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**Continental  
Air Defense Command**

**HISTORICAL  
SUMMARY**

**JULY 1956 - JUNE 1957**

SUPPORTING DOCUMENTS  
VOLUME ONE  
DOCUMENTS 1 THROUGH 73

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COOPR

SUBJECT: Study on COMAD Organization

TO: Commanding General  
Army Antiaircraft Command  
Joint Air Force Base  
Colorado Springs, Colorado

IDENTICAL LETTER TO  
COMNAVFORCOMAD

1. The CINCOMAD has directed that a joint study be initiated of the existing COMAD organization. The purpose of this study is to re-examine the basic COMAD organizational structure with a view to improving staff efficiency and overall command and operational effectiveness.
2. Specifically, this study will be devoted to a consideration of the following subjects:
  - a. The feasibility of a separate COMAD and ADC staff.
  - b. Organization of a COMAD staff that will enable CINCOMAD to fulfill his responsibilities for the development of policy, plans and requirements on a broad basis and to provide necessary operational guidance.
  - c. The appointment of a separate ADC Commander.
  - d. The establishment of a separate joint headquarters and staff at the Joint Air Defense Force level. This should include a consideration of locating the headquarters of the component commands at the site of the Joint Air Defense Force headquarters.
  - e. The relocation of the AADC's, Filter Centers and GOC posts and their communication facilities away from target areas in which they are now located.
3. A Working Committee and Ad Hoc Study Group composed of representatives from the three component commands and COMAD will be appointed to undertake this study. Headquarters COMAD and each component Commander will nominate one senior officer for appointment to

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Headquarters Continental Air Defense Command Subject: Study on  
COMAD Organization

the Steering Committee. In addition, the component Commanders and  
COMAD will each designate one officer as representative to compose  
the Ad Hoc Study Group. The COMAD representative of each group will  
be designated as the chairman.

4. It is requested that the names of the officers selected to  
represent your Command on the above mentioned Committee and Group be  
submitted by memorandum hereto. The first meeting of these two  
groups will be at the call of the chairman of the Steering Committee.  
The date of the first meeting will be announced in the near future.

L/C TE Tolson/rw

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DOCUMENT NUMBER TWO (2): CONAD, "Proposed Reorganization of Headquarters Continental Air Defense Command," 23 March 1956, previously furnished USAF Historical Division as DOCUMENT NUMBER FOUR (4), CONAD/ADC History, Jan-Jun 1956.

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ARMY ANTI-AIRCRAFT COMMAND  
OFFICE OF COMMANDING GENERAL  
Colorado Springs, Colorado



ADOMA 322

11 Apr 1956

SUBJECT: Proposed Reorganization of CONAD Headquarters

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

1. Reference is made to letter Headquarters CONAD, subject as above, dated 30 March 1956. My comments on the proposed reorganization of CONAD Headquarters are listed below.

2. A separate CONAD headquarters staff is considered most desirable, if not essential, for the proper functioning of CONAD. However, I disagree in three areas of the proposed reorganization: (1) the size and rank structure of the staff; (2) stemming from the first, the apparent intent to involve the CONAD staff in details which are properly component command responsibilities; and (3) the assignment of almost all of the key staff positions of responsibility to US-F officers. The ARAACCM and COMNAVFORCONAD representatives on the joint committee which studied the proposed reorganization presented the above disagreements throughout the Ad Hoc Committee efforts, but these objections were overruled by the Chairman.

3. There is no need for a large CONAD staff if the component commands are permitted to continue to carry out the functions envisioned by the JCS as stated in the Terms of Reference. Establishment of a large CONAD staff can only signify an intent to integrate the component commands and thereby to encroach on what I consider to be the proper functions of the component commanders. Because the proposed functions are written in general terms, it is not possible to determine exactly what functions in detail will be taken over at CONAD level and what functions will remain at the component command level. From the size of the proposed staff and the general tenor of the proposed staff functions, however, the inference is clear that the proposed CONAD staff will dip deeply into the functions at present performed by the component commands. A separate CONAD staff should have only the functions of establishing broad joint policies, conducting joint planning, and issuing mission-type directives to the component commands. To carry out these functions,

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SUBJECT: Proposed Reorganization of COMAD Headquarters.

no more than a total of approximately fifty officers should be required, with an accompanying comparable reduction in the proposed rank structure of the staff.

4. Despite my belief that a small COMAD staff is proper and adequate for the task, if a headquarters of the size recommended is approved, there must be adequate Army representation on the staff. JAAF (paragraph 3024h) prescribes that on a joint staff each service represented thereon will have members that occupy key positions of responsibility. The proposed staff resembles more closely that of a JCS Specified Command rather than a joint staff. Since CINCOMAD himself and all three Deputy Chiefs of Staff are USAF officers, it is considered essential that at least a few of the directors be Army officers, particularly in view of the major contribution that ARACOM is making in the CONUS air defense effort. Furthermore, if USAF officers occupy all or nearly all key positions, in obvious violation of the principles set forth in JAAF, it becomes obvious that the COMAD staff is "joint" in name only and is nothing more than a continuation of the present "ADC-COMAD" staff with the same deficiencies. The two directorates which are considered to be the most important are Plans and Requirements, and Operations. The director of at least one of these should be an Army officer, and Chart No. 5 should be changed to so indicate.

5. My specific comments on the proposed reorganization of Headquarters COMAD are set forth in an inclosure. The staff sections and charts are considered in the same order in which they appear in the proposed reorganization plan. Where no comment is made I concur, except as indicated in the foregoing. Recommended changes have been shown by striking through those words which should be deleted and by underlining added words.

*S. R. Mickelsen*

1 Incl:  
Specific Comments on The  
Proposed Reorg of COMAD  
HQ (dupe)

S. R. MICKELSEN  
Lieutenant General, USA  
Commanding

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SPECIFIC COMMENTS ON THE PROPOSED REORGANIZATION OF COMAD HEADQUARTERS

CHIEF OF STAFF

It is noted that the functions to be performed by the Chief of Staff are not listed. These functions should be indicated and should be in accordance with paragraph 30304 a of JAAF.

OFFICE OF INFORMATION SERVICES

Para 1. Coordinates essential information activities of the component services as required for joint operations.

REASON: To remove any inference that the inter-agency information activities of the component services are the concern of CINCOMAD.

DCS/PLANS AND OPERATIONS

Let para (Un-numbered). The DCS/P&O assists the CINCOMAD in the discharge of his responsibility for the overall conduct of operations and the development of joint plans and requirements for continental U.S. air defense. Specifically, this includes:

REASON: To conform to the Terms of Reference.

Para 2. In accordance with JCS approved plans, develops missions and tasks and policy guidance for component commanders upon which their detailed planning as to forces and their deployments can be based.

REASON: To conform to the Terms of Reference.

Para 3. In coordination with the component commanders, prepares and promulgates emergency and long range plans for the defense of the continental United States against air attack and coordinates these plans with other agencies.

REASON: To insure that the views of the component commanders are considered in the preparation of these plans. The Commanding General, AUSAOCN remains responsible, as service component commander, for tactical employment of the forces of his component (JAAF, para 30251) and for keeping CINCOMAD informed on tactics, techniques, and equipment to be employed by Army SA forces in support of the mission assigned CINCOMAD.

Para 4. In coordination with the component commanders, establishes and justifies immediate and long range quantitative and qualitative requirements for air defense weapons, weapons systems, and joint procedures.

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REASON: Same as preceding reason. In addition, the development of weapons is considered to be the appropriate responsibility of each individual service. 3

Para 5. In coordination with the component commanders, determines long range employment and deployment of forces and weapons.

REASON: Same as preceding reason.

Para 7. Exercises operational control, as defined in the Terms of Reference, for CINCONAD over all forces assigned or otherwise made available.

REASON: To be consistent with the Terms of Reference.

Para 17. In coordination with component commanders, participates in combined air defense planning with RCAF-ADC; represents CONAD in combined Canada-U.S. air defense planning meetings as directed.

REASON: To insure that the views of the component commanders are included in such combined planning.

#### DIRECTOR OF OPERATIONS

Para 1. Delete, and substitute the following:

Exercise operational control, as defined in the Terms of Reference, for CINCONAD over all forces assigned or otherwise made available, to include the JCC.

REASON: To be consistent with the Terms of Reference.

Para 3. Plans for, coordinates, and monitors conduct of joint air defense exercises.

REASON: Correctness.

Para 4. In consonance with JCC approved plans, develops missions and tasks and policy guidance for component commanders upon which their detailed planning as to forces and their deployments can be based.

REASON: To be consistent with the Terms of Reference.

Para 7. Reviews joint procedures and methods of operation issued by subordinates joint commanders and observes operations as necessary to insure compliance with CINCONAD directives.

REASON: To be consistent with the Terms of Reference.

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DIRECTOR OF PLANS AND REQUIREMENTS

Para 1. In coordination with component commanders, develops broad air defense concepts.

REASON: To insure that the views of the component commanders are considered in the development of such concepts. The Commanding General ARACOM remains responsible, as service component commander, for tactical employment of the forces of his component (JAAF, para 30251) and for keeping CINCOMAD informed on tactics, techniques, and equipment to be employed by Army AA forces in support of the mission assigned CINCOMAD.

Para 2. In coordination with component commanders, prepares overall CONAD deployment plans.

REASON: Same as preceding reason.

Para 3. In coordination with component commanders, in conjunction with RCAF-ADC, develops combined Canadian-United States plans for mutual air defense and submits to higher authority for approval.

REASON: To insure that the views of the component commanders are considered in such plans.

Para 4. Prepares, coordinates with component commanders, and submits to JCS for approval, a long range force composition and objectives plan in which long range air defense requirements are qualitatively and quantitatively established in consideration of the probable air threat.

REASON: Same as reason under preceding para 1 & 2.

Para 5. In coordination with component commanders, develops future quantitative and qualitative requirements for all air defense weapons and systems in light of the estimated threat of potential enemy air forces.

REASON: Same as preceding reason. In addition, the development of weapons is considered to be the appropriate responsibility of each individual service.

DIRECTOR OF OPERATIONS ANALYSIS

Un-numbered paragraph. Provides the CINCOMAD with information obtained from systems analyses and evaluations of continental air defense operations. Acts as an operations research team to conduct scientific investigations to determine and improve the overall effectiveness of the air defense system in being. Presents findings and makes specific recommendations in coordination with component commanders on such matters as strategy, tactics, operational techniques and deployment.

REASON: To insure that the views of the component commanders are considered in evaluating such recommendations. Tactics and operational

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techniques are considered to be the responsibility of the separate components.

DIRECTOR OF PLANS & ANALYSIS

Re-numbered para. 2a. Analyzes, by war-gaming techniques, planned and programmed continental air defense systems and component parts.

REASON: The analysis of component parts is considered to be properly the responsibility of the individual service components.

DCS/COMMUNICATIONS AND ELECTRONICS

Para 1. In coordination with component commanders, provides Commander in Chief, his staff, Component commanders and subordinate joint commands with policy guidance as pertains to the planning and operations of all Communications and Electronics activities that affect the air defense of the continental United States.

REASON: To insure that the views of the component commanders are considered in developing such policy guidance.

Para 2. Effects appropriate coordination of Communications and Electronics matters with the Chairman of the Joint Communications-Electronics Committee, Joint Chiefs of Staff; Chief Signal Officer, Department of the Army; Director of Communications and Electronics, Headquarters USAF; Chief, Naval Operations; and other Government agencies as required.

REASON: Coordination with each service headquarters should be effected by the appropriate component.

Para 3. Delete.

REASON: The matter of the appropriate level at which the RAIDS Group will function is understood to be still under discussion at Departmental level. It is noted that the RAIDS Group has been omitted from Chart No. 4.

DIRECTOR OF COMMUNICATIONS & ELECTRONICS, PLANS & POLICIES

Para 1. Coordinates and correlates overall Continental Air Defense Command Communications and Electronics planning, requirements, and programs.

REASON: The term "correlate" is believed to be subject to misinterpretation. The term "coordinate" is considered appropriate and sufficient.

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Para 4. Reviews and correlates ~~coordinates~~ Communications and Electronics missions and programs.

REASON: Same as reason under para 1.

Para 5. In coordination with component commanders, formulates policies concerning Electronic warfare activities.

REASON: To insure that the views of the component commanders are considered in the formulation of such policies.

Para 6. Coordinates Communications and Electronic policies with the ~~Department-of-the-Army, -Department-of-the-Navy,~~ Joint Communications-Electronics Committee and the Joint Chiefs of Staff.

REASON: Coordination with each service headquarters should be effected by the appropriate component.

Para 7. In coordination with component commanders, develops policy on all Electronics activities in the Continental Air Defense Command with Government and/or civilian agencies as required.

REASON: Same as reason under para 5 above.

DIRECTOR OF COMMUNICATIONS AND ELECTRONICS, OPERATIONS

Para 1. Reviews and correlates ~~coordinates~~ all Communications and Electronics operational plans to insure combined effectiveness of the ground environment systems.

REASON: Same as reason under para 1 above.

Para 2. Coordinates ~~and correlates~~ Electronic Countermeasures (ECM) and Electronic Counter Countermeasures (ECCM) operations, and procedures.

REASON: Same as reason under para 1 above.

Para 3. The meaning of this paragraph is not understood. Request that it be clarified.

CHART NO. 1

Change chart to show that CG, ARACOM is the principle adviser to CINCOMNAV on Army matters pertaining to COMNAV.

REASON: Completeness and to conform to the Terms of Reference.

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Change chart to show that officer in office of the 270's will be an Army officer.

REASON: To conform to the structure of a joint staff, as specified by JCS (para 301.2).

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COMMANDER, NAVAL FORCES  
CONTINENTAL AIR DEFENSE COMMAND  
7777 AIR FORCE BASE  
COLORADO SPRINGS, COLORADO

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From: Commander Naval Forces, Continental Air Defense Command  
To: Commander in Chief, Continental Air Defense Command

Subj: Proposed Reorganization of CONAD Headquarters

Ref: (a) CINCONAD letter, same subject, dated 30 March 1956

1. Reference (a) forwarded the Proposed Reorganization of CONAD Headquarters developed by a Joint Study Group and requested that comments be submitted thereon by 11 April 1956.

2. In response to the referenced letter, the following comments and recommendations are submitted:

a. In the presentations of the Joint Study Group, one of the proposals was the separation of CINCONAD and Commander, Air Defense Command and the establishment of two distinct commands with headquarters and staffs, physically as well as functionally separated. This is not clearly stated in the present paper.

b. Change last line of first sentence page 1 to read: "the JCS Terms of Reference and Mission".

c. Page 2, paragraph 1a. Wording suggests that unimportant correspondence is either handled by another organization or is ignored.

d. Page 4, paragraph 1. CINCONAD submits plans to the JCS for approval. Recommend placing a period after word "attack" and deleting words "and submits to the JCS for approval". Alternate recommendation: Change to read "for submission to the JCS for approval".

e. Page 4, paragraph 3. CINCONAD promulgates plans after approval by the JCS. Also it appears to be desirable to be more specific in designating the other agencies for coordination. Recommendations: Delete words "and promulgates" in first line. Change last line to read "coordinates these plans with appropriate U.S. and Allied commanders".

f. Page 4, paragraphs 4 and 5. Present wording of these paragraphs imply that these are unilateral CONAD functions. Recommend that both paragraphs be preceded by phrase "In coordination with commanders concerned".

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g. Page 4, paragraph 14. Delete words "and submits" and substitute words "for submission".

h. Page 6, paragraph 4, at top of page. It is believed that this function more properly belongs to Plans and Requirements than to Operations.

i. Add a new paragraph under Director of Operations, as paragraph 9. "Insure that doctrines, procedures and methods of operation are in accordance with approved JCS joint doctrines and procedures and that interim directives promulgated by CINCONAD are formulated in consonance with existing inter-service and inter-command agreements and decisions of the JCS. In coordination with commanders concerned, take necessary action to include these interim directives in future issues of JCS approved joint or allied publications."

j. Page 6, Director of Plans and Requirements. Delete all references concerning submission of plans in paragraphs 3 and 4 and published in paragraph 6. CINCONAD submits and publishes plans.

k. Page 6, paragraph 7, second line. Delete words "and services". CINCONAD coordinates with "appropriate U. S. and Allied commanders". This is interpreted to mean other U.S. commanders on the same level, specifically the commanders of other commands established by the JCS. "Appropriate Allied commanders" is interpreted to mean Allied commanders at the approximate level of CINCONAD. COMNAVFORCONAD's interpretation of the JCS Terms of Reference and Mission for CONAD is that the component commander will coordinate with other commanders of their services.

l. Page 7, paragraph 2. Delete word "services" and substitute "commands". Reason: CONAD is composed of component commands not services.

m. Page 8, paragraph 5, top of page. Delete comma after "operations".

n. Page 8, paragraph 9, last line. Insert words "commands and" between "allied" and "agencies".

o. Page 8, paragraph 2, last line, bottom of page. Change word "operational" to "operations". Reason: The word "operational" is not understood as used in this connection and is not included in the Dictionary of United States Military Terms for Joint Usage.

p. Page 9, paragraph 3, middle of page. Change "operational" to "operations". Reason: Same as o, above.

q. Page 9, paragraph 4, middle of page. Insert words "commands and" between words "other" and "agencies".

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r. Page 9, paragraph 2, bottom of page. As written, this paragraph appears to ignore the established chain of command. Recommend deletion of entire paragraph and substitution of the following: "Coordinates communications and electronics matters with appropriate commanders and military and other governmental agencies as required."

s. Page 10, paragraph 3, top of page. Delete entire paragraph.  
Reason: Not appropriate at present time.

t. Page 10. General comment. The duties of the two staff sections appear to overlap and duplicate each other. Recommend that sections be combined and functions stated more clearly, especially in regard to commands with which C&E coordinates and correlates.

u. General comments on size of staff, pages 11 to 17 inclusive. As stated during the presentations by the Joint Study Group, the overall size of the staff is considered excessive to perform the functions set forth.

COC is considered to be a tool of CINCONAD and should be operated by ADC. The direction of operations in COC could be considered a function of CINCONAD and it is believed that three officers rather than 13 could perform this function.

By utilizing the existing ADC intelligence organization, it is believed that the CONAD intelligence functions could be performed by about six officers rather than the 31 proposed. Transfer of a large segment of the ADC intelligence organization to CONAD will result in considerable duplication of effort and facilities if ADC is to retain a reasonable intelligence capability. The proposed intelligence division is not in consonance with section 5 of JAAF.

The number of plans issued by CINCONAD is considered excessive. It is believed that a few basic plans to be approved by the JCS would meet most of the requirements of CINCONAD. These are a requirements plan, an operations plan, and two plans for Canada-U.S. and Mexico-U.S. The present planning schedule for CONAD contained in the Air Defense Plan 1-65 lists several other plans which it is believed should properly be annexes to the basic defense plan. The term "Operational Plan" is not understood and the numerous CONAD "operational" plans that have been prepared should either be given a different name or should be included in the current operations plan, the requirements plan, or in revisions thereto. In the interests of getting JCS approval, it would appear desirable to reduce the number of plans submitted to the JCS for approval. A realistic plans schedule should reduce the CONAD staff work load and reduce the numbers of the CONAD planning staff.

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By the Terms of Reference and Mission, CINCONAD is directed to coordinate with appropriate U.S. and Allied commanders on many matters of mutual interest. "Appropriate" is interpreted to mean U.S. commands established by the JCS and Allied commands of approximately the same level. The component commanders of CONAD are directed, in accordance with tasks and missions assigned by CINCONAD, to accomplish detailed planning, coordinated as necessary with other commanders of their Services. From this it appears that the JCS intended the component commanders' staffs to do most of the detailed work. By using the component staffs for the preparation of detailed plans, requirements and for coordination with other commanders of their Services, it is believed that the proposed number of officers for the CONAD staff could be reduced considerably. Also, the JCS stated that, due to the proximity of the headquarters of the component commands, the joint manning of the staff of the CINCONAD should be kept to a minimum. It appears that the JCS did not foresee a requirement of a separate joint staff of 118 officers.

3. A separate joint staff for CONAD headquarters is considered essential for CINCONAD to properly carry out his functions as contained in the Terms of Reference and Mission. The present staff arrangement has not been satisfactory. It is believed that its failure has been due largely to inability to separate clearly the functions of CINCONAD and the component commanders and to recognize established command channels.

4. COMNAVFORCONAD does not agree with the proposed staff in regard to total size, rank structure, assignment of key positions, or representation from the services concerned. It is estimated that about 30 to 40 officers could perform the CONAD staff functions, if the component commanders' staffs were used to the maximum extent. It is believed that the establishment of a large CONAD staff will lead to some of the same troubles that exist at present, namely, the CONAD staff performing functions that should belong to the component commanders.

5. A staff of reasonable size would not require the large number of officers at the rank of Colonel and above. The Navy is faced with a serious personnel shortage and it would be difficult to justify the numbers and ranks proposed.

6. Most key positions have been assigned to Air Force officers. This is not in accordance with JAAF and results in a staff which more resembles that of a specified command rather than a joint or unified command. This would tend to perpetuate one of the faults that exists today in that the Army and Navy components would be largely submerged in an Air Force dominated organization and the views of their services would receive little consideration except at the top command level.



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11 APR 1956

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7. It is believed that a more equal representation from the component services would provide a better staff for CINCOMAD.

*D. J. Sullivan*  
D. J. SULLIVAN  
Acting

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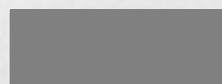
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DOCUMENT NUMBER FIVE: Msg., USAF to CINCONAD, AFOPD  
30247, 3 Jul 1956, previously furnished USAF Historical  
Division as DOCUMENT NUMBER SIX (6), CCNAD/ADC History,  
Jan-Jun 1956.

