kcs) radio range; thence make climb on a heading of 80 degrees magnetic from the Burlington radio range.

b. If GCI radar control has not been effected or an altitude of at least 500 feet on top not reached at a point seventy (70) statute miles from the Burlington radio range (northeast course of the Montpelier (MPV/257-kcs) radio range) make a 180 degree right turn, continue climb, and request further clearance from the Boston ARTC Center.

4. RECOVERY:

a. Aircraft Under GCI Radar Control:

(1) Upon receipt of recovery clearance from Burlington Approach Control, the ADCC Director will vector aircraft for the approved recovery as follows:

(a) ALFA Recovery: Aircraft will be vectored to cross Point

Annex A, 32d AD(D)/ESF/CAA Opns Agreement (Cont'd)

ALFA at 20,000 feet; thence on a direct course to cross Point BRAVO at 4500 feet. Upon crossing Point BRAVO, aircraft will be vectored or proceed on a direct course to and cross the Burlington Radio Range Station or ILS LOM at 4500 feet or lower altitude, as cleared by Burlington Approach Control. Upon crossing the range station or ILS LOM, aircraft will effect the standard range or ILS approach, as appropriate.

- (b) COCA Recovery: Aircraft will be vectored to cross Point COCA at 20,000 feet; thence on a direct course to cross Point DELTA at 4500 feet. Upon crossing Point DELTA, aircraft will be vectored or proceed on a direct course to and cross the Burlington Radio Range Station or ILS LOM at 4500 feet or lower altitude, as cleared by Burlington Approach Control. Upon crossing the range station or ILS LOM, aircraft will effect the standard range or ILS approach, as appropriate.

b. Aircraft Not Under GCI Radar Control:

- (1) Aircraft will proceed to the Burlington Radio Range Station at an altitude of at least 500 feet on top or, if not possible, at an altitude assigned by the Boston ARTC Center. Upon receipt of let-down clearance from the Boston ARTC Center through the Burlington Approach Control, aircraft will execute the published standard jet let-down.

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ANNEX B  
32D AD(D)/BSF/CAA  
OPERATIONS AGREEMENT

BRUNSWICK NAS, MAINE

IFR SCRAMBLE AND RECOVERY PROCEDURES

EFFECTIVE: 1 AUGUST 1954

1. RESPONSIBILITY:

a. The airspace reservations prescribed in paragraph 1.b are applicable only during periods that aircraft performing active air defense missions are effecting scrambles and/or recoveries at Brunswick NAS. The ADDC Director, 654th AC&W Squadron, will notify the Boston ARTC Center and the Brunswick NAS Control Tower prior to and at the conclusion of such periods.

b. Boston ARTC Center will not clear other IFR flight plan aircraft operating on Amber Airway No. 7 and Victor Airway No. 3 below 3000 feet or at 22,000 feet within five (5) statute miles on either side of a bearing of 315 degrees magnetic from the Brunswick NAS radio beacon without effecting prior coordination with the ADDC Director, 654th AC&W Squadron.

c. Brunswick NAS Tower will obtain a release time from the Boston ARTC Center and clear scramble aircraft accordingly whenever weather conditions are such that the aircraft cannot remain VFR until outside of controlled airspace as specified in paragraph 3.a.

2. RECOVERY REFERENCE POINTS:

a. Point ALFA: A point 18 nautical miles on a bearing of 180 degrees magnetic from the Brunswick radio beacon.

b. Point BRAVO: A point 12 nautical miles on a bearing of 193 degrees magnetic from the Brunswick radio beacon.

3. SCRAMBLE:

a. Upon receipt of take-off clearance from the control tower, aircraft will proceed VFR or, if not possible, not above 2000 feet on the shortest possible course until ten (10) statute miles southeast of and on a bearing of 135 degrees magnetic from the Brunswick radio beacon (NH/203-kcs); thence climb on a heading of 135 degrees magnetic from the Brunswick radio beacon.

b. If GCI radar control has not been effected or an altitude of at least 500 feet on top not reached at a bearing of 110 degrees magnetic from the Portland radio range (PWM/215-kcs), make a 180 degree left turn, continue climb and request further clearance from the Boston ARTC Center.

Annex B, 32d AD(D)/ESF/CAA Opns Agreement (Cont'd)

4. RECOVERY:

a. Aircraft Under GCI Radar Control:

- (1) Upon receipt of recovery clearance from the Boston ARTC Center, the ADDC Director will vector aircraft to the Brunswick radio beacon at 22,000 feet. Upon crossing the radio beacon, aircraft will then be vectored outbound on a track of 180 degrees magnetic, descending at a rate of 4000-FPM, air speed 240-knots, to reference point ALFA; thence make a right turn to an inbound heading of 013 degrees magnetic to cross Point BRAVO at 2000 feet. GCA will assume control at Point BRAVO. In the event GCA is inoperative, aircraft will continue to and cross the Brunswick NAS radio beacon at prescribed minimum altitude and execute the standard instrument approach.

b. Aircraft Not Under GCI Radar Control:

- (1) Aircraft will proceed to the Brunswick radio beacon at an altitude of at least 500 feet on top or, if not possible, an altitude assigned by the Boston ARTC Center. Upon receipt of clearance from the Boston ARTC Center through Brunswick NAS Control Tower, aircraft will execute the published standard jet let-down.

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ANNEX C  
32D AD(D)/EST/CAA  
OPERATIONS AGREEMENT

DOW AFB, MAINE

IFR SCRAMBLE AND RECOVERY PROCEDURES

EFFECTIVE: 1 AUGUST 1954

1. RESPONSIBILITY:

a. Dow AFB Tower shall obtain a release time from the Boston ARTC Center and clear scramble aircraft accordingly whenever weather conditions are such that the aircraft cannot remain VFR until outside of controlled airspace as specified in paragraph 3.a.

2. RECOVERY REFERENCE POINTS:

a. Point ALFA: 45°06'N - 68°38'W.

b. Point BRAVO: A point on the centerline of the northwest course of the Bangor radio range eight (8) statute miles from the range station.

c. Point COCA: 44°51'N - 69°07'W.

3. SCRAMBLE:

a. Upon receipt of take-off clearance from the control tower, aircraft will proceed VFR or, if not possible, not above 2500 feet on the shortest possible course until outside of controlled area southeast of and on a bearing of 125 degrees magnetic from the Bangor (BGR/239-kcs) radio range; thence make climb on a heading of 125 degrees magnetic from the Bangor radio range.

b. If GCI radar control has not been effected or an altitude of at least 500 feet on top not reached at a point seventy-two (72) statute miles from the Bangor radio range (a 100 degree magnetic bearing from the Bar Harbor (BHB/320-kcs) MH), make a 180 degree right turn; continue climb and request further clearance from the Boston ARTC Center.

4. RECOVERY:

a. Aircraft Under GCI Radar Control:

(1) Upon receipt of recovery clearance from the Boston ARTC Center, the AADC Director will vector aircraft for the approved recovery as follows:

(a) ALFA Recovery: Aircraft will be vectored to Point ALFA at 3000 feet; thence on a direct course to Point BRAVO

Annex C, 32d AD(D)/ESF/GAA Opns Agreement (Cont'd)

at 2500 feet. GCA will assume control at Point BRAVO. In the event that GCA is inoperative, aircraft will make a left turn; proceed inbound on the northwest course of the Bangor radio range, letting down to cross the range station at prescribed minimum altitude; and execute straight-in approach.

- (b) COCA Recovery: Aircraft will be vectored to Point COCA at 2500 feet. GCA will assume control at Point COCA. In the event GCA is inoperative, aircraft will be vectored on a direct course from Point COCA to Point BRAVO at 2500 feet. Upon reaching Point BRAVO, aircraft will make a right turn; proceed inbound on the northwest course of the Bangor radio range, letting down to cross the range station at prescribed minimum altitude, and execute straight-in approach.

b. Aircraft Not Under GCI Radar Control:

- (1) Aircraft will proceed to the Bangor Radio Range Station at an altitude of at least 500 feet on top or, if not possible, at an altitude assigned by the Boston ARTC Center. Upon receipt of clearance from the Boston ARTC Center through Dow Tower, aircraft will execute the published standard jet let-down.

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ANNEX D  
32D AD(D)/ESF/CAA  
OPERATIONS AGREEMENT

GRIFFISS AFB, NEW YORK

IFR SCRAMBLE AND RECOVERY PROCEDURES

EFFECTIVE: 1 AUGUST 1954

1. RESPONSIBILITY:

a. Boston ARTC Center will not clear enroute IFR flight plan aircraft to operate below 3000 feet within a five (5) statute mile radius of Griffiss AFB without effecting prior coordination with the Griffiss AFB Tower.

b. The Griffiss AFB Tower will obtain a release time from the Boston ARTC Center and clear scramble aircraft accordingly whenever weather conditions are such that the aircraft cannot remain VFR until outside of controlled airspace, as specified in paragraph 3.a.

2. RECOVERY REFERENCE POINTS:

a. Point ALFA: 43°25'N - 75°32'W.

3. SCRAMBLE:

a. Upon receipt of take-off clearance from the control tower, aircraft will proceed VFR or, if not possible, not above 2000 feet on the shortest possible course until outside of controlled airspace north of and on a bearing of 360 degrees magnetic from the Utica (UCA/359-kcs) radio range; thence climb on a heading of 360 degrees magnetic from the Utica radio range. Normally, Griffiss AFB GCA will vector aircraft to outside of controlled airspace and on the prescribed climb heading.

b. If GCI radar control has not been established or an altitude of at least 500 feet on top not reached at a bearing of 040 degrees magnetic from the Syracuse (SYR/350-kcs) radio range, make a 180 degree right turn, continue climb and request further clearance from the Boston ARTC Center.

4. RECOVERY:

a. Aircraft Under GCI Radar Control:

- (1) Upon notification of recovery, Griffiss AFB Tower will obtain necessary recovery clearance from the Boston ARTC Center and advise the ADDC Director accordingly. The ADDC Director will then vector aircraft to Point ALFA at 10,000 feet. Griffiss AFB GCA will assume control of aircraft at Point ALFA.

Annex D, 32d AD(D)/ESF/CAA Opns Agreement (Cont'd)

(2) In the event GCA is inoperative, the ADDC Director will vector aircraft to the Syracuse Radio Range Station at 500 feet on top or, if not possible, at an altitude assigned by the Boston ARTC Center. Upon receipt of recovery clearance from the Boston ARTC Center through Syracuse Approach Control, aircraft will execute the published standard jet let-down for Griffiss AFB.

b. Aircraft Not Under GCI Radar Control:

(1) Aircraft will proceed to the Syracuse Radio Range Station at an altitude of at least 500 feet on top or, if not possible, at an altitude assigned by the Boston ARTC Center. Upon receipt of recovery clearance from the Boston ARTC Center through Syracuse Approach Control, aircraft will execute the published standard jet let-down for Griffiss AFB.

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ANNEX E  
32D AD(D)/ESF/CAA  
OPERATIONS AGREEMENT

NIAGARA FALLS AIRPORT, NEW YORK

IFR SCRAMBLE AND RECOVERY PROCEDURES

EFFECTIVE: 1 AUGUST 1954

1. RESPONSIBILITY:

- a. Buffalo Approach Control will be responsible for the control of air traffic operating at 4000 feet and below in controlled airspace within a thirty (30) statute mile radius of the Buffalo radio range.
- b. Buffalo Approach Control will not clear other IFR flight plan aircraft to operate on Red Airway No. 23 below 3000 feet within five (5) statute miles on either side of the recovery tracks prescribed in paragraph 4.a.(1) without effecting prior coordination with the 763d AC&W Squadron.
- c. The Niagara Falls Tower will obtain a release time from the Buffalo Approach Control and clear scramble aircraft accordingly whenever weather conditions are such that the aircraft cannot remain VFR until outside of controlled airspace as specified in paragraph 3.a.

2. RECOVERY REFERENCE POINTS:

- a. Point ALFA: 43°23'N - 78°58'W.
- b. Point BRAVO: 43°22'N - 78°37'W.

3. SCRAMBLE:

- a. Upon receipt of take-off clearance from the control tower, aircraft will proceed VFR or, if not possible, not above 2000 feet on the shortest possible course until outside of controlled airspace north of Red Airway No. 23 and on a bearing of 045 degrees magnetic from the Niagara Falls (FS/233-kcs) LMM; thence climb on a heading of 045 degrees magnetic from the Niagara Falls LMM.
- b. If GCI radar control has not been effected or an altitude of at least 500 feet on top reached at a point sixty (60) statute miles from Niagara Falls LMM, make a 180 degree right turn, continue climb, and request further clearance from the Cleveland ARTC Center.

4. RECOVERY:

a. Aircraft Under GCI Radar Control:

- (1) Upon receipt of recovery clearance from Buffalo Approach Control,

Annex E, 32d AD(D)/ESF/GAA Ops Agreement (Cont'd)

the ADDC Director will vector aircraft for the approved recovery as follows:

- (a) ALFA Recovery: Aircraft will be vectored to cross Point ALFA at 2000 feet; thence directly to a point at the west end of the east-west runway, descending aircraft to minimum altitude. At that point, aircraft will make a left turn and execute landing.
- (b) BRAVO Recovery: Aircraft will be vectored to Point BRAVO at 5000 feet; thence on a heading of 200 degrees magnetic with immediate descent to 2000 feet. GCA will assume control of aircraft between Point BRAVO and five (5) statute miles south.

(2) ALFA recovery will be used when Niagara Falls GCA is inoperative.

b. Aircraft Not Under GCI Radar Control

- (1) Aircraft will proceed to the Buffalo Radio Range Station (BUF/260-kcs) at an altitude of at least 500 feet on top or, if not possible, at an altitude assigned by the Cleveland ARTC Center. Upon receipt of clearance from the Cleveland ARTC Center through Buffalo Approach Control, aircraft will execute the published standard jet let-down.

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ANNEX F  
32D AD(D)/ESF/CAA  
OPERATIONS AGREEMENT

OTIS AFB, MASSACHUSETTS

IFR SCRAMBLE AND RECOVERY PROCEDURES

EFFECTIVE: 1 AUGUST 1954

1. RESPONSIBILITY:

a. Boston ARTC Center will not clear other IFR flight plan aircraft to operate at 10,000 feet on Victor Airway No. 141 and Blue Airway No. 4 and at 20,000 feet on Control Area No. 1142 within five (5) statute miles on either side of a heading of 025 degrees magnetic from the Otis (FMH/335-kce) MH without effecting prior coordination with the 762d AC&W Squadron.

b. Otis AFB Tower will be responsible for the control of air traffic operating at 1500 feet and below in controlled airspace within a ten (10) statute mile radius of the Otis (FMH/335-kce) MH.

2. RECOVERY REFERENCE POINTS:

a. Point ALFA: 41°50'N - 70°22'W.

3. SCRAMBLE:

a. Upon receipt of take-off clearance from the control tower, aircraft will proceed VFR or, if not possible, not above 1500 feet on the shortest possible course until north of Red Airway No. 94 and on a bearing of 025 degrees magnetic from the Otis (FMH/335-kce) MH; thence climb on a heading of 025 degrees magnetic from the Otis MH at a rate so as to cross Victor Airway No. 141 and Blue Airway No. 4 at 10,000 feet, and thence climb at a rate so as to enter Control Area No. 1142 at 20,000 feet.

b. If GCI radar control has not been effected or an altitude of at least 500 feet on top not reached upon intersecting the on-course signal of the east course of the Boston (BOS/382-kce) radio range, make a 180 degree right turn, maintain 20,000 feet, and request further clearance from the Boston ARTC Center.

4. RECOVERY:

a. Aircraft Under GCI Radar Control:

- (1) Upon receipt of recovery clearance from Otis AFB Approach Control, the ADDC Director will vector aircraft to Point ALFA at 1500 feet. Upon reaching Point ALFA, aircraft will effect a GCA or straight-in ILS approach, as approved by Otis AFB Approach Control.

Annex F, 32d AD(D)/ESF/CAA Opns Agreement (Cont'd)

- (2) In the event GCA and ILS is inoperative, the ADDC Director will vector aircraft to the Otis (FMH/335-kcs) MH at an altitude of at least 500 feet on top or, if not possible, at an altitude assigned by the Boston ARTC Center. Upon receipt of recovery clearance from the Boston ARTC Center through Otis Approach Control, aircraft will execute the published standard jet let-down.
- b. Aircraft Not Under GCI Radar Control:
- (1) Aircraft will proceed to the Otis (FMH/335-kcs) MH at an altitude of at least 500 feet on top or, if not possible, at an altitude assigned by the Boston ARTC Center. Upon receipt of clearance from the Boston ARTC Center through Otis AFB Approach Control, aircraft will execute the published standard jet let-down or ILS approach.

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ANNEX 3  
32D AD(D), ESE/CAA  
OPERATIONS AGREEMENT

PRESQUE ISLE AFB MAINE

IFR SCRAMBLE AND RECOVERY PROCEDURES

EFFECTIVE: 1 AUGUST 1954

1. RESPONSIBILITY:

a. The Presque Isle AFB Tower will obtain a release time from the Boston ARTC Center and clear scramble aircraft accordingly whenever weather conditions are such that scramble aircraft cannot remain VFR until outside of controlled airspace as specified in paragraph 3.a.

2. RECOVERY REFERENCE POINTS:

a. Point ALFA: A point on the centerline of the west course of the Presque Isle radio range seven (7) statute miles west of the radio range station.

3. SCRAMBLE:

a. Upon receipt of take-off clearance from the control tower, aircraft will proceed VFR or, if not possible, not above 2500 feet on the shortest possible course to outside of controlled airspace west of and on a bearing of 200 degrees magnetic from the Presque Isle (PQI/388-kcs) Radio Range Station; thence make climb on a heading of 260 degrees magnetic from the Presque Isle Radio Range Station.

b. If GCI radar control has not been effected or an altitude of at least 500 feet on top not reached at a bearing of 360 degrees magnetic from the Millinocket (MLT/344-kcs) radio range, make a 180 degree right turn, continue climb, and request further clearance from the Boston ARTC Center.

4. RECOVERY:

a. Aircraft Under GCI Radar Control:

(1) Upon receipt of recovery clearance from the Boston ARTC Center, the AIDC Director will vector aircraft to Point ALFA at 3500 feet on a southerly heading. GCI will assume control at Point ALFA. In the event GCI is inoperative, aircraft will continue inbound on the west course of the Presque Isle radio range, letting down to cross the range station at prescribed minimum altitude, and execute standard instrument approach.

Annex G, 32d AD(D)/ESF/CAA Opns Agreement (Cont'd)

b. Aircraft Not Under GCI Radar Control:

- (1) Aircraft will proceed to the Presque Isle Radio Range Station at an altitude of at least 500 feet on top or, if not possible, at an altitude assigned by the Boston ARTC Center. Upon receipt of clearance from the Boston ARTC Center through Presque Isle AFB Tower, aircraft will execute the published standard jet let-down.

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ANNEX H  
32D AD(D)/ESF/CAA  
OPERATIONS AGREEMENT

WESTOVER AFB, MASSACHUSETTS

IFR SCRAMBLE AND RECOVERY PROCEDURES

EFFECTIVE: 1 AUGUST 1954

1. RESPONSIBILITY:

a. The Boston ARTC Center will not approve other IFR flight plan aircraft to operate on Red Airway No. 11 and Victor Airways No. 2 and 14 at 18,000 feet within ten (10) statute miles of North Adams intersection (intersection of the east course of Albany and northwest course of Chicopee radio ranges) without effecting prior coordination with the 656th AC&W Squadron ADDC.

b. Westover Approach Control will be responsible for the control of air traffic operating on Blue Airway No. 41, Red Airway No. 33 and Victor Airway No. 39 between the southern limits of Red Airway No. 11 and Victor Airways No. 2 and 14 to the northern limits of Green Airway No. 2.

2. SCRAMBLE:

a. Upon receipt of take-off clearance from the control tower, aircraft will be cleared by Westover Approach Control, via the northwest course of the Chicopee radio range (329 degrees magnetic), to cross Red Airway No. 11 at North Adams intersection at 18,000 feet. Upon reaching North Adams intersection, aircraft shall proceed on a heading of 010 degrees magnetic, maintaining 18,000 feet until north of Red Airway No. 11; thence continue climb. This procedure will be monitored by Westover Approach Control radar whenever possible.

b. If GCI radar control has not been effected or an altitude of at least 500 feet on top not reached at a bearing of 065 degrees magnetic from the Albany (ALB/263-kcs) radio range, make a 180 degree right turn, continue climb, and request further clearance from the Boston ARTC Center.

3. RECOVERY:

a. Aircraft Under GCI Radar Control:

- (1) Upon receipt of recovery clearance from Westover Approach Control, the ADDC Director shall vector aircraft to the Chicopee Radio Range Station at 20,000 feet. Upon receipt of approach clearance from Westover Approach Control, the aircraft shall execute the published jet let-down for Westover AFB.

Annex H, 32d AD(D)/ESF/CAA Opns Agreement (Cont'd)

b. Aircraft Not Under GCI Radar Control:

- (1) Aircraft will proceed to the Chicopee Radio Range Station at an altitude of at least 500 feet on top or, if not possible, at an altitude assigned by the Boston ARTC Center after coordination with Westover Approach Control. Upon receipt of clearance from the Boston ARTC Center through Westover Approach Control, aircraft will execute the published standard jet let-down.

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C O P Y

HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

ADCOOT-C

2 Sep 1954

SUBJECT: Joint CAA/ADC Operational Agreement

TO: Commander  
32d Air Division (Defense)  
Attn: Capt D. E. Smith  
Hancock Field  
Eastwood Station 6  
Syracuse, New York

1. Attached is a draft of the proposed Joint ADC/CAA Operational Agreement on Scramble and Recovery Procedures.
2. The purpose of this document is to standardize procedures common to the entire command and to provide appropriate CAA agencies with guidelines to be followed in the accomplishment of Scrambles and Recoveries throughout the United States.
3. It is requested that all recipients of this draft submit recommendations for amendment or improvement at the earliest possible date. Emphasis should be placed on applicability of such recommendations throughout the Air Defense Command and the CAA.

BY ORDER OF THE COMMANDER:

1 Incl:  
2 cys Draft Jt  
CAA/ADC Opnl  
Agreement

HOWARD K. BEADE  
1st Lt., USAF  
Asst Command Adj

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C O P Y

Hq ADC ADOOT-C Subj: Joint CAA/ADC Operational Agreement

OOT-FO (2 Sep 54) 1st Ind 5 Nov 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Air Defense Command, Ent Air Force Base,  
Colorado Springs, Colorado

1. In accordance with paragraph 3 of basic correspondence,  
the following comments and recommendations are tendered.

2. To develop a command wide operational agreement with CAA,  
the proposed agreement as accepted at a conference held at ADC  
Headquarters, 2 and 3 June 1954, or the general format of 32d ADD/  
CAA Operational Agreement (Incl #2), should be used as a basis for  
such a paper.

3. To insure presentation of a comprehensive document accept-  
able to all agencies concerned, it is recommended these points be  
incorporated in such an agreement:

a. As other than Air Defense Command bases are and will  
be used for air defense, the intent of the establishment of "Con-  
tinental Air Defense Command" is that additional bases would be  
included and this agreement should be drawn between CAA and CADC.

b. The subject of such an agreement should be "Scramble  
and Recovery Procedures Air Traffic Control", with a short title  
of SARFATC to preclude any confusion with "Standard and Recommended  
Practices/Procedures" (SARP), since this short title is used by  
both CAA and USAF offices at a higher level.

c. Any agreement and its procedures should contain an  
effective date.

d. The use and practice of any procedures in a joint  
CAA/CADC Agreement would be to expedite movement of interceptor  
aircraft performing an active air defense mission with minimum no-  
tification to Air Traffic Control in compliance with ATC procedures;  
therefore, the practice and use of these procedures should be  
limited to organizations using interceptor aircraft to perform  
daily active air defense missions and should not include augmentation  
or other forces not performing active air defense missions.

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Hq ADC ADOOT-C Subj: Joint CAA/ADC Operational Agreement

e. These procedures should be as brief and as simplified as possible.

f. The purpose of such a joint agreement should read "to establish certain procedures and responsibilities relating to the air traffic control of interceptor aircraft on active air defense missions under the operational jurisdiction of CADC and the training of aircrew personnel, of such organizations engaged in performing active air defense missions in these procedures."

g. A definition of "Air Defense System" should be provided, such as: AEW&C, ACMW and FIS organizations having a primary responsibility for the air defense of the continental United States.

h. For the purpose of a joint CAA/CADC agreement, the term "Scramble" should be defined as, "the action from the time an interceptor aircraft is ordered airborne on an active air defense mission until the assigned mission has been completed or terminated" and the term "Recovery" as, "the action from the time the assigned mission has been completed or terminated until the aircraft has been landed". (The definition in ADC Regulation 55-30 leaves an unexplainable void between the time ACMW control is assumed on an active air defense mission, until such time as the aircraft is ready to effect a recovery.)

4. In reference to Incl #1, "Draft of Joint CAA/ADC Operational Agreement", the following exceptions are taken on the basis of comments, discussion and subsequent acceptance of proposed draft of such agreement of Headquarters ADC, 3 June 1954:

a. Paragraphs 1a and b: Should be consolidated (paragraph 3f above).

b. Paragraph 1c: Is not a "purpose" and should be incorporated in paragraph 3, "scope".

c. Paragraph 2b; second sentence: As a policy statement should not be in the agreement.

d. Paragraph 2d: The term "or for training in air defense procedures" covers a very broad field. There are many and varied types of air defense procedures and it is not believed that the intent

C O P Y

Hq ADC ADOOT-C Subj: Joint CAA/ADC Operational Agreement

of these specific procedures is to provide training therein. (This should be amended to read "and/or tracking of hostile aircraft or simulated hostile aircraft of a planned air defense exercise".)

e. Paragraph 2f and g: The use of the definition of scramble contained in ADC Regulation 55-30. (Reference paragraph 3h above).

f. Paragraph 2: Should contain a definition of Air Defense System. (Reference paragraph 3g above).

g. Paragraph 3a: This is superfluous, as the procedures will be signed by CAA, civil and military organizations concerned.'

h. Paragraph 3b: This and paragraph 1c should be consolidated to read as follows: "General procedures and responsibilities applicable to all airports concerned are set forth herein. Specific procedures and responsibilities applicable to individual airports are contained in annexes hereto which will be coordinated with and approved by local CAA, civil and military organizations concerned."

i. Paragraph 3c: To eliminate the possibility of unwarranted requests for scramble and recovery procedures or the practice of established procedures by organizations not engaged in active air defense missions, the words "Air Defense System" should be inserted between the "of an" and "aircraft control and warning unit--".

j. Paragraph 3c(2): Change the word "the" in third sentence to read "these established procedures".

k. Paragraph 3d: This paragraph should be deleted, as no modifications or additions should be incorporated in the general procedures of a joint CAA/CADC agreement. Any that are desired or required by local conditions, should be prescribed in the annexes.

l. Paragraph 4: Responsibilities and procedures should be segregated to preclude repetition. (See Incl #2).

m. Paragraph 4a: This paragraph should be omitted since it is a command responsibility to insure that subordinate personnel are fully familiarized with all applicable operating instructions and procedures.

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n. Paragraph 4b(2) and (3): The footnote to each of these subparagraphs states the same and implies the same; one should suffice.

o. Paragraph 4b(2), (13), (15), (16) and (23): & (8): These are primarily concerned with coordination between an AC&W squadron and an ATC unit. This can be simplified and considerable verbage omitted by using paragraphs similar to 4a(1) and (b), 4a(3), 6b(5) and 6c(1) of Incl #2.

p. Paragraph 4b(9); second sentence: This fact has been stated previously and, therefore, should be omitted.

q. Paragraph 4b(23) (c): Fuel requirement for any flight (AFR 60-16) is a pilot's responsibility rather than a director's in an ADCC.

r. Paragraph 4b, c and d: Should be reviewed to preclude repetition.

s. Paragraph 4e(3): This note is repetitious of the intent of the subparagraph and should be deleted.

t. Paragraph 6: This should read "Pilot Handbook and/or as prescribed by ATC agency".

u. Paragraph 7: This should read as stated in Incl #2, without listing the type of equipment in aircraft.

5. The requirements of an agreement of this nature upon implementation of designated procedures assigning the responsibility for that part of air traffic control functions outlined, imposes a mandatory criteria for AC&W Directors and Controllers to attend courses of instruction in ATC procedures to insure that ADC personnel are thoroughly competent in such procedures. This should be arranged between Headquarters ADC or CADC and Air Traffic Control School at Oklahoma City, Oklahoma.

FOR THE COMMANDER:

2 Incls:  
1. n/c  
Added 1 Incl  
2. 32d AD(D) SARPs

EVERITT W. HOWE  
Major, USAF  
Adjutant

5

Info cy: EADF

C O P Y

CAA/ADC OPERATIONAL AGREEMENT FOR SCRAMBLE AND RECOVERY  
PROCEDURES (SARPS)

1. PURPOSE. a. This joint ADC/CAA Operation Agreement establishes procedures and assigns responsibilities to expedite the scramble and recovery of active air defense mission aircraft within the Air Defense Command.

b. This agreement further establishes procedures and assigns responsibilities for accomplishment of training in scramble and recovery of Air Defense Command aircraft.

c. General procedures and responsibilities applicable to all airports concerned are set forth herein. Specific responsibilities applicable to individual airports are contained in annexes hereto.

2. DEFINITIONS. a. Active Air Defense Mission - A mission the purpose of which is determination of the intent of an airborne object in the interest of national security.

b. Planned Air Defense Exercise. - An air defense exercise conducted by air division (Defense) or higher echelon for evaluating or testing the air defense system. Such exercises may involve one or more major commands and/or services and will have been coordinated with affected civil and military agencies.

c. Strike Aircraft of Planned Air Defense Exercises - Those aircraft designated as simulated hostile aircraft during Planned Air Defense Exercises.

d. Fighter-Interceptor Aircraft - All aircraft employed by the Air defense system for interception and/or tracking of hostile and simulated hostile aircraft or for training in air defense procedures, including scramble and recovery.

C O P Y

e. Practice Scramble and Recovery - A mission conducted for development and maintenance of proficiency in Scramble and Recovery Procedures.

f. Scramble - This definition to be identical with that contained in the revised ADCR 55-30, currently in publication.

g. Recovery - The expeditious return and landing of air defense fighter-interceptors for the returning of these aircraft to alert status in a minimum of time.

3. SCOPE. a. The procedures and responsibilities outlined in this operational agreement have been coordinated with and approved by the Civil Aeronautics Administration, the Air Defense Command, and other interested agencies. They apply to all Air Defense Command, Civil Aeronautics Administration, and traffic control agencies concerned.

b. The annexes hereto (when signed) have been coordinated with and approved by the local Civil Aeronautics Administration and Air Force units concerned.

c. The procedures and responsibilities herein and in annexes hereto apply only to fighter-interceptor aircraft while operating under the direction of an aircraft control and warning unit and are limited to:

- (1) Active Air Defense missions against unidentified aircraft or strike aircraft of a planned air defense exercise.
- (2) Practice Scramble and Recovery Missions. (Applies only to flights which depart exclusively to develop and maintain proficiency in the established procedures.

C O P Y

Administrative, cross-country, local, or other such flights are not intended to be governed by these procedures.

d. Modifications or additions to this document may be accomplished for local conditions only without the approval of CAA or ADC Headquarters, provided they do not alter the contents of this document with respect to standardized procedures.

4. RESPONSIBILITIES AND PROCEDURES. a. ATC facility chiefs and air defense forces are responsible for ensuring that appropriate personnel develop and maintain proficiency in and comply with the applicable procedures outlined in this agreement and its annexes.

b. Direction center directors will:

- (1) Initiate the Scramble Order to the fighter-interceptor unit or fighter-interceptor in accordance with ADCR 55-30.
- (2) Notify the ARTCC or approach control, as appropriate, of the scramble and file an abbreviated flight plan, to include:
  - (a) call sign
  - (b) Number of aircraft
  - (c) Departure route.
  - (d) Nature of scramble (Active Air Defense, Practice Scramble).
  - (e) Approximate duration of flight (if training, or when possible).
  - (f) Any other information requested by ARTCC or Approach control.

C O P Y

(NOTE: Where the direction center does not have direct voice communications with the ATC agency, this information will be passed on by the fighter-interceptor alert center to the control tower or approach control).

- (3) When a scramble is imminent, immediately notify the control tower at the appropriate base. (NOTE: Where the direction center does not have interphone communications with the control tower, the fighter-interceptor alert center will notify the control tower until interphone service is provided).
- (4) May, when required, relay pertinent scramble instructions from the direction center to the fighter-interceptor through the control tower, between the time the scramble order is issued and direct communication is established between the direction center and the fighter-interceptor.
- (5) If advised by the fighter-interceptor pilot that scramble vector cannot be accomplished under VFR conditions and flight does not possess IFR clearance but is airborne, instruct the fighter-interceptor to maintain VFR until outside of controlled airspace or where IFR flight may be conducted under direction center radar control with the direction center director responsible for separation.

C O P Y

- (6) Be responsible for separation of fighter-interceptor aircraft from all other air traffic except:
  - (a) Where fighter-interceptors are operating in VFR weather conditions, or
  - (b) When interceptors are executing IFR scramble or recovery within controlled or restricted airspace reserved for this purpose, as outlined in annexes hereto, or
  - (c) When fighter-interceptor are in visual or AI contact with target.
- (7) Provide standard minimum separation between fighter-interceptor aircraft operating under direction center radar control and other observed aircraft, as follows:
  - (a) Vertical separation of at least 1,000 feet.
  - (b) Lateral separation:
    - 1 Three miles between aircraft up to 40 miles from the radar.
    - 2 Five miles between aircraft beyond 40 miles from the radar.
- (8) Coordinate with the appropriate air route traffic control center, or approach control, if it becomes apparent that fighter-interceptor aircraft must operate under IFR within controlled airspace, other than reserved for scramble and recovery, and direction center radar separation cannot be provided, and accomplish the following:

C O P Y

- (a) Obtain appropriate clearance for operation in that area, or
  - (b) Obtain information relative to the altitudes occupied by other IFR flight plan aircraft in the airspace to be traversed and vector the fighter-interceptor through unoccupied altitudes.
- (9) Be responsible for separation of two or more formations or flights of fighter-interceptors from the time direction center radar control is established. This does not apply when interceptors are operating in VFR conditions, during visual or AI contact with the target, and when the fighter-interceptors are under ATC control.
- (10) Inform pilots of fighter-interceptors of other aircraft in the proximity whenever possible.
- (11) Keep informed of the current weather conditions in which fighter-interceptors are or may be operating and at alternate recovery bases.
- (12) Advise fighter-interceptors of an alternate airport of recovery to be used in the event of radio failure when weather conditions may preclude recovery at the intended base of recovery.
- (13) Furnish the ARTCC the fighter-interceptor's position when requested.

C O P Y

- (14) Initiate the clearance for recovery of fighter-interceptors as soon as practicable upon completion of the mission. In no case should this time be less than ten (10) minutes prior to the estimated time of return of a fighter-interceptors to the control area. The following data will be furnished:
- (a) Identification and type.
  - (b) Estimated time of arrival over appropriate radio facility or point from which approach is intended.
  - (c) Altitude.
  - (d) Other pertinent information (such as number of aircraft, type of approach desired, limited fuel, etc.)
- (15) Obtain clearance for GCI-GCA letdown from ARTCC or approach control and relay clearance to the fighter-interceptor, if applicable.
- (16) Should radio or radar contact with the interceptor be lost, inform the ARTCC and request that the fighter-interceptor be given priority consideration through available facilities for return to his intended base, or alternate airfield.
- (17) Prior to fighter-interceptor letdown, request the interceptor to check radio frequency with GCA, if appropriate.

C O P Y

- (18) Provide necessary separation of fighter-interceptor aircraft on recovery approaches, until released to other control.
- (19) Keep the fighter-interceptor informed as to his appearance or disappearance on the direction center control scope.
- (20) When recovery is to be made at other than the base of flight origin, advise the appropriate ATC agency and the base concerned as soon as possible. If the recovery is to be made in another area, the direction center will notify the direction center director of that area, who will follow the procedures outlined above.
- (21) When the base of recovery is other than the base of flight origin, return the fighter-interceptor to the base of flight origin in accordance with ADCR55-26, which reads as follows: "Aircraft that have landed at a base, other than home or staging base, as a result of over-extending their radius of action during an active air defense mission, will file a DD Form 175 for return unless:
  - (a) The aircraft is scrambled on an active air defense mission. Air defense requirements at the home base demand return of the aircraft without delay."

C O P Y

- (22) When it is necessary to recover fighter-interceptor aircraft under IFR at an airport for which recovery procedures are not established in annexes hereto, vector or instruct the aircraft to proceed to the radio range station, or other primary navigation aid serving such airport, at a suitable altitude assigned by the ATC agency concerned. Descent will be made in accordance with clearance issued by the appropriate ATC agency.
- (23) For practice scrambles conducted under IFR conditions:
- (a) Obtain ATC clearance required in the same manner as for active air defense missions except that ATC agencies will issue clearance as normal traffic conditions permit. Agency requesting clearance will designate the mission as "PRACTICE AIR DEFENSE SCRAMBLE AND/OR RECOVERY," in the request for clearance. Fighter-interceptor aircraft will be prepared for prompt take-off when clearance is received.
  - (b) At the time initial coordination with ATC is accomplished that agency will be advised of the expected time aircraft will arrive over the airport or predetermined point for letdown. This may be specified as elapsed time from take-off.

C O P Y

Aircraft will be expected to make this time good since it will be used for normal traffic control planning and for emergency in event of radio failure.

(c) Fuel requirements for practice scrambles and recoveries will be in accordance with AFR 60-16.

(d) Administrative, cross-country, local or other such flights are not intended to be governed by these procedures.

(24) Other: Flights by higher headquarters conducted for the purpose of determining the proficiency of a direction center and the efficacy of Scramble and Recovery Procedures, outlined in this agreement and annexes hereto, may be conducted under the provisions of paragraph 4b(23) above.

c. Fighter-Interceptor pilots will be responsible for:

(1) Separation from all other aircraft while operating under VFR conditions.

(NOTE: THE ESTABLISHMENT OF SCRAMBLE AND RECOVERY CORRIDORS DOES NOT PRECLUDE THE POSSIBILITY OF OTHER AIRCRAFT OPERATING VFR WITHIN CONTROLLED AIRSPACE AND VFR OR IFR OUTSIDE OF CONTROLLED AIRSPACE).

(2) Advising the direction center director if airborne on a scramble on a VFR clearance and continued VFR flight cannot be maintained. Until receipt of appropriate instructions from the direction center director, flight will maintain VFR until clear of controlled airspace.

C O P Y

- (3) Keeping the direction center director informed of in-flight weather conditions. The direction center will be advised prior to encountering and/or immediately after leaving IFR or restricted visibility conditions.
- (4) Contacting the appropriate ARTCC or approach control facility in the event radio contact is lost with the direction center and compliance with their instructions, provided the flight is under IFR.
- (5) Ensuring that a radio check has been made on the appropriate GCA frequency prior to accomplishment of a GCI-GCA approach.
- (6) Separation from target aircraft and other interceptor aircraft during visual or AI contact with the target.
- (7) Complying with the minimum fuel requirements outlined in AFR 60-16 unless the urgency of the mission precludes such action.
- (8) Full compliance with the contents of this agreement and with applicable annexes hereto.

d. Flight commanders and/or flight leaders will be responsible

for:

- (1) Full compliance with the contents of this agreement and applicable annexes hereto.

C O P Y

- (2) Separation of fighter-interceptor aircraft in the same formation.
  - (3) Take-off separation between two or more formations or flights until direction center radar contact is established.
  - (4) Obtaining taxi and take-off clearance from the control tower.
- e. Air route traffic control centers will be responsible for;
- (1) Separation of fighter-interceptor aircraft from other known IFR flight plan aircraft within control areas while fighter-interceptors are operating under ARTC center control as outlined in this agreement and in annexes hereto or when control has been accepted as a result of direction center director's or pilots specific request.
  - (2) Securing prior approval before clearing other IFR flight planned aircraft to operate within that portion of controlled airspace reserved for scramble and recovery corridors and which has been delegated to an appropriate control tower or direction center.
  - (3) Affording the most expeditious scramble and recovery to fighter-interceptor aircraft commensurate with safety with respect to other aircraft. (NOTE: Expeditious recovery of aircraft is essential for rapid turn-around and re-employment of this weapon).

C O P Y

f. Control towers (includes approach control and/or GCA) will be responsible for:

- (1) Separation of fighter-interceptor aircraft from other known aircraft within controlled airspace under their jurisdiction and as set forth in annexes hereto.
- (2) Affording the most expeditious scramble and recovery to fighter-interceptor aircraft commensurate with the safety of other departing, approaching, landing, taxiing, or enroute aircraft under their jurisdiction.
- (3) Informing the ARTCC and the direction center of scramble take-off time.
- (4) Clear local traffic after receiving information of inbound fighter-interceptors if fuel state warrants or the fighter-interceptor is needed for immediate return to alert status.
- (5) Coordinate with and obtain ARTC clearances when required.
- (6) Relaying such information as requested by the direction center as specified in paragraph 4b(4) above, and/or in annexes hereto.

5. COMMUNICATIONS. a. Fighter-interceptors, operating under the provisions of this document and annexes hereto, will establish and maintain communications with a direction center, except while operating within the jurisdictional limits of an approach control, control tower, or ARTCC. In the event recovery is being accomplished under direction

C O P Y

center control, communications will be maintained with the direction center until instructed to change frequency to the control tower, approach control, ARTCC, or GCA facility.

b. In the event communications with a direction center cannot be maintained, communications will be established with CAA or military communications, control tower, approach control, or ARTCC.

6. MISSED APPROACH. If visual contact hasnot been established upon descent to authorized landing minima, or if landing is not accomplished, execute the prescribed missed approach procedure for that airport as published in standard pilot's handbooks or in annexes hereto.

7. COMMUNICATIONS FAILURE. a. In the event two-way communications failure is experienced by an en route aircraft and recovery cannot be effected in accordance with visual flight rules, the procedures herein will be applied.

b. As soon as failure is discovered, the aircraft commander will broadcast such information on the chance that the transmitter is still functioning and turn the Mark X IFF to "Emergency." The lost aircraft pattern outlined in pertinent Radio Facility Charts will then be accomplished.

c. The ARR-6 Radio Compass or the Omni (VCR) set will be tuned to an appropriate facility (if still functioning), and pertinent information will be relayed through these facilities to the fighter-interceptor pilot. (Additional procedures to be fully covered by the CAA).

C O P Y

8. RADAR FAILURE. In the event of radar failure or inability to establish and/or maintain radar control of interceptor aircraft, the direction center director will immediately advise the fighter-interceptor pilot and the appropriate ATC agency concerned of the pertinent information listed in paragraph 7, above. The ATC agency will, if appropriate, assume control of the interceptor aircraft.

C O P Y

763D AIRCRAFT CONTROL AND WARNING SQUADRON  
Lockport Air Force Station  
Lockport, New York

OT-DC

SUBJECT: 90° Beam Intercept Computer

THRU: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. Since the advent of the 90° beam attack, the positioning of the fighter for a successful intercept has been a difficult problem. Experience in the field, project "Lock-On" and the Director Proficiency Training at Yuma, Arizona indicate clearly the attack cannot be set up by guess work, arbitrary fighter-target speed relationship and failure to consider wind effect. Intercepts that appear as near perfect 90 beam attacks to the director are too frequently reported by the pilot as ending in a head on or tail chase. Therefore, until electronic aids for this purpose are in operational use it is desirable to have a mechanical aid to assist the director in positioning the fighter for attack.

2. The Tanner Computer was developed through the combined efforts of Mr. Tanner, Bell Aircraft Corporation and Captain C. F. Robinson, Chief Director at this station. Results obtained with the computer to date have been excellent, and the following comments are forwarded:

a. Advantages:

- (1) The director can compute the 90° beam attack without assistance on any target appearing on scope.
- (2) The computation takes approximately 3½ minutes. Three minutes to obtain target ground speed and track and ½ minute to add wind vector and obtain attack heading.
- (3) The problem is solved on scope face with the computer and grease pencil.

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763d AC&W Sq, Lockport, Air Force Station, Lockport, N.Y., Subj: 90°  
Beam Intercept Computer (Cont'd)

- (4) Use of the computer should reduce the training required for directors in making 90° beam intercepts.
- (5) The accuracy of the range, angle-off and intercept heading provided by the computer instills confidence in the director. This results in improved R/T, allows more time for "pigeons", fuel checks, weather and etc. In addition, it builds pilot confidence in GCI ability.
- (6) The computer enables the director to determine if the fighter is in correct position for the beam attack when fighter is over twenty-miles from target. This reduces last minute corrections which frequently result in unsuccessful intercepts.

b. Disadvantages:

- (1) The computer is difficult to read on the scope because of inadequate light. Attempts are being made to solve this problem.
- (2) The scope must be set to scale indicate on computer to set-up problem. After computer is set, the scope scale can be changed but computer range cannot be used.
- (3) Fighter speed for computer is 460 knots T.A.S. Plus or minus 30 knots will have very little effect on final position.
- (4) Director must wear a headset because both hands are needed to set-up computer.

3. Computer, instructions for use and two sample problems are attached for your consideration.

4. Captain Roy B. Carris, EADF Operations Section, observed this computer during a recent staff visit and requested that it be forwarded to EADF for evaluation.

FOR THE COMMANDER:

5 Incls:

1. Operating Instructions
2. Problem #1
3. Problem #2
4. Diagram - Tanner Computer
5. Tanner Computer (one only) 2

CHARLES W. GRAY  
Captain, USAF  
Adjutant

C O P Y

763 ACWRON OT-DC Subj: 90° Beam Intercept Computer

DWOOT (1 Dec 54) 1st Ind

HEADQUARTERS, 4707th AIRDEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts, 9 Dec 1954

TO: Commander, 32d Air Divison (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. Forwarded in compliance with paragraph 4, basic correspondence.
2. No comment is being made by this headquarters pending further study.

FOR THE COMMANDER:

5 Incls:  
n/c

s/t/ GEORGE N. LEITNER  
Capt USAF

OOT-A (1 Dec 54) 2nd Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, NY

Forwarded for your consideration.

FOR THE COMMANDER:

5 Incls:  
n/c

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
3CD AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OCT-A

28 Sep 1954

SUBJECT: Lead Collision Course Positioning

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Mass

Commander  
4711th Air Defense Wing  
Presque Isle Air Force Base  
Presque Isle, Maine

1. Transmitted herewith for your information and distribution is a proposed method for positioning interceptors for a 90° beam lead collision course intercept.

2. It is desired that all ACEW Squadrons make a comprehensive evaluation as to the feasibility of this procedure. In addition, air crews should be thoroughly briefed on the procedure to insure cognizance of the importance of their contribution to the procedure by using standard turns and correct speeds as requested.

3. While it may first appear that this procedure is involved and time consuming, it will be found thru trial that experienced personnel can solve the problem and transpose it to the scope face in a minimum period of time.

4. Upon completion of evaluation by each ACEW Squadron, it is desired that this headquarters be advised of findings and recommendations.

BY ORDER OF THE COMMANDER:

1 Incl:  
Positioning Procedure  
w/3 attachments

EVERITT W. HOWE  
Major, USAF  
Adjutant

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HEADQUARTERS  
666TH AIRCRAFT CONTROL AND WARNING SQUADRON (ADC)  
Saratoga Springs Air Force Station  
Saratoga Springs, New York

ACTWOPS

28 June 1954

SUBJECT: Collision Course (90° Beam) Interception Computation

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. It is felt that a problem exists (in the computation of the 90° Beam) Collision Course Interception) but that the subject method is not the answer to the problem. The proposed method of compensating for the winds aloft, while sound enough in procedure, seems to involve too much work for too little results and to be too unwieldy to be of practical use.
2. The following factors introduce errors into the intercept problem, of a magnitude large enough to offset any advantage gained from employment of the wind triangle.
  - a. The winds aloft information is sketchy at best, and deteriorates markedly toward the end of the forecast period.
  - b. Winds aloft information obtained from flying a "box" pattern can be as much as twenty (20) to twenty-five (25) percent in error in speed and twenty (20) to fifty (50) degrees in azimuth, due to plotting and parallax errors.
  - c. If, in figuring the bogey's ground speed and track, the bogey is allowed to track as long as five minutes to determine speed, and during that time the bogey travels twenty-five (25) nautical miles, the bogey's ground speed is determined to be three-hundred (300) knots. However, if due to errors introduced by the width of grease pencil marks and/or parallax, the original twenty-five (25) nautical miles is in error by as much as three (3) to four (4) nautical miles, the final speed will be in error by twelve (12) to fifteen (15) percent. In addition to this any error in plotting the ground track of the bogey will be reflected in the computed true 90 degree beam course.

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ACNOFS Subj: Collision Course (90° Beam) Interception Computation  
28 Jun 54 (Contd)

3. This technique does not materially increase or decrease a directors proficiency but it is felt that over a period of time it would adversely effect his accuracy on interceptions. The time consumed by the airman going through the steps to compute the heading to be flown on the 90 degree beam interception and transfer the information to the overlay, plus the magnitude of the errors offsets any advantage that may be obtained by using this method. It is felt that the use of the F6B computer and interceptor technicians plotting table is more accurate and require less time than the subject method.

4. It is the opinion at this station that the problem must be solved by some method requiring fewer steps and giving more accuracy.

FOR THE COMMANDER:

st/ ERNEST C. SKINNER  
Captain, USAF  
Adjutant

C O P Y

763D AIRCRAFT CONTROL AND WARNING SQUADRON  
Lockport Air Force Station  
Lockport, New York

June 29 1954

OT

SUBJECT: Comments, Collision Course Interception Computation

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. Reference letter your headquarters, DWO, subject: Collision Course (90° Beam) Interception Computation, dated 21 May 1954 the following comments are hereby submitted.

a. Intercept technique as outlined in Incl 1 has been practiced by directors at this station during the month of June 1954. Due to shortage of aircraft only twenty-nine (29) intercepts of this type were attempted. Difficulty was first encountered by intercept control technician taking too much time working out position cards and difficulty by directors to adjust themselves to not seeing a true collision track on the radar scope. The first fourteen (14) attempts resulted in pilot reports of two (2) true beam attacks, eight (8) 30° to 50° off beam and four (4) misses were reported. The error in all cases was determined to be faulty position cards, director error or inaccurate winds aloft. Better results were obtained in the latter fifteen attempts with pilots reporting seven (7) true beam attacks, four (4) off beam and four (4) misses.

b. It is the opinion of the directors at this station that the theory of this problem is excellent but the factor of controller error still exists and information on winds aloft must be accurate for successful completion of the problem. None of the directors have had the opportunity to individually direct enough intercepts of this type to become proficient and a fair evaluation of the problem cannot be made at this time. Directors at this squadron are continuing to practice this type of intercept and additional comments will be submitted at a later date.

FOR THE COMMANDER:

s/t/ C. M. DIXON  
Major, USAF  
Adjutant

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C O P Y

762D AIRCRAFT CONTROL AND WARNING SQUADRON  
NORTH TRURO AIR FORCE STATION  
North Truro, Massachusetts

ACQOP3

29 Jun 1954

SUBJECT: Collision Course (90° Beam) Interception Computation

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. In compliance with your letter, DWG, subject as above, dated 21 May 1954, the following report is submitted:

a. This station has had limited opportunity to evaluate this intercept computation due to yearly overhaul during the month of June, however, the basic idea is sound and effective.

b. One difficulty encountered has been that of obtaining winds aloft. The present six (6) hour headings do not seem adequate.

c. Under conditions of multiple fighters versus a pass track the intercept technician finds this new system cumbersome due to his other duties as intercept technician. He will be reporting tactical results and disposition of the fighter interceptors at the same time he should be computing a new intercept for the director. This may be resolved by training and some changes to our intercept technician duties.

2. As stated above, the basic technique is sound and effective, winds aloft being accurate and intercept technician proficient. As stated in paragraph 1a above this station has had insufficient time to give other than a preliminary evaluation and could not give an estimate of any increase in director proficiency. This station will continue to use and evaluate the intercept computation system.

FOR THE COMMANDER:

s/t/ THOMAS H. GALLIGAN  
Captain, USAF  
Executive Officer

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C O P Y

DISPOSITION FORM

SUBJECT: COLLISION COURSE (90° Beam)  
INTCP COMPUTATION

TO: OOT-A FROM: OOT DATE: 21 July 1954 Comment 1

1. According to the reports it seems that the answers are not what they should be. Much time is required to solve the attack according to the book and then the results are not accurate 100% of the time.
2. The solution should be obtained quickly and accurately to be beneficial. Perhaps this study should continue as a 90° beam interception is the best for our present fighters. (F-94C and F-36D).

SHELTON/090

654TH AIRCRAFT CONTROL AND WARNING SQUADRON  
U.S. NAVAL AIR STATION  
Brunswick, Maine

OP

29 July 1954

SUBJECT: Collision Course (90° Beam) Interception Computation'

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. In accordance with 4707th Defense Wing letter DWO, subject as above, dated 21 May 1954, and 4707th Defense Wing Message ACW OT 90, dated 22 June 1954, the following comments are submitted:

a. This computation method has definite possibilities, however, the parallax problem confronted in the use of AH/CPS-6B equipment does hinder the use of it. The use of the plastic discs add to the parallax.

b. Lack of accurate wind data negates the system to some extent. Since the presentation on the FFI does not necessarily resemble a 90° beam approach the only indication that an error exists is the Tally-Ho report of the interceptor pilot.

c. Some reluctance was experienced on the part of pilots to being utilized in practicing this system due to flying time involved versus number of intercepts completed.

d. No increased proficiency on the part of directors was apparent, however, this is no condemnation of the system. It is believed that an unfavorable attitude towards the system by some of the personnel involved, the incomplete and often inaccurate wind information, and FFI parallax appreciably contributed to the lack of increased proficiency. Lack of confidence in wind data results in lack of confidence in the effectiveness of the system. Use of the system for the interceptions attempted by this Unit proved to be of no great aid.

e. This Unit did fabricate instruments to speed up and simplify the necessary computations. These consisted of rulers scaled in tenths, perpendicular erectors, parallel rulers, and protractors for the determination of antenna train angles.

2. The following recommendations are offered:

a. More winds aloft data must be made available to the air-

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C O P Y

654th ACW Sq, OT, Subj: Collision Course (90° Beam) Interception  
Computation (Cont'd)

craft director. Actual rather than forecast winds are required.

b. The parallax problem must be solved or aids used on scope  
faces will continue to be of little value. The suggestion offered in  
this Units report, OT, subject: Director Aids, dated 20 July 1954, is  
a possible solution.

c. Fighter Squadron personnel should be completely briefed  
on the system and the requirement for it. It is not believed that all  
concerned are aware of the possible exploitation of antenna train  
angle information or the factors involved in computing these angles.