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HEADQUARTERS  
CONTINENTAL AIR DEFENSE COMMAND  
817 A.2. FORT BASE  
COLORADO SPRINGS, COLORADO

CCS  
Date  
CCS  
CCS  
1958

COMSEC

SMO Provided attachments

PROPOSED: Proposed Manning Document for Headquarters, CONAD

FILE NUMBER... 3

Executive Order for CONAD  
Headquarters, United States Air Force  
Washington 25, D. C.

The desire to separate Headquarters, CONAD  
from the command structure, in fulfillment of this desire, proposed  
provisions to the terms of reference were provided to you in April  
1958, as were the proposed manning document for the separate head-

The separation of the joint headquarters, are bearing  
in mind and approval, it is considered appropriate to provide  
with a proposed manning document for CONAD Headquarters. This  
manning was developed in conjunction with the three separate  
commands. An additional requirement for personnel will be  
generated by the realignment of responsibilities over the  
East and Alaska Commands.

It is requested that the additional manning  
requirements and personnel authorizations be granted  
for the proposed manning document. The additional data included in the  
document is for the proposed manning document.

E. P. [Name]  
General [Rank]  
Commander in Chief

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ORGANIZATION AND LOCATION		HEADQUARTERS, CONAD										REMARKS
FUNCTION CODE	TITLE	GRADE	AFSC	PROG	CAT	BUD PROJ NO.	AUTHORIZATIONS					
							TOTAL	MILITARY			CIVILIANS	
							TOTAL	T/O	NON	NATIVES		
	<u>COMMAND</u>											
01000	COMMANDER	CPT	0002	AF			1	1		1		
	AIDE	LTC	1116	AF			1	1		1		
	AIDE	MAJ	2030	A			1	1		1		
	PILOT TRANSPORT	CPT	1044B	AF			1	1		1		
	FOOD SVC SUPVSR	MSG	62270	AF			1	1		1		
92520	MOTOR TRANSP SUPVSR	MSG	60370	AF			1	1		1		
01000	STENOGRAPHIC TECH	CIV	70272				1					1
	STENOGRAPHIC SPECL	CIV	70252				1					1
	ED & TNG STAFF OFF (WAE)	CIV	7516				1					1
	TOT COMMAND						9	6		6		3
	<u>CHIEF OF STAFF</u>											
01000	CHIEF OF STAFF	MG	0002	A			1	1		1		
	ASST CHIEF OF STAFF	CPT	9105	N			1	1		1		
	ADMIN STAFF OFF	LTC	7016	AF			1	1		1		
	ADMIN SUPVSR	E7	71760	A			1	1		1		
92520	VEHICLE OPERATOR	S/G	60350	AF			1	1		1		
01000	STENOGRAPHIC TECH	CIV	70272				1					1
	STENOGRAPHIC SPECL	CIV	70252				1					1
	TOT CHIEF OF STAFF						7	5		5		2
	<u>SECRETARIAT</u>											
01000	ADMIN STAFF OFFICER	COL	7016	AF			1	1		1		
	ADMIN SUPVSR	MSG	70270	AF			1	1		1		
	STENOGRAPHIC SPECL	CIV	70252				1					1
	TOT O/SECRETARIAT						3	2		2		1
	<u>PROTOCOL (SECTR)</u>											
01000	ADMIN STAFF OFFICER	LTC	7016	AF			1	1		1		
	ADMIN OFFICER	MAJ	7024	AF			1	1		1		
	CLERK	SSG	70250	AF			1	1		1		
	CLERK	E4	71110	A			1	1		1		
	STENOGRAPHIC SPECL	CIV	70252				3					3
	TOT PROTOCCL						7	4		4		3
	<u>PRESENTATIONS (SECTR)</u>											
01000	ED & TNG STAFF OFFICER	MAJ	7516	AF			1	1		1		
	TOT PRESENTATIONS						1	1		1		
	<u>ADJUTANT (SECTR)</u>											
47000	ADJUTANT	LTC	7016	AF			1	1		1		
	ADMIN STAFF OFF	LCDR	2030	N			1	1		1		
	ADMIN OFFICER	MAJ	211	A			1	1		1		
	ADMIN SUPERVISOR	MSG	70270	AF			2	2		2		
	YEOMAN SUPERVISOR	YNC	2501	N			1	1		1		
	ADMIN SUPERVISOR	TTC	70270	AF			1	1		1		
	ADMIN SUPERVISOR	E7	71760	A			1	1		1		
	CLERK	S/G	70350	AF			5	5		5		
	CLERK	E5	71610	A			1	1		1		
	CLERK	E4	70250	AF			6	6		6		
	CLERK	E4	71110	A			1	1		1		
	CLERK	CIV	70250				1					1
	APFR CLERK	E3	71610	A			1	1		1		
	APFR CLERK	E3	70350	A			4	4		4		
	YEOMAN TYPIST	YNC	2502	N			1	1		1		
	STENOGRAPHIC SPECL	CIV	70252				1					1
	TOT ADJUTANT						29	27		27		2

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T/O NUMBER		COMMAND		SUBCOMMAND		DATE		MONTH		YEAR		REMARKS
ORGANIZATION AND LOCATION										Jul 1956		
HEADQUARTERS CONAD												
UNCTION CODE	TITLE	GRADE	NO.	CAT	SVC PROJ NO.	AUTHORIZATIONS						
						TOTAL	MILITARY			CIVILIANS		
						TOTAL	T/O	WON	NATIVES			
<u>INFO SERVICES</u>												
53000	DIRECTOR	COL	7216	AF		1	1		1			
	ASSISTANT	LTC	5401	A		1	1		1			
	INFO SVC STAFF OFF	CDR	2440	N		1	1		1			
	INFO SVC STAFF OFF	MAJ	7216	AF		2	2		2			
	INFO SVC OFF	MAJ	7224	AF		1	1		1			
	INFORMATION TECH	MSG	72170	AF		3	3		3			
	AFPI SPECL	JOL	3202	N		1	1		1			
	ADMIN SUPVSR	MSG	70270	AF		1	1		1			
	ADMIN SUPVSR	CIV	70270			1					1	
	INFORMATION TECH	E7	74160	A		1	1		1			
	CLEHK	SSG	70250	AF		1	1		1			
	CLEHK	ALC	70250	AF		1	1		1			
	INFO SVCS OFF	CIV	7224			2					2	
	HISTORICAL OFFICER	CIV	7234			2					2	
	STENOGRAPHIC SPECL	CIV	70252			3					3	
	TOT INFO SVCS					22	14		14		8	
<u>DCS/C&amp;E</u>												
45000	DEPUTY	BG	0002	AF		1	1		1			
	ASSISTANT	COL	0140	A		1	1		1			
	ADMIN SUPT	WO	70200	AF		1	1		1			
	ADMIN SUPVSR	MSG	70270	AF		1	1		1			
	CLEHK	E4	71110	A		1	1		1			
	STENOGRAPHIC TECH	CIV	70272			1					1	
	STENOGRAPHIC SPECL	CIV	70252			1					1	
	TOT O/DCS/C&E					7	5		5		2	
<u>DIR OF PLANS &amp; POLICIES</u>												
45000	DIRECTOR	COL	3016	AF		1	1		1			
	COMM STAFF OFFICER	LTC	3016	AF		2	2		2			
	COMM STAFF OFFICER	CDR	9580	N		1	1		1			
	ELECTRONICS ENGINEER	LTC	7601	A		1	1		1			
	ECM OFFICER	MAJ	3024	AF		1	1		1			
	ADMIN SUPVSR	TSG	70270	AF		1	1		1			
	STENOGRAPHIC SPECL	CIV	70252			1					1	
	TOT PLANS & POLICIES					8	7		7		1	
<u>DIR OF C&amp;E OPERATIONS</u>												
45000	DIRECTOR	COL	3016	AF		1	1		1			
	COMM STAFF OFFICER	LTC	3016	AF		2	2		2			
	ADMIN SUPVSR	TSG	70270	AF		1	1		1			
	STENOGRAPHIC SPECL	CIV	70252			1					1	
	TOT C&E OPERATIONS					5	4		4		1	
<u>DCS/INTELLIGENCE</u>												
29000	DEPUTY	BG	0002	AF		1	1		1			
	*ASSISTANT	CPI	7621	N		1	1		1			
	EXEC OFF	LTC	3016	AF		1	1		1			
	ADMIN SUPT	WO	70200	AF		1	1		1			
	ADMIN SUPVSR	MSG	70270	AF		1	1		1			
	ADMIN SUPVSR	TSG	70270	AF		1	1		1			
	YBDMAN TYPIST	YN2	858	N		1	1		1			
	CLEHK	CIV	70252			1					1	
	STENOGRAPHIC SPECL	CIV	70252			2					2	
	TOT O/DCS/I					10	7		7		3	

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PROPOSED										
UNIT MANNING DOCUMENT - PART II - AUTHORIZATION										
TO NUMBER		COMMAND		SUBCOMMAND		DATE				
						31 Jul 1956				
ORGANIZATION AND LOCATION										
HEADQUARTERS, CONAL										
FUNCTION CODE	TITLE	GRADE	ASAC	CAT	BUD PROJ NO.	AUTHORIZATIONS				REMARKS
						TOTAL	TOTAL	NO	NOX	
<u>DIR OF COLLECTION &amp; DISSEMINATION</u>										
29200	*DIRECTOR	COL	9301	A		1	1		1	
	INTELLIGENCE STAFF OFF	MAJ	2016	AF		2	2		2	
	INTELLIGENCE OFFICER	CPT	2054	AF		1	1		1	
	INTELLIGENCE OFFICER	CIV	2054			1				1
	INTELLIGENCE OFFICER	CPT	9301	A		1	1		1	
	INTELL OPERATIONS TECH	MSG	20470	AF		1	1		1	
	INTELL OPERATIONS TECH	TSG	20470	AF		2	2		2	
	INTELL OPERATIONS SPECL	SSG	20450	AF		1	1		1	
	ADMIN SUPVSR	E7	71760	A		1	1		1	
	ADMIN OFFICER	CIV	7024			2				2
	CLERK	CIV	70250			3				3
	STENOGRAPHIC SPECL		70250			2				2
	TOT DIR COLLECTION & DISSEMINATION					16	10		10	8
<u>DIR OF RES &amp; ESTIMATES</u>										
29200	*DIRECTOR	COL	7016	AF		1	1		1	
	INTELLIGENCE STAFF OFF	LTJ	7016	AF		3	3		3	
	INTELLIGENCE STAFF OFF	MAJ	2016	AF		3	3		3	
	INTELLIGENCE STAFF OFF	LCDR		N		1	1		1	
	INTELLIGENCE STAFF OFF	LTC	5730	A		1	1		1	
	INTELLIGENCE STAFF OFF	MAJ	9301	A		1	1		1	
	PHYSICIST	MAJ	8556	AF		1	1		1	
	INTELLIGENCE OFFICER	CPT	2054	AF		1	1		1	
	ADMIN SUPVSR	MSG	70270	AF		1	1		1	
	INTELL OPERATIONS TECH	TSG	20470	AF		2	2		2	
	TECHNICAL INTELL TECH		20570	AF		1	1		1	
	PHOTO INTERPRET TECH	MSG	20670	AF		1	1		1	
	PHOTO INTERPRET TECH	TSG	20670	AF		1	1		1	
	INTELL OPERATIONS SPECL	E5	96220	A		1	1		1	
	PHOTO INTERPRET TECH	SSG	20650	AF		1	1		1	
	COMM-ELECTR STAFF OFF	CIV	3016			1				1
	ARMAMENT STAFF OFF	CIV	3216			1				1
	CLERK	CIV	70250			1				1
	STENOGRAPHIC SPECL	CIV	70252			1				1
	TOT RES & ESTIMATES					24	20		20	4
<u>DIR OF OPERATIONAL INTELLIGENCE</u>										
29200	DIRECTOR	COL	2016	AF		1	1		1	
	INTELLIGENCE STAFF OFF	LTC	7016	AF		2	2		2	
	INTELLIGENCE STAFF OFF	MAJ	2016	AF		7	7		7	
	INTELLIGENCE STAFF OFF	CDR	9640	N		1	1		1	
	INTELLIGENCE STAFF OFF	MAJ	9301	A		1	1		1	
	INTELLIGENCE OFFICER	CPT	2054	AF		2	2		2	
	ADMIN SUPVSR	MSG	70270	AF		1	1		1	
	ADMIN SUPVSR	MSG	70270	AF		1	1		1	
	INTELL OPERATIONS TECH	MSG	20470	AF		1	1		1	
	INTELL OPERATIONS TECH	TSG	20470	AF		1	1		1	
	STENOGRAPHIC SPECL	CIV	70250			3				3
	TOT OPERATIONAL INTELL					21	18		18	3

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UNIT MANNING DOCUMENT - PART II - AUTHORIZATION											
T/O NUMBER		COMMAND		SUBCOMMAND		DATE					
						31 Jul Year 1956					
ORGANIZATION AND LOCATION											
HEADQUARTERS, CONAD											
FUNCTION CODE	TITLE	GRADE	AFSC	CAT	BUD PROJ NO.	AUTHORIZATIONS					REMARKS
						TOTAL	MILITARY			CIVILIANS NATIVES	
						TOTAL	T/O	NON			
27000	DCS/PLANS & OPERATIONS										
	DEPUTY ASSISTANT	MG	0002	AF		1	1	1			
	ASSISTANT	BG	0002	A		1	1	1			
	ADMIN SUPT	ADM	9086	N		1	1	1			
	ADMIN SUPVSR	WO	70200	AF		1	1	1			
	YEOMAN SUPVSR	E7	16370	A		1	1	1			
	CLERK	YNC	2501	N		1	1	1			
	STENOGRAPHIC TECH	AIC	70250	AF		1	1	1			
	STENOGRAPHIC SPECL	CIV	70272			1				1	
	TOT O of DCS/P&O					9	7	7		2	
27000	DIR OF PLANS & P&R										
	DIRECTOR	EG	0002	AF		1	1	1			
	PLANS & PROGRAMMING OFF	COL	2162	A		1	1	1			
	PLANS & PROGRAMMING OFF	CPT	9065	N		1	1	1			
	PLANS & PROGRAMMING OFF	COL	0076	AF		1	1	1			
	PLANS & PROGRAMMING OFF	LTC	0076	AF		1	1	1			
	STAFF OPERATIONS OFF	COL	1116	AF		1	1	1			
	STAFF OPERATIONS OFF	LTC	1116	AF		1	1	1			
	STAFF OPERATIONS OFF	MAJ	1116	AF		1	1	3			
	STAFF OPERATIONS OFF	CDR	9086	N		1	1	1			
	STAFF OPERATIONS OFF	LTC	2162	A		2	2	2			
	STAFF OPERATIONS OFF	LTC	52162	A		1	1	1			
	STAFF OPERATIONS OFF	MAJ	52162	A		1	1	1			
	ADMIN SUPT	WO	70200	AF		1	1	1			
	ADMIN SUPVSR	MSG	70270	AF		1	1	1			
	ADMIN SUPVSR	E7	16370	A		1	1	1			
	CLERK	ES	71110	A		1	1	1			
	YEOMAN TYPIST	YN2	2522	N		1	1	1			
	STENOGRAPHIC SPECL	CIV	70272			5				5	
	TOT DIR/P&R					25	19	20		5	
27000	DIR OF OPERATIONS										
	OPERATIONS STAFF OFF	COL	1116	AF		2	2	2			
	OPERATIONS STAFF OFF	LTC	1116	AF		1	1	1			
	OPERATIONS STAFF OFF	MAJ	1116	AF		3	3	3			
	OPERATIONS STAFF OFF	COL	2162	A		1	1	1			
	OPERATIONS STAFF OFF	LTC	2162	A		2	2	2			
	OPERATIONS STAFF OFF	MAJ	2162	A		1	1	1			
	GUIDED MISSILE OFF	MAJ	1116	A		1	1	1			
	OPERATIONS STAFF OFF	CDR	9086	N		1	1	1			
	OPERATIONS STAFF OFF	COL	9907	MC		1	1	1			
	AC CONTROL STAFF OFF	LTC	1116	AF		1	1	1			
	AC CONTROL STAFF OFF	MAJ	1116	AF		2	2	2			
	ADMIN SUPT			AF		1	1	1			
	ADMIN SUPVSR			AF		1	1	1			
	CLERK					1	1	1			
	YEOMAN TYPIST					1	1	1			
	STENOGRAPHIC SPECL					1	1	1			
	TOT DIR/OPS					25	19	20		5	

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TIC NUMBER		UNIT MANNING DOCUMENT - PART II - AUTHORIZATION						DATE		
ORGANIZATION AND LOCATION		COMMAND	SUBCOMMAND			1 Jul Year 1956				
HEADQUARTERS, CONAD										
FUNCTION CODE	TITLE	GRADE	AFSC	CAT	BUD PROJ NO.	AUTHORIZATIONS				REMARKS
						TOTAL	MILITARY			
						TOTAL	VO	NON		
	<u>DIR OF PLANS ANALYSIS</u>									
27000	OPERATIONS STAFF OFF	COL	1416	AF		1	1		1	
	OPERATIONS STAFF OFF	COL	2162	A		1	1		1	
	OPERATIONS STAFF OFF	MAJ	2162	A		1	1		1	
	OPERATIONS STAFF OFF	LTC	1416	AF		1	1		1	
	OPERATIONS STAFF OFF	MAJ	1416	AF		1	1		1	
	OPERATIONS STAFF OFF	CDR	9086	N		1	1		1	
	ADMIN SUPVSR	E7	16370	A		1	1		1	
	STENOGRAPHIC SPECL	CIV	70252			1	1		1	
	TOT DIR/PLANS ANALYSIS					9	7		7	2
	<u>COMBAT OPERATIONS CENTER</u>									
27000	OPERATIONS STAFF OFF	COL	1416	AF		1	1		1	
	OPERATIONS STAFF OFF	MAJ	1416	AF		5	5		5	
	OPERATIONS STAFF OFF	CDR	9086	N		1	1		1	
	OPERATIONS STAFF OFF	LTC	2162	A		1	1		1	
	AIR OPERATIONS OFF	CPT	1435	AF		5	5		5	
	OPERATOR	A2C	27330	AF		10	10		10	
	AC CONTROL/WARNING OPER	SSG	27350	AF		5	5		5	
	AC CONTROL/WARNING OPER	A1C	27350	AF		45	45		45	
	AC CONTROL/WARNING SUPV	MSG	27370	AF		6	6		6	
	AC CONTROL/WARNING SUPV	TSG	27370	AF		5	5		5	
	CLERK	SSG	70250	AF		1	1		1	
	ADMIN SUPVSR	MSG	70270	AF		1	1		1	
	STENOGRAPHIC SPECL	CIV	70252	AF		1	1		1	
	STENOGRAPHIC TECH	TSG	70272	AF		2				2
	COMM CENTER SUPVSR	MSG	29170	AF		1	1		1	
	COMM CENTER SPECL	A1C	29150	AF		1	1		1	
	TOT COC					95	93		93	2
	<u>OFF OF OPERATIONS ANALYSIS</u>									
15000	*MANAGEMENT ANALYSIS OFF	CIV	6746			14				14
	ADMIN SUPT	WO	70200	AF		1	1		1	
	ADMIN SUPVSR	MSG	70270	AF		1	1		1	
	AC CONTROL/WARNING SUP	TSG	27370	AF		1	1		1	
	STAT SVCS SUPVSR	TSG	66170	AF		1	1		1	
	CLERK	SSG	70250	AF		1	1		1	
	STENOGRAPHIC SPECL	SSG	70252	AF		1	1		1	
	STENOGRAPHIC SPECL	CIV	70252	AF		1	1		1	
	STENOGRAPHIC TECH	CIV	70252			2				2
	TOT OPS ANALYSIS					23	6		6	17

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UNIT MANNING DOCUMENT - PART II - AUTHORIZATION											
WFO NUMBER		COMMAND			SUBCOMMAND			DATE			
								31 Jul 1956			
ORGANIZATION AND LOCATION											
HEADQUARTERS, CONAD											
FUNCTION CODE	TITLE	GRADE	AFSC	CAT	SUD PROJ NO.	AUTHORIZATIONS				REMARKS	
						TOTAL	MILITARY		CIVILIANS NATIVES		
						TOTAL	UD	SOB	M		
99910	RECAPITULATION						AF	A	N	M	
		GEN				1	1				
		MG or RADM				3	1	1	1		
		BG				4	3	1			
		COL or CAPT				21	12	5	3	1	
		LTC or CDR				37	21	9	7		
		MAJ or LCDR				41	31	8	2		
		CPT				11	10	1			
		LT				0					
		WO				6	6				
		TOTAL				124	85	25	13	1	
99920	RECAPITULATION										
		MSG, E7, YN0				35	28	5	2		
		TSG, E6, YN1, J01				22	19	2	1		
		SSG, E5, YN2				24	18	4	2		
		ALC, E4, YN3				63	58	3	2		
		A2C, E3				15	14	1			
		TOTAL				159	137	15	7		
99930	RECAPITULATION										
		CIV GRADED				74					
		TOTAL				74					

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1/1tr 1r Hq, C-AD, subject: Proposed Manning Document for Headquarters,  
C-AD, dtd 6 August 1956

1st Ina

Dept of the Air Force, Hq USAF, Washington 25, D. C. 22 August 1956

To: Commander in Chief, Continental Air Defense Command, Ent 51,  
cove 1250, 1250

1. The proposed Unit Manning Document for a separate Headquarters,  
C-AD is approved.

2. This Headquarters is taking action to secure Army and Navy  
commitment on their respective portions of the proposed manning.

3. Adjustments in personnel authorizations will follow the issuance  
of basic implementing directive by the Joint Chiefs of Staff.

B. J. L. S.  
w/d

*W. J. L. S.*  
W. J. L. S., w/d  
General, U. S. Air Force  
Chief of Staff

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HQ AOC 770

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M/R By memo to C/S, USAF, the C/S, Army, non-concurred in the staffing of CONAD Hq. Specifically, he objected to the staffing of the key positions by AF personnel. Hq USAF referred the correspondence to this hq for reply.

COHCR

30 Nov 56

SUBJECT: Manning Requirements for Headquarters CONAD

TO: Chief of Staff, USAF  
As Executive Agency for CONAD  
Washington 25, D.C.

1. Reference letter, subject as above dated 24 October 1956.

2. Upon receipt of the Secretary of Defense approval for a separate headquarters, the CONAD Headquarters staff was organized based on the proposed unit manning document and is subject to changes as the situation warrants. In determining the composition of the Headquarters staff under the Terms of Reference, due consideration was given to each of the military services and their basic combat functions. Since air defense planning and operation for the North American continent requires during this time era an intimate knowledge of offensive and defensive aerial warfare, I selected initially Air Force personnel for certain key staff positions. It is my intention to utilize the personnel made available by the three services to the limit of their capabilities with due consideration to rank, experience and forces assigned.

3. With specific reference to General Taylor's recommendations, I would now welcome a qualified Army Brigadier General as Deputy Chief of Staff, Communications and Electronics. I prefer not to make any other major changes in key staff positions at this early stage in our staff development. As to numbers, however, additional Army representation may well be required. This will be made the subject of further correspondence as the need arises.

L/C Telzrow/2675/21 Nov 56/COOPR

/s/t/ E. E. PARTRIDGE  
General, USAF  
Commander-in-Chief

M/R rewritten by Chief of Staff -  
Maj Gen M S Carter/2234/COHCS/30 Nov 56  
(See M/R above)

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THE JOINT CHIEFS OF STAFF  
WASHINGTON 25, D. C.

AF-1  
SM-716-56  
4 September 1953

MEMORANDUM FOR COMMANDER IN CHIEF, CONTINENTAL AIR DEFENSE COMMAND

Subject: Terms of Reference for CINCONAD.

Pursuant to agreement by the Joint Chiefs of Staff and with the approval of the Secretary of Defense, forwarded herewith are revised terms of reference for the Commander in Chief, Continental Air Defense Command. These terms of reference are effective upon receipt.

For the Joint Chiefs of Staff:

*R. D. Wentworth*  
R. D. WENTWORTH,  
Colonel, USAF,  
Secretary.

Enclosures:  
Appendix Annexes A, B, C, & D.

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APPENDIX

TERMS OF REFERENCE AND MISSION

1. The Continental Air Defense Command (CONAD) is established as a Joint Command under the Joint Chiefs of Staff with the mission of defending the Continental United States, Alaska and the Northeast area (formerly the USNEC area) against air attack. The Department of the Air Force is the executive agency therefor.
2. The Commander in Chief, Continental Air Defense Command (CINCONAD) will exercise operational control over the USAF Air Defense Command, the Army Antiaircraft Command and the Naval Forces, Continental Air Defense Command and the forces assigned, attached or otherwise made available to these commands. CINCONAD will not serve as a component commander of CONAD. The commander of each Service component command of CONAD will be the principal advisor to CINCONAD in matters of his Service which pertain to 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 temporary absence of the CINCONAD from his command, the interim command will pass to the next senior officer present for duty who is eligible to exercise command, regardless of Service affiliation.
3. The CINCONAD will establish and maintain a joint headquarters, separate from the headquarters of each of the component commands. In addition, the CINCONAD will establish and maintain

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Joint staff, as prescribed in paragraph 30244, Joint Action  
Armed Forces (JAAF) to operate under the basic principles set  
forth in paragraph 30302, JAAF. The size of the staff will be  
limited to the number of personnel required to permit CINCONAD  
to exercise over-all operational control and to accomplish broad  
over-all planning functions, with detailed operational and plan-  
ning functions to be accomplished by the staffs of the respective  
component commanders and subordinate joint commanders, as appro-  
priate, in accordance with the policies and procedures prescribed  
by the CINCONAD.

4. The CINCONAD shall have the authority to exercise opera-  
tional control over all forces assigned, attached or otherwise  
made available to him by the Joint Chiefs of Staff, and the  
proper authority for his air defense mission. This authority  
includes those functions of command involving the execution of  
subordinate forces, the assignment of tasks, the establishment of  
objectives and the authoritative direction necessary to accom-  
plish the air defense mission. Specifically, it includes:

a. The responsibility to determine the best air defense  
and methods for conducting the tactical air battle, and  
exercising the operational control of all assigned forces  
and for directing the engagement and disengagement of forces.

b. The authority to centralize operational control of all  
air defense forces assigned, attached or otherwise made avail-  
able, including the assignment of individual air defense  
batteries to designated targets.

paragraph 02  
JAAF

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c. The authority to establish such subordinate joint organizations as he deems necessary for the accomplishment of his assigned mission.

5. 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) in accordance with existing inter-Service agreement. 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 operation of, these elements of the early warning system will be responsive to the needs of CINCONAD.

6. The mission of CINCONAD is to:

a. Maintain the security of the Continental Air Defense Command, and defend the Continental United States, Alaska and the Northeast area against air attack.

b. Assist in the defense of Canada and to respond to air attack in accordance with approved plans and agreements.

c. Support CINCPAC, CINCPAC, CINCLANT, CINCPAC and CINCPAC in their missions.

7. In carrying out his mission, CINCONAD will:

a. Establish such subordinate joint organizations as he deems necessary for the accomplishment of his assigned mission, including those necessary to permit centralized control and employment of all air defense weapons assigned, attached or otherwise made available.

b. Assign tasks, designate objectives and provide authoritative direction for component commanders and subordinate joint air defense commanders.

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b. c. Develop and submit to the Joint Chiefs of Staff plans for the employment and utilization of forces, weapons and equipments allocated, attached or otherwise made available to him, to include those forces to be employed in the extension to seaward of the contiguous radar cover.

G d. Prepare, in coordination with commanders of the forces concerned, and submit to the Joint Chiefs of Staff for approval, plans for the full utilization of all other military forces, including forces of the reserve components, which have an air defense capability and which can temporarily augment the air defense forces in the event of an emergency.

new e. After consultation with appropriate commanders of unified or specified commands, determine and recommend to the Joint Chiefs of Staff the operational requirements for forces, air defense weapons and equipments of all elements of the continental air defense system. The development and procurement of air defense weapons and equipments will be responsive to the requirements laid down by CINCONAD as approved by the Joint Chiefs of Staff and will be accomplished by the Departments of the Army, Navy and Air Force in accordance with existing procedures.

C. f. Implement appropriate plans approved by the Joint Chiefs of Staff and exercise such emergency powers as may



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*1*  
*2*  
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*4*

...the areas governing the ...  
...to be accomplished by the ...  
...commanders and subordi ...  
...of CINCONAD's over-all ...  
...functions.

...methods for conducting the ...  
...for exercising the Operational ...  
...the ...

*h.*

...the ...  
...the ...  
...the ...  
...the ...

*e.* 1. Coordinate with appropriate United States and allied commanders in the development and implementation of plans and in the establishment of procedures for early warning systems which will provide early warning of air attack for the defense of North America, to insure that these systems are designed and operated in a manner responsive to the CINCONAD's air defense requirements and in consonance with national policy.

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*Memo*  
m. Determine and announce conditions of air defense warning based on the likelihood of air attack on the continental United States, Alaska or the Northeast area.

n. Plan for and conduct air defense exercises, including participation by augmentation forces, coordinating such plans with other commands established by the Joint Chiefs of Staff and with military agencies of Canada and Mexico, as appropriate.

*K.* o. Coordinate with appropriate military, governmental and non-governmental agencies in the development of policy and broad plans 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 the continental United States, Alaska and the Northeast area against air attack.

*L.* p. Coordinate with the Federal Civil Defense Administration, State Civil Defense Agencies, and other non-military agencies on matters of participation in air defense.

*1957  
7 deleted  
continued in above  
Serial 20  
1954 8*  
8. Directives promulgated by CINCONAD in consonance with these terms of reference will govern all air defense operations concerning the continental United States, Alaska and the Northeast area in matters not otherwise covered by joint plans, doctrines or procedures approved by the Joint Chiefs of Staff or by appropriate inter-Service agreements.

9. The COMAD organization, command relationships and the responsibilities of component commanders relating to the participation of forces provided by each Service are contained in the annexes hereto as follows:

Annex "A" - Army Forces

Annex "B" - Naval Forces

Annex "C" - Air Force Forces

Annex "D" - Organization and Command Arrangements

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RESPONSIBILITIES OF THE COMMANDING  
GENERAL, ARMY ANTIAIRCRAFT COMMAND

1. Serve as the Commander of the Army component command of the CONAD.

*Miss*  
2. Serve as the principal advisor to CINCONAD on U.S. Army matters pertaining to the CONAD.

3. Establish and maintain an appropriate Army headquarters and staff located in the immediate vicinity of the CONAD headquarters to accomplish detailed planning functions in accordance with the policies and procedures prescribed by the CINCONAD.

4. Coordinate with the other service component commanders on matters of mutual interest and refer matters of disagreement to CINCONAD for resolution.

5. Provide for the availability of Army units at tactical air defense positions and coordinate with the other deployment plans of any other services assigned by CINCONAD.

6. Place under the operational control of CINCONAD, or his designated subordinate Joint Air Defense Commanders, the combat-ready units of the Army Antiaircraft Command, including their surveillance and control elements, upon their emplacement at tactical air defense positions.

7. Arrange with the Department of the Army and other appropriate agencies for the support, administration, and equipping of Army units assigned or otherwise made available for the air defense of the continental United States and arrange for the development and procurement of air defense weapons and equipments for use by these units so as to be responsive to the requirements laid down by CINCONAD as approved by the Joint Chiefs of Staff.

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*new*  
8. Recommend to CINCONAD the forces, deployments, tactics, techniques, procedures, and equipments for Army Forces which contribute to the air defense of the continental U.S., Alaska and the Northeast area.

*new*  
9. Recommend to CINCONAD plans and policies for the employment of the forces of the reserve components of the U.S. Army which can contribute to the air defense of the continental United States, Alaska and the Northeast area.

*new*  
10. Advise CINCONAD of those forces of the U.S. Army, including Reserve and National Guard forces, which have an air defense capability and which can temporarily augment the continental air defense forces in an emergency and arrange for their use in accordance with the policies and procedures prescribed by CINCONAD.

*new*  
11. Provide appropriate Joint Air Defense Commanders with required information regarding the status and operating characteristics of all Army forces assigned or otherwise made available to CINCONAD, and Army augmentation forces and facilities capable of employment in an emergency.

*new*  
12. Provide or arrange for the necessary logistic support for Army augmentation forces when employed in the air defense of the continental United States.

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ANNEX "B"

RESPONSIBILITIES OF THE COMMANDER, NAVAL  
FORCES CONTIGUOUS AIR DEFENSE COMMAND

1. Serve as the Commander of the Naval component command of the CONAD.
2. Serve as the principal advisor to CINCOMAD on U.S. Naval matters pertaining to the CONAD.
3. Establish and maintain an appropriate Naval headquarters and staff located in the immediate vicinity of the CONAD headquarters, to accomplish detailed planning functions in accordance with the policies and procedures prescribed by the CINCOMAD.
4. Coordinate with the other Service component commanders on matters of mutual interest referring matters of disagreement to CINCOMAD for resolution.
5. Provide for Naval forces in the extension to seaward of the contiguous radar coverage to be stationed and operated in accordance with the basic operational plans of and the tasks assigned by CINCOMAD.
6. Make available to CINCOMAD for his operational control while on station, the naval forces employed in the extension to seaward of the contiguous radar coverage of the continental air defense system.
7. Arrange with the Department of the Navy and other appropriate Agencies for the support, administration and equipping of naval forces assigned or otherwise made available for employment in the extension to seaward of the contiguous radar coverage and arrange for the development and procurement of communications and surveillance equipments for use by assigned

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by HUCY  
LAWY*

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units so as to be responsive to the requirements laid down by CINCONAD as approved by the Joint Chiefs of Staff.

8. Recommend to CINCONAD deployments, tactics, techniques and procedures for Naval Forces made available for the air defense of the continental U.S., Alaska and Northeast area.

9. Recommend to CINCONAD plans and policies for the employment of the forces of the reserve components of the U.S. Navy which can contribute to the air defense of the continental United States, Alaska and the Northeast area.

10. Advise CINCONAD of those forces of the U.S. Navy, including forces of the reserve components which have an air defense capability and which can temporarily augment the continental air defense forces in an emergency and arrange for their use in accordance with the policies and procedures prescribed by CINCONAD.

11. Provide appropriate Joint Air Defense Commanders with required information regarding the status and operating characteristics of all Naval forces assigned or otherwise made available to CINCONAD, and Naval augmentation forces and facilities capable of employment in an emergency.

12. Provide or arrange for the necessary logistic support for Naval augmentation forces when employed in the air defense of the continental United States.

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1. Establish the command and control of the Air Force component units of the continental United States.

2. Establish the command and control of the U.S. Air Force element assigned to the continental United States.

3. Establish and maintain an appropriate Air Force headquarters and staff located in the immediate vicinity of the joint headquarters to accomplish detailed planning functions in accordance with the policies and procedures prescribed by the CINCOMAD.

4. Coordinate with the other Service component commanders on matters of mutual interest and refer matters of disagreement to CINCOMAD for resolution.

5. Provide for the specific siting of Air Force units at tactical air defense positions in accordance with the basic deployment plans of and the tasks assigned by CINCOMAD.

6. Place under the operational control of CINCOMAD, or his designated subordinate joint air defense commanders, the combat-ready units of the USAF Air Defense Command, including air surveillance and control elements, upon their deployment to tactical air defense positions.

7. Arrange with the Department of the Air Force and other appropriate agencies for the support, administration, and equipping of Air Force units assigned or otherwise made available for the air defense of the continental United States and arrange for the development and procurement of air defense weapons and equipments for use by these units so as to be responsive to the requirements laid down by CINCOMAD as approved by the Joint Chiefs of Staff.

*Handwritten:*   
The Air Force  
has arranged

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8. Recommend to CINCPAC the forces, deployment, techniques, procedures and equipment for the forces which contribute to the air defense of the continental United States, Alaska and the Northeast area.

9. Recommend to CINCONAD plans and policies for the employment of the forces of the reserve components of the U.S. Air Force which can contribute to the air defense of the continental United States, Alaska and the Northeast area.

10. Advise CINCPAC of those forces of the U.S. Air Force, including Reserve and National Guard forces, which have an air defense capability and which can temporarily augment the continental air defense forces in an emergency, and arrange for their use in accordance with the policies and procedures prescribed by CINCONAD.

11. Provide appropriate Joint Air Defense Commanders with required information regarding the status and operating characteristics of all Air Force forces assigned or otherwise made available to CINCONAD and Air Force augmentation forces and facilities capable of employment in an emergency.

12. Provide or arrange for the necessary logistic support for Air Force augmentation forces when employed in the air defense of the continental United States.

13. Plan for, organize, equip, administer and operate necessary elements of a Ground Observer Corps, including the necessary portion thereof.

*See  
in the  
CONAD file*



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1. The division of air defense is a function  
out on a geographical basis. The component commands  
CINCOMAD do not have specific Service combat missions. The  
component commanders under CINCOMAD provide combat ready forces.  
Joint commanders under CINCOMAD are responsible for combat  
operations. Since time of reaction to the threat is a consideration,  
successful air defense must be predicated upon decentralization  
of authority to the greatest extent compatible with the optimum  
effective control and application of the total defense force  
available. It is essential that all forces of the military  
establishment, which have an air defense capability and which  
can be made available, be operated and controlled in the most  
effective manner as a part of an over-all coordinated continental  
air defense system. The Continental Air Defense Command has  
been established as a Joint Command under the Joint Chiefs of  
Staff for this purpose.

2. Commanders making augmentation forces available may place  
restrictions on the deployments of these forces in the event  
they are required for their primary Service missions.

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HEADQUARTERS  
CONTINENTAL AIR DEFENSE COMMAND  
ENT AIR FORCE BASE  
COLORADO SPRINGS, COLORADO

9

GENERAL ORDERS)  
NUMBER 21)

24 September 1956

ANNOUNCEMENT OF AMENDMENT TO GENERAL ORDERS. . . . . I  
ANNOUNCEMENT OF THE ESTABLISHMENT OF STAFF STRUCTURE FOR  
THE JOINT HEADQUARTERS, CONTINENTAL AIR DEFENSE COMMAND. . II

I. ANNOUNCEMENT OF AMENDMENT TO GENERAL ORDERS--1. An-  
nouncement is made of amendment to Section I, paragraph 1, Gen-  
eral Orders No 1, dated 1 September 1954, effective 17 September  
1956. So much of paragraph cited above as reads: as a Joint  
Command for the air defense of the continental United States,  
with headquarters at Ent Air Force Base, Colorado Springs, Colo-  
rado. The Secretary of Defense has designated the Department of  
the Air Force as the executive agency for this command is amen-  
ded to read: as a Joint Command under the Joint Chiefs of Staff  
with the mission of defending the Continental United States,  
Alaska and the Northeast area (formerly the USNEC area) against  
air attack, with headquarters at Ent Air Force Base, Colorado  
Springs, Colorado. The Department of the Air Force is the exec-  
utive agency therefor.

2. The verbal orders of the Commander in Chief on 17 Sep-  
tember 1956 are confirmed.

3. Authority: Joint Chiefs of Staff memorandum for Com-  
mander in Chief, Continental Air Defense Command, Subject: Terms  
of Reference for CINCONAD, dated 4 September 1956.

II. ANNOUNCEMENT OF THE ESTABLISHMENT OF STAFF STRUCTURE  
FOR THE JOINT HEADQUARTERS CONTINENTAL AIR DEFENSE COMMAND--1.  
Announcement is made of the establishment of the following staff  
structure for the joint Headquarters, Continental Air Defense  
Command, effective 17 September 1956:

Chief of Staff  
Secretariat  
Office of Information Services

Deputy Chief of Staff, Communications and Electronics  
Directorate of Plans and Policies  
Directorate of Communications and Electronics Opera-  
tions  
Radar Interference Study Group (RAINS)

Deputy Chief of Staff, Intelligence  
Directorate of Collection and Dissemination  
Directorate of Research and Estimates  
Directorate of Operational Intelligence

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COMAD General Orders 21, Ent AFB, Colorado Springs, Colo.,  
24 September 1956. Sec II, Para 1, cont

Deputy Chief of Staff, Plans and Operations  
Office of Operations Analysis  
Directorate of Plans and Requirements  
Directorate of Plans Analysis  
Directorate of Operations  
Directorate of Combat Operations

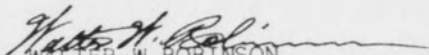
2. The verbal orders of the Commander in Chief on 17 September 1956 are confirmed.

3. Authority: Joint Chiefs of Staff memorandum for Commander in Chief, Continental Air Defense Command, Subject: Terms of Reference for CINCONAD, dated 4 September 1956.