FOR THE COMMANDER:

s/t/ JOHN D. MYERS  
1st Lt., USAF  
Adjutant

C O P Y

HEADQUARTERS  
764TH AIRCRAFT CONTROL AND WARNING SQUADRON  
ST. ALBANS AIR FORCE STATION  
St. Albans, Vermont

OPNS

30 Nov 1954

SUBJECT: Lead Collision Course Positioning 28 September 1954

TO: Headquarters  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. Reference the Lead Collision Course positioning procedure outlined under this letter, the following comments and recommendations are submitted:

a. This system appears to be good for positioning one (1) interceptor or a flight of interceptors against a target but allows no provision for succeeding interceptors. There is also no provision for fine corrections from turn on beam into the point that the pilot obtains "judy".

b. At this station a string of single interceptors spaced 5 to 7 miles apart are turned into the target in rapid succession. Using the above system only the lead aircraft would be sure of proper initial positioning and then could not be assured of corrective action in the final phases of his intercept.

d. In using the Beeson System at Yuma AFB it was found that after turning beam on the antenna train angle line of the plastic overlay that several minor corrections of 5° to 10° were necessary to complete proper set up for beam. In fact this is considered to be one of the outstanding virtues of the Beeson System. Namely the ability to catch a small deviation in heading or positioning quickly and to correct it before it became too large to handle.

FOR THE COMMANDER:

Info cy to:  
Cmdr, 4711th Air Def Wg

ROBERT C. GARRISON  
Captain, USAF  
Adjutant

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C O P Y

HEADQUARTERS  
766TH AIRCRAFT CONTROL AND WARNING SQUADRON (ADC)  
CASWELL AIR FORCE STATION  
Limestone, Maine

ACU OPS

Dec 3 1954

SUBJECT: Lead Collision Course Positioning

TO: Commander  
4711th Air Defense Wing  
ATTN: Captain Robert Barrows  
Presque Isle Air Force Base  
Presque Isle, Maine

1. The following report is submitted as requested by 1st Ind of 32d Air Division (Defense) letter dated 28 September 1954.
2. This unit does not possess an Intercept Officers Kit, however this method of positioning procedure was tried by drawing the problem on an intercept table and transposing it to the scope.
3. After evaluating this positioning method no particular advantage was found over the method utilizing a plastic disc. Had an Intercept Kit been available the results may have been somewhat different.
4. Discussion with personnel appears to indicate the following disadvantages.
  - a. Slower in transposing to the scope than to a positioning disc. Some type straight edge needed for drawing straight lines on convex face plate.
  - b. Two continuous scope adjustments required to hold target centered on the scope.
  - c. The one problem as drawn on a scope can only be used for one target even though the same speeds prevail. Whereas with a disc it can be used on any heading such as in practice intercepts.
  - d. Directors become preoccupied in keeping target centered on scope.
  - e. On an expanded scope, target and fighters cannot both be kept in sight if fighter are over thirty to forty miles from target.

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C O P Y

**SECRET**

HEADQUARTERS

4707TH DEFENSE WING

Otis Air Force Base, Falmouth, Mass.

DWOOT

6 Aug 1954

SUBJECT: Recommended Changes to 32d Air Division Tactical Doctrine

TO: Commander  
32d Air Division (Defense)  
Syracuse, New York

1. The inclosed recommendations for revision of the 32d Air Division (Defense) Tactical Doctrine forwarded per arrangements with Colonel Ingenhutt.
2. When inclosure is withdrawn or not attached, the classification of SECRET on this correspondence will be canceled.

FOR THE COMMANDER:

1 Incl:  
Remnd C to 32d AD  
Tactical Doctrine  
(Secret)

GEORGE W. LEITNER  
Captain, USAF  
Adjutant

**SECRET**

54-2407

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C O P Y

RECOMMENDED CHANGES TO 32D AIR DIVISION (DEF) TACTICAL DOCTRINE

1. Paragraph 5a. The necessity for centralized control under certain conditions is recognized. However, it is recommended that present procedures be modified as follows:

Last line of Page 1, after sentence ending "...limited interceptor force", insert: "Hostile tracks will be assigned to specific ADDC's, and the number of interceptors that may be used specified as soon as possible after the track is reported to the ADCC. Tracks will normally be assigned well in advance of their penetration of the ADDC area. Time of scramble in such cases will be at the discretion of the ACW Squadron Commander."

2. Paragraph 6a(1). Change 65 per cent to new setting resulting from recent modification. 50 per cent!

3. Paragraph 6a(2). Recommend eliminating everything after third sentence and replacing with: "Effective visual positioning by the pilot, except under certain rare conditions, is practically impossible. Direct control should be used at all times when possible and unit control should consist of a maximum of two aircraft. Unless instructed otherwise, scrambles will be in flights of two aircraft - and the term "flight" as used in this doctrine will indicate two aircraft only."

NOTE: The same problems exist whether positioning is accomplished under IFR or VFR conditions. Most F-86D pilots are doubtful whether the plan to use a wing man under VFR conditions will work - and are positive it will not work under IFR and night conditions.

INCL #1

54-2407

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C O P Y

4. Paragraph 7b(2). Due to the fact that the same problems are present whether positioning is accomplished under IFR or VFR conditions, recommend that paragraph be changed as follows:

"A formation larger than two (2) interceptors is not considered feasible due to the identification, target separation, and interference problems inherent in the E-5 fire control system."

NOTE: There is no problem so far as the number of aircraft we can get off the ground in a short time. The problem is spacing for the attack to realize maximum kill probability. It is felt that the proper place for this spacing is on the ground by controlling the take-off interval - thus setting the stage for maximum efficiency by directors. In addition - we have found that by having more than two (2) interceptors in an attack unit:

(1) Crews in the #3 and #4 position experience difficulty in target identification and in practice often lock-on to friendly targets without realizing such is the case.

(2) Causes apprehension and confusion that reduces the effectiveness of all crews - the crew in front because of the realization they may be shot down by succeeding aircraft in the flight - and the others, especially 3 and 4 because they realize they may shoot down interceptors in front of them. The equipment was not designed for such precision - would be fine if we could make it work with a high degree of certainty.

(3) Any one of the #2, #3, or #4 aircraft out of position will either result in loss of the aircraft and crew - or cause

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the attack to be broken up. Attacks by succeeding flights may also be affected by the resulting confusion.

(4) Evasive action by the target will be more effective.

5. Paragraph 6c(1). Recommend delete capability of highly skilled director and add capability of average director - 2 to 3 units.

NOTE: Feel that our plans should be based on the average we know we will have - not what we would like to have. This approach will help avoid confusion when the chips are down.

6. Paragraph 7a(1), (2) and (3). Recommend it be made clear that this procedure is at the discretion of the ACW Squadron Commander to be used as necessary. To fully implement this plan, 6 scopes, which none of our squadrons have, would be required. Also recommend marshalling director procedures, or recommended procedures, be outlined in detail for purpose of standardization and guidance.

7. Paragraph 7b(1)(e). Since the take-off interval is directly related to the control capability of GCI, it is recommended that the interval between flights be established by the ACW Squadron Commanders at the time the scramble is ordered and that the spacing between single aircraft be at the discretion of the Fighter-Interceptor Squadron Commander or Flight Leader or crew. Recommend second sentence be eliminated and the following added: "No more than two aircraft will be scrambled together. Interval between the first and second aircraft will be determined locally, but in any case be such that visual contact can be maintained. The interval between flights will be at the discretion of

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the ACW Commanders - to be determined by the situation (control capability at the moment) and will be passed with the scramble order, i.e., scramble 4 - 1 minute interval, etc.

NOTE: Our greatest problem is control of the interceptors once they are airborne. Nothing but confusion can result from having more aircraft airborne than we can effectively control. It actually is a waste of our resources and will interfere with those that otherwise could be controlled effectively. In a majority of cases, depending on the number of directors and scopes available and the number of aircraft under control in the area, there would be little or no delay in getting up to 16 aircraft airborne.

The use of UHF/DF strove would improve the control problem. This is now being studied with the thought of submitting a qualitative Operational Requirement for the equipment.

8. Paragraph 7b(1)(b). Change first sentence to read: "Climb will be made at maximum power unless otherwise directed, with visual contact between wingman and flight leader and direct control of flights, through the leader, by the director."

9. Paragraph 7b(1)(c). Recommend that the sentence beginning on the fifth line be deleted and the following inserted: "Crews will not reposition themselves for a re-attack unless specifically authorized to do so by the director. Direct control of each aircraft will be retained."

NOTE: Under certain conditions one crew attempting to reposition themselves could cause several interceptors on good attack runs to abort the run or miss the target. This could cause the number of inter-

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ceptors milling around trying to set themselves up to multiply to the point where the situation would be hopeless. To reposition without the aid of GCI is a hit or miss proposition at best. In a situation where there are few interceptors and many targets in stream it might work if the targets to the rear of the action were picked. The director can advise if this situation exists.

10. Paragraph 7b(2)(a). Recommend this be changed to read:

"Scramble will be made individually. The time interval between aircraft will be specified by the ACW Squadron Commander at the time the scramble order is given."

NOTE: See 7 above.

11. Paragraph 7c(1)(a). Recommend this be changed to read:

"Scramble will be made in flights of two aircraft. The time interval between flights will be established by the ACW squadron commander and specified at the time the scramble order is given."

NOTE: See 7 above.

12. Paragraph 7c(1)(d). Recommend all after the 3rd sentence be changed. "Upon completion of the attack, each interceptor will be controlled individually by the director. In event of a missed intercept, each pilot will contact the director of the directing agency for further instructions. The attack director will reposition interceptors individually. If such is not possible, aircraft will return to the recovery base individually under control of the recovery director. This procedure may be waived if at the completion of the attack the wingman has or can establish positive radar contact with the flight leader."

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13. Paragraph 7c(2)(a) - ) Recommend that VFR procedures be
14. Paragraph 7c(2)(c) - ) eliminated and that IFR procedures
15. Paragraph 7c(2)(d) - ) be used under all conditions.

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A G E N D A

Conference: 32d Air Division (Defense), Tactical Doctrine

4 August 1954

1000 EDST Conference Convenes

1000: Introduction: Col Israel

1015: Objective of Conference: Col Ingenhutt

1030: Summary of results of test period: 4707th Defense Wing

1115: Summary of results of test period: 4711th Defense Wing

1200: Lunch

1330: Discussion of major points presented by Defense Wings

5 August 1954

1000 EDST Reconvene

1000: Briefing, Exercise "Pogo Stick III": Capt Santeyer

1030: Presentation "Pogo Stick III"

1200: Lunch

1330: Review of exercise

1430: Recommendations for revision of Doctrine

1600: Summary

6 August 1954

0900: Reconvene if not completed on the summary

C O P Y

Tactical Doctrine for the Employment of Interceptor Aircraft in Air Defense

1. Purpose
2. Operational Objective
3. Training objective
4. Responsibility
5. Scope
6. General
  - a. Concept of Defense
  - b. Rules of engagement
7. System limitations
  - a. ADDC
  - b. Directing agencies other than ADDC
  - c. Type aircraft
    - (1) Communications
    - (2) Pre-take-off marshalling
    - (3) Take-off interval
    - (4) Formation integrity
    - (5) Positioning
    - (6) Counter ECM
    - (7) Broadcast control
    - (8) Attack Commander under direct control
    - (9) Non-AI interceptors under IFR conditions
    - (10) Remote Control
    - (11) Recovery
    - (12) Repositioning
    - (13) With loss of AI equipment after airborne
    - (14) Emergency utilization
8. Procedure
  - a. VFR
    - (1) Close control
      - (a) ADDC
      - (b) By type aircraft
    - (2) Remote control
      - (a) ADDC
      - (b) By type aircraft
  - b. IFR
    - (1) Close control

C O P Y

Tactical Doctrine Cont'd .....

- (a) ADDC
- (b) By type aircraft

(2) Remote Control

- (a) ADDC
- (b) By type aircraft

9. Utilization of Trailer Aircraft

- a. ADDC
- b. ADDC
- c. Trailer aircraft

10. Utilization of augmentation and support forces

- a. National Guard
- b. SAC, TAC, ARFC, ARDC
- c. RCAF

11. AAA

C O P Y

DISPOSITION FORM

SUBJECT: Tactical Doctrine Conference

TO: OOT, OCO, ADCC,  
OCE, OPR, & ODO

FROM: OOT-A/SANTMYER/091

DATE:  
7 Aug 54

1. Conference was held 4 and 5 August 54 to discuss present Tactical Doctrine and recommend revision where necessary or advisable.
2. List of conferees and agenda is attached.
3. Lt/Col Bickford 4707th Def Wing presented wing comments in the form of a letter which was a summary of a wing meeting held prior to the conference.

a. Main points developed by Lt Col Bickford were:

- (1) Desire to modify present procedure for centralized control to permit ADCC's to plan scramble time.
- (2) Reduce the number of aircraft in a flight from 4 to 2 F94C's when VFR as well as IFR.
- (3) Reduce number of interceptors controlled by the attack director from 4 to 2 aircraft.
- (4) AC&W squadron to direct the take-off spacing interval when issuing the scramble order.
- (5) Increase take-off interval to a minimum of one minute between aircraft for F94D's.
- (6) Establish standard speed settings for climb-out.
- (7) In event of missed intercept, aircraft will go directly to recovery base, unless directed otherwise.
- (8) All rockets to be released in first pass.
- (9) All control procedure be established for IFR conditions rather than differentiate between two.

(1) Col Curran, 4701th Defense Wing, presented wing comments. Main points developed were:

a. Minimum spacing of one minute between aircraft on scramble.

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b. Maximum of two interceptors under control of one director.

c. ACEW squadron to specify take-off interval for each scramble, depending on target track characteristics.

d. All rockets to be fired on first pass. In event of missed intercept, aircraft will proceed to recovery base unless specified otherwise by director.

5. Several points were discussed toward the objective of finding some means to place the maximum number of interceptors on the target in the least possible time. It was believed that the objective of the doctrine was being evaded in favor of establishing the best utilization with the least work rather than establish a procedure to tax the system up to the saturation point. This was objected to by the majority, who favored most effective utilization of each aircraft. Results of Lock-On and APC reports were referenced. In effect, these reports recommend most effective utilization of each weapon, even if it means leaving combat ready aircraft sit on the ground. It was pointed out that this is unacceptable.

6. Briefing and presentation of exercise "Popo Stick3" was held in AM of 5 Aug 54.

a. As both wings had advanced the recommendation that ADEC's be permitted to plan scramble time, and also, as the subject had been discussed in this headquarters previously, it was tried during the exercise. ADEC's were assigned track to intercept, number of interceptors to scramble and which base from which to scramble. The result was late scramble in all but two instances, resulting in the target progressing too far to work in available fighters before reaching the target. One track progressed thru the system without a successful intercept.

b. Several points were developed by the exercise. ADEC's were hesitant to scramble without having the target on their own radar, although track continuity was maintained on the ADEC board. Warning telling and cross-telling appeared to have been excellent. Additional interceptors could have been employed on the strike but would have been ineffective if the strike were a mass target, due primarily to failure to intercept at maximum distance. Due to the rapidity with which the strike went thru the area.

C O P Y

b. Maximum of two interceptors under control of one director.

c. ACEH squadron to specify take-off interval for each scramble, depending on target track characteristics.

d. All rockets to be fired on first pass. In event of missed intercept, aircraft will proceed to recovery base unless specified otherwise by director.

5. Several points were discussed toward the objective of finding some means to place the maximum number of interceptors on the target in the least possible time. It was believed that the objective of the doctrine was being evaded in favor of establishing the best utilization with the least work rather than establish a procedure to tax the system up to the saturation point. This was objected to by the majority, who favored most effective utilization of each aircraft. Results of Lock-On and APC reports were referenced. In effect, these reports recommend most effective utilization of each weapon, even if it means leaving combat ready aircraft sit on the ground. It was pointed out that this is unacceptable.

6. Briefing and presentation of exercise "Pogo Stock3" was held in AM of 5 Aug 54.

a. As both wings had advanced the recommendation that ADDC's be permitted to plan scramble time, and also, as the subject had been discussed in this headquarters previously, it was tried during the exercise. ADDC's were assigned track to intercept, number of interceptors to scramble and which base from which to scramble. The result was late scramble in all but two instances, resulting in the target progressing too far to work in available fighters before reaching the target. One track progressed thru the system without an successful intercept.

b. Several points were developed by the exercise. ADDC's were hesitant to scramble without having the target on their own radar, although track continuity was maintained on the ADDC board. Warning telling and cross-telling appeared to have been excellent. Additional interceptors could have been employed on the strike but would have been ineffective if the strike were a mass target, due primarily to failure to intercept at maximum distance. Due to the rapidity with which the strike went thru the area, it should have been apparent that the Lock-On recommendations are unacceptable and that a means must be devised to control greater numbers of aircraft.

C O P Y

7. Remainder of conference was devoted to discussion of system limitations primarily, and scheduling of exercises. It was opinioned that a comprehensive evaluation of the present tactical doctrine had not been made. It appeared more as if the units were accepting the portions they agreed with and working out own for the portions with which they disagree. Decision was made to republish the doctrine, incorporating the acceptable recommendations, and spend at least 60 days in a thorough test. Wings were encouraged to schedule inter wing exercises to supplement BADF and 32d scheduled missions.

8. Present 32d Ops Order 14-54 will be revised as necessary to increase the number of target aircraft and flexibility to satisfy the test period.

9. Doctrine will be reworked and submitted for coordination as soon as possible.

SAMMYER/091

OOT-A

OCO

10 Aug 54

Comment #2

The results of this conference should be forwarded to each wing.

FULLER/144

C O P Y

DISPOSITION FORM

Subject: Tactical Doctrine Conference (Cont)

TO: OPR FROM: OCE DATE: 11 Aug 94 Comment 3

1. Capt Santmyer's statement in paragraph 5 indicates that our fighter squadrons and AC&W squadrons are reluctant and lack enthusiasm in performing their assigned mission. I agree with him one hundred percent.

2. Reference Lt Col Bickford's recommendations, if they can be classified as such, he appears to be gripping about how we conduct the air battle - specifically:

(1) Centralized control is required to insure scrambling in sufficient time and at the proper target to preclude missed intercepts, tail chases, and the reluctance of the ADCC to scramble on a target which cannot be detected at their station.

I'd like to see P-50 try to intercept a B-47 at 45,000 feet after it has been detected by the site. In approximately 20 minutes the B-47 would be over New York City.

(2) & (3). Reduction of number of aircraft in a flight would give us the following maximum operational capability excluding use of single channel UHF used for monitor and recovery:

Site	Directors Positions with UHF	Max acft Proposed based on 2 flts of 2	Max acft based on 4 flts of 4 acft
P-10	8	32	64
P-13	5	20	40
P-14	5	20	40
P-21	5	20	40
P-49	5	20	40
*P-50	5	20	40
3 additional FFI's would increase their capability to -			
P-65	5	20	40
P-80	4	16	32

We can't overlook the fact that a large mass of bombers will require engagement by fighters considerably in excess to any of our sites present maximum capability.

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CVO P M

(5) Twenty-five minutes to scramble a squadron is excessive, too late, and unrealistic when applied to B-47 type targets.

(6) I am under the impression that defense is a buster proposition. If they want to saunter to the target they will never make it. Frankly, I don't understand it.

(7) Where else can he go?

(8) This leaves one pass for ramming. In employment of masses of fighters this is a good point.

(9) Don't agree. IFR procedures are too slow as it is. We need speed and more speed.

FEDOROVICH/070

HEADQUARTERS 32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Eastwood Station 6, Syracuse, N. Y.

OPERATIONS

Tactical Doctrine for the Employment of Interceptor Aircraft in  
Air Defense Operations

1. Purpose. To prescribe procedure for the employment of interceptor aircraft in air defense operations.
2. Operational Objective. To provide a doctrine for the most effective means to employ a maximum number of interceptors against a hostile raid.
3. Training Objective. To provide a guide for tactics and procedure for use in orientation and training of inexperienced personnel of the director-pilot-observer team. Continual analysis and improvement of procedure will be the aim of systems training.
4. Responsibility. Commanders of units assigned or under the operational control of this headquarters will insure adherence to policy and compliance with procedure as set forth herein. Training as necessary will be accomplished to insure proficiency in the tactics and techniques as specified. Deviations may be made in the interest of safety. However, when deviations are found necessary, this headquarters will be advised of the circumstances and results of such deviations. Deviations for the purpose of testing new techniques and procedure will not be made until this doctrine is satisfactorily tested and approval granted.
5. Scope. This doctrine is applicable to all headquarters exercising command responsibility, all aircraft control and warning squadrons and all fighter interceptor squadrons possessing aircraft equipped with the E1,4,5,6 or 9 fire control systems.

6. General concept of operation-

a. The strategic employment of the possessed bomber strength of the potential enemy presents a varied attack capability. Possible types of formation are:

- (1) Mass stream
- (2) Mass boxed
- (3) Individual aircraft
- (4) Small formations and groups of small formations
- (5) "Cart-Wheel", or saturation, with aircraft converging on the target area.
- (6) Mass stream, fanning to different target complexes after penetration of the defense perimeter.

b. With the high speed bombers of today which an enemy is capable of launching against this country, it is evident that the time from detection to engagement grows less and less. Also, considering the long established application of the principle of "mass" by the enemy, we must prepare to launch the maximum number of interceptors, engage the enemy and complete the engagement in the least possible time in order to recover and reconstitute our reserve. This is the first and basic consideration which must be made and all tactics developed must be compatible with this objective. Anything which deters from this objective is unacceptable.

c. Scramble prerogative will normally be delegated to the AC&W commander. However, during periods of increased activity, to insure the most strategic allocation of our limited interceptor force, scramble against a hostile or faker force must necessarily be made from a centralized agency where the entire operational

picture is available. This concept of centralized control includes:

- (1) Priority of tracks to be intercepted
- (2) Number of interceptors to commit
- (3) Base from which scramble will be ordered
- (4) Time of scramble order

Although it would be understandably desirable to commit sufficient interceptors to insure destruction of every hostile track which comes under surveillance, it must be accepted that this would be an impossibility. Therefore, each track must be evaluated as to potential threat to the target or target complex which is considered most critical and interceptors committed accordingly. Routes of attack may frequently require a lateral shift of forces to marshal sufficient strength in any one area to meet a heavy raid which, in turn, requires excessive coordination. Coordination to this extent would be impossible if decentralized control of forces was in effect. Basic military doctrine dictates the necessity for integration of functions under commands. As functions become more complex, commanders of each progressing echelon must exercise responsibility for integration of these functions into a combined operation. Operational control is a responsibility which cannot be delegated. In event of loss of the sector command post, this responsibility then passes to the designated defense commander as specified in Alternate Command Post Instructions. As an expediency, upon being isolated from the command post, each aircraft control and warning squadron commander must assume this responsibility for operational control.

d. As will be noted throughout this doctrine, attempt is not made to mass interceptors into large flights prior to attacking a hostile raid. Tests have proven that the optimum employment of lead collision course fire control system equipped interceptors would be one weapon being controlled by one

director on one communications frequently. As necessary equipment for such cannot be obtained, we must balance the control capability which we now have available with the number of interceptors we must control. Thus, the principle of mass defense forces must be considered as our capability to maintain a sustained attack against the raid rather than simultaneous attack. This, of course, must be further balanced against the time increment allotted to complete the engagement. It should be well realized by all that we can never permit interceptors to sit idle on the ramps during a raid for the reason that having them airborne would exceed the capability of direction centers to make the most effective utilization of each weapon. The objective of this doctrine is to balance these three factors: 1. Most effective utilization of each weapon; 2. maximum number of interceptors; and 3. the time element.

7. General.

a. Remote control.

(1) Inability of AI equipped interceptors to effectively position themselves for an AI attack precludes the use of remote control on this type of attack. However, as a great percentage of augmentation and support interceptors are non-AI, remote control still has its roll in air defense operations. Procedure for the use of remote control is contained in ADCR 55-30. Due to exigencies which might exist during a mass attack when radar is inoperative and AI interceptors cannot be provided close control, rather than permit the raid to progress unchallenged, AI interceptors will be scrambled and directed by remote control. If unable to position for an AI attack, pilots of AI interceptors under remote control will make visual set-ups for manual firing.

(2) Authority to inaugurate remote control will normally be retained at the COC. However, this does not preclude recommending of such pro-

cedure by the AC&W commander; or, if there is loss of communications with COC, responsibility for inauguration by the AC&W commander if considered advisable.

- (3) With the saturation of control capability which will undoubtedly exist during an initial attack, non-AI interceptors should be placed on remote control under leadership of an attack director at the earliest possible time. This will enable the direction center to devote more effort to close control of the AI interceptors.
- (4) It is conceivable that one director could control two to three squadrons of Non AI interceptors through remote control and by designation of attack commanders.

b. Counter ECM.

- (1) Enemy ECM must be expected and techniques must be developed to minimize the effectiveness. It is an accepted fact that the best defense against ECM is a trained operator. Intensive training will be conducted to insure that all personnel are capable of recognizing the various types of jamming.
- (2) Ground radar.
  - (a) Training program will be accomplished in accordance with existing directives. Maximum utilization will be made of Big Photo flights and missions conducted by the 4713th Radar Evaluation Flight. Special missions may be scheduled to coincide with formal training periods by request through the ECM Training Officer of this headquarters.

- (b) Training will include not only attempt to reduce ECM effectiveness by use of clutter circuits but also practice by operations personnel in attempting to read through the jamming.
- (c) When one or more station is experiencing jamming, flash report will be made to the ADCC Air Surveillance Officer immediately. This report will include the following information: Condition, Type, Azimuth, Radar Equipment Affected, Track from which ECM is being emitted (if known). The Air Surveillance Officer at the ADCC will assign an ADCC to act as a D/F control station for the purpose of plotting D/F cuts on the ECM strobes. All stations receiving the ECM will report azimuth of the strobe at five minute intervals to the control station, which will plot and report the track position to adjacent stations and the ADCC.
- (d) When chaff is encountered, one radar operator at the station will be designated to make a thorough evaluation of the chaff presentation. The radar scope will be expanded to cover a twenty five mile radius and attempt made to accurately determine the number of targets within the chaff pattern. Surveillance operators must be especially alert for use of chaff drops to cover a split of high-fast aircraft of the B-47 class. If range permits, accurate height finder check should be made to discover an overfly of the chaff zone.

(e) It should be remembered that unless the enemy is using IFF jamming in addition to search radar jamming, fighters may still be tracked by turning off the signal return on the PFI scope. When a condition four or five exists, one scope should be set up in this way to track the interceptors and facilitate identification, if under close control.

c. Use of Trailer Aircraft.

- (1) Decision for the employment of trailer aircraft will normally be retained by the COG. However, this does not preclude the AC&W commander recommending assignment of such when considered advisable. In addition, in event of loss of communications with the COG, it will be the responsibility of the AC&W commander to assign trailer aircraft when the track warrants.
- (2) F-33s will be considered as the prime trailer aircraft. When assigned to act as a trailer, the F-33s will normally expend all ammunition against the hostile raid prior to assuming the role of a trailer.
- (3) Procedure for AEDC in assignment of trailer aircraft.
  - (a) Upon scramble, brief pilot on all known characteristics of the track he is detailed to trail. This will include, Track number, size (if known), position, heading, altitude, IFF code to be used, radio frequency for air-ground contact, and any special instructions.
- (4) Procedure for pilot of trailer aircraft.
  - (a) Upon receipt of scramble order and briefing, proceed

to intercept the track as expeditiously as possible.

- (b) Upon intercept, conduct visual attack until ammunition is expended.
- (c) Assume a position above the hostile formation, if possible, out of range of hostiles weapons.

- (d) Relay all vital information to controlling ABCC. This will include

1. Number of aircraft in the formation.
2. Changes of heading or altitude.
3. Track status.
4. Any unusual activity in the formation.

If unable to make direct contact with an ABCC, broadcast will be made to the blind or the specified radio frequency. In addition to the blind broadcast, contact will be made to the nearest CMA communications facility. (radio range station, aircraft tower, etc.) with instructions to "relay to ABCC". Identification to CMA facility will be "Air Defense Tracker Aircraft".