BY ORDER OF THE COMMANDER IN CHIEF:

OFFICIAL:

MARSHALL S ROTH  
Major General, USAF  
Acting Chief of Staff

  
WALTER W ROBINSON  
Colonel, USAF  
Command Adjutant

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FILE NUMBER *10*

**11**

~~URGENT~~  
~~PRIORITY~~  
~~DISCORD~~

*25 Aug 56*

CINCINNATI PEPPERELL AFB ST JOHNES NEWPORTSPRINGS

INFO. JACOBS BAPT D C

INFO WOLF BAPT D C

INFO MARK D C

INFO WOLF BAPT D C

CINCINNATI WASHINGTON AFB KANSAS

CINCINNATI BOSTON VA

CINCINNATI WASHINGTON AFB KANSAS

CINCINNATI WASHINGTON AFB KANSAS

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1st Col J.R. Tolson

*E*

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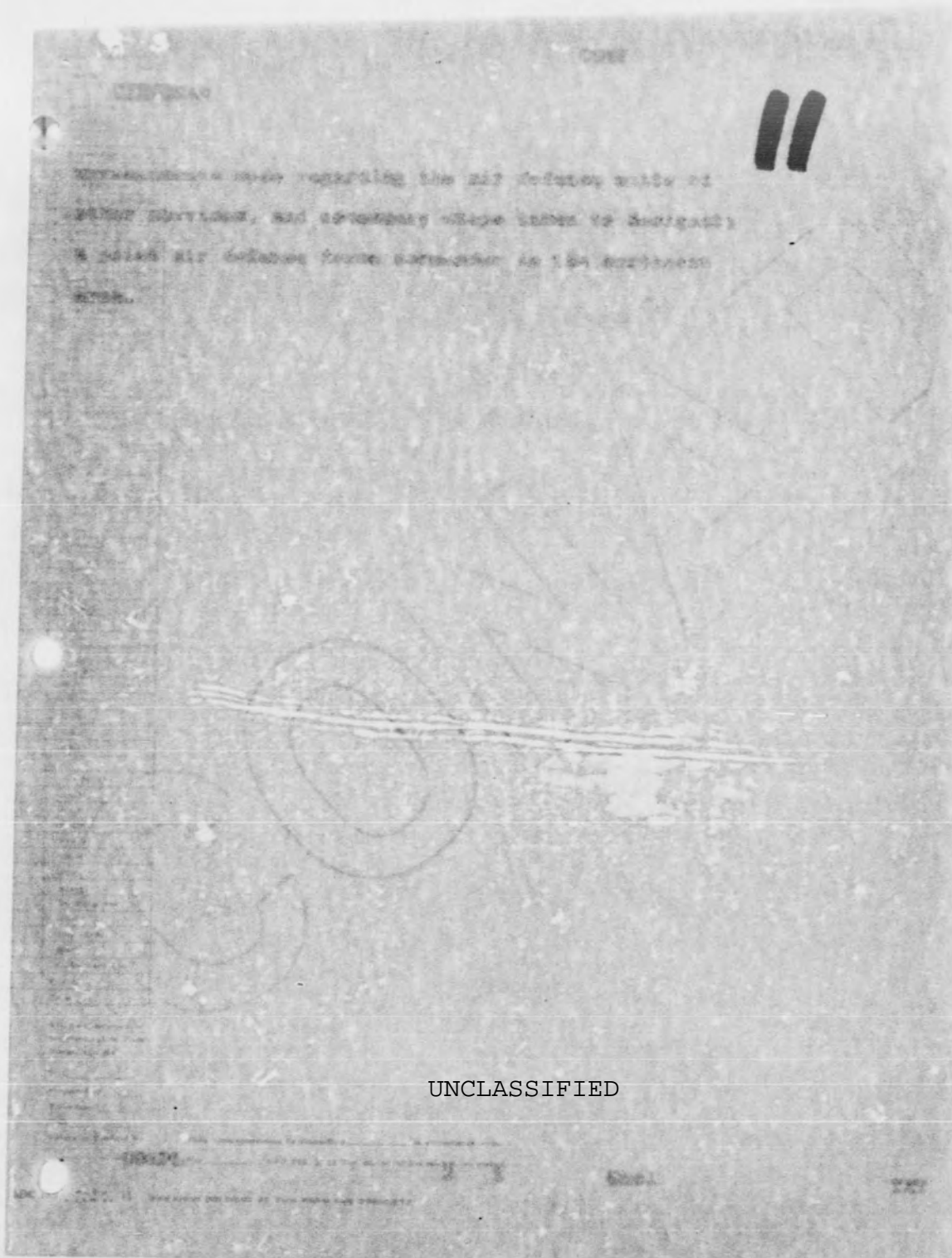
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60274

This message is sheet parts. Part I. Under the terms of  
 the new unified command plan USMACV will be disestablished  
 1 Sep 68 and concurrently USMACV will transfer U.S. air  
 defense responsibilities in the Northwest area. There-  
 fore, effective 100000Z Sep 68 the immediate Northwest  
 Air Defense is hereby designated as a subordinate command  
 responsible to CINCPAC for U.S. air defense  
 activities in the Northwest area. This is being done  
 as a separate action from the USMACV. Part II. All U.S.  
 air defense forces of the Army, Navy and U.S. Air Force  
 currently assigned for air defense  
 activities in the Northwest area are under the  
 operational control of the Northwest Air Defense  
 Command, 100000Z Sep 68. The air defense responsibility  
 is assigned to the major Northwest Air Defense Command  
 and the air defense forces assigned to the area  
 by the USMACV. In this regard there is an change in the  
 special operational arrangement as exist between the  
 United States and Canada and the United States and Korea  
 and the planning and control of part of the Air Defense  
 activities. Part III. The arrangements outlined in Part  
 I above are considered interim. As soon as possible it  
 is expected that the new air defense plan in the North-  
 west area will be transferred to ACD, appropriate

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DISPOSITION FORM

TO	CINCOMAB	DIR	FROM	DCS/PLN	DATE	11 Sep 56	FORM NO. 1
	ChfS	Comd Adj					
	CS, ARAAOCN	Dir, Eye Integ					
	CSMAFFORCOMAB	Dir, Requirements					
	DCS/I	Dir, M&O					
	DCS/W	Dir, C&M					
	DCS/O	Dir, Ops Anlys					
	DCS/C	Dir, Ops Plans					
	BCAF	Dir, Combat Ops					
	Comd Surg	Dir, Curr Ops					
	Comd Chap	Dir, Eval & Trg					
	Comd Stf JA	Dir, O&D					
	Comd IG	3d Wea Gp					

FILE NUMBER  
603

1. The Joint Chiefs of Staff have recently approved a revised Unified Command Plan. The purpose of this plan is to provide a command organization for Unified Command of United States Armed Forces on a global basis. Significant changes have been made in this plan which enlarge the tasks and responsibilities of CINCOMAB. For this reason it is considered appropriate to outline for your information those changes in the Unified Command Plan which affect COMAB and to describe the actions and plans CINCOMAB has initiated to implement the pertinent provisions of the Unified Command Plan.

2. a. Under the provisions of the new Unified Command Plan, the mission of CINCOMAB is now defined as follows:

- (1) Maintain the security of the Continental Air Defense Command and defend the United States, Alaska and the Northeast Area against air attack.
- (2) Assist in the defense of Canada and Mexico against air attack in accordance with approved plans and agreements.
- (3) Support CINCALC, CINCPAC, CINCLANT, CINCARIB and CINCSAC in their missions.

b. The Unified Command Plan also provides:

- (1) For the disestablishment of USMCC effective 1 Sep 56.
- (2) That CINCOMAB will exercise operational control over all air defense forces assigned or allocated for the air defense of the Northeast Area and Alaska.

3. To implement the specific provisions of the Unified Command Plan pertaining to air defense responsibilities in the Northeast Area, CINCOMAB has taken the following actions:

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Subject, (State) Maintenance of the United States Fleet

- a. Annual responsibility for all U.S. air defense activities in the Northwest Area effective 1 Sep 50 (Attachment 1 and 2).
- b. Annual operational control over all U.S. air defense forces assigned or allocated for the air defense of the Northwest Area effective 1 Sep 50 (Attachment 3).
- c. Designated the Commander, Northwest Air Command as the subordinate joint commander responsible to the US Air Force for air defense activities in the Northwest Area (Attachment 1 and 2).
- d. Place all U.S. air defense forces assigned or allocated for the defense of the Northwest Area under the operational control of the Commander, Northwest Air Command effective 1 Sep 50 (Attachment 3).
- e. The appropriate action plan for the Northwest Area. As soon as possible the US Air Force will issue a Northwest Area plan to be implemented in 1951 and the Northwest Air Command will be responsible for the execution of this plan to establish a Northwest Air Command, effective 1 Sep 50 and a Joint Northwest Air Defense Force (JNWADF), effective 1 Sep 51.
- f. To continue the active participation of the United States Air Force in the air defense responsibilities of the Northwest Area under the following terms:
- a. Annual responsibility for all air defense activities in Alaska effective 1 Sep 50 (Attachment 4 and 5).
- b. Annual operational control over all air defense forces assigned or allocated for the air defense of Alaska effective 1 Sep 50 (Attachment 4 and 5).
- c. Designated the Commander, Alaska Air Command as the subordinate joint commander responsible to the US Air Force for all air defense activities in Alaska effective 1 Sep 50 (Attachment 4 and 5).
- d. Designated the Commander, Alaska Air Command as the subordinate joint commander over all air defense forces assigned or allocated for the defense of Alaska. This control will be exercised by the Commander, Alaska Air Command, I.A., through the Commander, Alaska Air Command, I.A., effective 1 Sep 50.
- e. Place a subordinate joint commander over all air defense activities in Alaska effective 1 Sep 50.

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 FM CINCOSAC  
 TO CINCER JEFFERSON AFB TX JOHN HENNINGSLAND  
 INFO CINCOSAC JEFFERSON AFB TX JOHN HENNINGSLAND  
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 COPS USA WASH D C  
 CINCPAC HONOLULU AFB HAWAII  
 CINCPAC PACIFIC HONOLULU HAWAII  
 CINCLANT NORFOLK VA  
 CINCASAC CHASEY BELLEVILLE CASAL DOME  
 CINCER ST DENIS-DE-LOUIS FRANCE  
 CINCOSAC TOKYO JAPAN  
 CINCOSAC LONDON ENGLAND  
 CINCOSAC OTTAWA CANADA  
 CH OF AIR STAFF AF HQ OTTAWA ONTARIO CANADA  
 AIR CPT COMMANDING ABC BOMB HQ ST MURRAY QUEBEC CANADA  
 COMR JEAFF STANFORD AFB IN  
 COMR JOADY GRANVILLE AFB MISSOURI

FROM CONF. COPY. THIS MESSAGE IS THREE  
 PARTS. PART I. WHEN THE TERMS OF THE NEW UNIFIED COMMAND PLAN WERE  
 WERE BE DISESTABLISHED 1 SEP 56 AND CONSEQUENTLY CINCOSAC WILL ASSUME  
 U.S. AIR DEFENSE RESPONSIBILITIES IN THE NORTHEAST AREA. THEREFORE,  
 EFFECTIVE 0000Z SEP 56 THE COMMANDER, NORTHEAST AIR COMMAND IS HEREBY  
 DESIGNATED AS A SUBORDINATE JOINT OPERATING RESPONSIBLE TO CINCOSAC  
 FOR U.S. AIR DEFENSE ACTIVITIES IN THE NORTHEAST AREA. THIS IS BEING  
 CONFIRMED BY SEPARATE ACTION FROM HQ USAF. PART II. ALL OF THE U.S.  
 AIR DEFENSE FORCES OF THE ARMY, NAVY AND U.S. AIR FORCE ALLOCATED OR  
 OTHERWISE ASSIGNED FOR AIR DEFENSE PURPOSES IN THE NORTHEAST AREA ARE  
 PLACED UNDER THE OPERATIONAL CONTROL OF COMMANDER, NORTHEAST AIR  
 COMMAND EFFECTIVE 0000Z SEP 56. THE AIR DEFENSE RESPONSIBILITIES  
 ASSIGNED TO COMMANDER, NORTHEAST AIR COMMAND ARE THE SAME AS THE AIR  
 DEFENSE RESPONSIBILITIES FORMERLY HELD BY CINCOSAC. IN THIS RESPECT  
 THERE IS NO CHANGE IN SUCH SPECIAL INTERNATIONAL ARRANGEMENTS AS  
 EXIST BETWEEN THE UNITED STATES AND CANADA AND THE UNITED STATES AND  
 ENGLAND FOR THE PLANNING AND CONDUCT OF FURTHER AIR DEFENSE OPERA-  
 TIONS. PART III. THE ARRANGEMENTS OUTLINED IN PART I ABOVE ARE  
 CONSIDERED IMMEDIATE. AS SOON AS POSSIBLE, IT IS REQUESTED THAT THE  
 USAF AIR DEFENSE UNITS IN THE NORTHEAST AREA WILL BE TRANSFERRED TO  
 ABC, APPROPRIATE ARRANGEMENTS MADE REGARDING THE AIR DEFENSE UNITS  
 OF OTHER SERVICES, AND NECESSARY STEPS TAKEN TO DESIGNATE A JOINT  
 AIR DEFENSE FORCE COMMANDER IN THE NORTHEAST AREA. CASUALTY.

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TO NEAC  
INFO CINCOMAF  
COMUSAF  
16 AF  
CINCLANTFLT RORVA  
USAFOPS-C OTTAWA CAN  
CINCE  
AAG  
SAC  
SPAFB/AMC  
MATS ANDRWS  
APOC  
AIR UNIV  
ARDC  
ATC  
COMAC  
TAG  
AF FINANCE CENTER  
HQ COMB BOLLING AFB  
MAFBI  
CANTONAS COMB

AFHQ-30 // FROM AFHQ-30 SITE 99999. REF HQ MSG  
AFHQ 2400Z AND YOUR INFO UNDOCT 2070, 2005, and 2004. THIS HQ IN  
3 PARTS.

PART 1. CINCOMAF IS REITERATING COMAC'S INTERIM AIR DEF COVER IN THE  
HUNGARY AREA, EFFECTIVE 1 SEP 68.

PART 2. EFFECTIVE 1 SEP 68 COMAC IS RESPONSIBLE FOR SUBMISSION  
OF ANTI-SUBMARINE AND VESSEL SEARCH TO CINCLANT AND COORDINATION  
OF PLANS FOR DEF OF GERMANY (INCLUDING ALGERIA) WITH SACLANT (THROUGH  
US USAF).

PART 3. (1) ARMY AND NAVY WERE TAKING MANAGEMENT ACTION ON THE  
PERSONNEL ON DUTY IN GERMANY:

(2) ARMY IS ACTION AGENCY ON PLACING OF THE AAG OF USIA OPERA-  
TIONAL CONTROL OF GERMANY;

(3) RESPONSIBILITY FOR AREA FOREIGN OFFICE ACTIVITIES  
BEING ASSIGNED BY CINCLANT;

(4) REDUCTION OF EMPLOYMENT TO PARAGRAPH 2004.3 E USAF CIL AND  
THE JOE JOE POLICE POLICE

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FMHQ TRUCKEE  
HQ 301288  
HQ COMD EXECUTIVE AGENCY  
TO CINCPAC  
CINCPAC  
ASO  
CINCPAC  
DEPT USAF  
1400 AF  
INFO ASO  
ASO  
ASO  
AIR UNIT  
COMD  
TAG  
AF PERANCE CTR  
1400 AF  
USAF  
HQ COMD BOLLING AFB  
CARIBBEAN COMD  
FMHQ  
CINCPAC  
USAF JCS-C  
CINCPAC  
CINCPAC

██████████ CITE 55507  
PLAN PERTAINING TO TRANSFER OF AIR DEFENSE RESPONSIBILITY FROM CARIBBEAN  
TO CINCPAC. THE FOLLOWING ACTION IS ANNOUNCED TO BECOME EFFECTIVE  
1 SEP 68: (1) AIR DEFENSE RESPONSIBILITY FOR ALASKA IS ASSIGNED TO  
CINCPAC; (2) AIR DEFENSE FORCES ASSIGNED TO THE ALASKAN COMD ARE  
PLACED UNDER THE OPERATION CONTROL OF CINCPAC.  
BT  
29/2215Z ASO RJEVHQ

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CORPL 60872

PRIORITY

ROUTINE

FM CINCOSMAD

TO CINCAL EIGHTHAFB AFB ALASKA

INFO OOPS USA WASH D C

OSO WASH D C

OOPS USAF WASH D C

CINCPAC PEARL HARBOR HAWAII

CINCLANT NORFOLK VIRGINIA

CINCSALB QUARRY HEIGHTS CANAL ZONE

CINCENR ST GERMAIN-EN-LAYE, FRANCE

CINCPAC TOKYO JAPAN

CINCENRHM LONDON ENGLAND

CINCSAC OFFUTT AFB NEBRASKA

CHIEF OF AIR STAFF AIR FORCE HQ OTTAWA ONTARIO CANADA

AIR OFFICER COMMANDING AIR DEFENSE COMMAND ROCAF HQ

ST HUBERT QUEBEC CANADA

COMER AAC EIGHTHAFB AFB, ALASKA

COMER JERRY STEWART AFB NEW YORK

COMER JOAN GRANDVIEW AFB MISSOURI

COMER JOAN HAMILTON AFB CALIF

[REDACTED] FROM CORPL 60872. UNDER THE PROVISIONS OF THE NEW UNIFIED COMMAND PLAN, THE MISSION OF CINCOSMAD HAS BEEN EXPANDED TO INCLUDE RESPONSIBILITY FOR THE AIR DEFENSE OF ALASKA. EFFECTIVE 0300Z 15 SEPTEMBER 1996 CINCOSMAD WILL ASSUME OPERATIONAL CONTROL OVER ALL AIR DEFENSE FORCES ASSIGNED OR OTHERWISE MADE AVAILABLE FOR THE AIR DEFENSE OF ALASKA. EFFECTIVE 0300Z 15 SEPTEMBER 1996 CINCOSMAD DESIGNATES CINCAL AS THE COMMANDER RESPONSIBLE TO HIM FOR ALL AIR DEFENSE ACTIVITIES IN THE ALASKAN AREA AND DELEGATES TO CINCAL THE AUTHORITY TO EXERCISE OPERATIONAL CONTROL OVER ALL AIR DEFENSE FORCES ASSIGNED OR OTHERWISE MADE AVAILABLE FOR THE AIR DEFENSE OF ALASKA. CINCAL WILL REPORT TO THE JCS THROUGH CINCOSMAD ON ALL MATTERS PERTAINING TO THE AIR DEFENSE OF THE NORTH AMERICAN CONTINENT. CASUALTY.

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MEMORANDUM OF AGREEMENT BETWEEN CINCAL  
AND CINCONAD CONCERNING AIR DEFENSE  
RESPONSIBILITIES AND ARRANGEMENTS IN ALASKA

1. Under the provisions of the revised Unified Command Plan, dated 5 July 1956 (SM 548-56), the missions of CINCONAD and CINCAL are defined as follows:

a. CINCONAD:

(1) Maintain the security of the Continental Air Defense Command, and defend the United States, Alaska, and the Northeast area against air attack.

(2) Assist in the defense of Canada and Mexico against air attack in accordance with approved plans and agreements.

(3) Support CINCAL, CINCPAC, CINCLANT, CINCARIB and CINCSAC in their missions.

(4) 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 component forces which have an air defense capability and which can temporarily augment the air defense forces in the event of emergency.

(5) In coordination with appropriate national authorities and commanders of unified commands, plan for early warning systems which will provide early warning of air attack for the defense of the continental United States, Alaska, Mexico and Canada, to insure that such systems are designed and operated in a manner responsive to CINCONAD's air defense requirements and in consonance with national policy.

b. CINCAL:

(1) Maintain the security of the Alaskan Command being guided by such special agreements as may be made between the United States and Canada in the planning for and conduct of pertinent operations.

(2) Support CINCPAC, CINCONAD, and CINCSAC in their missions.

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**Memorandum of Agreement Between CINCAL and CINCONAD Concerning Air Defense Responsibilities and Arrangements in Alaska (Cont'd)**

(3) Report to the Joint Chiefs of Staff through CINCONAD on all matters pertaining to the air defense of the North American Continent. Operational control of the Alaskan Air Defense forces will be vested in CINCONAD.

2. By direction of the Joint Chiefs of Staff, CINCONAD and CINCAL have been enjoined to develop mutually agreeable plans to insure the orderly and economical reassignment of tasks and responsibilities as they pertain to the air defense of Alaska. In consonance with these instructions CINCONAD and CINCAL mutually agree on the following arrangements, effective 010001Zebra September 1956.

a. The designation of CINCAL by CINCONAD as the commander responsible to him for all air defense activities in Alaska.

b. Operational control over all air defense forces assigned or allocated for the air defense of Alaska will be exercised by CINCAL in the manner hitherto exercised, i. e., through the Commander, Alaskan Air Command, a component commander of the Alaskan Command.

c. The surveillance procedure presently employed in the Alaskan Command is essentially the same as CONAD's and compatible therewith. Standardization is the continued goal.

d. CINCAL will report to the JCS through CINCONAD on all matters pertaining to the air defense of the North American continent.

3. In order to accomplish the mission of defending the continental United States against air attack the JCS have specified that CINCONAD will be responsible for developing broad plans and requirements for continental air defense and will exercise operational control over all air defense forces assigned or allocated for continental air defense. It is agreed that CINCONAD is now also responsible for these functions insofar as they relate to the air defense of Alaska. In order to discharge these functions CINCAL will participate with CINCONAD in the development of plans and requirements for the air defense of Alaska. Such plans and requirements are to be reflected in JCS approved CONAD documents which particularly refer to:

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Memorandum of Agreement between CINCAL and CINCONAD (incorporating Air Defense Responsibilities and Arrangements in Alaska Command)

- a. Concept and philosophy of air defense.
- b. Force structure and general deployment.
- c. Level of air defense or expected capability of the air defense force required.

4. Realization of approved CONAD requirements will be accomplished through service channels. In this respect it is noted that there is no official relationship between like-component commands of CONAD and ALCOM. Close and continuous coordination between these component commands will be necessary.

5. Plans and requirements on matters of air defense which have been submitted by CINCAL and by the component commanders of CINCAL and which have been approved or are undergoing study at Departmental level will be initially unaffected. Timely revisions will be made by CINCONAD within the scope of his responsibility and as the situation dictates.

EARLE E. PARTRIDGE  
General, USAF  
Commander-in-Chief  
Continental Air Defense Command

  
J. H. ATKINSON  
Lieutenant General, USAF  
Commander-in-Chief, Alaska

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19 Sep 1956

ROUTINE  
ROUTINE  
CINCINNATI

COMAD HIC FILE  
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CINER NEAR ST JAMES MOUNTAIN

INFO: COPS HQ USAF WASHINGTON D.C.

CONFIDENTIAL F&W SUPPL

THIS MESSAGE IN TWO PARTS. PART I. IS AN EXCHANGE OF MESSAGES  
BETWEEN THE AIR OFFICER COMMANDING CINER, HQ AND CINCINNATI  
HAS BEEN ADVISED THAT THE CURRENT SCHEDULE OF OPERATIONAL CONTROL  
AS COVERED BY AGREEMENT BETWEEN AOC, OAF ADC AND CINCINNATI  
1 MAY 56 WILL REMAIN IN EFFECT. PART II. AN AMENDED AGREEMENT  
ON THIS MATTER BETWEEN CINER, OAF ADC AND CINCINNATI WILL BE  
DRAWN UP BY EARLY DATE.

18 Sep 56

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CONAD HIST FILE

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3 October 1956

SUBJECT: [REDACTED] USAF Reorganization of the Northeast Area

TO: Chief of the Air Staff  
Royal Canadian Air Force  
Department of National Defense  
Ottawa, Ontario, Canada

1. By memorandum of 3 July 1956, the secretary of the United States Joint Chiefs of Staff informed the Canadian Chiefs of Staff Committee of the decision of the United States Joint Chiefs of Staff to reorganize and consolidate the responsibilities of several of the Unified Commands of the United States Department of Defense and, specifically, advice was provided of the plan to dis-establish on 1 September 1956, the United States Northeast Command (NECOM). It was stated that the responsibility for that Command for air defense would be assumed by the Commander-in-Chief, Continental Air Defense Command (CINCCAD) and that residual responsibilities would be apportioned to the appropriate Service Departments.

2. Consequently, the United States Air Force has studied in considerable detail the manner in which its activities and responsibilities in the Northeast area might best be aligned to be fully responsive to the intent of the United States Joint Chiefs of Staff to simplify and strengthen the command structure. While still tentative and subject to some adjustment, the paragraphs which follow generally describe the proposal presently favored by the Air Staff.

3. The gradual transition of the responsibilities over which the Northeast Air Command (NEAC) has had cognizance, from a logistics to an operational function, has made increasingly evident the need for their assumption by the Commanders exercising the operational responsibility. Toward this end there is proposed the dissolution of the Northeast Air Command and the assumption of its functions by the United States Air Force Commanders most intimately concerned with the utilization of the facilities which NEAC has heretofore controlled. Based upon arrangements and understandings presently existent between agencies of the

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Ltr to Chief/Air Staff, Royal Canadian Air Force, subj: (Conf) USAF Reorganization of the Northeast Area

Governments of the United States and Canada, such utilization generally divides itself between those supporting the needs for air defense in the area and those supporting the mission of our strategic retaliatory forces. Accordingly, USAF units, responsibilities, and facilities now assigned to USAF would be reassigned to locations as follows:

a. To the Commander-in-Chief, Continental Air Defense Command (through the Commander, USAF Air Defense Command):

- (1) Peppervall AFB, Newfoundland
- (2) Torbay Airport, Newfoundland

b. To the Commander-in-Chief Strategic Air Command:

- (1) Ernest Harmon AFB, Newfoundland
- (2) Goose Air Base, Labrador
- (3) Thule Air Base, Greenland
- (4) Sondrestrom Air Base, Greenland
- (5) Barterbrook Air Base, Greenland
- (6) RCAF Station, Frobisher Bay, NWT

4. The 64th Air Division (Defense) at Peppervall Air Force Base and all its subordinate activities will be reassigned to the Commander, USAF, ADC, and will exercise ~~USCINCPAC~~'s responsibility for air defense in the area as well as the administrative responsibility for support of its units. The Strategic Air Command will exercise control of its bases and activities through the Headquarters of its Eight Air Force at Westover Air Force Base, Massachusetts.

5. The Air Transport Group presently in the Northeast will be reassigned to SAC which will provide airlift support for all USAF activities in the area. Support of USAF activities at off-base locations in the area will be provided by the nearest USAF facility. Logistics support responsibilities will not be subdivided but will be an extension of the normal procedures through Air Materiel Command in effect in the continental United States.

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Ltr Chief of Air Staff, Royal Canadian Air Force, subject (Conf) USAF Reorganization of the Northeast Area

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6. The USAF ADC will succeed RCAP in the responsibility for planning and coordinating logistics support for the Eastern Region of the DEN Line and will assume such other responsibilities as may result in both Northeast Canada and Greenland from present and future early warning programs.

7. A series of negotiations between representatives of NEAC, COMAD, SAC, and other USAF commands having supporting responsibilities in the NEAC area will be required to arrange for the orderly and progressive transfer of the multiplicity of functions and facilities which comprise the entirety of this plan. The Office of the Chief of the USAF Central Coordinating Staff in Canada will participate in all such discussions and will keep you and your staff fully informed on the direction and progress of the reorganization.

8. The United States Air Force is aware of and sympathetic with the interest which obtains in various agencies of the Canadian Government as concerns USAF organization and activities in Canada. For this reason, it is thought advisable to provide it an opportunity for consideration and comment by Canadian agencies of the essential elements of the USAF proposal. It should be of interest in this connection to note that in response to a recent request the Danish Government has made no comment as to such of this proposal as affects Greenland.

9. Subject to your concurrence, and although it may be found that some of the necessary arrangements cannot be made by this date, for planning purposes, 1 January 1957 has been established as the target date to begin implementation of this plan. Prior thereto, the U.S. and Canadian Departments of Defense may wish to arrange for a joint release to the press on this matter; this is not considered essential on the U.S. side, however, and would be accomplished only with Canadian agreement.

10. In order that detailed planning for implementation of this proposal may be undertaken at an early date, Canadian comments will be welcomed as early as practicable.

11. Also we would appreciate your comment as to whether letters similar to this one will suffice as notification to interested Canadian agencies. For your information, responsible officials in our State and Defense Departments have concurred in this service-to-service channel, assuming of course that information copies are provided all pertinent staff offices.

FOR THE CHIEF OF STAFF:

GORDON A. BLAKE  
Major General, USAF  
Assistant Deputy Chief of Staff,  
Operations

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DEPARTMENT OF NATIONAL DEFENCE

OTTAWA, Ontario,  
22 Oct 56

CGNAD WEST FILE

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Major General G. A. Blake,  
Assistant Deputy Chief of Staff, Operations,  
Headquarters, United States Air Force,  
The Pentagon  
Washington 25, D.C.

Proposed Reorganization of the USAF Northeast Air Command

- 1 Reference is made to your letter of 3 October 1956, concerning the proposed reorganization of USAF activities in the northeast area.
- 2 This proposal has been reviewed by the interested governmental agencies in Ottawa and, as a result, it has been agreed that the RCAF should be responsible for co-ordinating the necessary arrangements through service-to-service channels. The following is a summary of the more important points which have been raised, together with suggested action which might be taken:
  - (a) There are a number of existing RCAF-USAF agreements, some of which are local in nature, which have been concluded with CINCPAC/NEAC. Examples of these are the agreed control arrangements between AOC ADC and the Commander NEAC, and the Torbay Mobilization agreement between AOC MAC and the Commander NEAC. In view of the disestablishment of NEAC, these agreements will have to be renegotiated with the appropriate USAF agency. Until the reorganization is complete, it is requested that the USAF provide a guarantee that all agreements which are in effect between Canadian agencies and NEAC will remain in force, and will be binding upon the appropriate successor to CINCPAC/NEAC, until they have been negotiated.
  - (b) In the past, direct channels of communication have been established between USAF agencies and RCAF to simplify the handling of routine day-to-day administrative problems arising out of USAF use of Canadian facilities in the northeast area. These channels will need to be redefined along the following lines:

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- (i) AGC ATC with Commander 8th Air Force for routine administrative problems arising from USAF use of Goose Bay and Frobisher.
- (ii) AGC MAC with Commander 64th Air Division for routine administrative problems arising from USAF use of Torbay.
- (iii) Commander 64th Air Division through the USAF COS to AFPC for the resolution of routine communications and frequency assignment problems in the northeast area.
- (iv) Commander 8th Air Force through the USAF COS to AFPC for the resolutions of routine communications and frequency assignment problems in the Northeast area.
- (e) The Combined Air Traffic Advisory Committee which was established in Jul 54 to co-ordinate the use of and plans for air navigation aids and services in the Northeast area, and which has no representatives from AFPC, AIC and NEAC, will need to be reorganised to provide for representation from 64th Air Division and 8th Air Force.
- (d) There is at present an RCAF Wing Commander occupying an exchange position in the Directorate of Plans and Requirements at Headquarters NEAC. This Officer also acts in the capacity of an ADC liaison officer with NEAC. It is suggested that this position be reviewed to determine if it should be abolished or remain as an exchange and/or liaison position with either 64th Air Division or the 8th Air Force.

3 My letter of October 3rd indicates the Canadian view regarding a joint press release on this matter. Further details regarding the re-assignment of USAF units and operating responsibilities can be worked out by service-to-service agreements between the command concerned, and this Headquarters, in co-operation with the Central Co-ordinating Staff, will monitor the progress of such negotiations.

(C R Rowley)  
Air Vice Marshal  
for Chief of the Air Staff

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DOCUMENT # 16

ADC General Order # 13, 26 February 1957. Previously forwarded to USAF Archives as Document # 16 of Historical Reference Paper No. 1, "U.S. Air Defense in the Northeast 1940-1957."

See  
K410.042-1

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HEADQUARTERS  
CONTINENTAL AIR DEFENSE COMMAND  
CONTINENTAL AIR FORCE BASE  
COLORADO SPRINGS, COLORADO

17

GENERAL ORDERS)  
NUMBER 2)

19 March 1957

ESTABLISHMENT OF CONTINENTAL AIR DEFENSE DIVISION--1. The following Continental Air Defense Division (CONAD Division) is established with location and command assignment as indicated, effective 1 April 1957.

<u>ESTABLISHMENT</u>	<u>LOCATION</u>	<u>COMMAND ASSIGNMENT</u>
64th Continental Air Defense Division (CONAD Division)	Pepperrell Air Force Base, Newfoundland	Continental Air Defense Command

2. Commander of the 64th Air Division (Defense) at the above location is additionally designated as Commander of the like-numbered CONAD Division.

3. The Headquarters of the CONAD Division listed above will remain at the location of the corresponding Air Division Defense. The geographical area of responsibility of the 64th CONAD Division will remain as previously established for the 64th Air Division (Defense).

4. Authority: Terms of Reference CINCONAD.

BY ORDER OF THE COMMANDER-IN-CHIEF:

OFFICIAL:

*W J Birmele*

W J BIRMELE  
Lt Col, USAF  
Adjutant

MARSHALL S CARTER  
Major General, USA  
Chief of Staff

DISTRIBUTION:

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CONADR 24-1

CONAD REGULATION )  
24-1 )

HEADQUARTERS CONTINENTAL AIR DEFENSE COMMAND  
Ent AFB, Colorado Springs, Colorado  
1 April 1957

**ORGANIZATION - 64TH CONAD DIVISION .**

1. Purpose. This Regulation prescribes the organization of the 64th Continental Air Defense Division (CONAD Division) and outlines the area of responsibility and functions assigned to the Commander, 64th CONAD Division.
2. Scope. This Regulation is applicable only to the 64th CONAD Division, and is for the guidance of other commands and agencies participating in air defense operations.
3. References.
  - a. ADC(RCAF)-CONAD Agreement, dated 1 January 1957.
  - b. USAF-RCAF Operations Plan (DEW and Mid-Canada Lines), 1 June 1956.
  - c. Canada-United States Emergency Air Defense Plan 2-57.
  - d. Unified Command Plan (SM-548-56), JCS, dated 3 July 1956.
  - e. Danish-U.S. Agreement concerning the defense of Greenland, dated 27 April 1951.
  - f. CONAD Regulation 21-1, dated 21 December 1956.
4. Area of Responsibility.
  - a. The area of air defense operational responsibility of the Commander, 64th CONAD Division is that region which includes the following designated areas:
    - (1) That geographical area in northeastern Canada defined as the "Northeast Area" in reference 3.a. above.
    - (2) That portion of the DEWIZ or all of the DEW line presently designated as a "NEAC Region" in reference 3.b. above.
    - (d) Greenland, insofar as U.S. responsibilities and interests are concerned. (In this respect there is no change in such special international arrangements as exist between the United States and Denmark for the planning and conduct of pertinent air defense operations.)
  - b. All of the above geographical area will continue to be described as the "Northeast Area."

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CONADR 24-1

5. Organization. The 64th CONAD Division is established as a non-Table of Organization unit in accordance with the Terms of Reference for CINCONAD, dated 4 September 1956, from the Joint Chiefs of Staff. Its internal organization will be in accordance with CONAD Regulation 21-1, dated 21 December 1956.

6. Command.

a. The Commander, 64th Air Division (Defense) has been designated as Commander of the 64th CONAD Division. Since this assignment involves an additional task and a different chain of command, this measure is effective until a separate full-time commander can be made available for this unit.

b. The Commander, 64th CONAD Division additionally is designated CINCONAD's "subordinate Joint Air Defense Commander for the Northeast Area" as prescribed in reference 3.a. above.

7. Functions. The Commander 64th CONAD Division will be responsible to the Commander-in-Chief, Continental Air Defense Command for the following functions:

a. In accordance with CONAD plans and directives and CINCONAD-AOC-ADC(RCAF) agreements, exercises operational control over all Forces made available for Air Defense.

b. Provides early warning information on all unknown or hostile tracks within his area of responsibility to ADC Headquarters (RCAF) with the least possible delay.

c. Implements CONAD operations plans and directives and exercises such emergency powers as may be delegated, when so directed by proper authority.

d. Prepares operations plans in support of CONAD plans and directives for air defense in his area of responsibility, and submits these plans to CINCONAD for approval.

e. Plans for full operational utilization of all military forces, including augmentation forces, which may be made available for air defense.

f. In coordination with appropriate commanders, plans and conducts joint exercises to assure effective integration into the air defense system of forces which are, or may be made available.

g. Advises CINCONAD and AOC-ADC(RCAF) as to the operational capability of the CONAD forces in his area of responsibility.

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CONADR 24-1

h. Coordinates with and assists appropriate United States and Canadian agencies in the implementation of prescribed procedures pertaining to SCATER, CONELRAD, and CONILLUM within the area of responsibility.

i. Issues air raid warnings to military and civilian air raid warning key points as directed by CINCONAD and AOC-ADC(RCAF).

j. Coordinates and maintains liaison with appropriate commands and agencies for the exchange of air defense operational and intelligence information.

k. Coordinates operational intelligence information reporting to insure the complete and expeditious two-way flow of intelligence between the Control Center, subordinate Centers, and ADC Headquarters (RCAF).

Note: Operational control of Navy components (AEW&C and Picket Ships) specifically assigned to the DEW line extension (Atlantic Barrier) and stationed in or adjacent to the 64th CONAD Division area of responsibility is vested in the Fleet Commanders.

8. Direct Communications:

a. The Commander, 64th CONAD Division is authorized direct communication on matters pertaining to his assigned functions with the following:

Commanders, Adjacent CONAD Forces and CONAD Divisions  
Commanders, SAC Wings in his area of responsibility  
Commanders, Adjacent Air Defense Sectors (Canadian).  
Commander, 8th Air Force  
Officer Commanding, Naval Station, Argentia, Newfoundland  
Air Officer Commanding, ADC(RCAF)  
Commanding Officer, RCAF Station, Goose Bay, Laborador  
Danish Liaison Officer, Thule Air Base, Greenland

b. The Commander, 64th CONAD Division is authorized direct communication with the Senior RCAF Liaison Officer, Newfoundland, on operational air defense matters pertaining to Civil Defense, Provincial

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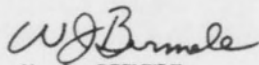
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Government Departments, and Federal Agencies within the Province of  
Newfoundland.

(COOP)

BY ORDER OF THE COMMANDER-IN-CHIEF:

OFFICIAL:



W. J. BIRMELE  
Lt Col, USAF  
Adjutant

MARSHALL S. CARTER  
Major General, USA  
Chief of Staff

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25 Jan 57

**SUBJECT:** (Unclas) Progress Report on Air Defense Planning in the Northeast Area

**TO:** Chief of Staff, United States Air Force  
As Executive Agency for CONAD  
Washington 25, D. C.

1. References:

- a. JCS message dated 18 July 1956, cite 906695.
- b. CONAD letter to the JCS, subject: "(Unclas) Progress Report on Air Defense Planning in the Northeast and Alaskan Commands," dated 31 August 1956.

2. Reference 1b described the air defense arrangements that had been accomplished in Alaska and the Northeast Area as of 31 August 1956. These arrangements were made in order to implement changes contained in the revised Unified Command Plan pertaining to the reassignment of air defense tasks and responsibilities in Alaska and the Northeast.

3. In reference 1b we indicated that the arrangements made for the Northeast Area were of an interim nature. Northeast Area planning has now progressed to the point where certain command and operational arrangements of a permanent nature are possible. Effective 1 April 1957 the following actions will be taken:

- a. All USAF air defense units in the Northeast Area will be transferred to the USAF Air Defense Command.
- b. The 64th Air Division will be transferred to ADC. Concurrently, the 64th Air Division will also be designated as a joint CONAD division (64th CONAD Division) with headquarters at Pepperrell Air Force Base. Operational control will be exercised through the 64th CONAD Division.
- c. The Northeast Air Command will be disestablished.

4. CINCONAD and the AOC RCAF ADC have signed an air defense agreement which provides a mutual understanding for exercising command and control of all air defense forces operating in and/or over Canadian territory located within the Northeast Area. This agreement supercedes the air defense agreement between the AOC RCAF ADC and CINCE dated 1 May 1956. A copy of the CINCONAD-AOC RCAF ADC Agreement is attached.

M/R

The above report is in compliance with JCS msg 906695, 18 Jul 56, which requires CONAD to report on the progress of implementation of the Unified Command Plan insofar as it pertains to U.S. air defense activities in the Northeast Area.

Copy furnished: Comdr (NEAC); Comdr ADC; CG ARAACOM; & COMNAVFORCONAD.

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SUBJECT: (Unclas) Progress Report on Air Defense Planning in the  
Northeast Area

5. Air defense arrangements in Alaska remain as described in paragraph 4 of reference 1b. It is not anticipated that any changes will be made with respect to these arrangements.

6. It is requested that the information contained in this and our 31 August 1956 report be made available to the Permanent Joint Board on Defense and the Military Cooperation Committee for their information.

FOR THE COMMANDER-IN-CHIEF:

1 Incl:  
CINCONAD-AGC RCAF  
ADC Agreement

s/t MARSHALL S. CARTER  
Major General, USA  
Chief of Staff

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MEMORANDUM THRU: Director, Plans & Requirements  
DCS/Plans & Operations  
TO: Chief of Staff

SUBJECT: Progress Report on Air Defense Planning in the Northeast Area

1. JCS message 906695 dated 18 July 1956 requires this headquarters to report to the JCS on the progress of planning for the assumption of air defense responsibilities in Alaska and the Northeast Area. In compliance with cited JCS message we forwarded a report on 31 August 1956 to the JCS. In this report we outlined the air defense arrangements that have been made for Alaska and the Northeast Area. We further advised the JCS that the arrangements that had been made in the Northeast Area were of an interim nature.

2. The attached proposed letter is a follow-up report. As a result of considerable planning activity by the various commands involved certain command and operational arrangements have been agreed upon. To implement these arrangements certain actions will be initiated on 1 April 1957. These actions are outlined in the attached proposed letter.

3. It is recommended that the attached letter be approved for dispatch to the JCS. Information copies will be forwarded to the component commanders and to the Commander, Northeast Air Command.

1 Incl  
Proposed ltr a/s above

s/t T. E. TELZROW  
Lt Colonel, USAF  
Policy & Programs Division  
Ext 2675

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CONAD HIST FILE

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HEADQUARTERS  
64TH AIR DIVISION (DEFENSE)  
UNITED STATES AIR FORCE  
APO 862, NEW YORK, NEW YORK

5 April 1957

General Earle E. Partridge  
Commander in Chief  
Continental Air Defense Command  
Hq, Ent Air Force Base  
Colorado Springs, Colorado

Dear General Partridge:

Just a note to advise you of recent events in the North East Area.

General Barcus departed on schedule April 2nd. General Root is in process of firming up a movement date to his new station at Middletown, and the 64th Division has assumed the Air Defense responsibilities in the North East as of 1 April.

*Slough*

The division of NEAC responsibilities between the ADC and the SAC has progressed very smoothly. Operationally the change over occurred without a ripple. Administratively, we will require thirty to sixty days to realign our directives and procedures with your desires. I anticipate no major problems, however, time is required to educate our personnel in line with the new operational concepts and organization.

I have moved the headquarters from the old "White Hills" area into the buildings NEAC occupied on the main base. The Combat Operations Center will remain at "White Hills", in the old block house, until approximately June. We are shooting for a 1 June deadline, to finish the modification in the new center and it appears to be a valid date at this time.

When this move is complete we will have a greatly improved operational set-up. New desks, vertical plotting board, better communications, etc. All in all, the 64th will be a well set up division.

The exodus of NEAC personnel is in full swing. Air, rail and ship facilities are heavily taxed, however, the backlog should be zeroed out by approximately 20 April. Residual NEAC functions such as records,

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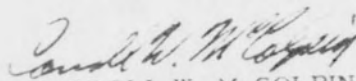
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reports, special projects, etc., should be completed by 1 June.

In regard to operations, as a matter of policy, I have required that either my Deputy for Operations, Vice Commander or myself be present on Pepperrell at all times to insure proper guidance and control of the tactical situation. In view of the distances, weather and transportation difficulties encountered in this area, I believe that this is a reasonable solution to the problem. With your concurrence I will continue this practice.

We have just organized the 64th CONAD Air Division and speaking for all 64th personnel, we are proud to become a member of your command. We feel that the 64th is a top notch outfit, "Esprit" is high and we are looking forward to increased effectiveness under your guidance and control.