- (e) Recovery will be made by the trailer aircraft pilot when he is no longer capable of maintaining surveillance over the assigned track. Recovery should be made at a military or naval installation, if possible. If not under control of an ABCC at time of recovery, pilot will attempt to contact the nearest Air Defense Command base for instructions by phone. If this is not possible, pilot will proceed to the nearest Air Defense Command base.

immediately after refueling.

8. Limitations. The factors enumerated above can most readily be presented by dividing the problem into three sections, their relationship to the non-AI aircraft, F-86D, F-94C and the directing agency.

a. Limitations of the F-86D are as follows:

- (1) Individual take-off is necessitated under IFR conditions by the design characteristics of the aircraft while utilizing afterburner. Close formation cannot be maintained visually as no two aircraft are matched in climb and speed. The restriction in power adjustment precludes the use of variation in power setting to maintain position. Failure to utilize the afterburner will permit adjustment of power setting but by so doing, the full effectiveness of the aircraft is not realized. Formation cannot be maintained on initial climb to altitude by use of the fire control system. If such were done, climb would again necessarily have to be made without benefit of afterburner.
- (2) Direct control of individual aircraft is mandatory under IFR conditions and highly desirable under VFR conditions. The range of the search radar is normally insufficient to permit positioning by the pilot for the attack phase. Visual positioning by the pilot under VFR conditions greatly reduces the interceptor effectiveness as attacks must closely approximate a ninety degree angle to achieve proper rocket dispersion. It is apparent, however, that when the enemy aircraft are in a relatively dispersed formation, visual

positioning by the pilot may more readily be achieved.

- (3) Low altitude search and lock-on presents considerable difficulty due to excessive ground clutter over which the pilot has no control.
- (4) Lack of smooth longitudinal control at high altitude and low airspeed, due to the "flying tail", results in erratic chasing of the radar presentation during the attack phase.
- (5) With this fire control system, difficulty is encountered in search, target identification and selectivity. This results in lock-on being delayed from the theoretical fifteen mile range down to as short as four miles.

b. Limitations of the F-94C are as follows:

- (1) Although a visual close formation may be maintained under IFR conditions, the formation size is initially limited to the number of aircraft which may take-off simultaneously. Unless there is sufficient ceiling to permit a visual rendezvous prior to penetration of weather conditions, the formations are limited to two interceptors. After the radar warm up period of from five to seven minutes, the fire control system can be used to maintain a larger formation. The time delay encountered in massing a formation and the directing agency capacity is considered to nullify any value, as will be explained later.
- (2) A formation larger than four interceptors is not considered feasible due to the fact that an error in positioning of the lead aircraft would frequently necessitate considerable change

in heading during the attack phase. These corrections would be multiplied to each succeeding aircraft in the flight to such a degree that no more than three aircraft could make the adjustment and complete an effective pass.

c. Limitations on directing agencies.

- (1) The primary consideration of an ADDC is the number of control scopes available, communications frequencies available, number of units each director can efficiently control and the degree of coordination with adjacent ADDCs. A highly skilled director is not capable of directing more than three units simultaneously. In addition, the communications load of available frequencies is a considerable imposition on the capacity. Lack of coordination with adjacent ADDCs can seriously increase the burden of control.

9. Procedure. Considering the aspects of our control capacity and weapons limitations, the following procedure is outlined as the minimum acceptable manner for the employment of interceptor to meet our objective. Procedure by type aircraft is subdivided into VFR and IFR procedure. As the AI equipment is utilized the same for both conditions, these two sub-divisions are established only to differentiate between scramble, climb and recovery procedure. Attack procedure remains the same, whether VFR or IFR at point of intercept.

a. Procedure for direction centers and individual types of interceptors is contained in attachments 1 through 6.

I Procedure ADDC	V Procedure F-89D
II Procedure F86-D	VI Procedure Non-AI interceptors
III Procedure F-94C	
IV Procedure F-89C	

10. Emergency utilization of interceptors.

a. Regardless of the operational status of the fire control radar when the attack may be made under VFR conditions, every interceptor capable of becoming airborne with munitions has a limited combat potential.

b. If the situation is grave enough to warrant utilization of this category interceptor, scramble will not be waived due to non-operational status of the fire control system radar. Aircraft which experience radar failure after becoming airborne will not abort the mission due to malfunction of the radar.

(1) Attacks to be made under visual conditions.

- (a) In cases wherein F-94C aircraft lose their AI potential after becoming airborne, they will continue with their flight until visual contact with the target aircraft has been made. Upon reaching the point of visual contact they will break off from the formation and proceed to attack using fixed sight.
- (b) In the case of F-86D aircraft, they will continue under control of the directing agency until visual contact is attained at which time they will attack as outlined in preceding paragraph.
- (c) All in-commission aircraft will be utilized for attacking massed target aircraft. Aircraft without AI potential will be scrambled last.

(2) Attacks made under instrument conditions.

- (a) Aircraft without AI potential will not be scrambled.
- (b) If an aircraft loses its AI potential after becoming airborne, it will land as soon as possible but will avoid interfering with aircraft being scrambled.

11. AAA Coordination

a. Local arrangement will be made between the appropriate FIS, AC&W squadron and the antiaircraft unit commanders to establish corridors for the safe launching and recovery of interceptors, where applicable. Every attempt will be made to prevent conflict in operation of antiaircraft weapons and interceptor aircraft.

b. Although it is desired that engagement of the attacking force be made before progression to an area defended by antiaircraft weapons becomes necessary, attack will not be withheld. However, due consideration will be given to the possibility of positioning and vectoring the interceptors in such a manner as to preclude the necessity for simultaneous engagement. This will not be construed as justification for indiscriminate vectoring of interceptors thru antiaircraft defended areas.

12. Systems training of tactics.

a. In view of the large turnover of personnel and changes in application of weapons, a guide such as this doctrine is necessary to acquaint commanders and operational personnel with the division commanders policies for the tactical employment of weapons. This guide may further be used to direct the unit training programs.

b. The past air defense exercises and command post exercises have clearly demonstrated the need for training in employment of the principles of: the passing of fighters between adjacent directing agencies; engagement of mass formation of attacking bombers; the use of centralized control. In order to meet these requirements exercises will be scheduled at frequent intervals to enable the division commander to evaluate the state of proficiency and training. However, it is obvious that there is a dire need

for support in this training program from forces of other USAF Commands.

This support is necessary to provide a realistic training by actual engagement of bomber forces.

c. By the use of this doctrine, all units will be endeavoring to keep astride of current developments in the employment of weapons and will be continually striving to attain the maximum degree of proficiency in the mission of air defense.

ADDC

1. Direction center functions will be divided into three categories: marshalling, attack and recovery. In the same manner as this interval procedure is organized, two or more ADDCs may function likewise. That is, when a raid is progressing in such a manner that it will be necessary for one ADDC to conduct the attack phase for several squadrons of interceptors, the ADDC which is the normal primary control station should assume the responsibility for marshalling. If the interceptors are spaced, identified and positioned properly before handover is attempted, it will facilitate the procedure enormously and eliminate this workload for the receiving ADDC. In the same manner, if the ADDC conducting the attack phase is saturated to the extent whereby they can not accept control of additional fighters, the ADDC which is marshalling should retain control until such time as passing of control can be made. This lateral coordination between stations may follow thru the recovery phase with control being passed to the ADDC within whose control capability the recovery base is located.

2. Individual procedure for the three director functions is as follows:

a. Marshalling Director. Marshalling of the interceptors after take-off and placing them for the most advantageous position for attack of the enemy formation. A considerable number of units may thus be controlled by one director, as few instructions will be necessary. Control will be maintained until such time as the attack director is capable of assuming control. Upon initial scramble, if the attack directors have no other interceptions in the attack phase, they will act as marshalling directors, taking the first flights immediately after "check-in", and following through the attack phase.

b. Attack Director. Positioning of the units for the attack phase.

It is considered that each directing agency should have the capability of four scopes for this function. With four directors capable of control of three units simultaneously, it is evident that directing of the attack could be by direct individual control as expeditiously as interceptors became available.

c. Recovery director. To assist in recovery of interceptors.

During periods when all available interceptors are being employed under IFR condition, this position would require one director for this specific function. Under VFR conditions, the interceptor pilots would normally be capable of recovery without need for assistance other than vector and distance. In this instance, it is possible for the marshalling director to also function in this position.

Procedure for Employment of the F86D

1. VFR conditions

a. Scramble under VFR conditions will be in flights of single aircraft. Take off will be at thirty second intervals between aircraft.

b. Climb will be made at 400 knots to 15,000 feet, then .8 mach to intercept altitude. Navigation during this phase will primarily be the responsibility of the directing agency but will be monitored by each individual pilot, as within his capability. The initial vector will be planned by the directing agency to achieve the optimum position for attack. The angular position of each succeeding aircraft should be such as to maintain five to seven miles linear displacement. Individual aircraft will be provided direct control, however, the interceptor pilot can assist the director by maintaining consistent speeds as specified and maintaining spacing by adjustment of angular displacement, anticipating minor corrected headings by use of the AI radar.

c. All rockets will be fired on one attack unless otherwise stipulated by the attack director. In event of a missed intercept, contact will be made with the attack director for further instructions. If possible the attack director will reposition the interceptor. If such is not possible, and VFR conditions exist, attack will be made at the discretion of the pilot prior to returning to recovery base. Extreme caution must be exercised by the pilot in such case to prevent interference with subsequent attacking interceptors.

d. Upon completion of mission, if VFR and aware of position, pilot will check in with the recovery director of the directing agency and proceed to the recovery base as expeditiously as possible.

2. IFR Conditions

- a. Scramble will be made individually with one minute interval between aircraft.
- b. Climb will be made at 400 knots to 15,000, then .8 mach, unless otherwise directed. Navigation during this phase will be the sole responsibility of the directing agency as it must be assumed that CONELRAD will be in effect and radio navigational aids will not be available during scramble.
- c. Remainder of intercept will be conducted in the same manner as outlined above, with the directing agency exercising direct control over each aircraft.
- d. In event of missed intercept, the attack director will be contacted. If repositioning can not be accomplished, the pilot will be advised to contact the recovery director and proceed to recovery base. Pilot will not attempt to reposition himself.
- e. Recovery will be by assist of the recovery director in accordance with normal procedure.

Procedure for Employment of the F-94C.

1. IFR Conditions

- a. Scramble will be made in flights of two aircraft in close formation with one minute between flights.
- b. Climb will be made utilizing afterburner unless otherwise specified by the directing agency. Climb will be in close formation until AI equipment becomes operational. At this time, the wingman will position himself approximately three thousand yards directly behind the lead interceptor.
- c. Separation of flights will be monitored by the marshalling director.
- d. Upon assumption of control by the attack director, the lead aircraft will be placed on a ninety degree lead collision course with the target. At this time, the wingman will echelon by use of the AI equipment, the direction the target is progressing at the approximate antenna train angle and three thousand five hundred to six thousand yards to the rear of the lead aircraft. The radar observer in the lead aircraft will "search" for the target. The radar observer in the second aircraft will "search" for the target while maintaining AI position on the lead aircraft. Upon achieving AI contact, the lead aircraft will initiate the attack phase. The radar observer, upon hearing report of "Judy" from the lead aircraft, will then concentrate on securing a contact with the target and proceed with the attack phase.
- e. All rockets will be fired on one pass unless otherwise specified by the directing agency. Depending on the type formation and speed being maintained by the enemy bombers. It may be desirable to effect two passes-

firing half load on each pass. In event of missed intercept, contact will be made with the attack director of the directing agency for further instructions. If possible, the attack director will reposition the interceptor. If such is not possible, aircraft will return to recovery base under control of the recovery director, when IFR conditions exist.

2. VFR Conditions

a. Scramble will be made in flights of two with thirty second intervals between flights.

b. Climb will be made utilizing afterburner unless otherwise stipulated by the directing agency. Position during climb will be approximately three thousand yards between aircraft in trail. This position can be maintained visually by the pilot and monitored with the AI equipment by the radar observer.

c. Control and positioning by the directing agency will be on each lead aircraft only. The second aircraft in the flight will maintain relative position on the lead aircraft as is specified in IFR procedures. Attack will be made in same manner, whether VFR or IFR.

d. In event of a missed intercept, the pilot will contact the attack director of the directing agency for further instructions. If possible, the attack direction will reposition the interceptor. If such is not possible and VFR conditions exist, attack will be made at the discretion of the pilot prior to returning to recovery base. Extreme caution must be exercised by the pilot in such case to prevent interference with subsequent attacking interceptors.

e. Upon completion of mission, if VFR and aware of position, pilot will check in with the recovery director of the directing agency and proceed to the recovery base as expeditiously as possible.

Procedure for Employment of P89C will be forwarded at a later date.

ATT IV

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Procedure for Employment of the F-89D will be forwarded at a later date.

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Procedure for Employment of Non-AI Aircraft.

1. Utilization of non-AI interceptors is limited primarily by the weather or night conditions and the capability of the direction center.
2. Even though adverse weather conditions may exist over an extensive area, non-AI equipment still have a potential for intercept of hostile targets operating on-top or underneath weather. This factor will be given utmost consideration when committing forces. If choice exists, it is natural that the AI interceptors will be committed for the hostile targets attempting to use weather as a cover and, non-AI interceptors committed for those either under or on top.
3. Scramble will be ordered in flights of four. When it is necessary to make a weather penetration, flights will proceed in close formation under GCI control to a designated rendezvous point on top. This point will normally be a standard check point as designated in EADFR 55-8.
4. Upon reaching the rendezvous point an airborne attack commander will be appointed. Depending upon degree of saturation of the direction center, either direct control will be given to the formation leader or broadcast control will be placed in effect.
5. Recovery will be effected in flights of four with interceptors in close formation.

90° Intercept

Positioning Procedure

1. Make an accurate ground speed reading of target from an expanded scale scope.
2. Make an accurate determination of target track azimuth.
3. Using the Intercept Officers Kit, set up the problem:
  - a. Set the "Variation" arrow on "00".
  - b. Set the slide "lock" to "Track".
  - c. On the compass rose, set the true course of the target over the "True Track" arrow on the circular disc.
  - d. Set the wind arm so that the scaled edge is on the azimuth from which the wind at intercept altitude is "from".
  - e. Slide the "Ground Speed" arm as necessary to match up the radar computed ground speed with the wind velocity on the wind scale.
  - f. The True Air Speed is then indicated on the "True Air Speed" scale.

g. The True Heading of the target is then read from the compass rose opposite the "Mag Heading" arrow. (NOTE: Variation has been disregarded in computation to obtain true readings. This is necessary to insure accuracy when applying relative angles further on in this explanation)

(Example: Track, C 10  $\frac{1}{35}$  35)

Target information: 1 aircraft  
350 knots Ground Speed  
35,000 feet altitude  
True course - 150 degrees

Wind information obtained in accordance with 32D ADR 55-27:  
230 degrees at 30 knots.

Interceptor information: 1 F86D, capable of 450 knots True Air Speed  
at 35,000 feet

Step 1. Set variation at "0 degrees"

2. Set lock to "Track"

3. Set  $150^{\circ}$  on compass rose over the "True Track" arrow.
4. Set wind arm at  $230^{\circ}$ .
5. Slide "Ground Speed Arm" to where the ground speed 350 knots crosses 80 knots on the wind scale.
6. Read "True Air Speed" for the target on the "True Air Speed" scales: 373 knots.
7. Read "True Heading" on the compass rose opposite the "Mag Heading" arrow,  $162^{\circ}$ .
4. Basic information to be transposed to the radar scope is thus:  
Target: True heading:  $162^{\circ}$   
True Air Speed: 373 knots
5. With a grease pencil, draw a line down the  $162^{\circ}$  azimuth line. (see diagram 2)
6. Assuming that the interceptor will be approaching the target from West to East for a starboard attack, draw a second line from the center of the scope to the edge, perpendicular to the target's true heading. Thus:  $162^{\circ}$  plus  $90^{\circ}$  =  $252^{\circ}$ . (see diagram 1)
7. Compute the interceptors true air speed for the attack vector. This will be the same azimuth as the line perpendicular to the target's true heading. A conversion table to convert from true air speed to indicated air speed for various altitudes should be prepared for each type aircraft the direction center night control. The desired airspeed should then be converted to indicated airspeed and instructions issued to the pilot to maintain that set indicated speed throughout the attack vector. Slight deviation is permissible and will have little effect on the problem.
8. Consulting the antennae train angle chart, it is found that the proper train angle for a target speed of 373 knots and an interceptor speed of 450 knots is  $40^{\circ}$ . Therefore, to obtain a quick determination of the

antenna train angle in degrees relative to the targets true heading, subtract  $40^\circ$  from  $252^\circ$ , the perpendicular to the targets heading. This results in the proper antenna train angle of  $212^\circ$ . (see diagram 3)

9. On the scope face, draw a third line from the center of the scope to the edge down the  $212^\circ$  azimuth line. (see diagram 3)

10. These three lines set up a diagram on the scope face to achieve the optimum positioning for a true beam attack. (see diagram 4) If at any time the target changes course  $15^\circ$  or less, correction to the problem can be made simply by adding or subtracting the degree of change from the original antenna train angle line. Naturally, any change in the targets course will effect the true air speed and true heading, but a change of  $15^\circ$  or less is insufficient to effect the problem to where the attack would be more or less than ten degrees from a true beam.

11. Target positioning is obtained by holding the target in the exact center of the scope by use of the "off-set" controls. This maintains the target in a fixed position in relation to the predetermined antenna train angle.

12. As the fighter approaches the target, he is vectored to intercept the antenna train angle line on the scope face. (see diagram 5) Final attack vector must be anticipated and order given in sufficient time that the interceptor rolls out of the final turn as he crosses the line. Attack vector heading is the reciprocal to the line perpendicular to the targets true heading. In the example above, the True attack vector would be  $072^\circ$ . This must be corrected for variation.

13. After final attack vector is given, make no further corrections to keep the target in the center of the scope. This is not required any longer and also, it is desirable to let the target advance from the center to insure there are no other targets which would interfere with the intercept.

As the interceptor closes on the target, attempt must not be made to change the vector to keep the interceptor on a true perpendicular to the target's true heading. In this example, the interceptor will drift slightly to port as he is effected by the wind. (see diagram 6)

14. Interceptor pilot should be instructed prior to start on final attack vector not to alter heading even though "Judy" is obtained. until the last five miles of closure.

90° LEAD COLLISION

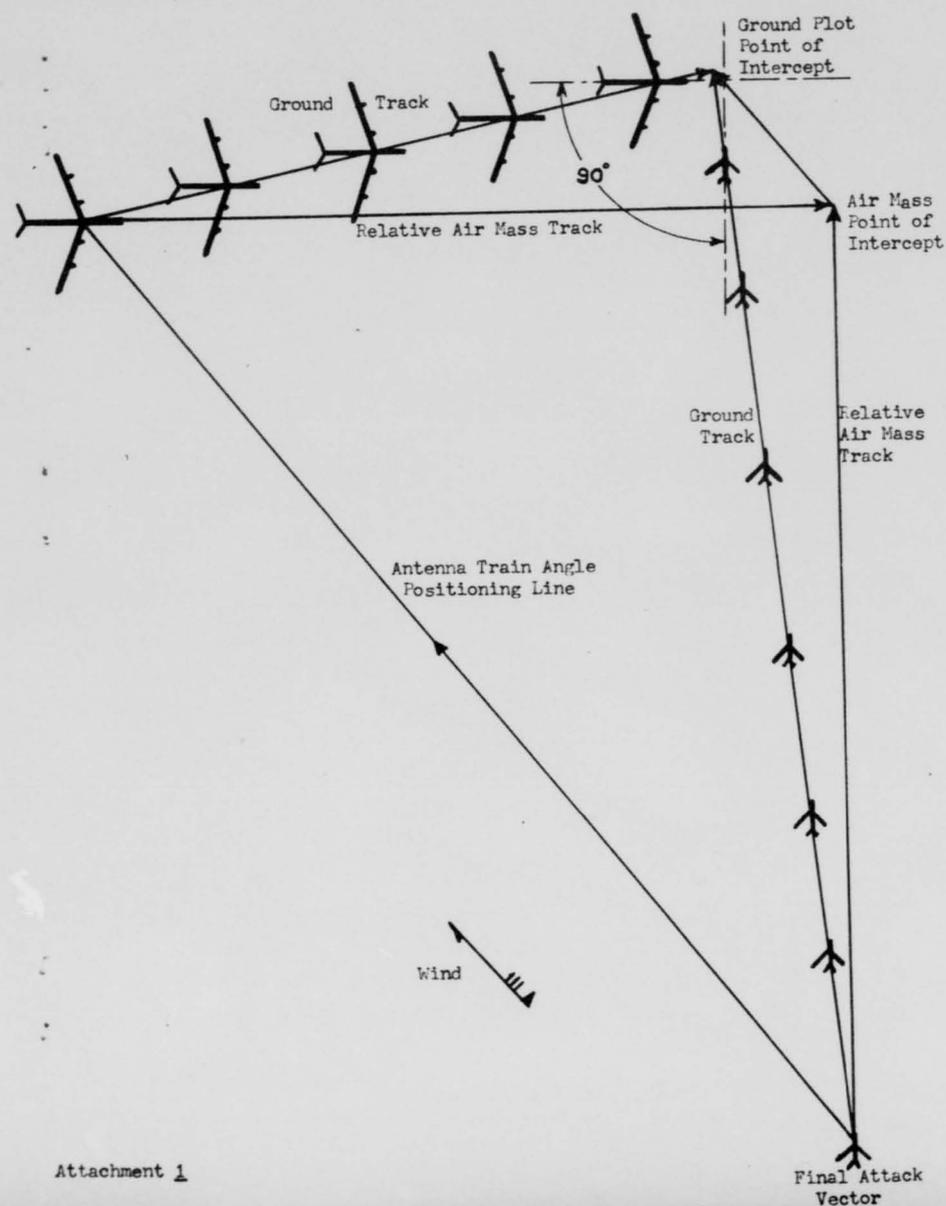
ANGLE OFF FIGHTER TO BOGEY

TARGET AIR SPEED

	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	
200	37	41	45	48	51	54	56	58	60	62	63	65	66	67	68	69	70	71	72	72	73	74	74	200
225	34	38	42	45	48	51	53	55	57	59	61	62	63	65	66	67	68	69	69	70	71	72	72	225
250	31	35	39	42	45	48	50	52	54	56	58	60	61	62	63	65	65	66	67	68	69	70	70	250
275	29	33	36	39	42	45	47	50	52	54	55	57	59	60	61	62	63	64	65	66	67	68	69	275
300	27	30	34	37	40	43	45	47	49	51	53	55	56	58	59	60	61	62	63	64	65	66	67	300
325	25	28	32	35	38	40	43	45	47	49	51	53	54	56	57	58	59	61	62	63	63	64	65	325
350	23	26	30	33	36	38	41	43	45	47	49	51	52	54	55	56	58	59	60	61	62	63	63	350
375	22	25	28	31	34	36	39	41	43	45	47	49	50	52	53	54	56	57	58	59	60	61	62	375
400	20	24	27	29	32	35	37	39	41	43	45	47	48	50	51	53	54	55	56	57	58	59	60	400
425	19	22	25	28	30	33	35	37	39	41	43	45	47	48	50	51	52	54	55	56	57	58	59	425
450	18	21	24	27	29	31	34	36	38	40	42	43	45	47	48	49	51	52	53	54	55	56	57	450
475	17	20	23	25	28	30	32	34	36	38	40	42	43	45	46	48	49	50	52	53	54	55	56	475
500	17	19	22	24	27	29	31	33	35	37	39	40	42	44	45	46	48	49	50	51	52	53	55	500
525	16	18	21	23	25	28	30	32	34	36	37	39	41	42	44	45	46	48	49	50	51	52	53	525
550	15	18	20	22	25	27	29	31	32	34	36	38	39	41	42	44	45	46	48	49	50	51	52	550
575	15	17	19	21	24	26	28	29	31	33	35	36	38	40	41	42	44	45	46	47	48	50	51	575
600	14	16	18	21	23	25	27	28	30	32	34	35	37	38	40	41	42	44	45	46	47	48	49	600
625	14	16	18	20	22	24	26	27	29	31	33	34	36	37	39	40	41	43	44	45	46	47	48	625
650	13	15	17	19	21	23	25	27	28	30	32	33	35	36	38	39	40	42	43	44	45	46	47	650
675	13	15	16	18	20	22	24	26	27	29	31	32	34	35	37	38	39	40	42	43	44	45	46	675
700	12	14	16	18	20	21	23	25	27	28	30	31	33	34	35	37	38	39	41	42	43	44	45	700

FIGHTER AIR SPEED

FIGHTER AIR SPEED

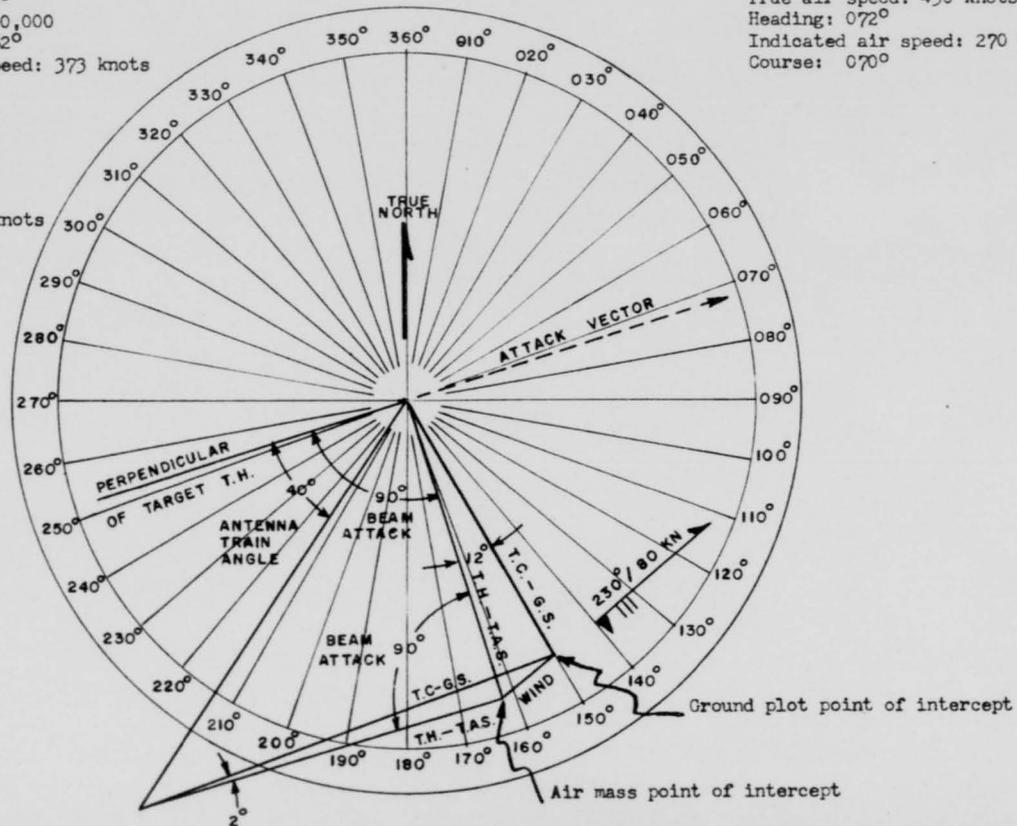


Attachment 2

TARGET:  
 Ground Speed: 350 knots  
 Course: 150°  
 Altitude: 30,000  
 Heading: 162°  
 True air speed: 373 knots

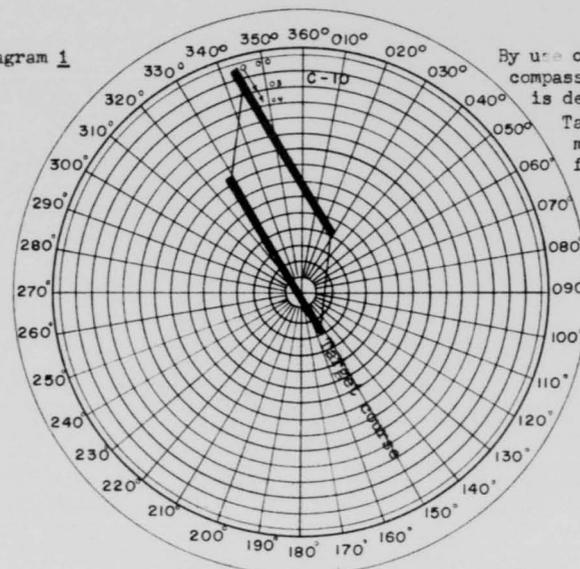
Interceptor:  
 True air speed: 450 knots  
 Heading: 072°  
 Indicated air speed: 270 knots  
 Course: 070°

WIND:  
 30,000 feet  
 230° at 80 knots



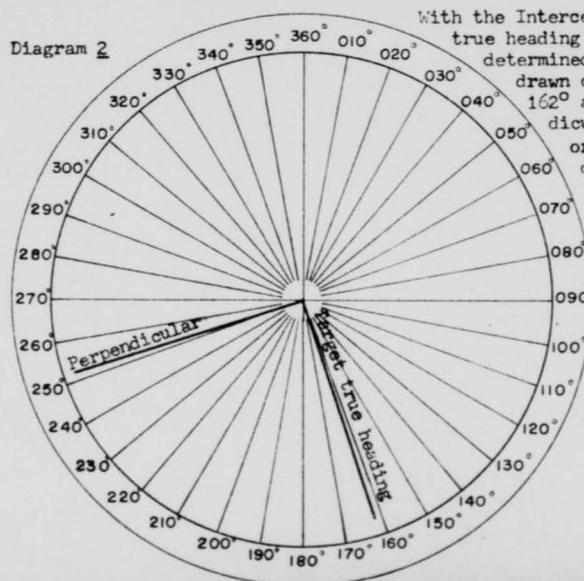
2 1 5 0

Diagram 1



By use of a parallel rule  
compass rose, true course  
is determined to be 150°  
Target progressed 17  
miles in 3 minutes  
for a ground speed  
350 knots.

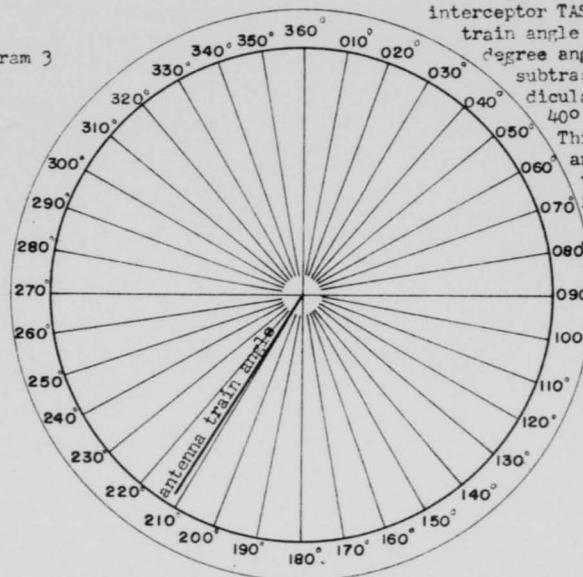
Diagram 2



With the Intercept Officer's Kit,  
true heading of the target is  
determined to be 162°. Line 1  
drawn on scope down the  
162° azimuth. Line perpen-  
dicular is 162° plus 90°  
or 252°. Line is then  
drawn down the 252°  
azimuth.

Attachment 2(1)

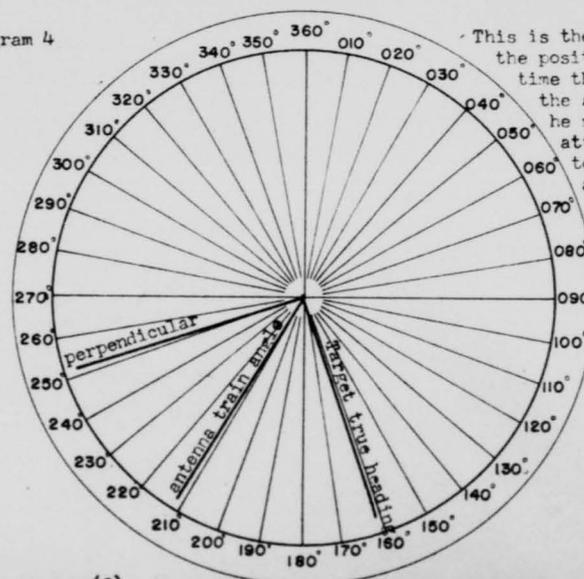
Diagram 3



interceptor TAS 450 knots, antenna train angle chart indicates 40 degree angle lead necessary. subtract 40 from the perpendicular line, or 252 minus 40 equals 212 degrees. This is the relative antenna train angle to the target's true heading. Therefore, draw in a line at 212 degrees. This is the interceptor positioning line.

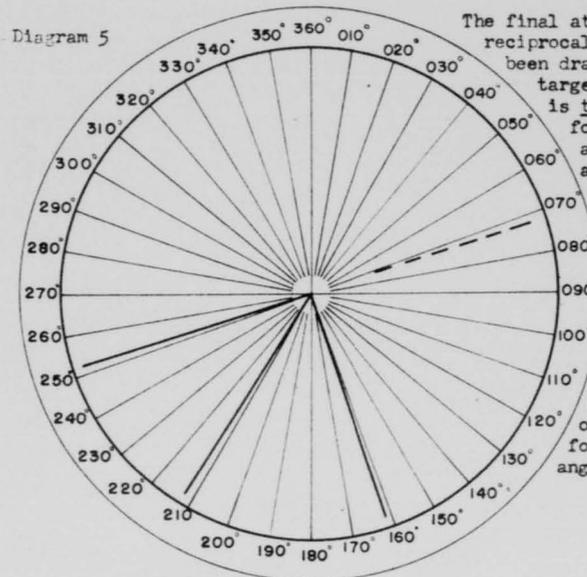
To maintain this problem in relation to the current position of the target, the off-set control is utilized to keep the target signal return in the exact center of the scope. As long as the target is centered, the problem will be current.

Diagram 4



This is the completed solution to the positioning problem. At any time that the interceptor crosses the antenna train angle line, he may be turned on the final attack vector. It is desirable to vector the interceptor so as to intercept the antenna train angle line at a minimum of 20 to 25 nautical miles from the target's true heading line.

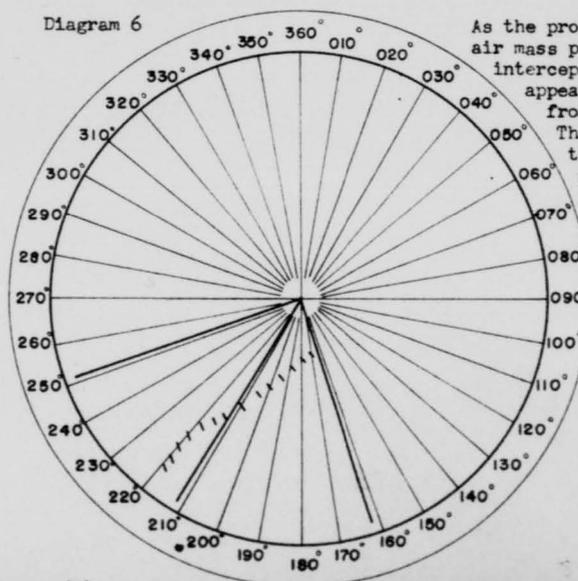
Attachment 3(2)



The final attack vector is the azimuth reciprocal to the line which has been drawn perpendicular to the target's heading. This vector is true and must be corrected for variation. The final attack vector should be anticipated to insure that the interceptor rolls out of his turn onto attack as he crosses the antenna train angle positioning line.

If, during the positioning, the target changes course  $15^\circ$  or less, the degree of change, plus or minus need only be added or subtracted from the line formed by the antenna train angle line.

Diagram 6



As the problem is computed as an air mass positioning problem, the intercept will probably not appear as a true beam attack from the scope presentation. The problem will drift with the air mass after the final attack vector is started and attempt must not be made to keep the interceptor on a true perpendicular

Procedure for Employment of the F-94B

1. VFR Conditions

- a. Scramble under VFR conditions will be in elements of two aircraft, flights of 4 aircraft. Take off will be at ten second intervals between elements.
- b. Climb will be made at maximum power unless otherwise directed, with visual contact being maintained between flights until direct control of individual flights is assumed by the directing agency. Navigation during this phase will primarily be the responsibility of the directing agency but will be monitored by each individual pilot as within his capability. The initial vector will be planned by the directing agency to achieve the optimum position for attack. Upon receipt of initial target information from the directing agency, each wingman will immediately go into combat spread finger-tip formation approximately 1,500 yards separation between aircraft, and R/Cs will go to automatic search. Direct control of each lead interceptor of the flights of four will be made individually by the directing agency. When the lead interceptor has AI contact, the attack director will direct the flights to attack the target formation utilizing day fighter tactics for a specified time or make one firing pass and break off the attack. This will depend on the situation, ie: speed of target, availability of other friendly rocket firing interceptors.
- c. Upon completion of mission, if VFR and aware of position, flight leader will check in with the recovery director of the directing agency and proceed to the recovery base as expeditiously as possible.

2. IFR Conditions

- a. Aircraft to operate in flights of four aircraft, elements of two aircraft. The second element leader will perform a lock-on climb-out approximately 5 to 7 seconds after the leader has commenced take-off roll or as runway conditions permit. This interval best establishes a satisfactory flight spacing of 1500 to 2000 yards between elements. Navigation during this phase will be the sole responsibility of the directing agency as it must be assumed that COMELRAD and SCATER will be in effect and radio navigational aids will not be available. In the event radar contact is lost during ascent, second element will turn starboard 45 degrees for 20 seconds and then port to original heading. This will prevent any possibility of collision. Lead aircraft will be advised when this occurs. Both aircraft will then maintain heading, indicated airspeed, and rate of climb until lock-on can be accomplished.
- b. The marshalling director will vector lead element into the target area.
- c. Upon assumption of control by the attack director, the lead aircraft will be placed in a position which will allow airborne intercept radar to effectively pick up the target. The highest practicable overtake speed is utilized in this phase of the attack. Attack director will space the elements. When definite radar contact has been established by the lead aircraft, both wingmen will drop back and space himself a minimum of 3000 yards behind their respective element leader. Second element leader will position himself 3000 yards behind lead element wingman. At approximately 2500 yards from the target,

ATTACH IVI<sup>2</sup>

the flight leader should not have an overtake speed exceeding 60 knots. At 2000 yards if a lock-on is possible, the pilot may take over the intercept on the pilot's scope. The R/O will continue to furnish accurate range, overtake, and azimuth information. In the final phase of the attack (800 to 200 yards) the overtake speed should not exceed over 30 knots and this speed should be maintained. This overtake speed will be adequate to fire out the plane's combat load. At minimum range overshoot 70 degrees in either direction and then take up original heading of target. Each of the following fighters will make similar pass and recovery. The fighters will again secure a lock on to the preceding fighter, thus placing themselves in position for another attack or a return to base.

d. Upon return to base the letdown may be performed in snake trail formation or individually, depending upon the conditions and the desires of the flight leader. If snake trail letdown is used, each fighter will be positioned approximately 1000 yards behind and 5 degrees to 10 degrees above leader or aircraft immediately preceding it.

ATTACH #VII<sup>3</sup>

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

SACOT-IV

12 Oct 1954

SUBJECT: (Uncl) Proposed Tactics for Controlling AI Interceptors  
Against a Bomber Stream Within a Chaff Corridor

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. Second Air Force has scheduled high altitude, high speed penetrations of the EADF region, involving approximately 15 B-47s on four successive days at the end of October. These penetrations will be supported by electronic countermeasures. It is within the capability of these penetration forces to create a "chaff corridor" approximately 150 miles long and 50 miles wide. The procedure outlined below appears to provide a means of positioning AI interceptors so that, under these conditions, some chance for a successful interception exists.

a. Immediately it is determined a penetration is "seeded" a chaff corridor, scramble four aircraft designated as trailers. ADDC will direct trailers to leading edge of chaff corridor. From this position, two interceptors will take up positions at both ends of the leading edge of the chaff corridor and trail from this position with IFF on a predetermined mode. The two remaining interceptors will continue down the corridor to a point they determine to be the trailing edge of the bomber stream - or the two remaining interceptors proceed down corridor a predetermined distance and/or number of bomber - where they take up positions to either side of the corridor with IFF on a predetermined mode.

b. The ADDC can now direct interceptors against the rectangle formed by the trailers. Interceptors should be placed on a course 90° to the rectangle at a range of 30 miles. This range allows adequate time for manual scanning of the area ahead, selection of a target and manual tracking of target selected.

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EACOT-TW Subject: (Uncl) Proposed Tactics for Controlling AI Interceptors Against a Bomber Stream Within a Chaff Corridor (Cont'd)

c. As aircraft complete their attacks, they should utilize procedure turns to place themselves back in a position from which the bomber can be kept in radar contact. Assuming ammo zero, they in turn act as trailer aircraft and the ADDC directs interceptors against individually trailed targets.

d. ADDC directors can use their scopes with video on or off, which ever best serves their purpose.

2. This headquarters desires to test these tactics during the forthcoming Second Air Force exercise. A realistic test will require that the same procedure be utilized by all ADDC possessing a control capability within the Atlantic ADIZ. It is desired that you take necessary action to insure this posture.

3. The problem of intercepting bombers utilizing ECM is one of many intercept problems to which this headquarters does not have the final answer. If, in this case, it is felt that modification or expansion of the proposed procedure is in order, this headquarters should be advised at the earliest possible date.

4. Full details on the above referenced exercise will be provided by EADF operations order approximately 20 October 1954.

5. This letter is classified Secret in accordance with paragraph 23c, AFR 205-1.

BY ORDER OF THE COMMANDER:

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

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EADF EACOT-TW Subject: (Uacl) Proposed Tactics for Controlling AI  
Interceptors Against a Bomber Stream Within a Chaff Corridor

OOT-A (12 Oct 54) 1st Ind 15 Oct 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6,  
New York

TO: Commander, 4707th Air Defense Wing, Otis AFB, Falmouth, Mass  
Commander, 4711th Air Defense Wing, Presque Isle AFB, Maine

1. Forwarded for your information and dissemination to all subordinate units.
2. Procedure outlined in basic letter is compatible with both the Tactical Doctrine of this headquarters and the interceptor positioning procedure forwarded your headquarters by letter this headquarters, OOT-A subject, "(Unclassified) Lead Collision Course Positioning dated 28 September 1954. It is desired that these procedures be combined during this test to evaluate effectiveness.
3. Reference paragraph 1a, basic letter, T-33 aircraft will be utilized to maximum extent as trailers.

BY ORDER OF THE COMMANDER:

ARCHIE T. SHERBERT JR.  
2nd Lt., USAF  
Assistant Adjutant

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C O P Y

HEADQUARTERS  
655th AC&W Squadron  
Watertown Air Force Station  
Watertown, New York

C-OPS

2 December 1954

SUBJECT: Evaluation of Air Mass Intercepts

TO: Commander  
4711th Defense Wing  
Presque Isle AFB  
Presque Isle, Maine  
ATTN: Deputy of Operations

1. In compliance with 32d Air Division Letter OOT\_A, dated 28 September 1954 and your Indorsement DC-A/C, dated 5 October 1954, the following evaluation of the 32d Air Division Air Mass Type Interceptions, utilizing the Off-center position on a PFI, is hereby submitted.

2. Summary:

a. During the period of this evaluation, a total of seventy (70) intercepts, both actual and on the synthetic trainer, were attempted. These intercepts have met with a fair degree of success and have proven that the basic theory behind this system is sound and practical. It is a good "set" intercept procedure, however, it is too fallible for the many changing factors of tactical situations such as; evasive action by the target cannot be recognized immediately, thereby delaying instantaneous corrective action by the interceptors, target fading, multipliable targets, and etc.

3. Conclusions:

- a. By keeping the target in the center of the scope, Directors lose all perspective of what is occurring.
- b. Directors have difficulty in continually keeping target in center of scope.
- c. Directors are continually changing the off-center azimuth and the off-center amplitude in order to keep target in center of scope, thereby keeping both hands occupied doing this.
- d. A headset with mike and a foot switch is necessary for Director to transmit to interceptors and still perform intercepts.

C O P Y

e. This system of Air Mass Type intercepts requires one (1) scope for each raid that is within intercept range of the controlling station.

f. A minimum of raids would saturate any control station in a very short time.

g. Accurate winds must be made available to controlling stations before any type Air Mass Interceptions can be made accurately.

h. The present six (6) hour area winds currently received by controlling stations are not accurate and cannot be adopted to the Air Mass Type Intercepts.

4. Recommendations:

a. That a plastic aid, such as used at the Directors proficiency Course in Yuma and suggested by the 764th AC&W Squadron, be used by directors. With this plastic aid, several different intercepts can be run on one (1) PPI. It will only be necessary for the director to have one (1) plastic aid for each intercept that he is conducting.

b. It is recommended that on high altitude, high speed targets the beam approach be initiated from a twenty (20) degree front quarter position. This is accomplished by turning the interceptors on the attack when the angle-off (antenna train angle) is approximately twenty (20) degrees greater than indicated for a true 90° beam approach. The vector given the interceptor would be twenty (20) degrees short of a true beam, i.e., the target is tracking 180°, the interceptor is displaced thirty (30) miles on the targets starboard side. When the intercept is twenty (20) degrees from the positioning line on the plastic aid he would be given a 070° heading. Now when the interceptor approaches the positioning line, only a twenty (20) degree turn is necessary to place the interceptor on a true 90° beam attack. In the event the interceptor has not approached the positioning line the intercept would result in a twenty (20) degree front quarter attack. This method should eliminate missed intercepts due to director error of turning interceptors late onto a beam approach. The present method of waiting until the correct angle-off is reached which will make a true 90° beam results in many intercepts. Inaccurate information onwinds, lack of uniform rate of turn of interceptors, change of course by target, can all cause a missed intercept on high speed targets in addition to poor judgement by the director. This system should help reduce the number of missed intercepts for the reasons listed above.

c. It is suggested that all GCI stations receive hourly wind information or at least three-hour wind information from the nearest Air Force Weather Detachment for their area of responsibility.

FOR THE COMMANDER:

RONALD L. HANDY  
1st Lt., USAF  
Adjutant

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

21 Aug 1954

Major General M. R. Nelson  
Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Nellie:

During the recent division conference on tactical doctrine, there was unanimous concern voiced on several points effecting our control capability in relation to the weapons potential. It is believed that these points are of sufficient importance as to warrant consideration by your headquarters.

Explicitly, these points are, in order of priority:

1. Shortage of Plan Position Indicators.
2. Insufficient control frequencies and ground communications equipment.
3. Lack of an accurate rocket sight for manual firing.
4. Shortage and instability of director personnel.

As concluded in our findings and verified by numerous reports received from Air Proving Ground and other ADC units, our weapons potential far exceeds our control capability. With present equipment, we must sacrifice quality and precision of individual control in order to muster sufficient interceptor strength to counter a mass hostile raid. The most proficient director is extremely limited in the number of units which he can efficiently direct; which, in turn, results in the intolerable situation of having more weapons available than can be effectively utilized. With the high performance aircraft which now threaten us, the time limit in which to conduct the engagement necessitates a balance between optimum utilization of each interceptor and committing a sufficient number of interceptors to counter the hostile strength. By committing maximum available defense forces, we exceed the control system's capacity to exploit the maximum design features of the fire control systems.

These two factors can be brought more closely into balance by additional authorization of control positions and communications frequencies. Although FFB-3 sites are authorized five PPI, only three scopes

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are normally available for surveillance and control. One of the remaining scopes is coupled for use with the HRI and the other is used by maintenance for set performance, monitoring and adjustment and counter-ECM. To alleviate the problem to a small extent, squadrons have been directed to mobilize the maintenance scope to permit movement into the operations room during periods of increased activity. Also the surveillance scope has been provided communications to permit use as a control position in an emergency. Since it is entirely probable that any one of these sites would be required to control upward of thirty interceptors, it is evident that direct control would be impossible.

With only two tactical frequencies authorized each interceptor squadron there is an overload of these frequencies when the entire squadron is airborne under direct control. To alleviate this problem insofar as possible, one frequency is designated for marshalling and recovery control and the other for attack. As director proficiency increases and more aircraft are engaged in actual attack simultaneously, the frequency saturation will become acute. Each AC&W squadron has been directed to channelize on the primary tactical frequency of each interceptor squadron which they would probably control. This eliminates the use of GCI common when interceptors are under control of other than the primary control station. It would be desirable for each AC&W squadron to be able to control each interceptor squadron on more than one frequency. However, there is insufficient UHF equipment and not enough frequencies available to provide each directors position with a clear channel. Without direct control, the fire control system is practically useless since it is beyond the functional design of the equipment to attempt positioning through its use. Visual positioning by the pilot, assisted by the radar observer in two place interceptors, normally requires manual firing as speed and distance prevents set-up at the required displacement. With the visual positioning which would be necessary if we must utilize our AI interceptors under remote control, a reliable-visual rocket sight is required. It is useless to place an interceptor on a target if the firing is to be a haphazard guess. Although rocket dispersal against a mass bomber formation would probably account for a few kills, this probability is far below that acceptable.

The more exacting technique necessary with the lead collision course fire control system demands a greater degree of skill by directors than was formerly required. It is no longer possible for a director to merge two blips on the scope and consider his mission complete. It is becoming increasingly difficult to maintain a satisfactory director proficiency level with the present personnel instability. A large percentage of our directors are ROTC graduates on limited tours of extended active duty. The rate of attrition of these officers makes their assignment to director duty a burden on the AC&W squadron. In addition to causing our personnel reports to reflect an ambiguous status, they also require excessive supervision, thereby diverting competent personnel from normal duty to conduct training.

C O P Y

The above items are all detrimental to the performance of the division mission. Undoubtedly other commanders are experiencing the same situation. Any solution to these problems which may have been uncovered will be welcomed.

Sincerely,

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

C O P Y

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

13 August 1954

Major General M. R. Nelson  
Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

Dear Nellie:

For some time I have been concerned about the ability of this division to effectively control all of our fighter capability, including augmentation forces, against multiple large formations or multiple streams of attacking bombers.

Exercises conducted in the past have pointed out several glaring deficiencies in our system. These deficiencies can be broken down to reflect only those which directly affect the air battle and prevent utilization of our defense facilities. Specifically, the crippling factors are: One, insufficient ECM training; two, inadequate direction capability due to the relative disparity in the distribution of PPI and B-Scan scopes at the ACW squadrons; three, internal tactical telephone equipment at AC&W squadrons do not provide for sufficient termination of circuits within ADDCs; four, employment of large masses of fighters is extremely difficult with the limited number of UHF channels and equipment available to the aircraft director; five, fighter-interceptor aircraft, current and programmed, must have the capability of channelization on an almost infinite number of frequencies - the present equipment restricts their use to a very limited area of operations, thus reducing their tactical potential as an effective weapon considerably.

The effectiveness of ECM against our present defense system urgently requires additional ECM training. It is imperative that greater emphasis be placed on equipping the 4713th RE (ECM) Flight or division headquarters with sufficient aircraft and equipment to carry out a program which will insure training not only AC&W unit personnel but also interceptor pilots.

Operational efficiency of our AC&W - Fighter-Interceptor teams is directly proportional to the availability of control facilities. Unfortunately, a serious disparity exists between AC&W units as to the amount and type of equipment available for direction purposes.

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The following graphic display will serve to illustrate this difference:

P-Site	No PPI Scopes	No B-Scans Search & Surveillance	UHF Equip Aval for GCI	UHF Monitor	Max Ftrs Con Capability
P-10	11	5	8	4	24-32
P-13	10	5	5	4	15-20
P-14	8	5	5	4	15-20
P-21	11	5	5	4	15-20
P-49	5		5	4	15-20
P-50	5		8	4	15-20
P-65	5		5	4	15-20
P-80	7		4	4	12-16

Direction capability is based upon the number of UHF multi-channel transmitters available at each site and the ability of the director to control three to four aircraft or flights of aircraft simultaneously. In instances where B-Scans are not available for search and surveillance, a PPI scope must be used for this purpose. In each case, a PPI scope is located in the maintenance room to facilitate maintenance and to counter ECM. Prior to Exercise Checkpoint, I directed all sites to locally fabricate a dolly and cables to permit use of the maintenance PPI in the direction center. This step assured maximum utilization of all available equipment.

The present tactical telephone systems installed at the AC&W sites are rapidly becoming saturated. The basic GTA-3 and 3A equipment does not provide for sufficient key boxes to accommodate circuits necessary for all-out operation. The new GTA-6 equipment will solve this problem in the future. Unfortunately the requirement exists now, and has been with us since the P-sites were phased in. Under the present concept of operation, which demands expeditious communications, additional circuits are required for weapons status, overlap telling of plots and tracks between sites, scramble and status circuits to supporting fighter units, controller and surveillance and telling circuits to F-sites and gap-fillers, and any other circuits which will become necessary in the future.

The present methods of operation requires that essential items of equipment be utilized for other than interception purposes. The AC&W

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sites at Lockport, New York and North, Truro, Mass. have been committed to work with adjacent AOCs. This commitment necessitates release of one PFI scope to the AAA Liaison Officer. Another requirement which manifests itself during IFR weather conditions, is the need to provide from one to two PFI scopes for recovery positions. This problem has been experienced on several training missions and has had a deleterious affect on the GCI capability where continued tactical action is required.

Sincerely,

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

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C O P Y

654TH AIRCRAFT CONTROL AND WARNING SQUADRON  
U. S. NAVAL AIR STATION  
Brunswick, Maine

OT

9 Jun 54

SUBJECT: ADC Regulation 50-21 Dated 5 April 1954, Subject:  
"Controller/Director-Pilot Cross Training"

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. Reference per 5e of subject regulation which states, "Each director will devote a minimum of one day each two months to cross-training at an associated fighter-interceptor squadron".
2. It is deemed that a three day cross-training period every six months would accomplish the desired cross-training and work less of a hardship on the units involved.
3. The work load on ACW Squadrons is continually increasing without attendant personnel increases. The sending of a director from this unit to any of the fighter units involves the loss of the officer to the unit for a minimum period of three days unless airlifts can be arranged. In the past the cross-training was accomplished during off duty breaks, however, it was required only once per year previous to publication of the current ADCR 50-21 and was no great problem.
4. This unit could ill afford to have more than two directors TDY at a given time. This would mean that the unit would have that many officers TDY every week. By the same token, the fighter unit involved would have directors on hand to train every week causing a further tie up of personnel.
5. It is recommended that the cross-training period required be of three days duration scheduled every six months.