Sincerely,

  
CARROLL W. McCOLPIN  
Colonel, USAF  
Commander

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25 April 1957

SECRETARY	SEC
ASST. SEC.	SAC
ASST. TO SAC	SAV
ASST. TO SAC	SPL
INFO SERVICES	NFO
ASST. TO SAC	ELC
ASST. TO SAC	ESS
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ASST. TO SAC	EEV
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ASST. TO SAC	ICD
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ASST. TO SAC	DRG
ASST. TO SAC	DRP
ASST. TO SAC	DOP
ASST. TO SAC	DPA
ASST. TO SAC	DOC
ASST. TO SAC	DDA
COMADG	
COMNAVFORCONAD	
CG AREA COMD	
COMF LIAISON	

Colonel Carroll W. McColpin  
 Commander  
 64th Air Division (Defense)  
 APO 862, New York, N. Y.

Dear Colonel McColpin:

Your letter of 5 April 1957 outlining current activities associated with the change-over of air defense responsibilities in the Northeast Area has been read with considerable interest.

We definitely concur in your decision requiring that your Deputy for Operations, Vice Commander, or yourself be present on Pepperrell at all times to insure proper guidance and control of the tactical situation.

Although I plan a personal visit to your headquarters as soon as my schedule will permit, it would be appreciated if you would keep us informed of any operational problems encountered in which specific assistance or guidance is necessary.

It is a pleasure to welcome the 64th CONAD Division as a member of the Continental Air Defense team.

Sincerely,

E. E. PARTRIDGE  
 General, USAF  
 Commander-in-Chief

Maj Reeves  
 2088 Telephone  
 17 Apr 57 File  
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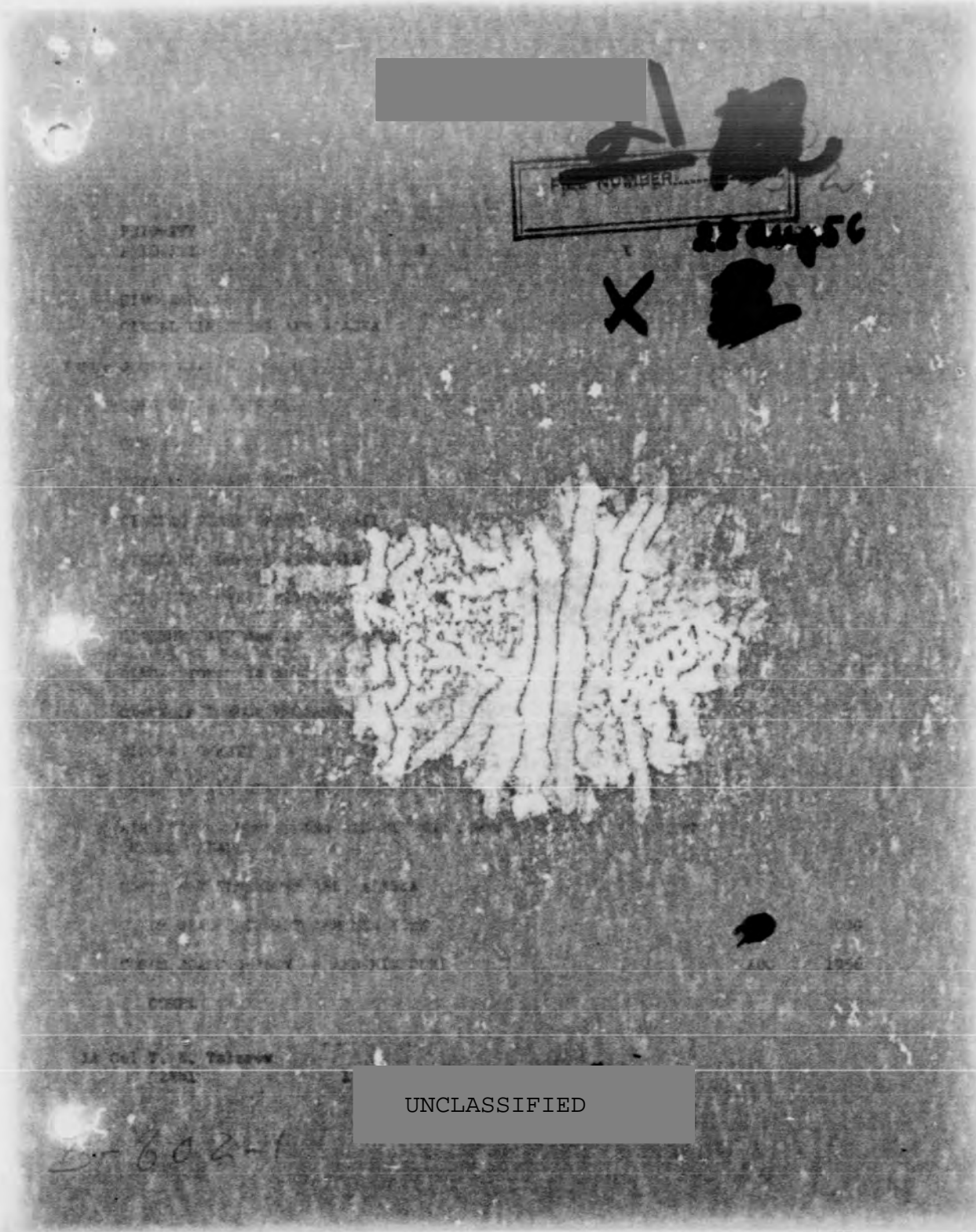
Rewritten by General Partridge

M/R: See attached letter from Colonel McColpin, 64th CONAD Div, 5 Apr 57

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CONFIDENTIAL FROM COMSEC

Under the provisions of the new Unified Command Plan, the mission of CINCPAC has been expanded to include responsibility for the air defense of Alaska. Effective 120015Z September 1956, CINCPAC will exercise operational control over all air defense forces assigned or otherwise made available for the air defense of Alaska. Effective 120015Z September 1956, CINCPAC designates CINCAL as the commander responsible to him for all air defense activities in the Alaskan area and delegates to CINCAL the authority to exercise operational control over all air defense forces assigned or otherwise made available for the air defense of Alaska. CINCAL will report to the CAC through CINCPAC on all matters pertaining to the air defense of the North American continent.

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CONAD HIST FILE

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TEL

2 Oct 56

TO: CG ARAAGOM

CG USARAL

INFO: CINCAL

FROM: BCSOPS, DA

DA 910952

1. Reference may USARAL ARAGT-IB-252, dated 110315 Sep 56 and para 4, Memorandum of Agreement between CINCAL and CINCUSMACV. It is requested that your commands maintain the close and continuous coordination with relation to AAA repeat AAA matters in Alaska referred to in Memorandum of Agreement.

2. This coordination will include but is not limited to the following:

a. CG ARAAGOM

(1) Providing CG USARAL with information pertaining to the latest thoughts and developments on AAA repeat AAA matters.

(2) Providing CG USARAL documents pertinent to the development of AA repeat AA plans.

b. CG USARAL

(1) Developing AAA repeat AAA force requirements and preparation of plans for AA repeat AA defense requirements.

(2) Utilizing policies and directives issued by CG ARAAGOM to the extent practicable.

(3) Providing CG ARAAGOM for review, coordination and comment copies of proposed plans for AA repeat/defense and requirements for forces to include reserve components and areas defended.

(4) Discussing with CG ARAAGOM and unresolved AA repeat AA

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defense problem for determination of a recommended Army position.

3. In addition this coordination should insure to the degree consistent with special conditions in Alaska, that AA report AA procedures and other training and operational matters conform to ABACOM standards. Operational readiness and training inspections may be conducted by ABACOM as mutually agreed upon between your commands.

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COOPR

SUBJECT: Air Defense of Canada and the United States.

TO: Chief of Staff, United States Air Force  
As Executive Agent for COSAD  
Washington 25, D. C.

1. For the past several years the Canada-United States Emergency Defense Plan has acknowledged the fact that the air defense of Canada and the United States is a single problem. The current plan (MOC 307/E) expresses this concept as follows:

"Air defense plans should be based upon the concept that the air defense of Canada and the United States is a single problem and that plans for the use of the air defense resources of Canada and the United States must be developed on a combined basis so as to provide the most effective defense possible for agreed vital targets."

*dupl*

2. In accordance with this directive, the planning and implementation for all aspects of the air defense of North America has been directed towards the development of a single air defense system for the two countries. Although the system is still controlled and operated by two national air defense commanders, the facilities of the Pinetree line, the Mid-Canada and the DEW line have been constructed jointly for the common use of both commanders. In addition the number of officers being exchanged between the two countries has been gradually increased. USAF officers now fill a number of key positions in the Canadian portion of the system and USAF officers fill key positions in the U.S. portion of the system extending from the DEW line, which is now named on a joint basis, to the Combat Operations Center at Colorado Springs. As the next logical step in this development, consideration is now being given at the highest governmental levels to the complete integration of the operational elements of the air defense forces of the United States and Canada into a single Command structure.

3. Implicit in all of the foregoing directives and developments is the concept that an attack upon Canada or the United States would automatically involve both countries. This concept has not, however, been recognized in any formal agreement between the two countries, and it is not always reflected in other orders emanating from the respective national headquarters. For example, the USAF has directed a USAF



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COOPR, SUBJECT: Air Defense of Canada and the United States.

exchange officers on duty with the RCAF to return immediately to USAF control in the event hostilities occur which involve the RCAF and not the USAF. The RCAF has promulgated similar orders to its exchange and integrated officers on duty with the USAF.

4. It is obvious that if an air attack is launched against the North American continent, it will not be possible to determine the intended targets until at least the initial phase of the attack is over. Canada and the United States no longer have separate air defense systems, and each country can defend itself only if the total system reacts immediately and with maximum effectiveness. It would be intolerable for either country to withdraw its forces or to make other than a maximum effort at this critical time. Under these circumstances it is imperative that there be a binding agreement between the governments of the two countries recognising the indivisible nature of the air defense of North America.

5. It is strongly recommended, therefore, that a formal agreement be executed between Canada and the United States affirming the fact that the air defense of Canada and the United States is one problem and that both countries will react automatically and in unison against any attack on the North American continent. Pending the conclusion of this agreement, it is recommended that the policy concerning exchange officers be modified to provide for a continuance of duty of all personnel involved in the air defense of the North American continent, subject to any governmental decisions that may be made subsequent to the initial attack.

F. E. PARTRIDGE  
General, USAF  
Commander-in-Chief

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DEF555099 FOR GENERAL PARTRIDGE FROM: OPI/OASD SGD: SCHOOLEY  
ATTN: GENERAL CARTER

PUBLIC ANNOUNCEMENT MADE JOINTLY AT 6:00 PM EDT AUG. 1  
BY THE SECRETARY OF DEFENSE OF THE UNITED STATES AND THE MINI-  
STER OF NATIONAL DEFENSE OF CANADA CONCERNING INTEGRATION OF  
AIR DEFENSE FORCES. THE SECRETARY OF DEFENSE OF THE UNITED  
STATES, THE HONORABLE CHARLES E. WILSON, AND THE MINISTER OF  
NATIONAL DEFENSE OF CANADA, THE HONORABLE GEORGE R. PEARNE,  
ANNOUNCED TODAY THAT A FURTHER STEP HAS BEEN TAKEN IN THE  
INTEGRATION OF THE AIR DEFENSE FORCES OF CANADA AND THE UNITED  
STATES. (THE TWO GOVERNMENTS HAVE AGREED TO THE SETTING UP OF  
CFN DEF555099 & 6:00 1

PAGE TWO RUEPC 53C

A SYSTEM ON INTEGRATED OPERATIONAL CONTROL OF THE AIR DEFENSE  
FORCE IN THE CONTINENTAL UNITED STATES AND ALASKA AND CANADA  
UNDER AN INTEGRATED COMMAND RESPONSIBLE TO THE CHIEFS OF STAFF  
OF BOTH COUNTRIES). AN INTEGRATED HEADQUARTERS WILL BE SET UP  
IN COLORADO SPRINGS. JOINT PLANS AND PROCEDURES WILL BE LOOKED  
OUT IN PEACETIME, READY FOR IMMEDIATE USE IN CASE OF EMERGENCY.  
OTHER ASPECTS OF COMMAND AND ADMINISTRATION WILL REMAIN THE  
NATIONAL RESPONSIBILITY. THIS SYSTEM OF INTEGRATED OPERA-  
TIONAL CONTROL AND THE SETTING UP OF A JOINT HEADQUARTERS WILL  
BECOME EFFECTIVE AT AN EARLY DATE. THIS BILATERAL ARRANGEMENT  
EXTENDS THE MUTUAL SECURITY OBJECTIVES OF THE NORTH ATLANTIC  
TREATY ORGANIZATION TO THE AIR DEFENSE OF THE CANADA-U. S.  
REGION.

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1. The first Mexico-US Emergency Defense Plan, MEXUS 100/1, was approved by the Joint Mexico-US Defense Commission at its 61st Plenary Session on 19 November 1952 at Washington, D.C. and it was approved as revised by the Joint Chiefs of Staff of United States on 19 February 1953.

2. MEXUS Plan 100/1 includes a study of problems relating to the common defense of US and Mexico and in general terms outlines the measures of cooperation required for the common defense. The plan did not contain specific agreements or rights relating to the air defense of the border area between the US and Mexico.

3. At the 63rd Plenary Session of the JMUSDC in July 1954, the Chairman of the US Section pointed out the inadequacies of the present emergency defense plan and the urgent necessity for its revision. The US Section then presented a resolution that revision of MEXUS 100/1 be accomplished without delay, which was approved by the commission.

4. The US Section in accordance with agreed procedures and in coordination with Service staff sections prepared a draft of a revision which was presented to the Mexican Section for their review and transmittal to the general staff of the Secretariat of National Defense of Mexico in December 1954.

5. At the 64th Plenary Session of the JMUSDC held in Mexico City on 12-15 September 1955, the only agenda item considered was the revision of the Mexico-US Emergency Defense Plan (100/2) which was prepared by the US Section. By the close of business on the 15th of September, agreement had been reached at approximately 85% of MEXUS 100/2. It was agreed by the senior officers of the Mexico and US Sections that further study would be given the unresolved portions of the plan for

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resolution at an early date. Specific unresolved portions of the plan are contained in a summary sheet attached to the minutes of the 64th Plenary Session of the JMUSDC which is available in the Policy and Programs Division.

6. Information available (JCS 2166/6, 1 Oct 56) indicates that the attempts made by the Chairman, US Section, JMUSDC, to revise the US-Mexico Defense Plan to provide for adequate continental defense arrangements have met with little success. Mexican counterproposals have alluded frequently to military assistance, including a recent request for a precise understanding as to the nature and magnitude of "cooperation" that could be expected from the United States. Further, the Mexicans have expressed a desire to use the JMUSDC as the principal medium in which to conduct negotiations on all bilateral military matters. Thus, the US Section, JMUSDC, has concluded that Mexico is attempting to use the revision of the defense plan as a vehicle for obtaining military assistance from the United States on a classified basis.

7. The Chairman, US Section, recommended that the Joint Chiefs of Staff authorize the US Section to conduct exploratory conversations with the Mexican Section to determine what military assistance Mexico desires and what defense contributions and operational concessions may be expected from Mexico. The conclusions of the above JCS paper are:

a. The Chairman, US Section, JMUSDC should be authorized to conduct exploratory conversations with the Mexican Section, JMUSDC, to determine what military assistance Mexico needs for hemispheric defense, and what defense contributions and operational rights may be obtained

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from Mexico.

b. Exploratory conversations should not imply commitment of US military assistance to Mexico.

c. Obtaining essential rights from Mexico to improve US continental defense should not be prejudiced by pressing for US peacetime operational and training rights which are of secondary importance.

d. It should be premature to request MDAP funds for Mexico until a requirement has been clearly established.

8. As to specific requirements for continental defense, a total of six prime radars and 41 gap filler radars have been established as CONAD requirements by CADOP 56-66 for installation in Mexico in 1961 -- one prime radar to be located on Guadalupe Island and five on Mexico proper.

a. The addition of these six prime radars in Mexico in 1961 is to increase the depth of radar coverage from Western Texas to the west of Guadalupe Island. The gap fillers are required to extend the low altitude coverage to utilize weapons deployed along the US-Mexican border.

b. These radars are to be installed approximately 150 miles south of the border and should insure 180 nautical miles contiguous coverage south of the US border at all altitudes.

c. Cross-border communications will be required to feed back information from the prime and gap filler radars to the control centers in the US.

9. To effectively conduct the air defense of areas contiguous to the Mexican border, agreements with Mexico or revisions to MEXUS 100/2 should cover the following:



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a. The right to overfly Mexico to the limit of radar surveillance and controlled fighter-interceptor capability, including the right to effect recovery, under emergency conditions, at Mexican air fields. It should be noted that BOMARC, as presently planned, might have to be employed over Mexican territory. Therefore, an overfly agreement is mandatory.

b. The adoption by the Mexican government of a set of "Rules of Engagement" as similar as possible to our own in order to effect as high a degree of standardization as possible in air defense procedures throughout the North American continent.

c. A procedure for the exchange of aircraft movement information for flight plan correlation and ground identification purposes. This requirement indicates the advisability of the establishment of a Mexico ADIZ paralleling the international boundary.

d. An agreement concerning the exchange of combat intelligence including information on aircraft sightings, escape routes and crash sites, permission to investigate and exploit captured personnel and equipment and a sharing of information regarding overt acts of enemy agents.

e. Authorization for direct communications between CONAD Regional or CONAD Division commanders and appropriate echelons of Mexican governmental and/or military agencies to coordinate operational details not involving policy.

Briefing prepared for DCS/1 Aug  
Lt. Col. Nelson, 12 Apr 1957,  
COOPR.

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9 July 1956  
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AG 20  
1331-9  
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FM: USAF/FOBD  
TO: ADC  
INFO: JTC  
SAC  
CITE: 53249

[REDACTED] // REF URMCG ADOCO-W 01365, 28 JUN CURR. THIS MSG  
IN 3 PARTS. PART I. REQUIREMENTS REFERENCED IN YOUR MSG,  
TOGETHER WITH OTHER DEF REQUIREMENTS IN MEXICO HAVE BEEN REFERRED TO  
THE US SECTION, JOINT MEXICO-US DEF COMMISSION. THESE REQUIREMENTS  
HAVE BEEN THE SUBJ OF CONTINUING DISCUSSIONS BETWEEN THE US AND MEXICAN  
REPRESENTATIVES ON THE COMMISSION. LITTLE PROGRESS HAS BEEN MADE TO  
DATE TOWARD OBTAINING AGREEMENTS FROM MEXICO NECESSARY TO SATISFY US  
REQUIREMENT. PART II. THE FACTORS WHICH HAVE DETERRED AGREEMENTS  
BY MEXICO RESULT PRIMARILY FROM CONSTITUTIONAL LIMITATIONS AND AN  
ACUTE AWARENESS OF THE PROBABLE REACTION OF MEXICAN PRESSURE GROUPS  
AGAINST ANY PROPOSED MIL AGREEMENT OR PACT WITH THE US. HOWEVER, IT  
IS POSSIBLE THAT MEXICO WILL ACCEDE TO US REQS PROVIDED SOME  
TANGIBLE BENEFIT WILL ACCRUE TO MEXICO FROM SUCH ACTION. UPON  
RESOLUTION OF CERTAIN ASPECTS OF THIS MATTER NOW BEING CONSIDERED BY  
THE JCS IT IS ANTICIPATED THAT EFFORTS WILL BE RENEWED TOWARD REACHING  
MUTUALLY SATISFACTORY AGREEMENTS WITH MEXICO. YOU WILL BE ADVISED OF  
FURTHER DEVELOPMENTS ON THIS MATTER. PART III. IN ORDER TO INSURE  
THE GREATEST POSSIBLE DEGREE OF SUCCESS IN FUTURE US-MEXICO MIL  
NEGOTIATIONS MEMBERS OF YOUR COMMAND SHOULD BE CAUTIONED AGAINST  
DISCUSSION OF US REQUIREMENTS OR THE STATUS OF NEGOTIATIONS WITH  
MEXICAN NATIONALS.

BT  
09/1555ZJULY RJEPC

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CINCONAD

COMDR JEADF STEWART AFB NEW YORK  
COMDR JCADF GRANDVIEW AFB MISSOURI  
COMDR JWADF HAMILTON AFB CALIF.

ROUTINE

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COMDR ADC ENT AFB COLO SPGS COLO  
CG ARAACOM CONTINENTAL AIR DEF COMD ENT AFB COLO SPGS COLO  
COMNAVFORCONAD ENT AFB COLO SPGS COLO

[REDACTED] COOPER 60085. CINCONAD has directed that a study be conducted with a view to separating the CONAD structure from the ADC structure. The purpose of reorganization is to enhance CINCONAD's capability to exercise his major functions, i.e. planning and establishment of requirements for air defense of the U. S. and operational control of air defense forces. At the CONAD-ADC level a separate CONAD HQ is being planned and action is underway to implement this separation. Representatives from your HQ have been briefed on this proposal. It is now desired that the Joint Defense Forces initiate a study and prepare a plan which will further carry out this concept. This study is to consider the Joint Defense Force level and the levels below the Defense Force. The COMDR is firm in his intention to have a single air defense system over which he can exercise operational control. The means for exercising this operational control must be through CONAD's joint establishment, and not through ADC's or ARAACOM's service channels. A suspense date is not established for the completion of this project, however, it is desired that it be completed on a joint basis at the earliest possible date. As a point of departure the following additional guidance is given for the development of your plan: The CONAD-ADC staff at Colorado Springs will be completely separated. This does not imply that complete physical separation should occur at the Defense Force and Division level. The Commander suggests that such a physical separation of staffs do not occur

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at these levels but that the staffs be augmented by sufficient personnel from the other two services to carry out efficiently at each of the subordinate levels of CONAD the appropriate CONAD responsibilities.