FOR THE COMMANDER:

JOHN D. MYERS  
1st Lt., USAF  
Adjutant

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C O P Y

654th AC&W Sq OE Subject: ADC Regulation 50-21 Dated 5 Apr 54, Subj:  
"Controller/Director-Pilot Cross Training"

DWOCNT (9 Jun 54) 1st Ind

HEADQUARTERS, 4707TH DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts, 29 Jul 1954

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. This training program is considered one of the best devices used by the Air Defense Command. It gives the aircrews and directors an opportunity to get acquainted, discuss mutual problems and work out local procedures; however, too much of a good thing can be harmful.
2. First, we have an acute shortage of directors in this wing, with known additional losses to occur in the next few months. There is not information available at this level that replacements are forthcoming.
3. To further aggravate the situation the directors are saddled with many additional duties plus the fact that there is a continuing call for our most qualified directors to depart their stations on temporary duty.
4. The directors rotate through the day shift, night shift and mid-night shift and are required to work weekend and holidays; their time off comes on irregular days of the week. This has an adverse effect on morale. In addition the rated directors are required to perform their flying duties in compliance with AFR 60-2 during their off duty times.
5. Fighter-Interceptor Squadrons are faced with many of these and similar problems.
6. When considering the vital importance of the Air Defense Mission, we in command positions must constantly strive to ease the burden and strain on our people manning the operational positions. Each new requirement must be carefully analyzed, weighing the advantages against the additional burden that will be imposed.
7. In the last two months we have completed one cycle of cross-training. As a result we find that because our AC&W Squadrons are understrength in directors and about 50% of our directors are not fully

C O P Y

DWOCNT Subject: ADC Regulation 50-21 Dated 5 Apr 54, Subj: "Controller/  
Director-Pilot Cross Training" (1st Ind cont'd)

qualified, the program is imposing a work load that is detrimental to  
the performance of the primary mission. Therefore, I recommend the  
adoption of the schedule set forth in the basic letter.

RICHARD A. LEGG  
Colonel, USAF  
Commander

C O P Y

65th ACW Sq OOT Subject: ADC Regulation 50-21 Dated 5 April 54, Subj:  
"Controller/Director-Pilot Cross Training"

OOT-A (9 June 54) 2nd Ind 19 Aug 54

FM 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, N.Y.

1. Comments of the Commander, 4707th Defense Wing are concurred in and it is recommended that waiver be granted to requirements of ADCR 50-21.
2. The many benefits to be gained by this training program are obvious; however, we cannot permit normal operational requirements to deteriorate for the sake of training alone. Serious consideration must be given to the ramifications involved.
3. It is neither desired nor recommended that the program as established by the regulation be changed. The minimum requirements specified are necessary to gain the maximum benefit of the program. However, due to the adverse affect placed upon certain units, due to personnel afactors, it is recommended that waivers be granted to those units unable to comply. It is believed that with the present command wide shortage of qualified director personnel plus the heavy commitment for TDY etc., waiver should be granted for requirement beyond one exchange for a two day period, semiannually.

ROBERT S. ISRAEL, JR.  
Colonel, USAF  
Commander

C O P Y

654th ACRON OT Subject: ADC Regulation 50-21 Dated 5 April 1954,  
Subject: "Controller/Director-Pilot Cross-Training"

EA00T-TS (9 Jun 54) 3d Ind 27 Aug 54

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. Information and comments from air divisions (defense) indicate that compliance with the director-pilot cross-training requirements outlined in paragraph 5a and b, ADC Regulation 50-21, 5 April 1954, works a hardship on fighter-interceptor and aircraft control and warning squadrons. Where direction centers are located many miles from their fighter-interceptor bases, travel time is sometimes twice as great as the actual training time realized. Combat readiness of both direction centers and fighter-interceptor squadrons is impaired by the loss of operational personnel for excessive periods.

2. Headquarters Air Defense Command has been requested to consider the following program as a substitute for the present requirements for director-pilot cross-training.

a. An initial three to five day period of instruction to cover the areas outlined in paragraphs 6a, b and c of ADC Regulation 50-21. This would minimize travel time and expense, and make possible a detailed and comprehensive cross-training program for directors and fighter-interceptor pilots.

b. Cross-training outlined above would be required for directors not later than three months subsequent to:

- (1) Date of assignment to a direction center.
- (2) Date direction center assumes control of a new fighter-interceptor squadron.
- (3) Date fighter-interceptor squadron completes transition to a new type aircraft.

c. Cross-training outlined above would be required for fighter-interceptor pilots not later than three months subsequent to:

- (1) Date of assignment to a unit scrambled by a direction center at which the pilot had no previous training.

C O P Y

654th AC&W Sq OT Subj: ADC Regulation 50-21 Dated 5 April 1954, Subject:  
"Controller/Director-Pilot Cross Training"

OOT-A (9 Jun 54)                      4th Ind                      1 Sep 1954

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis AFB, Falmouth, Mass.  
Commander, 4711th Defense Wing, Presque Isle AFB, Maine.

1. Alternate program proposed by Headquarters Eastern Air  
Defense Force in preceding indorsement appears to adequately meet  
requirements.

2. It is requested that comment or recommendations to this  
proposal be forwarded to reach this headquarters by 20 September 1954.

BY ORDER OF THE COMMANDER:

EVERETT W. HOWE  
Major, USAF  
Adjutant

C O P Y

654TH AIRCRAFT CONTROL AND WARNING SQUADRON  
U.S. NAVAL AIR STATION  
Brunswick, Maine

OT

9 June 1954

SUBJECT: ADC Regulation 50-21 Dated 5 April 1954, Subject:  
"Controller/Director-Pilot Cross Training"

TO: Commander  
4707th Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. Reference par 5a of subject regulation which states, "Each director will devote a minimum of one day each two months to cross training at an associated fighter interceptor squadron".
2. It is deemed that a three day cross training period every six months would accomplish the desired cross training and work less of a hardship on the units involved.
3. The work load on AC&W Squadrons is continually increasing without attendant personnel increases. The sending of a director from this unit to any of the fighter units involves the loss of the officer to the unit for a minimum period of three days unless airlifts can be arranged. In the past the Cross-training was accomplished during off duty breaks, however, it was required only once per year previous to publication of the current ADCR 50-21 and was no great problem.
4. This unit could ill afford to have more than two directors TDY at a given time. This would mean that the unit would have that many officers TDY every week. By the same token, the fighter unit involved would have directors on hand to train every week causing a further tie up of personnel.
5. It is recommended that the Cross-training period required be of three days duration scheduled every six months.

FOR THE COMMANDER:

JOHN D. MYERS  
1st Lt., USAF  
Adjutant

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C O P Y

654th AC&W Sq OT Subject: ADC Regulation 50-21 Dated 5 Apr 54, Subj:  
"Controller/Director-Pilot Cross Training"

DWOCNT (9 Jun 54) 1st Ind

HEADQUARTERS, 4707TH DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts, 27 Jul 1954

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. This training program is considered one of the best devices used by the Air Defense Command. It gives the aircrews and directors an opportunity to get acquainted, discuss mutual problems and work out local procedures; however, too much of a good thing can be harmful.
2. First, we have an acute shortage of directors in this wing, with known additional losses to occur in the next few months. There is no information available at this level that replacements are forthcoming.
3. To further aggravate the situation the directors are saddled with many additional duties plus the fact that there is a continuing call for our most qualified directors to depart their stations on temporary duty.
4. The directors rotate through the day shift, night shift and midnight shift and are required to work weekend and holidays; their time off comes on irregular days of the week. This has an adverse effect on morale. In addition the rated directors are required to perform their flying duties in compliance with AFR 60-2 during their off duty times.
5. Fighter-Interceptor Squadrons are faced with many of these and similar problems.
6. When considering the vital importance of the Air Defense Mission, we in command positions must constantly strive to ease the burden and strain on our people manning the operational positions. Each new requirement must be carefully analyzed, weighing the advantages against the additional burden that will be imposed.
7. In the last two months we have completed one cycle of cross-training. As a result we find that because our AC& Squadrons are understrength in directors and about 50% of our directors are not fully

C O P Y

DWOCNT Subject: ADC Regulation 50-21 Dated 5 Apr 54, Subj: "Controller/  
Director-Pilot Cross Training" (1st Ind cont'd)

qualified, the program is imposing a work load that is detrimental to  
the performance of the primary mission. Therefore, I recommend the  
adoption of the schedule set forth in the basic letter.

RICHARD A. LEGG  
Colonel, USAF  
Commander

C O P Y

654th ACW Sq OT Subject: ADC Regulation 50-21 Dated 5 April 54, Subj:  
"Controller/Director-Pilot Cross Training"

OOT-A (9 June 54) 2nd Ind 19 Aug 1954

Hq 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Eastwood  
Station 6, Syracuse, New York

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, NY

1. Comments of the Commander, 4707th Defense Wing are concurred in and it is recommended that waiver be granted to requirements of ADCR 50-21.
2. The many benefits to be gained by this training program are obvious; however, we can not permit normal operational requirements to deteriorate for the sake of training alone. Serious consideration must be given to the ramifications involved.
3. It is neither desired nor recommended that the program as established by the regulation be changed. The minimum requirements specified are necessary to gain the maximum benefit of the program. However, due to the adverse affect placed upon certain units, due to personnel factors, it is recommended that waivers be granted to those units unable to comply. It is believed that with the present command wide shortage of qualified director personnel plus the heavy commitment for TDY etc., waiver should be granted for requirement beyond one exchange for a two day period, semiannually.

ROBERT S. ISRAEL, JR  
Colonel, USAF  
Commander

COPY

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-A

31 Dec 1954

SUBJECT: Cross Training of AC&W Directors and Fighter-Interceptor  
Crews

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Fallmouth, Massachusetts

1. To enhance the value of the cross-training program directed by ADCR 50-21 it is recommended that your headquarters take the following action:

a. Coordinate with the Commander, 4711th Air Defense Wing to alternate aircrew cross training of the 49th Fighter-Interceptor Squadron between the 765th AC&W and 654th AC&W Squadrons.

b. Initiate cross training of aircrews of the 58th and 437th Fighter-Interceptor Squadrons with the 654th AC&W Squadron, to alternate between this squadron and the 762d AC&W Squadron.

2. This recommendation is prompted by the lack of assignment of a Fighter-Interceptor Squadron for control by the 654th AC&W Squadron and also by the fact that aircraft of these Fighter-Interceptor Squadrons frequently come under control of the 654th AC&W Squadron.

3. It is believed that this modification will assist in creating a closer liaison between these units and result in increased effectiveness and proficiency of all units.

BY ORDER OF THE COMMANDER:

Info Cy  
Comdr 4711th ADW

EVERITT W. HOWE  
Major, USAF  
Adjutant

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C O P Y

HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OOT-FO

SUBJECT: Bombing and Gunnery Range Utilization Report ZI (RCS: AF-F11)

TO: Commander  
Eastern Air Defense Force  
Stewart Air Force Base  
Newburgh, New York

1. In accordance with Air Force Regulation 27-4, dated 16 July 1954, the Bombing and Gunnery Range Utilization Report ZI (RCS: AF-F11) is submitted.

a. 4707th Air Defense Wing

- (1) Range Name and State: Lake Ontario, New York State, B-94, over water, controlled by Naval Air Station, Niagara Falls Municipal Airport, Niagara Falls, New York.
- (2) Number and Types of Targets Available: No targets available.
- (3) Limitations: 1 April to 1 October, days; 1 October to 1 April, Saturday and Sunday, daylight hours only; effective altitude to 15,000 feet; over water.
- (4) Coordinates: Over water; coordinates of range are: Latitude, 43 degrees, 38 minutes, 00 seconds; Longitude, 78 degrees, 30 minutes, 00 seconds; then west to: Latitude, 43 degrees, 38 minutes, 00 seconds; Longitude, 78 degrees, 42 minutes, 00 seconds; then southwest to: Latitude, 43 degrees, 32 minutes, 00 seconds; Longitude, 79 degrees 00 minutes, 00 seconds; then south to: Latitude, 43 degrees, 39 minutes, 00 seconds; Longitude, 79 degrees, 00 minutes 00 seconds; then east to: Latitude, 43 degrees, 30 minutes, 00 seconds; Longitude, 78 degrees, 45 minutes, 00 seconds; then northeast to: Latitude, 43 degrees, 34 minutes, 00 seconds; Longitude, 78 degrees, 30 minutes, 00 seconds; then north to: Latitude, 43 degrees, 38 minutes, 00 seconds; Longitude, 78 degrees, 30 minutes, 00 seconds.

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C O P Y

- (5) Controlling Base: Controlling Base is Naval Air Station, Niagara Falls Municipal Airport, Niagara Falls, New York.
- (6) Operating Directives: No operating directives at this level, since the 518th Air Defense Group is not the controlling agency and the range is not suitable for air-to-air rockets. This unit is equipped with F-86D's.
- (7) Utilization: (a) Capacity of the facility is unknown for other organizations. Capacity for the 518th Air Defense Group for air-to-air rockets is zero (0).  
(b) Utilization of the facility is unknown for other organizations. Utilization for the 518th Air Defense Group for air-to-air rockets is zero (0).
- (8) Rescue Facilities: (a) Three (3) crash boats under jurisdiction of the 34th Crash Boat Flight at Youngstown, New York, are available during the months from April to November, Not available during winter months due to ice.  
(b) Two (2) H-13 helicopters under jurisdiction of the 518th Air Defense Group.
- (9) Control and Scoring: No control or scoring facilities available. Ground Control Interception is available twenty-four (24) hours per day.
- (10) Agreement: No present agreements, since the range is not capable of utilizing air-to-air rockets.

b. 4711th Air Defense Wing. Danger area D-70 air-to-air gunnery range, Oswego, New York, was utilized by the 27 FIS and under the jurisdiction of Griffiss Air Force Base until July, 1954, at which time jurisdiction was transferred to Continental Air Command. This range is no longer being utilized by the 27th FIS nor is there any joint agreement to effect. The Criehaven Machiae Gunnery Range W-102 will be utilized by all fighter interceptor squadrons assigned to this wing. Plans are being made by this wing to establish a wing rocketry training program. The percentage of utilization of the Criehaven Machiae Seal Island Gunnery Range is based on the assumption that this headquarters will be able to locate target aircraft for rocketry firing. In the event target aircraft are not available, the utilization figures will be less than report indicates.

C O P Y

- (1) Range - Criehaven, Machias, Seal Island, Maine.  
EADF, Commander, Dow Air Force Base, Bangor,  
Maine, W-102 Air -to -Air.
- (2) No surface targets.
- (3) Unlimited altitudes, unlimited hours.
- (4) The coordinates beginning at:  
43 degrees, 54 minutes, 40 seconds North 68 degrees,  
51 minutes west thence north east to 44 degrees, 32  
minutes north, 67 degrees, 7 minutes, 45 seconds  
west, thence south east to 44 degrees, 21 minutes  
north, 67 degrees west, thence south to 44 degrees,  
12 minutes 30 seconds north, 67 degrees west then  
south west to 43 degrees, 37 minutes, 30 seconds  
north, 68 degrees 41 minutes west then north west to  
point of beginning.
- (5) Dow Air Force Base, Bangor, Maine.
- (6) 49th Fighter-Interceptor Squadron - none, 8th Air  
Force Regulation 51-22, dated 24 March, 1954.
- (7) Capacity of the Range. 4th quarter FY55 - 150  
Sorties. FY56-59 - 150 Sorties per quarters.

27 FIS	16%	FY56-59
37	16%	
(8) 49	16%	
82	16%	
318	16%	
Others	0	
- (8) Rescue facilities. One (1) helicopter at Dow Air  
Force Base, SAC. 33d Boat Rescue Flight at South  
West Harbor, Maine. 185 foot boat, 163 foot boat,  
124 foot boat.
- (9) Scoring is accomplished by the using organization.  
Dow Air Force Base tower is notified when aircraft  
go on or off the range. GCI (Founder) has surveill-  
ance, unlimited hours.
- (10) Joint utilization agreement between EADF and SAC,  
dated 15 December, 1954; effective period of agree-  
ment indefinite.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

HEADQUARTERS  
4711TH AIR DEFENSE WING  
PRESQUE ISLE AIR FORCE BASE  
Presque Isle, Maine

DO

SUBJECT: Request for Authority to Utilize Services of the 2nd Tow  
Target Squadron

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Eastwood Station 6  
Syracuse, New York

1. It is requested that approval be obtained from Headquarters, Tactical Air Command and Headquarters, 9th Air Force which will authorize the 2nd Tow Target Squadron at Mitchel Air Force Base to tow serial targets for air to air rocket firing by units of the 4711th Air Defense Wing after October 1954.

2. The 2nd Tow Target Squadron would be asked to tow only when their regular commitments permit. Coordination between this headquarters and the Commander 2nd Tow Squadron would keep this headquarters informed as to the availability of towing services.

3. This Wing proposes to use the Griehaven-Machias-Seal Island Gunnery Range (off the Maine Coast south of Bangor), which is scheduled through Dow Air Force Base, Maine.

4. It is proposed that the tow aircraft will stage through Dow Air Force Base and will operate with the 49th Fighter-Interceptor Squadron (4711th Wing).

5. The 2nd Tow Target Squadron has the capability of towing serial targets with the required minimum of 5,000 feet cable length and has demonstrated this capability by successfully towing for the 4710th Air Defense Rocket meet during the period 2 through 7 August 1954 at Newcastle County Airport, Wilmington, Delaware.

FOR THE COMMANDER:

KENNETH A. FULLER  
1st Lt., USAF  
Adjutant

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C O P Y

Hq 4711th ADW DO Subj: Request for Authority to Utilize Services of  
the 2nd Tow Target Squadron

OOT-FO (22 Oct 54) 1st Ind 27 Oct 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. Forwarded for your consideration.
2. The training received from the use of the 2nd Tow Target Squadron would greatly aid squadrons in preparation for rocketry firing at Yuma.
3. Three (3) squadrons of the 4711th Air Defense Wing are scheduled to deploy to Yuma during the early part of 1955.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

C O P Y

60TH FIGHTER-INTERCEPTOR SQUADRON  
4707TH AIR DEFENSE WING  
Westover Air Force Base, Massachusetts

FS600P

29 September 54

SUBJECT: Weapons Training Report

TO: Commander  
4707th Air Defense Wing  
Otis Air Force Base  
Falmouth, Massachusetts

1. In compliance with message EADF, cite EAOOT-TW 32120, DTG 281324Z, the following report on the activities of the 60th Ftr-Intcp Sq at Yuma, Ariz is submitted:

a. Operational Support:

- (1) Inadequate support was rendered on towed targets during Phase III firing. This was due primarily to the abnormally low in-commission rate of their B-45's during our stay. Some relief was afforded by the use of B-26's which had been borrowed from George AFB but their use increased the existing handicap of having to fire at well below the design air speed. The targets towed by the B-26's were 6' x 30' or smaller as opposed to the 9' x 45' targets towed by the B-45's. The smaller target made assessing more difficult and was harder to sight by the chase pilots.
- (2) The 9' x 45' target with dual rotating reflectors is a minimum satisfactory target. Average target separation occurred at 8 to 10 miles but short lock-on ranges resulted because of the weak target return. Several unsuccessful intercepts charged to pilot error or the FCS were actually a result of poor target discrimination.
- (3) The 4750th Weapons Training Squadron did not have the capability to support the chase commitment with either pilots or aircraft. We were forced to use T-33's and provide our own pilots for chase. The use of T-33's limited our firing speed to 300 knots or approximately .65 Mach at 20,000 feet rendering our angle of attack computers useless. We failed to exercise the alternative of using F-86D's for chase because of the continual

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C O P Y

60 Ftr Intcp Sq FS600P Subject: Weapons Training Report

FCS maintenance that was required on all available aircraft to insure meeting the proposed sortie rate.

- (4) Although the turn-around time on film was generally considered good, the quality and quantity of assessable film returned was below what we consider an acceptable standard. With the present method of assessing "hits" it is necessary for both wing mounted cameras to operate properly and for both film packs to produce assessable film. On many occasions, even when both cameras ran off, either one or the other would come back from the lab unreadable and consequently the mission could not be assessed for "hits". It is quite possible that the difficulty may lie somewhere in the developing process. The need for a more simple and more reliable method of assessment is readily apparent and it is recommended that this be made a qualitative operational requirement by the 4750th Weapons Training Squadron at Yuma.
- (5) The number of unsuccessful intercepts due to poor GCI control was comparatively low during Phase III. However, it is felt that because of the limited time available, and the cost of personnel and equipment devoted to this phase, only experienced controllers should be utilized and all efforts expended towards the success of putting the fighter on the target on every run. Controllers have ample opportunity to get realistic training at their own installations whereas our fighter pilots may only get the opportunity to use the FCS once every 2 years.
- (6) Although Phase I and II missions gave us time to "peak up" the FCS prior to actual firing, these two phases can actually be conducted at the home base prior to deployment. Elimination of Phase I and II training at Yuma may make it possible to reduce the deployment to a three week period.

b. Supply Support:

- (1) Supply on radar spares was excellent.
- (2) No problems arose on supply of aircraft spares during normal duty hours but a few delays were experienced during other times. The Training Group Commander has taken this under advisement and has promised to provide a solution.

C O P Y

60 Ftr Intcp Sq FS600P Subject: Weapons Training Report

c. Maintenance Support:

- (1) Excessive delays were encountered in the sheet metal shop and the battery shop is poorly equipped to provide adequate recharging facilities and perform necessary capacitance checks.
- (2) Tool crib facilities were not always available after normal duty hours causing slow-down or work stoppages.
- (3) Ramp and run-up areas required a great deal more policing than was available. Additional sweepers and personnel required to keep these areas clean would be good insurance against loss of engines to foreign object damage.
- (4) The brake and tire shop was more than adequate and ground power support was excellent.

d. Miscellany:

- (1) The lack of on-base transportation for the Commander and the Operations Officer during the unloading and loading phases made it difficult to be at the right places at the right time.
  - (2) Recreational facilities for the airmen could be improved. The swimming pool is excellent but an aggressive entertainment program to keep the men on base during week-ends would pay off dividends. Complete coverage on religious services are not available on the base and transportation to church in town on Sundays was unreliable.
  - (3) Although permanent air conditioned barracks are programmed for next year, the airmen are still required to live in hot, dusty tents without coolers. As an interim measure, desert coolers should be standard equipment for all tents until barracks are available.
  - (4) There were no laundry facilities for the airmen but action is being taken to provide several coin operated automatic washers which should solve this problem.
2. The airlift provided by the TAC C-124's and supplemented by our own C-47 type aircraft proved extremely efficient and highly satisfactory. The movement was made on schedule and with a minimum of confusion.

C O P Y

60 Ftr Intcp Sq FS600P Subject: Weapons Training Report

3. All items covered in this report were reviewed with the 4750th Weapons Training Group Commander prior to our departure from Yuma.

4. Based on some of the deficiencies enumerated above it is felt that we did not have the opportunity to fully exploit or take advantage of our capabilities. However, it should be noted that our armament systems personnel received invaluable training and experience, and the condition of our radars was brought up to a very satisfactory level.

5. A summary of the units activities while at Yuma is attached as Inclosure 1 to this report.

1 Incl:  
1. Summary Activities  
at Yuma

ALPHONSE J. COLEMAN  
Major, USAF  
Commander

C O P Y

60th FIS FS600P Subject: Weapons Training Report

DWOOT (29 Sep 54)

1st Ind

9 Oct 1954

HEADQUARTERS, 4707TH AIR DEFENSE WING, Otis Air Force Base, Falmouth,  
Massachusetts

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Syracuse 6, New York

1. Subject report was originally prepared for use within this  
headquarters and for the information of the Commander, 4750th Training  
Group.

2. Although all problem areas discussed are important, it is  
recommended that the following receive special consideration:

a. Paragraph 1a(5). In addition to the information provided  
in this paragraph, attention is invited to the fact that directors from  
ACWROHS which have access to E-4 and E-5 fire control system equipped  
aircraft can be provided training at their home station equal to or  
better than that available at Yuma. Cost of the training to the Air  
Force would be considerably reduced in such cases.

B. Paragraph 4. Under present conditions the cost of the  
training received has overbalanced the total benefits. It is recommended  
that, where all other facilities exist, tow aircraft be provided and  
Air Defense Wings be authorized to conduct rocketry training locally  
for assigned units.

1 Incl  
n/c

RICHARD A. LEGG  
Colonel, USAF  
Commander

C O P Y

60th FIS, FS600P Subject: Weapons Training Report

OOT-FO (29 Sep 54)

2nd Ind

26 Oct 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart Air Force Base,  
Newburgh, New York

1. The rocketry training program at Yuma, Arizona has been discussed to great extent and several items contained in the basic letter are worthy of consideration. However, I would like to add that the 60th Fighter-Interceptor Squadron was very well satisfied with the support furnished by the 4750th Training Wing and that the items contained herein are the exception rather than the rule.

2. Except for the following, this headquarters concurs with the basic letter and 1st indorsement.

a. This headquarters concurs that if towed targets cannot be made available to units deployed at Yuma, Phase I and II training can be accomplished just as effectively at their home stations. It is recommended that every effort be made to furnish pilots with the same presentation they will eventually receive when in the actual firing phase. In view of the above, the use of F-94 and F-89 aircraft as the number two aircraft during Phase II training is worthy of consideration. These aircraft, by use of airborne electronics equipment, are capable of maintaining a separation of 5000 feet.

b. Reference paragraph 1a(5) of basic letter. This paragraph is worthy of merit, however, GCI controllers are undergoing training as well as everyone else and this situation will continue to exist. Secondly, in reference to the first indorsement, the mission of this command will not permit sending any great number of directors to Yuma during the same period.

3. This headquarters is aware of the action being taken by Eastern Air Defense Force to obtain authorization permitting units to conduct local rocketry firing. This authorization, if forthcoming, will be very beneficial to units and will enhance the training program at Yuma.

1 Incl  
n/c

WILLIAM H. CLARK  
Colonel, USAF  
Deputy Commander

COPY

SUMMARY OF ACTIVITIES AT YUMA  
27 Aug through 22 Sep 54

PHASE I

Sorties Scheduled	24	
Successful		13
Unsuccessful due to Maint		1
FCS		7
GCI		2
Pilot		1
Intercepts Attempted	71	
Successful		25
Unsuccessful due to FCS		22
GCI		19
Pilot		5
Film turned in for processing	600 Ft	
Percentage of assessable film	43%	
Average film turn around time	54 min	
Camera malfunctions	0	
Magazine jams	3	
F-86D time flown	27:05	
Average F-86D's asgd	21	
Average T-33's asgd	2	
Average F-86D's in comm (Eng)	18	
(FCS)	14	

PHASE II

Sorties Scheduled	183	
Successful		98
Unsuccessful due to GCI		15
FCS		56
A/C Maint		8
Pilot		3
Comm		3
Intercepts Attempted	565	
Successful		193
Unsuccessful due to FCS		171
GCI		123
Pilot		63
Comm		8
Maint		5
Tgt Lost Tug		2

C O P Y

Film turned in for processing	4450 ft
Percentage of assessable film	71.28%
Average film turn around time	1:10
Camera Malfunctions	0
Magazine Jams	22
Total F-86D time flown	188:05
Total T-33 time flown	10:05
Average number of F-86D's asgd	19.9
Average number of T-33's asgd	3.4
Average number of F-86D's in comm (Eng)	19
(FCS)	10.4

PHASE III

Sorties scheduled	272
Successful	91
Unsuccessful due to no target	94
GCI	16
Pilot	20
Comm	5
No chase a/c	1
Weather	2
FCS	38
A/C maint	5
Intercepts attempted	483
Successful	132
Unsuccessful due to FCS	140
GCI	70
Pilot	95
Target abort	6
Rocket pod malfunction	6
Comm	6
No target reflector	17
Weather	11
Total rockets fired	1632
Automatic firing passes	132
Actual hits	12
Assessed hits	23
Film turned in for processing	12,950 ft
Percentage of assessable film	72%
Average film turn around time	57 min
Total camera malfunctions	5
Total magaz ine jams	10
Total F-86D time flown	203:25
Total T-33 time flown	107:25
Average number of F-86D's asgd	19

C O P Y

Average number of T-33's asgd	4.58
Average F-86D's in comm (Eng)	17.83
(FCS)	14.33
Average turn around time	15 min
Total 9 x 45 targets	14
Total 6 x 30 or smaller	12

Pilots that accomplished an automatic fire

Maj Coleman	Lt Campbell	Lt Cady
Maj Guernsey	Lt Nyls	Lt Stanley
Capt Carbonneau	Lt Carr	Lt Smyth
Capt Coon	Lt Carlsen	Lt Dillon
Capt Gerzel	Lt Heckman	Lt Reed
Capt Dunn	Lt Barnes	Lt Stone
Capt Meyer	Lt Brunelle	Lt Storbeck
Capt Kurtzman	Lt Johnson	Lt Upstill
Capt Truver	Lt Hill	Lt Henning
Capt Hunt	Lt Clarke	Lt Sheedy
Lt Larsh	Lt Williams	

Pilots that hit the target

	Actual	Assessed		Actual	Assessed
Maj Coleman	1		Lt Carr	2	
Maj Guernsey	1		Lt Carlsen	1	
Capt Carbonneau		1	Lt Heckman		1
Capt Gerzel		1	Lt Barnes	1	
Capt Kurtzman	1	1	Lt Brunelle		1
Capt Truver		2	Lt Johnson		3
Capt Hunt	1		Lt Hill		1
Lt Larsh		1	Lt Clarke		1
Lt Campbell		1	Lt Cady	1	
Lt Nyls		1	Lt Reed		1
Lt Stone	1	2	Lt Upstill	1	1
Lt Henning		1	Lt Sheedy	1	2
Fritzing (4750th)		1			

Total 12 Actual 23 Assessed

C O P Y

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON 25, D. C.