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Col L G McCollom/ks /s/t/  
13 Mar 56

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HEADQUARTERS  
CONTINENTAL AIR DEFENSE COMMAND  
CONTINENTAL AIR FORCE BASE  
COLORADO SPRINGS, COLORADO

28

GENERAL ORDERS)  
NUMBER 25)

21 December 1956

REDESIGNATION OF JOINT AIR DEFENSE FORCES.....I  
REDESIGNATION OF JOINT AIR DIVISIONS.....II

I. REDESIGNATION OF JOINT AIR DEFENSE FORCES--1. The Joint Air Defense Forces which were established by Section II, paragraph 1, General Order Number 1, this headquarters, dated 1 September 1954, are redesignated as indicated below, effective 15 January 1957.

<u>OLD DESIGNATION</u>	<u>NEW DESIGNATION</u>
Joint Eastern Air Defense Force	CONAD Forces, Eastern CONAD Region
Joint Central Air Defense Force	CONAD Forces, Central CONAD Region
Joint Western Air Defense Force	CONAD Forces, Western CONAD Region

2. The headquarters of the Regional CONAD Forces listed above will remain at the location of the previously established Joint Regional Air Defense Force. The geographical area of responsibility of each CONAD Regional Force remains as outlined for the previously established Joint Air Defense Force in Section II, General Order Number 19, Headquarters Continental Air Defense Command, dated 26 December 1955.

3. The commanders of the newly designated CONAD Regional Forces remain as outlined in Section I, paragraph 1, General Order Number 1, Headquarters Continental Air Defense Command, dated 5 January 1956, for the corresponding previously designate Joint Air Defense Forces.

4. Authority: Terms of Reference CINCONAD.

II. REDESIGNATION OF JOINT AIR DIVISIONS--1. The Joint Air Divisions which were established by Section III, paragraph 1, General Order Number 1, this headquarters, 1 September 1954 and by General Order Number 14, this headquarters, dated 3 October 1955, are redesignated as indicated below, effective 15 January 1957.

<u>OLD DESIGNATION</u>	<u>NEW DESIGNATION</u>
9th Joint Air Defense Division	9th Continental Air Defense Division (CONAD Division)

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 GO 25, CONAD, Ent AFB, Colorado Springs, Colo., 21 December  
 1956. Section II, paragraph 1, cont -

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<u>OLD DESIGNATION</u>	<u>NEW DESIGNATION</u>
20th Joint Air Defense Division	20th Continental Air Defense Division (CONAD Division)
25th Joint Air Defense Division	25th Continental Air Defense Division (CONAD Division)
26th Joint Air Defense Division	26th Continental Air Defense Division (CONAD Division)
27th Joint Air Defense Division	27th Continental Air Defense Division (CONAD Division)
28th Joint Air Defense Division	28th Continental Air Defense Division (CONAD Division)
29th Joint Air Defense Division	29th Continental Air Defense Division (CONAD Division)
30th Joint Air Defense Division	30th Continental Air Defense Division (CONAD Division)
31st Joint Air Defense Division	31st Continental Air Defense Division (CONAD Division)
32nd Joint Air Defense Division	32nd Continental Air Defense Division (CONAD Division)
33rd Joint Air Defense Division	33rd Continental Air Defense Division (CONAD Division)
34th Joint Air Defense Division	34th Continental Air Defense Division (CONAD Division)
35th Joint Air Defense Division	35th Continental Air Defense Division (CONAD Division)
37th Joint Air Defense Division	37th Continental Air Defense Division (CONAD Division)
58th Joint Air Defense Division	58th Continental Air Defense Division (CONAD Division)
85th Joint Air Defense Division	85th Continental Air Defense Division (CONAD Division)

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OFFICIAL:

*WJB*  
 W J BIRM  
 Lt Col, U  
 Adjutant

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2. The headquarters of each of the CONAD Divisions listed above will remain at the location of the corresponding previously designated Joint Air Defense Division. The geographical area of responsibility of each numbered CONAD Division will remain as previously established for the corresponding previously designated Joint Air Defense Division in Section II, General Order Number 19, Headquarters Continental Air Defense Command, dated 26 November 1955.

3. The commanders of the newly designated numbered CONAD divisions will remain as specified for the corresponding previously designated Joint Air Defense Divisions in Section III, paragraph 2, General Order 1, Headquarters Continental Air Defense Command, dated 1 September 1954 and paragraph 2, General Order Number 14, Headquarters Continental Air Defense Command, dated 3 October 1955.



CONADR 21-1

CONAD REGULATION }  
21-1 }HEADQUARTERS CONTINENTAL AIR DEFENSE COMMAND  
Ent AFB, Colorado Springs, Colo.  
21 December 1956ORGANIZATION - CONTINENTAL AIR DEFENSE COMMAND  
(Effective 15 January 1957)

## Policies and Procedures Governing CONAD Organization for Operations

1. Purpose. This Regulation prescribes the organization of the Continental Air Defense Command and outlines CINCONAD's policies and procedures for exercising operational control of all forces made available for the air defense of the continental United States.
2. Applicability. This Regulation applies to all echelons of CONAD and is for the guidance of other commands and agencies having air defense responsibilities to CINCONAD.
3. Reference. Terms of Reference for CINCONAD, dated 4 September 1956, from the Joint Chiefs of Staff.
4. Concept.
- a. Basic Principles.
- (1) The mission of air defense is functional, carried out on a geographical basis.
  - (2) Service component commanders under CINCONAD provide, equip, administer, and train combat ready forces.
  - (3) Specified CONAD commanders under CINCONAD are responsible for combat operations.
  - (4) Operational control of all forces made available for air defense will be vested in the specified CONAD commander at each echelon of command.
  - (5) Authority will be decentralized to the greatest extent compatible with the optimum effective control and application of the total defense force available.
- b. Accordingly, operational control of all forces made available for air defense will be exercised exclusively through a CONAD operational chain from this headquarters through the lowest CONAD agency directing the tactical employment of combat forces. The CONAD structure will be maintained as a separate entity, responsible only to CINCONAD for the fulfillment of mission and tasks assigned by CINCONAD. (See Attachment 3)
5. Definitions. The following definitions apply to this Regulation:
- a. Operational Control. 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 air defense mission. Specifically, it includes:
- (1) The responsibility to determine the best procedures and methods for conducting the tactical air battle, for exercising the operation of all assigned forces and for directing the engagement and disengagement of weapons.
  - (2) The authority to centralize operational control of all air defense forces assigned, attached or otherwise made available, including the assignment of individual antiaircraft batteries to designated targets. Operational control does not include such matters as administration, discipline, internal organization, and unit training.
- b. CONAD Region: A geographical subdivision of the CONAD air defense area. (Example: Western CONAD Region.)
- c. CONAD Forces, CONAD Region: Forces made available for air defense within the Region area of responsibility.

(ADC-7387-6)

CONADR 21-1

d. CONAD Division: A geographical subdivision of a CONAD Region, and those CONAD Forces within the Division area. (Example: 9th CONAD Division.)

e. CONAD Region Operations Center: The central intelligence, communications and operations center within a CONAD Region, established for the purpose of coordinating the combat effort of all forces available for air defense of the CONAD Region. This facility serves as the Command Post of the CONAD Region Commander.

f. CONAD Division Control Center: The central intelligence, communications, and operations center within a CONAD Division, established for the purpose of supervising and coordinating the combat effort of all aircraft, antiaircraft, guided missiles, and air warning and control activities made available to the CONAD Division Commander for air defense. This facility serves as the Command Post of the CONAD Division Commander.

g. CONAD Direction Center: A specified subordinate joint information, communications and operations center within a CONAD Division, established for the purpose of coordinating and supervising air surveillance and identification activities within an assigned area, and of exercising tactical direction of all combat weapons assigned by the CONAD Division Commander for the purpose of intercepting and destroying hostile aircraft and missiles. A joint center at which the ADC Direction Center and ARIAACOM Antiaircraft Operations Center are co-located. (See paragraph 7b)

h. CONAD Region Commander: A senior officer designated by CINCONAD to exercise over CONAD Forces within the CONAD Region those functions of command outlined in paragraph 5a, as delegated by CINCONAD.

i. CONAD Division Commander: A senior officer designated by CINCONAD to exercise over CONAD Forces within the CONAD Division those functions of command outlined in paragraph 5a, as delegated by the appropriate CONAD Region Commander.

j. CONAD Forces: Forces operationally responsible to CINCONAD for air defense.

6. Internal Organization of CONAD Region Operations Centers and CONAD Division Control Centers. Each CONAD Region Operations Center and CONAD Division Control Center, as the Command Post of the appropriate CONAD Commander, will be organized as an operating agency, separate from the headquarters of each component commander. Each CONAD Region Commander and CONAD Division Commander will establish and maintain a joint staff, as prescribed in paragraph 3024A, Joint Action Armed Forces (JAAF) to operate under the basic principles set forth in paragraph 30302, JAAF. The size of the staff will be limited to the minimum number of personnel required, and the physical facility limited to that required to permit the CONAD Commander to exercise operational control and to conduct operational planning. (See attachment 1 and 2.) Component commanders, at each echelon of command, by inter-command coordination will integrate component administrative, personnel, logistic, and training programs into CONAD operational concepts. CONAD centers, therefore, will not be staffed to perform these functions.

a. Personnel.

(1) Recommended Unit Manning Documents for CONAD Division Control Center will be prepared by cognizant CONAD Division Commanders in consultation with associated Division level Component commanders and forwarded to CONAD Region Commanders for review and further submission to CINCONAD.

(2) Recommended Unit Manning Documents for CONAD Region Operations Center will be prepared for cognizant CONAD Region Commanders, in consultation with associated Region level Component commanders, and forwarded to CINCONAD.

(3) CINCONAD, in consultation with Component commanders at Headquarters CONAD level will review and approve or revise, as appropriate, all Unit Manning Documents and subsequent revisions thereto.

(4) Unit Manning Documents and revisions thereto approved by CINCONAD will be submitted as a CONAD requirement to the Joint Chiefs of Staff.

(5) All personnel attached to CONAD Region or Division Centers will be administratively assigned to appropriate Region or Division level Component headquarters.

CONADR 21-1

(6) Component commanders, through Service chains of command, will take necessary action to provide and maintain personnel for each CONAD Center in accordance with approved Unit Manning Documents.

b. Facilities: Requirements for CONAD Division Control Center and CONAD Region Operations Center facilities will be forwarded to CINCONAD for approval and further submission to the Joint Chiefs of Staff in the same manner as recommended Unit Manning Documents. Component commanders, through Service chains of command, will take necessary action to provide and maintain facilities and services in accordance with approved plans.

c. Command: Command of each CONAD Region and CONAD Division will be vested in a senior officer designated by CINCONAD. Command responsibility will be limited to those specific functions involved in operational control as defined herein. A component commander at CONAD Region or CONAD Division level may be additionally designated by CINCONAD, in consultation with the appropriate component commander, as CONAD Region or CONAD Division Commander. In such case, the Commander, as a Component Commander, will be responsible to his component superior for all uni-service command matters, and to his CONAD superior for all CONAD command matters, i.e., operational control of all CONAD Forces. Commanders acting in a dual capacity will not intermingle their Component and CONAD staffs, nor will they assign to either staff responsibility which is in the functional area of the other.

#### 7. Operations Below CONAD Division Level.

a. CONAD Division Commanders exercise control of weapons and/or assign targets to all weapons through ADC Direction Centers and ARAACOM Antiaircraft Control Centers in accordance with current operations directives. In addition, ADC Direction Centers are responsible to CONAD Division Commanders for surveillance, identification and warning activities within assigned areas.

b. In order to provide for the fully integrated control of all weapons within a specified geographical area, individual weapons control systems will be co-located at CONAD Direction Centers whenever operationally and economically feasible. (See paragraph 5g) CINCONAD, by separate directives, will designate such CONAD Direction Centers and will prescribe operating procedures therefor.  
(COOPC)

BY ORDER OF THE COMMANDER-IN-CHIEF:

OFFICIAL:

MARSHALL S. CARTER  
Major General, USA  
Chief of Staff

*WJR*

W. J. BIRMELE  
Lt Col, USAF  
Adjutant

#### 3 Attachments:

1. Functions of the Comdr, CONAD Forces, CONAD Region
2. Functions of the CONAD Div Comdr
3. Orgn Chart

#### DISTRIBUTION:

Joint Air Def Forces (20)  
Joint Air Divs (10)  
ADC (3500)  
NAVFORCONAD (25)  
ARAACOM (350)

#### Other:

JCS	Hq RCAF	CINCNEAC
C/S USAF	CINCLANT	MaJ AF/ARMY/NAVY Comds
C/S US Army	CINCPAC	
CNO	CINCARIB	
CMC	CINCAL	

(ADC-7387-6)

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FUNCTIONS OF THE COMMANDER, CONAD FORCES, CONAD REGION

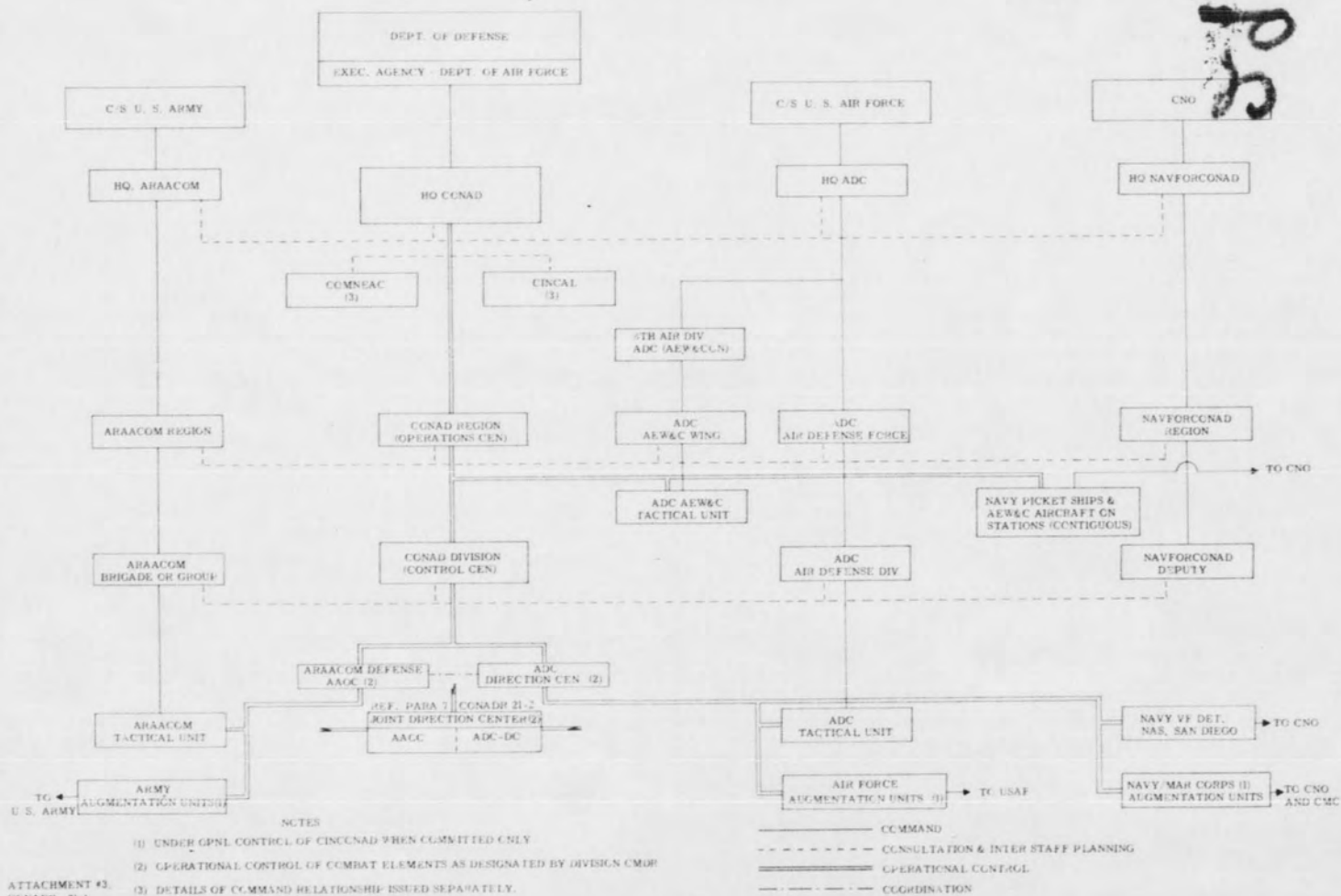
1. In accordance with CONAD plans and directives, exercise operational control over all forces made available for air defense.
2. Implement CONAD operations plans and directives and exercise such emergency powers as may be delegated, when so directed by proper authority.
3. Prepare operations plans in support of CONAD plans and directives for the defense of the Region against air attack and submit these plans to CINCONAD for approval.
4. In consultation with Region level Component commanders, insure that adequate plans have been formulated for full operational utilization of all military forces, including reserve forces, which may become available for air defense.
5. In consultation with appropriate commanders, plan and conduct joint exercises to assure effective integration into the air defense system of forces which are, or may be, made available.
6. Advise CINCONAD as to the operational capability of the combined force.
7. Coordinate with appropriate Canadian commands and agencies on air defense matters within the Region area of responsibility.
8. Coordinate with and assist appropriate agencies in the implementation of prescribed procedures pertaining to SCAT, CONELRAD, and CONILLUM within the Region area of responsibility.
9. Coordinate with and advise appropriate FCDA and SCD agencies and other nonmilitary agencies on matters pertaining to air defense within the Region area of responsibility.
10. Coordinate and maintain liaison with appropriate commands and agencies for the exchange of air defense operational and intelligence information.
11. Coordinate operational intelligence information reporting to insure the complete and expeditious two-way flow of intelligence between the Center, subordinate centers, CONAD Headquarters, Region level Component headquarters, and other Department of Defense and U. S. Governmental Agencies within the Region, and adjacent U.S. and Canadian commands.
12. Perform other functions assigned by CINCONAD.

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FUNCTIONS OF THE CONAD DIVISION COMMANDER

1. In accordance with CONAD and CONAD Region plans and directives, exercise operational control over all forces made available for air defense.
2. Implement CONAD and CONAD Region operations plans and directives and exercise such emergency powers as may be delegated, when so directed by proper authority.
3. Prepare operations plans in support of CONAD and CONAD Region plans and directives for the defense of the Division against air attack and submit these plans to Commander, CONAD Forces, CONAD Region for approval.
4. In consultation with Division level Component commanders and Naval deputies, insure that adequate plans have been formulated for full operational utilization of all military forces, including reserve forces, which may become available for air defense.
5. In consultation with appropriate commanders and Naval deputies, plan and conduct joint exercises to assure effective integration into the air defense system of such forces as are, or may be, made available.
6. Advise Commander, CONAD Forces, CONAD Region, as to the operational capability of the combined force.
7. Coordinate with appropriate Canadian commands and agencies on air defense matters within the Division area of responsibility:
8. Coordinate with and assist appropriate agencies in the implementation of prescribed procedures pertaining to SCAT, CONELRAD and CONILLUM within the Division area of responsibility.
9. Coordinate with and advise appropriate FCDA and SCD agencies and other nonmilitary agencies on matters pertaining to air defense within the Division area of responsibility.
10. Coordinate and maintain liaison with appropriate commands and agencies for the exchange of air defense operational and intelligence information.
11. Coordinate operational intelligence information reporting to insure the complete and expeditious two-way flow of intelligence between the Center, subordinate centers, CONAD Region operations centers, Division level Component headquarters and other Department of Defense and U. S. Governmental Agencies within the Division, and adjacent U. S. and Canadian commands.
12. Perform other functions assigned by Commander, CONAD Forces, CONAD Region.





**SUBJECT: Reorganization of Commanders**

**TO: Commander**  
**Air Defense Command**  
**Fort Air Force Base**  
**Colorado Springs, Colorado**

1. This Headquarters is in the process of establishing Regional Continental Air Defense Forces and Continental Air Defense Divisions in lieu of the presently existing Joint National Air Defense Forces and Joint Air Defense Divisions. These new organizations will be effective 2 January 1957.

2. The commanders of the presently designated Joint Air Defense Forces and Joint Air Defense Divisions are the same General Officers as have been designated by USAF as Commanders of the associated Air Defense Command organizations. This designation of Commanders of these new organizations is in accordance with the provisions of Section 10 of the Air Force, Subject: "Continental Air Defense Command (COMAD)", dated 27 August 1954. It is proposed that the present commanders of the Joint Air Defense Forces and Divisions be appointed as commanders of the corresponding newly established COMAD Regional Forces and COMAD Divisions effective 2 January 1957.