APOOF-OC-PL

19 May 1954

SUBJECT: Military Jet Training Activity

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. The Director of Federal Airways, CAA, has forwarded to this headquarters a summary of events which occurred at Pittsburgh, Pennsylvania on 19 March 1954, involving seven Air Force T-33 aircraft. These aircraft arrived over Pittsburgh on IFR Flight Plans at intervals between 1733E and 1801E, and as a result landings of conventional aircraft were suspended until the last jet made an IFR penetration and landed at 1842E. Fourteen aircraft were delayed awaiting disposition of the seven jet aircraft for a total of eleven hours and forty-nine minutes.

2. An extract from the CAA complaint follows:

It was learned that the seven jet aircraft involved had been dispatched on a 1000 mile cross country training flight involving student pilots. Pittsburgh had been chosen as one leg of the flight and the jet arrivals coincided with a peak period of activity at that locations.

While the importance of military training is recognized, it does appear that the selection of a busy terminal during the busy period of the day is not conducive to safety or efficiency of operations. Any action you may be able to take toward avoiding a recurrence of this type operation will be appreciated.

3. This headquarters agrees that unless there are overriding reasons to the contrary, long range training flights of large numbers of military aircraft should not terminate at busy civil terminals during peak periods of activity. Such an action not only subjects the Air Force to undue criticism from civilian agencies because of traffic delays, but would also make the Air Force position untenable at joint use bases in the event of a near miss or collision accident.

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C O P Y

4. Request that considerable discretion be shown in the selection of destinations for future navigation training flights of large numbers of aircraft, and that Civil airfields not be used whenever possible.

BY ORDER OF THE CHIEF OF STAFF:

R. E. KOON  
Brigadier General, USAF  
Acting Director of  
Operations, DCS/O

EACOT-SF (22 Jun 54)                      1st Ind                      1 Jul 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, N. Y.

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

1. The attached correspondence from Headquarters USAF is forwarded for your information and necessary action.
2. Specific attention is invited to paragraph 3, basic letter.

BY ORDER OF THE COMMANDER:

1 Incl:  
n/c

J. W. FOUNTAIN, JR.  
Major, USAF  
Asst Adjutant

C O P Y

Hq ADC ADOOT-C Subject: Military Jet Training Activity

OCT-FO (22 Jun 54) 2nd Ind 13 Jun 1954

HEADQUARTERS, 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station,  
Eastwood Station 6, Syracuse, New York

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth, Mass.  
Commander, 4711th Defense Wing, Presque Isle AFB, Presque Isle, Maine  
Commander, Headquarters Squadron Section, 32d Air Division (Defense)  
Syracuse Air Force Station, Eastwood Station 6, Syracuse, New York,  
Attn: Flight Operations

1. Forwarded for information and necessary action.
2. In reference to paragraph 3 of basic correspondence, cooperation with civil and military air traffic control facilities is a mandatory requirement commensurate with accomplishment of the assigned air defense mission. All necessary training missions scheduled to utilize actual weather conditions will be coordinated to the fullest extent possible with the pertinent agency concerned.
3. This matter will be disseminated to all pilots and included in Pilots Information File as required reading.

BY ORDER OF THE COMMANDER:

VIRGINIA L. SWEET  
1st Lt., USAF  
Assistant Adjutant

C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EA00T-1W

SUBJECT: Utilization of Special Training Devices

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

Attached letter, Headquarters USAF, AFPTR, 13 September 1954, subject as above, is forwarded for your information and necessary action. AF-E7 reports should reflect utilization rates stated by USAF. If operational or maintenance problems are encountered or envisioned in compliance with these requirements, this headquarters should be immediately advised.

BY ORDER OF THE COMMANDER:

1 Incl: J. W. FOUNTAIN, JR.  
Ltr Hq USAFAPTR, 13Sep54 Major, USAF  
subj as above (2) Asst Adjutant

OOT-FO (3 Nov 54) 1st Ind 9 Nov 54

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6 NY

TO: Commander, 4797th Air Defense Wing, Otis Air Force Base, Falmouth,  
Mass  
Commander 4711th Air Defense Wing, Presque Isle Air Force Base,  
Presque Isle, Maine

1. Forwarded for your information and necessary action.
2. Every effort should be made to accomplish programmed utilization of special training devices.

BY ORDER OF THE COMMANDER:

ARCHIE T. SHERBERT, JR.  
2nd Lt., USAF  
Asst Adjutant

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C O P Y

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON 25, D. C.

AFPTR

SUBJECT: Utilization of Special Training Devices

TO: Commander  
Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. This headquarters computes quantitative requirements for special training devices based on 650 hours per quarter for flight simulators and 520 hours per quarter for instrument trainers, radar trainers and gunnery trainers. Spare parts and maintenance requirements are also based on the above utilization. For these reasons it is imperative that utilization estimates be as accurate as possible.
2. A review of the Use and Status Reports for Special Training Devices (RCS AF-E7) reveals that use of most devices is considerably below that programmed. Some low utilization is attributed to lack of spares and/or maintenance; however, this is not the major contributing factor. Many devices are shown as being in commission with no time lost to maintenance, yet these devices were only used one or two hours per day.
3. It is also noted that time utilized does not meet requirements per crew per month as indicated in course syllabi and/or unit training directives used to compute basis of issue. This indicates a training deficiency.
4. It is requested that your command monitor the Use and Status Report for Special Training Devices (RCS AF-E7), determine reasons for low utilization, and take corrective action where necessary. It is further requested that the above stated programming figures be compared with specific requirements of your command and any recommendations for change be submitted to this headquarters with complete justification.

BY ORDER OF THE CHIEF OF STAFF:

Incl #1

JOSEPH W. KELLOGG  
Colonel, USAF  
Executive D/Pers Procurement & Tng  
DCS/P

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

MAOOT-TS

4 Nov 1954

SUBJECT: Remote Control of Fighter Interceptors

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse 6, New York

1. Remote Control is defined in ADC Regulation 55-30, 22 September 1954, as: "The transmission of air intelligence information concerning the enemy forces to fighter interceptor aircraft for independent attack action using standard UHF or VHF facilities. Navigation to the point of attack is the responsibility of the fighter interceptor". To provide for periods when direct control of interceptors becomes impracticable, we must insure that remote control can and will be employed effectively. To accomplish this, it is necessary that detailed remote control procedures and techniques be developed and practiced on a continuing basis.

2. Air divisions (defense) will effect detailed studies for the purpose of developing and improving methods and procedures for remote control operation within their areas of responsibility. Every opportunity will be taken to practice remote control operation during systems training exercises, i.e., "Think Fast Exercises" and/or similar unit or division training missions.

3. A short narrative report will be submitted by each air division (Defense) to arrive at this headquarters not later than 1 February 1955. This report will include.

a. A copy of the air division (Defense) standing operation procedures for remote control operation which implement the provision of paragraph 9, ADC Regulation 55-30.

b. An evaluation of at least three training missions or exercises in which remote control techniques were employed extensively.

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C O P Y

EA00T-TS Subject: Remote Control of Fighter Interceptors (Cont'd)

This evaluation will include the degree of success, problems encountered, comments and/or recommendations.

BY ORDER OF THE COMMANDER:

J. W. FOUNTAIN  
Major, USAF  
Asst Adjutant

OOZ-A (4 Nov 54) 1st Ind

HQ 32D AIR DIVISION (DEFENSE), Syracuse Air Force Station, Syracuse 6, New York

TO: Commander, Eastern Air Defense Force, Stewart AFB, Newburgh, NY

1. Following report is submitted in compliance with basic letter.
2. Tactical action summary:

Number and Type Intercepts	Type Target	Results of Scramble	Remarks
a. 6 F94C	3 F94C	5 Intercepts 1 missed intercept	A-I Failure
b. 2 F09D	3 F06D	missed intercept	
c. 2 F09D	3 F06D	missed intercept	
d. 2 F94B	3 F06D	missed intercept	ACP
e. 6 F06D	3 F06D	missed intercept	
f. 2 F94B	3 F06D	missed intercept	
g. 8 F94B	3 F06D	missed intercept	
h. 6 F06D	2 F94C	5 intercepts 1 abort	
i. 4 F94C	2 F94C	4 intercepts	
j. 5 F94C	2 F94C	3 intercepts	2 intercepts in trailer aircraft

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3. Mission A. Interceptors were given estimated time of strike over Syracuse Radio. They positioned on a reciprocal heading until 45 degrees port from the range, then turned in and began long range search. AI contact was obtained at approximately 30 miles. One aircraft with imperative AI lost sight of preceding aircraft and failed to obtain visual sighting on target.

Mission B. Broken cloud deck at 5000 was present but visual check point of east bank of St. Lawrence river was visible. Same set up procedure as in Mission "A" was attempted, using a visual landmark. No sighting made.

Mission C. (Same as "B".)

Mission D. Attempted to position on Mt. Washington. Cloud deck, which was not anticipated, obscured landmark. No sighting, although interceptors were in a favorable approach to the target. No NO in aircraft.

Mission E. Attempted to position on WJEE Radio using procedure as in Mission "A". No contact and no sighting.

Mission F. Attempted to position on Augusta Range using procedure as in Mission "A". No contact and no sighting. No NO in interceptor.

Mission G. Attempted position on Augusta Range using procedure as in Mission "A". No contact and no sighting.

Missions H, I, & J. Due to heavy contrails, visual sighting made at long range and flights positioned selves on contrails. On Mission J, a CF 100 was trailing the strike formation and lost two interceptors locked-on to it, rather than target.

4. Instructions concerning use of remote control procedures are contained in amendment II, to the 32d Air Division (Defense) Tactical Doctrine for the Employment of Interceptor Aircraft, copy of which is attached as Inclosure 1.

5. The extremely low probability of success, as reflected in these tests, indicates that direct control of AI interceptors is desirable whenever possible. However, when contrails are present on which the pilot can make a visual positioning prior to coming within AI range, remote control procedures described above can be effectively employed. Under conditions of reduced visibility, with no contrails, the effectiveness of remote control is nil. For this reason then, this headquarters advocates direct control of AI interceptors whenever possible; remote control of AI interceptors in emergency situations only; and remote control of non-AI interceptor under WR intercept area conditions, except when the control load is so light that

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Hq EADP EAO/T-TS Subject: Remote Control of Fighter Interceptors

direct control can be employed.

6. AFGC and ARDC reports on trials with remote control were found to be even less optimistic than the results of these tests. However, this headquarters still believes that proficiency can be increased and new techniques developed to obtain more favorable results than are reflected herein.

FOR THE COMMANDER:

9 Incl:	EVERETT W. HOWE
1. Remote Control Procedure	Major, USAF
2. Overlay, Track G-3	Adjutant
3. Overlay, Track E-26	
4. Overlay, Track E-27	
5. Overlay, Track C-17	
6. Overlay, Track C-20	
7. Overlay, Track W-10	
8. Overlay, Track W-11	
9. Overlay, Track W-13	

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station, Eastwood Station 6  
Syracuse, New York

OOT-A

27 Jul 1954

SUBJECT: ✓ Review of Operational Procedure

TO: Commander, 4707th Defense Wing, Otis Air Force Base, Falmouth,  
Massachusetts  
Commander, 4711th Defense Wing, Presque Isle Air Force Base,  
Presque Isle, Maine

1. This headquarters is becoming increasingly concerned with the prevalence of the type of incident exemplified in the following summary. It is desired that your subordinate units be made aware of this concern and the probable result if corrective action is not taken. Lack of experience by director personnel cannot be condoned as explanation for the occurrence.

2. Summary of Incident:

a. At 1810Z, 19 July 1954, a high-fast target was detected penetrating our defenses in the vicinity of Boulton, Maine, heading southwest. Possibility existed that the target was a B-47 en route from England; however, no flight plan was available. Intercept was made on a B-47 by Chatham, shortly before, but there was insufficient information available to insure positive identification as a friendly aircraft. Although detected at 1810Z, scramble was not ordered until 1814Z, at which time two F-86F's were diverted from CAP. Distance from the interceptors to the target was approximately 75 nautical miles in the lead, based on plots furnished the ADCC. (See Incl #1). Cut-off vector to the target path was not given until 1819Z. At this time, it should have been quite evident that intercept could not be completed. As the result, a "Tally-Ho" and subsequent tail chase took place with the interceptors several thousand feet low and several miles behind. The target faded unidentified.

b. A second high-fast target was detected at 1908Z approximately 30 nautical miles north-northwest of Concord, N. H. heading southwest. Several factors contributed to the missed intercept and eventual fading as unidentified of this target. Scramble was requested by the 554th AC&W Squadron of the 762d AC&W Squadron at 1857Z. Mailbag White, one F-94C was scrambled at 1857Z. Mailbag Red who was previously scrambled for another track was diverted to this target at 1907Z. Both targets were evidently the same aircraft. White apparently was proceeding to F-13 area rather than on an intercept vector and was completely out of position. Red was not turned into an intercept vector soon enough

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Hq 32d AD(D) OOT-A Subject: Review of Operational Procedure

to get into position and ended up in a tail chase with no more than a visual sighting of the contrails.

2. Comments received during staff visits and in exercise reports have indicated that the ACGW Squadrons are dissatisfied with the division policy of centralized control during exercises. The ADCC's would prefer that they be permitted to plan the scramble times rather than to have this prerogative retained in the ADCC. Incidents such as the above could influence this headquarters toward retaining centralized control at all times, rather than to lean the other way and give more scramble authority to the ACGW Squadrons.

2 Incls:

1. Overlay W459C  
19 Jul 54
2. Overlay A4.2  
19 Jul 54

WILLIAM H. CLARK  
Colonel, USAF  
Deputy Commander

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C O P Y

HEADQUARTERS  
EASTERN AIR DEFENSE FORCE  
Stewart Air Force Base, Newburgh, N. Y.

EAOOT-OW

5

1 Nov 54

SUBJECT: (Unclassified) Decentralization of Control

TO: Commander  
32d Air Division (Defense)  
Syracuse Air Force Station  
Syracuse, New York

1. All air defense plans recognize the principle that the entire air defense capability is commanded at a single source and is centrally controlled for the integration of the overall plan and strategy. The degree to which the authority for the execution of air defense functions is decentralized to subordinate commands or agencies of the air defense system is dependent on the inherent limitations of the system.

2. The present air defense system has inherent limitations which require that control be decentralized to the lowest possible working level. An analysis of Exercise Check-Point, other training exercises, and ACW Squadron Commanders Commentaries on ADC-V8 Reports indicate the capabilities of the division control center are not adequate to cope with tactical situations which normally arise during exercises or periods of increased air traffic.

3. It is desired that air division (defense) commanders establish procedures for daily operation which meet the requirements of decentralized control and which will not require modification during air defense exercises or under combat conditions. Under decentralization, the actual scramble prerogative should remain with the ACW Squadron Commander, and the division commander should be primarily concerned with the sector tactical situation to insure sufficient forces are committed against hostiles to provide a reasonable probability of destruction of all the attacking force.

4. Air division commanders will provide ACW Squadron Commanders with adequate operational procedures and policy guidance for their utilization in the event of a loss of communications. This will provide for continued air defense operations when normal communications are denied air defense commanders.

5. This operational concept will not restrict air division defense commanders from exercising command prerogatives such as making decisions

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EAOOT-OW Subject: (Unclassified) Decentralization of Control (Contd)

or modifying the ADDC mode of operation to more effectively cope with the tactical situation. It will, however, provide an acceptable means of overcoming most of the limitations of the current system. EADF War Capabilities Plan 3-54, currently being written, will include these concepts in Annex A, Concept of Operations.

6. This correspondence is classified SECRET in accordance with paragraph 23c, AFR 205-1.

BY ORDER OF THE COMMANDER:

JAMES R. WORLINE  
Captain, USAF  
Asst Adjutant

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HEADQUARTERS  
32D AIR DIVISION (DEFENSE)  
Syracuse Air Force Station  
Syracuse 6, New York

OIN

16 Dec 1954

SUBJECT: CONAD IE, Annex G

TO: Commander  
Eastern Air Defense Force  
ATTN: Deputy of Intelligence  
Stewart Air Force Base  
Newburgh, New York

1. Accepted basic combat force for active air defense is the fighter-interceptor squadron and associated AC&W squadron. It is conceivable that these forces could be isolated due to the failure of communications during an emergency, forcing them to defend only their sectors of responsibility. They may not be able to intercept each track penetrating their sectors during periods of saturation; command decisions will have to be made as to most efficient utilization of fighter-interceptor aircraft. Information contained in CONAD IE, Annex G, would be vital in making proper decisions under such circumstances.

2. Request a secret version of subject covered in CONAD IE, Annex G, be provided to permit dissemination to subordinate commanders. The consensus of subordinate commanders who attended a conference at this headquarters last week is that this is an urgent need.

FOR THE COMMANDER:

EVERITT W. HOWE  
Major, USAF  
Adjutant

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Hq 32d Air Div (Def) OIN Subject: CONAD IE, Annex G

EAOOT-OW (16 Dec 54) 1st Ind 30 Dec 1954

HQ EASTERN AIR DEFENSE FORCE, Stewart Air Force Base, Newburgh, NY

TO: Commander, 32d Air Division (Defense), Syracuse Air Force Station, Syracuse 6, New York

1. A secret version of Annex G to CONAD IE cannot be formulated and still retain its value as a priority index. This information in the possession of subsector commanders would not materially aid in conducting an air battle for the following reasons:

a. It is improbable that the exact target of a hostile track could be determined prior to the time that the Initial Point is reached. It may appear that the track is headed for a major target area but it may change direction and strike any of a number of targets within 50 to 100 miles of the presumed target.

b. A number of subsectors may be penetrated by the same tracks. Decisions made by the various squadron commanders may direct all available defense forces on only one track due to its apparent target, allowing other tracks to pass unmolested to their destination. Unmolested tracks may actually be directed toward a target of higher priority than the intercepted track.

c. A track may appear to be heading for an inconsequential target in a certain subsector but in reality may be passing through this subsector to a very high priority target in an adjacent or more distant subsector.

2. Interception of all penetration tracks is imperative, and if not possible, the decision as to which track to take action against must be based on sound judgment and common sense combined with a thorough knowledge of prospective targets in the subsector.

3. This is classified Secret in accordance with paragraph 23c, AFR 205-1.

BY ORDER OF THE COMMANDER:

BEN D. MOORHEAD  
1st Lt., USAF  
Asst Adjutant

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PREPARED BY  
OFFICE OF THE COMPTROLLER  
FOR DEPUTY OF OPERATIONS  
32D AIR DIVISION (DEFENSE)

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## 32d AIR DIVISION (DEF)

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## SUMMARY OF AIR DEFENSE OPERATIONS FOR 1 AUG-31 AUG '54

	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80	32d
1. PENETRATION TRACKS	339	1230	1301	N/A	192	18	1983	852	588
2. WORKLOAD TRACKS	1436	1422	316	N/A	275	1178	2439	2181	924
3 GOC TRACKS									
a. TRACKS RECEIVED	662	986	621	407	125	595	4771	N/A	816
b. TRACKS CORRELATED	557	785	580	84	91	328	3969	N/A	639
4. NUMBER OF UNKNOWN TRKS	46	29	27	6	3	18	22	15	16
5. SCR ACTION INITIATED	33	20	25	2	2	16	14	13	12
6. NO SCR ACTION INITIATED	13	9	2	4	1	2	8	2	4
7. NUMBER OF INTERCEPT	23	12	11	2	0	8	9	9	7
8. NUMBER OF MISSED INTCP	1	0	7	0	1	4	0	0	1
9. IDENT PRIOR TO INTERCEPT	9	8	7	0	1	4	5	4	3
10. IDENT AFTER MISSED INTCP	0	0	1	0	0	0	0	0	1
11. IDENT W/O SCR INITIATED	13	8	2	3	0	1	6	1	3
12. REMAINED UNKNOWN	1	1	6	1	2	5	2	1	1
13. INTERCEPT EFFECT %	70	60	44	100	0	50	64	69	5
14. IDENT EFFECT %	98	97	85	83	33	72	91	93	85
15. * TRUE INTCP EFFECT %	96	100	61	100	0	67	100	100	85
16. FLIGHT PLANS RECEIVED	327	2761	1456	N/A	557	N/A	1973	892	796
17. FLT. PLANS CORRELATED	310	2423	1322	0	467	0	1862	841	722
18. CORRELATION %	95	91	91	0	84	0	94	94	91

## REMARKS:

\* Intercept Figure Preceded By Asterick is Determined By Intercepts  
Divided By Total Of Scramble Less Identification Prior To Intercepts

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32d AIR DIVISION (DEF)  
SUMMARY OF AIR DEFENSE OPERATIONS FOR 1AUG-31 AUG '54

18	REASON FOR NO SCRAMBLE ACTION	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80	32AD
	a. WEATHER (WX)	1	0	0	0	0	0	1	0	2
	b. OUT OF INTERCEPT RANGE (OR)	0	0	0	0	0	0	0	0	0
	c. NO AIEQPDFTR IN SUITABLE LOCATION (NAIF)	0	0	0	0	0	0	0	0	0
	d. CONSERVATION OF AIRCRAFT (CA)	3	3	2	4	1	1	2	3	19
	e. NO SCRAMBLE MULTIPLE CORRIDOR IDENT STM	9	5	0	0	0	0	5	0	19
19.	REASON FOR MISSED INTERCEPTS									
	a. WEATHER (WX)	0	0	3	0	1	1	0	0	5
	b. LATE SCRAMBLE (LS)	0	0	0	0	0	0	0	0	0
	c. AIRBORNE EQUIPMENT FAILURE (AEF)	0	0	0	0	0	0	0	0	0
	d. DARKNESS (DK)	0	0	0	0	0	0	0	0	0
	e. ELECTRONICS COUNTERMEASURES (ECM)	0	0	0	0	0	0	0	0	0
	f. ABORT (ABT)	0	0	0	0	0	0	0	0	0
	g. CONTROLLER ERROR (CE)	1	0	0	0	0	0	0	0	1
	h. GROUND EQUIPMENT FAILURE (GEF)	0	0	0	0	0	0	0	0	0
	i. AIRCRAFT PERFORMANCE (ACP)	0	0	0	0	0	0	0	0	0
	j. FADE PRIOR TO INTERCEPT (FPI)	0	0	4	0	0	3	0	0	7
	k. PASSED TO 26th. AD (DEF)	0	0	0	0	0	0	0	0	0

REMARKS:

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32d AIR DIVISION FLIGHT PLAN CORRELATION  
1 AUG - 31 AUG, 1954

	P-10	P-13	P-14	P-21	P-49	P-50	P-65	P-80	32dAD
FLIGHT PLANS RECEIVED	327	2761	1456	N/A	557	N/A	1973	892	7966
FLIGHT PLANS CORRELATED	310	2423	1322	0	467	0	1862	841	7225
FLIGHT PLANS NOT CORRELATED	17	338	134	0	90	0	111	51	741
REASONS FOR NON CORRELATION (Mechanical Limitations)									
1. SCHEDULED MAINTENANCE	6	105	36	0	55	0	35	9	246
2. EMERGENCY MAINTENANCE	10	3	7	0	3	0	2	5	30
3. OUT OF CALIBRATION LIMITS	0	88	35	0	14	0	1	10	148
5. GROUND CLUTTER	1	17	1	0	9	0	3	1	32
9. OTHER *	0	31	42	0	3	0	31	20	127
TOTAL	17	244	121	0	84	0	72	45	583
(Other than Mechanical Limitations)									
4. WEATHER	0	92	9	0	3	0	5	4	113
6. LATE FLIGHT PLAN	0	1	3	0	1	0	0	1	6
7. DEVIATED FLIGHT PLAN	0	1	1	0	2	0	7	1	12
8. PERSONNEL ERROR	0	0	0	0	0	0	27	0	27
TOTAL	0	94	13	0	6	0	39	6	158
GRAND TOTAL	17	338	134	0	90	0	111	51	741

\* Most Common Reason For No. 9

Small Reflecting Surface

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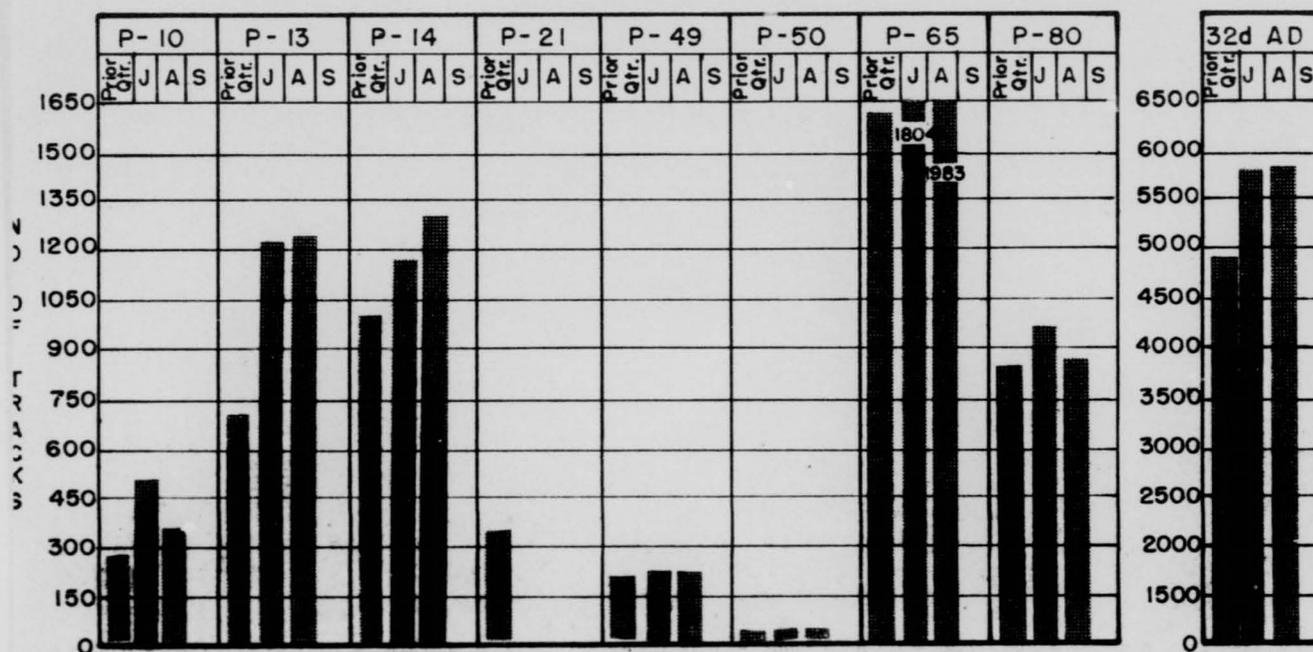
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32d AIR DIVISION (DEF)

TOTAL TRACKS REQUIRING IDENTIFICATION



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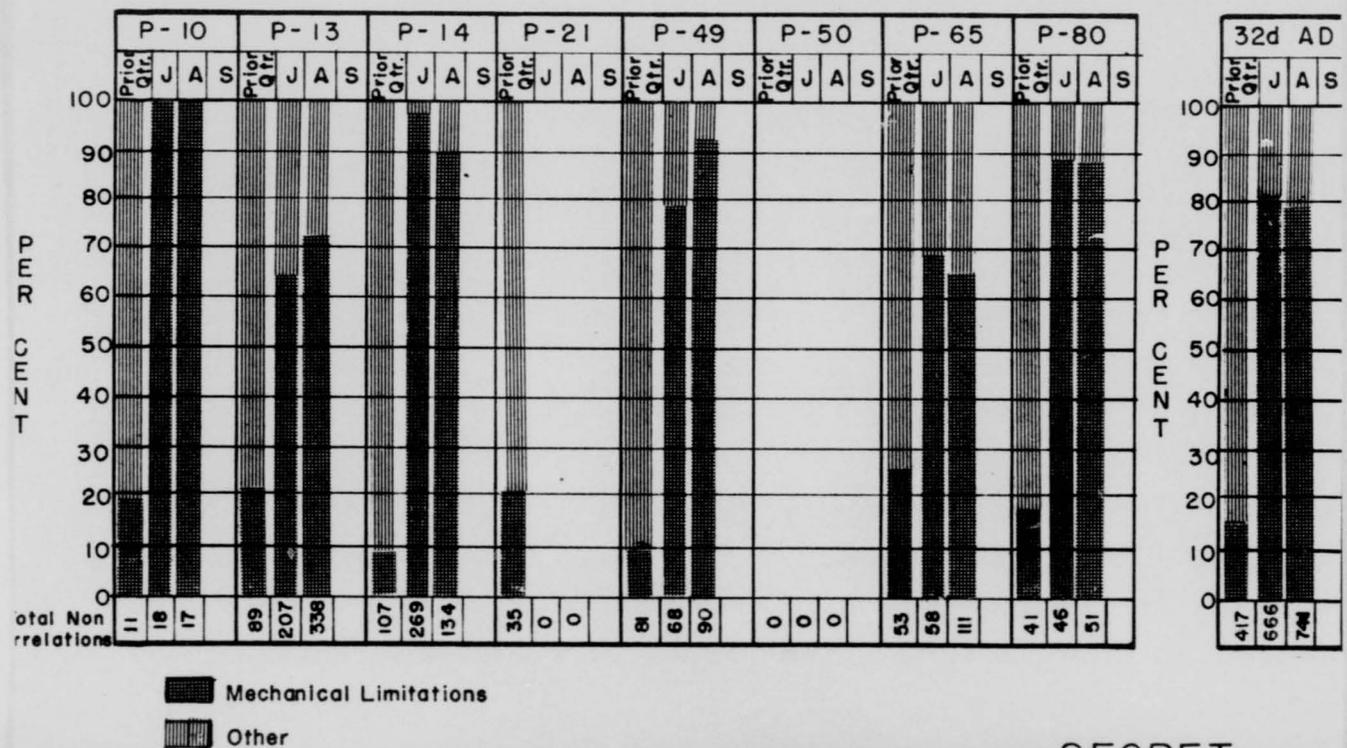
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32d AIR DIVISION (DEF)

NON-CORRELATIONS



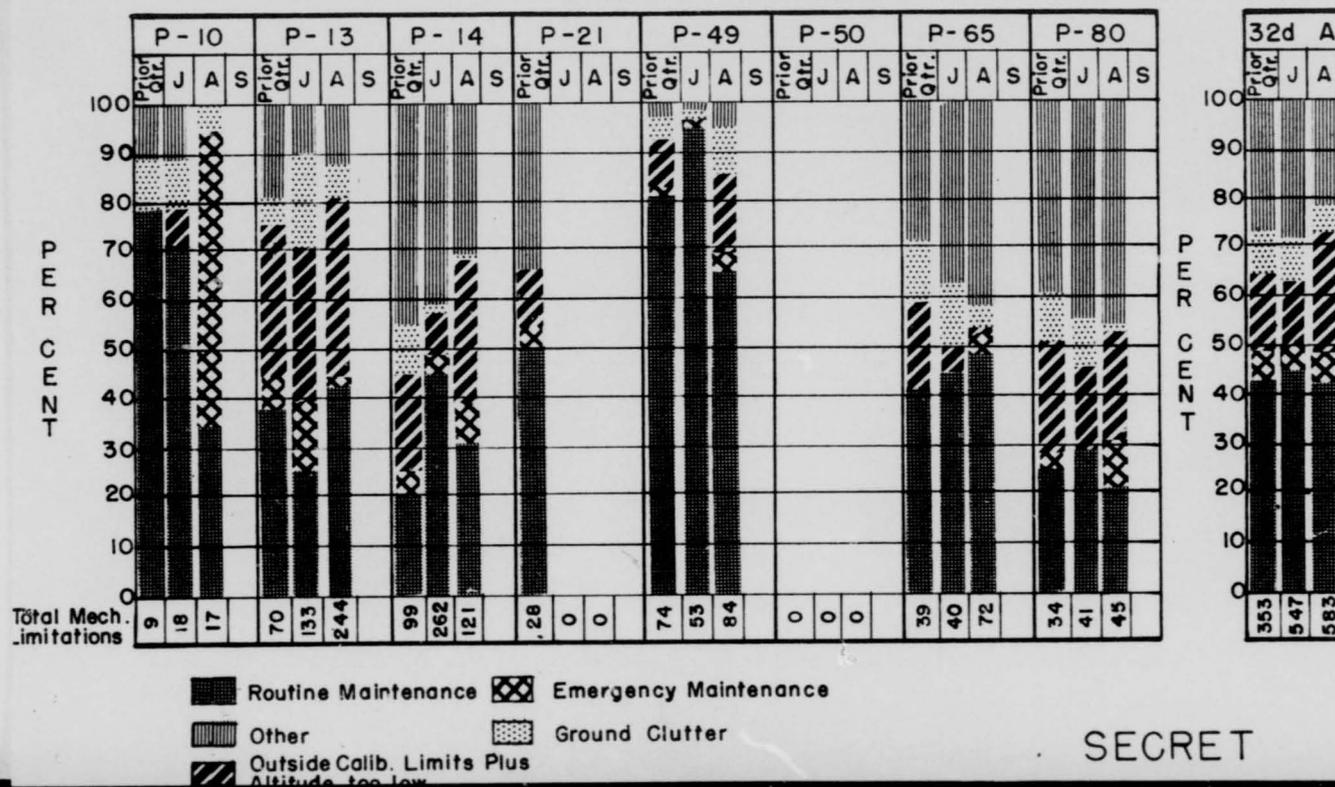
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32d AIR DIVISION (DEF)

**NON-CORRELATIONS**

(Mechanical Limitations)



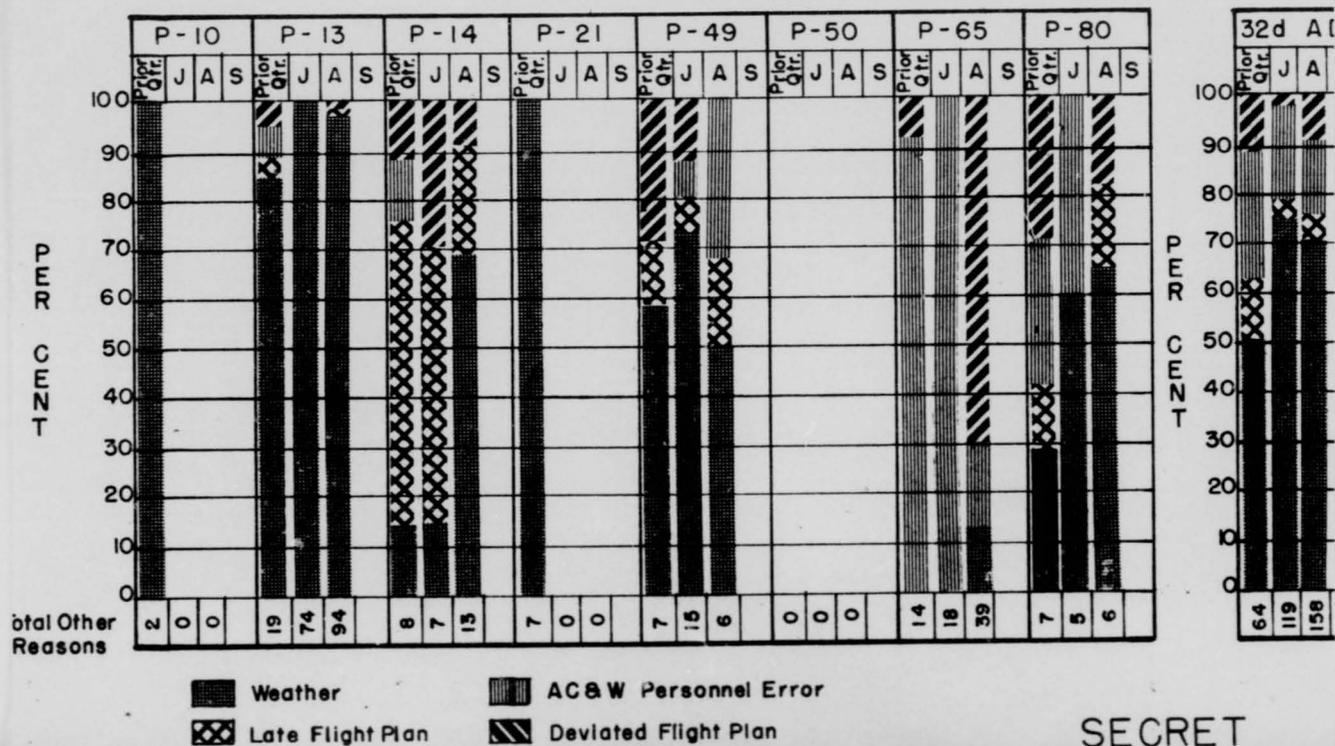
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32d AIR DIVISION (DEF)

**NON-CORRELATIONS**  
(Other Reasons)

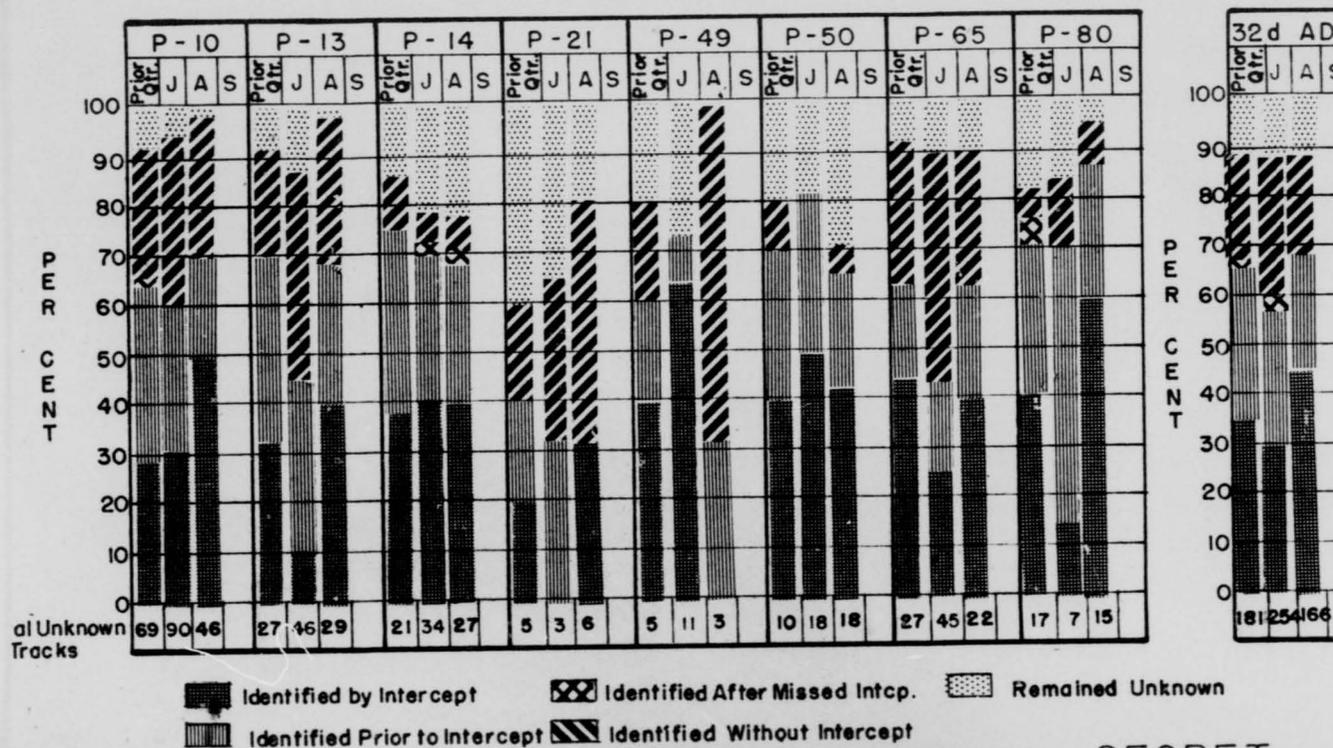


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32d AIR DIVISION (DEF)

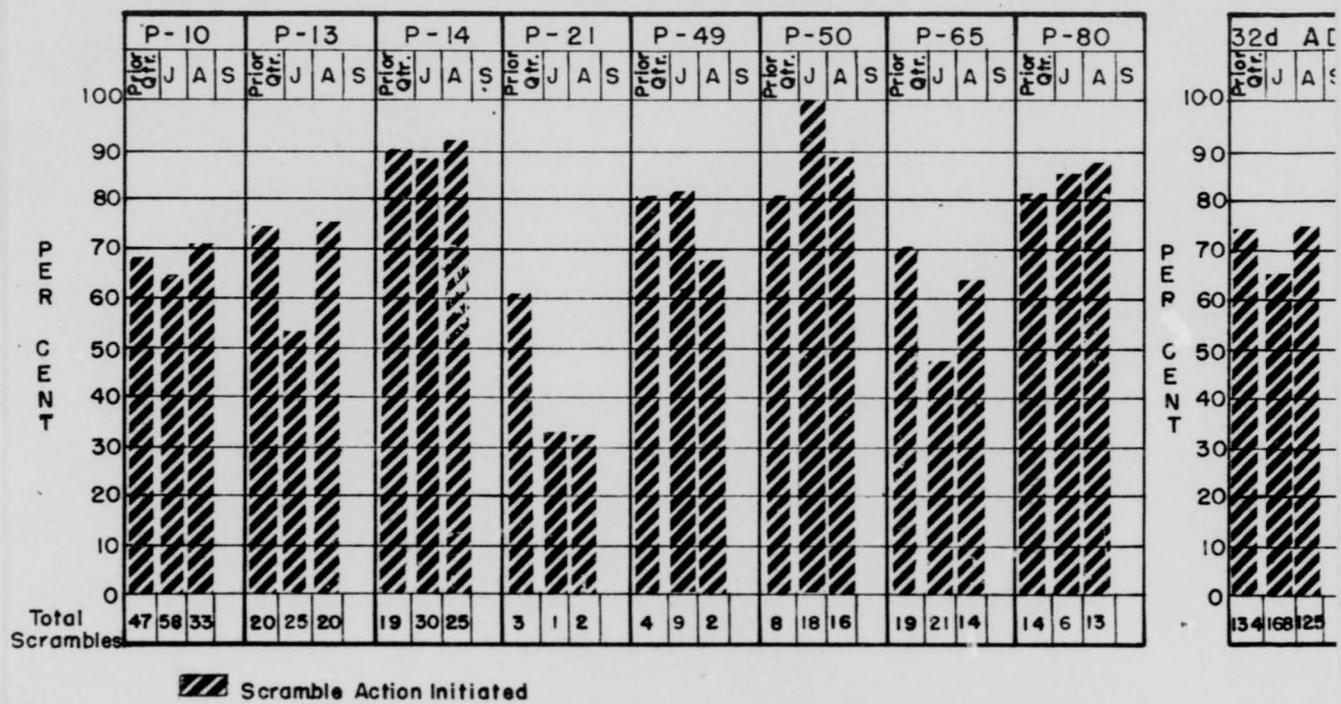
IDENTIFICATION EFFECTIVENESS



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32d AIR DIVISION (DEF)  
SCRAMBLE ACTION



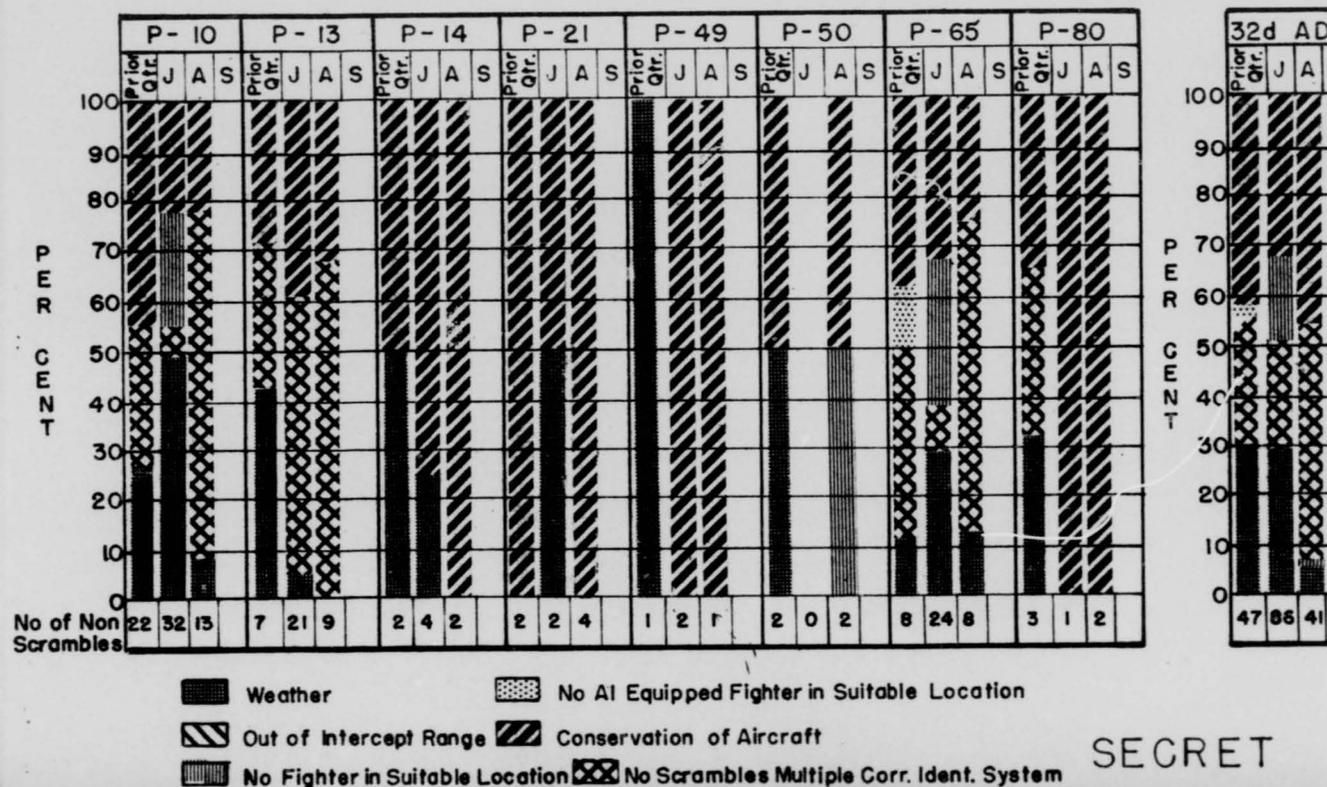
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32d AIR DIVISION (DEF)

REASONS FOR NO SCRAMBLE



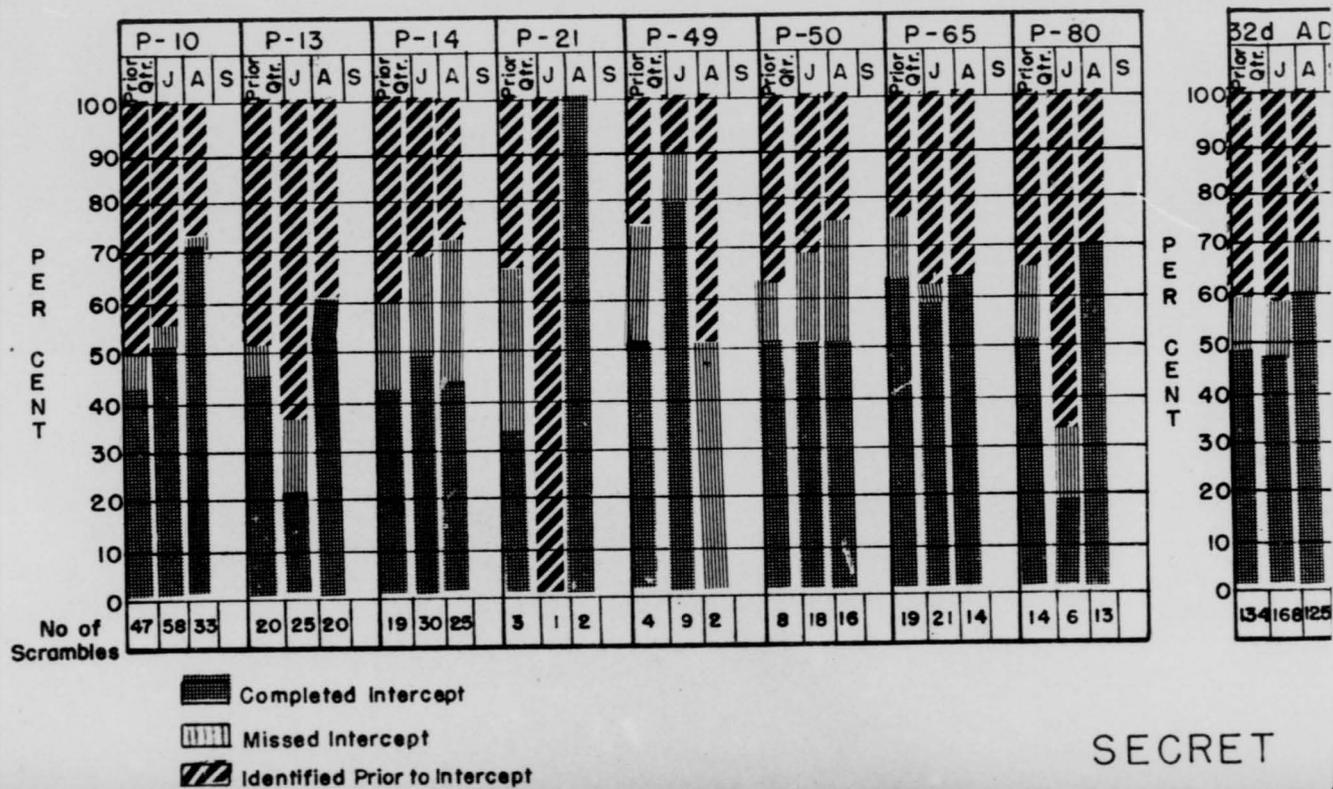
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32d AIR DIVISION (DEF)

INTERCEPT EFFICIENCY



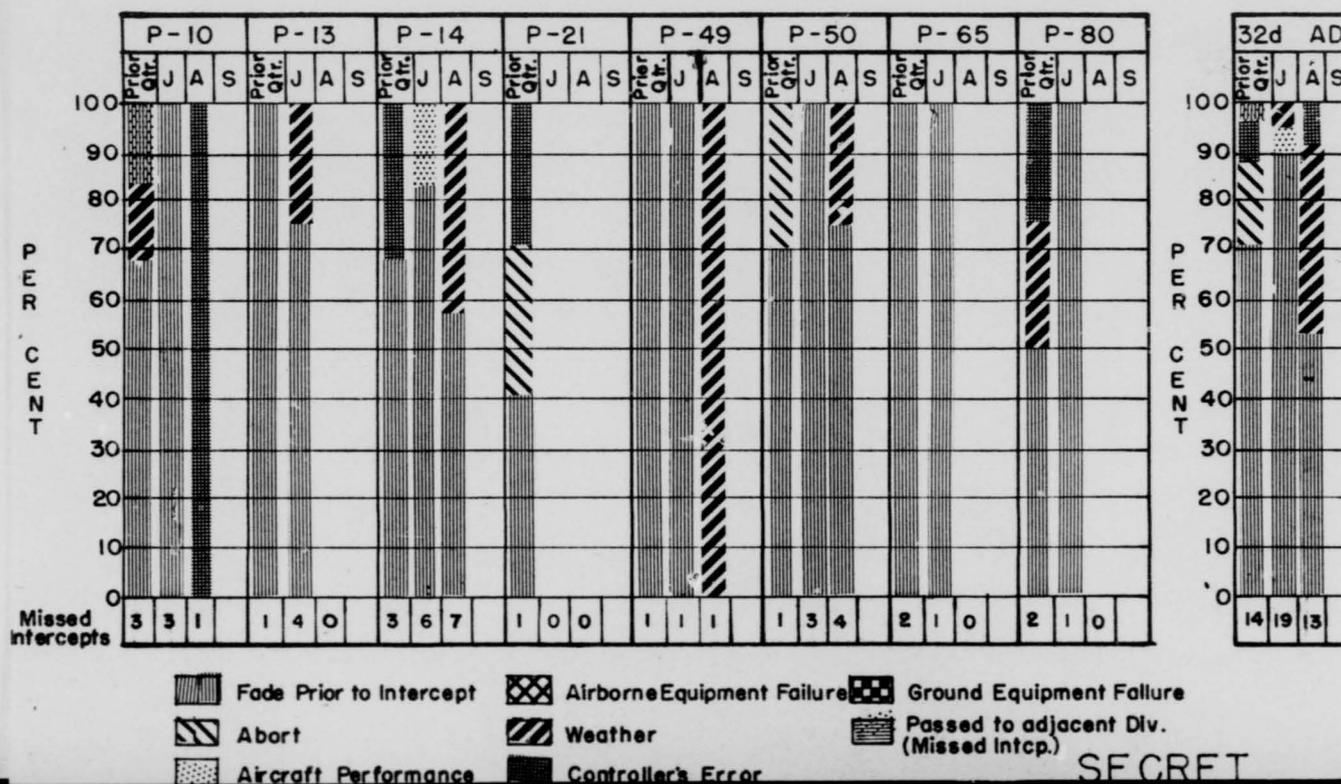
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32d AIR DIVISION (DEF)

REASONS FOR MISSED INTERCEPTS



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ESF	1
EAAC Attn; Opns Analysis	1
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CO 4707th Def Wg	1
CO 4711th Def Wg	1
CO 517th Air Def Gp	1
CO 518th Air Def Gp	1
CO 528th Air Def Gp	1
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CO 654th AC&W Sq	1
CO 655th AC&W Sq	1
CO 656th AC&W Sq	1
CO 762d AC&W Sq	1
CO 763rd AC&W Sq	1
CO 764th AC&W Sq	1
CO 765th AC&W Sq	1
CO 766th AC&W Sq	1
CO 27th FIS	1
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