3. It is noted, however, that official assignment of General Officers of the United States Air Force is accomplished by Department of the Air Force special orders. Since the assignment of these USAF General Officers to the newly established COMAD Regional Forces and COMAD Divisions will involve an additional task and a different kind of command, it is requested that, as a temporary measure, still available full time commanders can be made available for these COMAD units, the following named USAF General Officers be designated by appropriate orders as commanders of the units indicated as additional duty with no change-duty stations:

MEMORANDUM FOR RECORD:

## HQ COMAD, Subject: Designation of Commanders (Continued)

NAME	POSITION
Major General Morris E. Martold	Commander, Continental Air Defense Forces, Eastern COMAD Region
Major General Jarrod V. Crabb	Commander, Continental Air Defense Forces, Central COMAD Region
Brigadier General Monroe MacCloskey	Commander, Continental Air Defense Forces, Western COMAD Region
Brigadier General Sam W. Agee	Commander, 9th Continental Air Defense Division (9th COMAD DIV)
Brigadier General Clifford H. Rees	Commander, 20th Continental Air Defense Division (20th COMAD DIV)
Brigadier General Romulus W. Puryear	Commander, 25th Continental Air Defense Division (25th COMAD DIV)
Brigadier General Thayer S. Olds	Commander, 26th Continental Air Defense Division (26th COMAD DIV)
Brigadier General Frank E. Souce	Commander, 27th Continental Air Defense Division (27th COMAD DIV)
Brigadier General Monroe MacCloskey	Commander, 28th Continental Air Defense Division (28th COMAD DIV)
Brigadier General Harold L. Neely	Commander, 29th Continental Air Defense Division (29th COMAD DIV)
Brigadier General Benjamin J. Webster	Commander, 30th Continental Air Defense Division (30th COMAD DIV)
Brigadier General William A. Matheny	Commander, 31st Continental Air Defense Division (31st COMAD DIV)

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In COMAD, Subject: Designation of Commanders (Continued)

<u>NAME</u>	<u>POSITION</u>
Brigadier General Robert S. Israel, Jr.	Commander, 32nd Continental Air Defense Division, (32nd COMAD DIV)
Brigadier General William P. Buckels	Commander, 33rd Continental Air Defense Division, (33rd COMAD DIV)
Brigadier General Wendell W. Bowman	Commander, 34th Continental Air Defense Division, (34th COMAD DIV)
Brigadier General Edward N. Backus	Commander, 35th Continental Air Defense Division, (35th COMAD DIV)
Brigadier General William H. Rice	Commander, 37th Continental Air Defense Division, (37th COMAD DIV)
Brigadier General Von R. Shores	Commander, 58th Continental Air Defense Division, (58th COMAD DIV)
Brigadier General Emmett F. Yost	Commander, 85th Continental Air Defense Division, (85th COMAD DIV)

4. It is further requested that this Headquarters be advised at the earliest practical date concerning any contemplated change in assignment of the above listed USAF Officers, in order that necessary administrative actions may be accomplished.

E. E. PATRIDGE  
General, USAF  
Commander-in-Chief

CON. HIST.

*Actual date dispatched*  
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SUBJECT: CONAD subordinate Headquarters Unit Manning Documents

TO: Chief of Staff, United States Air Force  
as Executive Agent for CONAD  
Washington 25, D. C.

1. References:

a. Appendix 1, Letter Joint Chiefs of Staff, Subject: "Terms of Reference for CINCONAD," 54-716-56, 4 September 1956.

b. COMAIRM 21-1, 21 December 1956.

2. Paragraph 7a of reference 1a provides that CINCONAD will establish such subordinate joint organizations as he deems necessary for the accomplishment of his assigned mission, including those necessary to permit centralized control and employment of all air defense weapons assigned, attached or otherwise made available." However, no procedure is prescribed for providing necessary personnel for the manning of such subordinate joint organizations.

3. Reference 1b establishes a subordinate CONAD organization consisting of three CONAD Regions and sixteen CONAD Divisions. With the reassignment of responsibilities in the "Northeast" area, the 64th CONAD Division was established, bringing the total to 17. At the present time, all subordinate CONAD headquarters, lacking an approved Unit Manning Document, must operate on a provisional basis. These provisional headquarters have provided a means of establishing, on the basis of operational experience, realistic manning requirements. At the same time, the fact that such headquarters have no official status provides a bar to full Service support. This situation has been intensified by present and programmed personnel reductions affecting each of the CONAD Components.

4. The attached Unit Manning Documents for the three CONAD Regions and seventeen CONAD Divisions (Inclosures 1 through 8) will provide CINCONAD with subordinate joint headquarters through which operational control of all forces assigned, attached, or otherwise made available may be exercised under the normal air defense system. It is considered that these operational agencies are essential in carrying out the assigned CONAD mission.

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COHCS

6 December 1956 **32**

SUBJECT: (U) Implementation of Missile Master (AN/FSG-1)

TO: Commander, Air Defense Command, 1st Air Force  
Base, Colorado Springs, Colorado  
Commanding General, Army Antiaircraft Command,  
1st Air Force Base, Colorado Springs, Colorado

1. Reference is made to:
  - a. COMAD letter, Subject: "(U) AN/FSG-1, Missile Master", dated 23 November 1956, and inclosures thereto.
  - b. ARAACOM letter, subject as above, dated 26 November 1956. (ADC - copy attached.)

2. Optimum employment of air defense weapons and their ground environment system requires centralized control of all air defense elements under a single air defense commander responsible for the air defense of a designated area. This system must also provide means for the immediate decentralization of control to any or all subordinate levels upon decision by the air defense commander. Centralized control can best be effected when the control functions of different weapons systems are centrally located and fully integrated. Side benefits from co-location and integration include economy of personnel and equipment.

3. The AN/FSG-1 and the GFA-37 are essential elements for control of air defense weapons. They are permanent installations and should be compatible with, or complementary to, SAGE when that system is operational. Missile Masters and Radar Direction Centers will therefore be co-located and the operations functions will be integrated in the same operations room at facilities which will be designated as Joint Direction Centers.

4. In view of the foregoing:
  - a. The nine defenses recommended for AN/FSG-1 are approved.
  - b. As to actual AN/FSG-1 sites at these nine defenses,
    - (1) Those at ADC Site F-9, Highlands, N.J.; ADC Site P-20, Selfridge AFB, Michigan; and ADC Site F-21, Lockport AFB, N.Y., are approved.
    - (2) Site selection for the remaining six Missile Masters will be recommended jointly by ADC and ARAACOM to COMAD not later than 15 January 1957. CAA requirements will be considered where pertinent.

Maj/Gen M S Carter/hs/2202/6 Dec 56/COHCS  
M/3: Ex Incl not for AG files.

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COHCS, Hq CONAD, Ent AFB, Subj: (U) Implementation of Missile Master (AN/FSG-1) Program 32

c. The ADC gap-filler program is to be adjusted to insure that low altitude coverage requirements for AA weapons complexes are fulfilled in accordance with the concepts outlined in the referenced correspondence.

d. Further guidance will be furnished by CONAD as required.

cc: COMNAVFORCONAD

E. B. PARTRIDGE  
General, USAF  
Commander-in-Chief

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DEPARTMENT OF THE AIR FORCE  
OFFICE OF THE CHIEF OF STAFF  
UNITED STATES AIR FORCE  
WASHINGTON, D. C.

10 July 1956

SUBJECT: (Unclassified) Continental Air Defense

TO: Commander-in-Chief  
Continental Air Defense Command  
Ent Air Force Base, Colorado

1. References are:

- a. JCS1899/252
- b. JCS1899/265, Page 1827, Paragraph 4
- c. JCS.899/264
- d. Memorandum for Secretary Air Force from Secretary Defense  
21 June 1956, w/Attachment
- e. JCS1899/274

2. Reference is made to the recent Joint Chiefs of Staff and Armed Forces Policy Council considerations of SAGE and AN/FSG-1 in Continental Air Defense. As a result of these considerations, two separate aspects of the problem have been identified: (a) command arrangements and operational control, and (b) technical aspects, each of which is being treated with separately. In regard to the latter, the Secretary of Defense has concurred in views of the Chairman, Joint Chiefs of Staff, (contained in JCS 1899/264) and requests that CINCONAD submit a program for testing the feasibility and operational desirability for the centralized control of anti-aircraft batteries through an economical implementation of the SAGE System and Missile Master System, or some modification thereof, for the effective utilization of the antiaircraft units in Continental Air Defense.


3. Copies of the memorandum from the Secretary of Defense (see reference d above) are inclosed for your review. The above references correspond to and clarify the references in the Secretary's memorandum. Pertinent Joint Chiefs of Staff papers are being made available through normal channels. Specifically attention is invited to the Secretary of Defense decision on command arrangements and operational control (JCS 1899/265 and 1899/274).

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Ltr to CINCONAD, subj: (Uncl) Continental Air Defense (Cont)

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4. Attention is invited to the suspense of 15 September 1956 established by the Secretary of Defense. It is requested that your reply be transmitted so as to arrive in this Headquarters no later than 31 August 1956. Your reply should not refer to Joint Chiefs of Staff actions by number.

/s/t JACOB E. SMART  
Major General, US Air Force  
Assistant Vice Chief of Staff

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June 21, 1956

MEMORANDUM FOR THE SECRETARY OF THE AIR FORCE

SUBJECT: Continental Air Defense

- References: (a) Memorandum for JCS, 2 February 1956, from the Secretary of Defense, subject: "Operational Control of Weapons Systems in Continental Air Defense"
- (b) Advice of Action dated 7 May 1956, AFPC meeting of 3 May 1956
- (c) Memorandum for the Secretary of Defense, 18 May 1956 from JCS, subject: "Operational Control of Weapons Systems in Continental Air Defense"
- (d) "Summary of Discussions of Technical Aspects of Air Defense relative to the Integration of the AN/FSS-1 System with the SAGE SYSTEM"
- (e) Memorandum for JCS, 15 June 1956, from the Secretary of Defense, subject: "Continental Air Defense"

The views of the Chairman of the Joint Chiefs of Staff are concurred in insofar as the specific problem of the AN/FSS-1 equipment is concerned as expressed in Enclosure "A", Item b (1), (2), (3), to the referenced 15 May 1956 JCS memorandum. The summary prepared by the Assistant Secretary of Defense (N&D), copy attached, contains comments and recommendations on how this integration might be accomplished.

It is requested that CINCPAC, through the Department of the Air Force as executive agent for the Continental Air Defense Command, review these proposals and other related considerations and submit to me for approval by 15 September 1956 a program for testing the feasibility and operational feasibility for the centralized control of antiaircraft batteries for use in an economical implementation of the SAGE system and MISSILE MASTER system, or some modification thereof, for the more effective utilization of the antiaircraft units of the Army in Continental Air Defense.

Your attention is invited to paragraph 4.1.3(c) of the recommendations in the JCS 15 June 1956 memorandum, "...The development and procurement of air defense weapons and equipment should be responsive to the requirements laid down by CINCPAC as approved by the JCS and should be accomplished by the Departments of the Army, Navy and Air Force in accordance with existing procedures."

s/A C. B. WILSON

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SUBJECT: (U) Integration of SAGE and Missile Master

TO: Chief of Staff  
United States Air Force  
As Executive Agency for COMAD  
Headquarters USAF  
Washington 25, D. C.

- 1947 19 Sept 56  
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1. Reference Headquarters USAF letter, Subject: (U) Continental Air Defense, dated 10 July 1956, with inclosed Memorandum from Secretary of Defense.
  2. A complete review of Missile Master (FSG-1) as a COMAD weapon control system under a centralized control concept has been made. It was concluded that the Missile Master (FSG-1) with minor modification can be utilized in the air defense system for more effective employment of AA weapons. The Missile Master capability can be used prior to SAGE to provide a better AA weapons capability, and during the SAGE era to support and back-up the SAGE system.
  3. The Missile Master integration with the manual environment poses the immediate problem to be resolved. The optimum method of integrating the Missile Master with SAGE will be determined by the decisions made and precedents established for use of the FSG-1 in the manual system.
  4. A program to test the integration of SAGE and the Missile Master has been completed as requested by the Secretary of Defense in Memorandum inclosed with the referenced letter, and is attached as Inclosure #2. As a necessary basis for formulating the test program, the operational procedures required to employ AA weapons using both Missile Master and SAGE were developed. A brief outline of this SAGE-FSG-1 operation concept is attached as Annex C, Inclosure #1.
  5. The plan for testing an integrated SAGE-FSG-1 system will meet the requirements for testing technical feasibility and operational desirability criteria. The test program of SAGE-Missile Master does not include the test of ~~Missile Master~~

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CORSI, HQ CONAD, Subj: (U) Integration of SAGE and Missile Master

the F30-1 with manual environment. These tests are planned for early 1958 when the first F30-1 is operational at Fort Meade and will provide data as to specific number of consoles required, operational procedures, etc. Final test results can be obtained after a SAGE computer program is completed containing the computer logic designed to assign targets direct to AA batteries. It is estimated that a computer program designed to integrate all new weapons, including AA weapons and the F30-1, will be available in September 1959.

6. The F30-1 system can function either under a decentralized or centralized control concept, although the centralized control concept is contrary to Army philosophy. The test program was designed to determine the most effective method of controlling AA weapons in the SAGE era and no known technical limitation will prevent implementation of either method of control determined to be the most effective.

7. In considering the methods of resolving the radar requirements of the F30-1, CONAD determined that separate surveillance, height finding, gap filler and IFF radars were not necessary for the F30-1. The F30-1 surveillance requirement can be met by locating all F30-1 sites at ADC Manual Direction Centers and readjusting ADC gap filler deployments. This concept of joint utilization will require the establishment of a few additional ADC manual radar direction centers and relocation of possibly six others. This increases operational capability and clarifies command responsibilities, both in the pre-SAGE era and when the SAGE system is operational. Under this concept the F30-1 surveillance requirements which can be realistically achieved will be fulfilled by joint use radars. In addition, many of these radar facilities can be used to satisfy CAA needs. A detailed explanation of this concept, together with an estimated cost analysis, is contained in Inclosure #1.

8. In several locations ADC, ARMOCK and CAA operational requirements could best be met at a single facility where the overall air situation is displayed and integrated control can be exercised. This is technically and operationally feasible, and economically desirable. During the SAGE era the co-location of F30-1 and prime radar sites provides a realistic and effective back-up capability which would not exist if two facilities were separated. Maximum economy can be achieved in that superfluous or duplicated ~~operating positions~~ operating positions can be deleted and CAA and military funds can be jointly committed. In some cases CAA funds will be committed for procurement of radars that can be jointly

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Hq CONAD, Subj: (U) Integration of SACs and Missile Master

used. The relocation or procurement of new ADC radars will increase USAF financial obligations; therefore, additional funds for this purpose should be provided.

9. The Army has committed 96.5 million dollars for ten Missile Masters designed to function as independent fire control systems. Considering that the Army has made this commitment and that these ten Missile Masters can be operational prior to SACs, the first ten FSG-1 systems should be utilized in the Continental Air Defense Command. A study of the requirements for an additional seven Missile Masters and/or modified FSG-1 systems for small AA weapon complexes is now underway by the CONAD staff. Procurement and implementation action should be limited as far as possible to the first ten Missile Master systems until this study is completed.

10. Co-location of the FSG-1 with Manual Direction Centers will permit deletion of certain operating positions now included in the FSG-1. Command, identification, surveillance and tracking consoles appear to duplicate the functions performed in a Manual Direction Center and may not be required. This matter will require separate detailed study in accordance with the principles outlined in Annex B to Inclosure 1.

11. It is recommended that:

- a. Ten Missile Masters modified to operate under the concept outlined in Inclosure 11, be provided to the Continental Air Defense Command and installed in priority as outlined in Annex B, Inclosure 1.
- b. Missile Masters be located at ADC manual radar direction centers.
- c. Additional Missile Masters or modified Missile Masters for small AA weapon complexes not be procured until CONAD determines the requirement for such systems.
- d. The relocation or purchase of ADC or additional CAA radars be coordinated to provide surveillance to meet all military and other governmental agency needs.
- e. Result of test of first Missile Master at Fort Meade with manual air defense environment be used to determine specific numbers of consoles required.

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CORSI, Hq CONAD, Subj: (C) Integration of SAGE and Missile Master

f. The technical feasibility test be phased into the normal workload for programming the SAGE computer, as outlined in the proposed test program.

g. The operational feasibility and desirability tests be conducted when the SAGE computer program has been modified to operate with the FAC-1 system in an operational subsector as outlined in the test program.

2 Incls

1. Study Pertaining to Integration of Missile Master into CONAD, w/4 Annexes
2. Proposed CONAD Plan of Test

S. C. PARTRIDGE  
General, USAF  
Commander-in-Chief

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STUDY PERTAINING TO THE INTEGRATION OF MISSILE  
MASTER INTO CONAD

1. Statement of Problem. Determine the feasibility of and a method for integrating Missile Master (FSG-1) into the Continental Air Defense System.

2. Discussion.

This study was made by the CONAD staff for the purpose of outlining a philosophy for integrating the Missile Master (FSG-1) into the Continental Air Defense System.

This paper is based on a series of conferences conducted by a CONAD group. The group met with personnel from Martin Aircraft Company, (prime contractor of Missile Master), Lincoln Laboratory (design agency SAGE System), Western Electric (NIKE contractor ~~XXXX~~), Signal Corps Engineer Laboratory, Department of Army, CONARC, ARDC, WSEG and Deputy for R&D, DOD.

The Missile Master integration with the manual environment poses the immediate problem to be resolved as the FSG-1 will be available prior to SAGE. The optimum method of integrating the Missile Master with SAGE will be determined by the decisions made and precedents established for use of the FSG-1 in the manual system.

The concept outlined establishes the doctrine for centralized control of all air defense weapons, both prior to and during the SAGE era. Although centralized control of AA weapons is contrary to Army philosophy, the decentralized concept is not discussed in this document as the Secretary of Defense requested that CINCONAD establish and delineate a concept for centralized control.

Incl #1 [REDACTED]



[REDACTED]

The ultimate CONAD objective is centralized control of all air defense weapons. This objective is attained through the use of a joint CONAD facility where the overall air situation is displayed for a defined geographical area and where integrated weapon control can be exercised.

A method was developed for use of the Missile Master in CONAD for more effective employment of NIKE. The Missile Master provides a centralized control capability which improves the fire distribution of NIKE. The optimum method of integrating the Missile Master in the Continental Air Defense System is to locate all FSG-1 systems at the Manual Direction Centers. Co-location of the two facilities will permit the allocation, commitment and employment of NIKE with all other air defense weapons in the same geographical area. The CONAD requirement both prior to and during the SAGE era is the co-location of the manual direction center and the FSG-1. The SAGE system meets the ultimate objective for centralized control and a joint Manual Direction Center - Missile Master fulfills the CONAD requirement prior to SAGE. The joint facilities will increase operational effectiveness, will clarify command responsibilities, and are realistic economical requirements.

Discussion topics that require detailed analysis are covered in separate annex listed below:

Annex "A" - Concept for Continental Air Defense Command System for Centralized Control of all Air Defense Weapons.

Annex "B" - An Operational Procedure for Integrating the Missile Master into the Manual Environment.

[REDACTED]


Annex "C" - Operational Procedures for Missile Master in SAGE Era.

Annex "D" - Estimated Cost of Integrating Missile Master in CONAD.

3. Conclusions.

- a. The effectiveness of NIKE will be increased through the integration of the FSG-1 into the Continental Air Defense System.
- b. Co-location of Missile Master systems with Manual Direction Centers, is the optimum method of integrating NIKE with other air defense weapons in the Continental Air Defense System. It is not possible to provide an integrated control capability of all air defense weapons if these facilities are separated.
- c. Savings in manpower and equipment will be realized by co-locating FSG-1 systems with Manual Direction Centers.
- d. Realistic data input requirements for the FSG-1 can be provided by the Air Defense Command ground environment.
- e. The requirement for radar coverage to the minimum altitude of 100' is technically and economically unrealistic. A minimum requirement of 500', which is the current ADC criteria, is an acceptable operational requirement for the FSG-1.
- f. Changes must be made in the ADC radar deployment to meet AA surveillance requirements.
- g. The joint facility concept implemented for the manual environment will also apply during the SAGE era and SAGE-Missile Master integration can be accomplished with no significant changes in philosophy or equipment.

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 h. The joint use philosophy is applicable to all other air defense weapon control systems and can be expanded to satisfy air traffic control (CAA) needs.

4. Recommendations.

a. Ten Missile Masters with modifications should be added to the Continental Air Defense Command and installed in the priority outlined in Annex "B".

b. Missile Masters must be located at ADC manual radar direction centers.

c. Additional Missile Masters or modified Missile Masters for small AA weapon complexes should not be procured until the CONAD staff determine the requirement for such systems.

d. ADC or CAA radars must be purchased or relocated as required to provide surveillance to meet all military and other government agency needs.

e. Funds for relocation or purchase of new ADC radars must be provided.

ANNEX A

CONCEPT FOR CONTINENTAL AIR DEFENSE COMMAND SYSTEM  
FOR CENTRALIZED CONTROL OF ALL AIR DEFENSE WEAPONS

1. Objective. The ultimate CONAD objective is a detection and control facility which serves as a joint Direction Center where the over-all air situation is displayed, for a defined geographical area, and where integrated control of all weapons can be exercised.

2. Basic Principles.

a. All air defense weapons will be deployed and employed to provide the capability for integrated use in an air battle.

b. In a defined geographical area, a Joint Direction Center will be designated to exercise weapons control and/or to assign targets for all weapons in that area.

c. The Commander of the Joint Direction Center (Manual or SAGE) will be responsible for all weapon control and target assignment functions in the assigned geographical area.

d. Individual weapon control systems, i.e., the PSG-1, GPA-37, etc., will be co-located at designated Joint Manual Direction Centers.

e. The detection and control environment must be designed and deployed to fulfill the data input requirements for all air defense weapons and their individual control systems.

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f. A single integrated environment operated by the Air Defense Command will provide the surveillance and identification data required for all weapons control systems used in the Continental Air Defense Command. Separate radars which duplicate the surveillance and identification functions being performed by this environment will not be used for individual weapons systems.

g. Sound operational or economical limitations may prevent the fulfillment of all requirements for an individual weapon. The requirements for the individual and/or all other weapons will be adjusted to provide the best over-all air defense capability.

h. The various methods of air defense operation will range from complete centralized control by the primary Direction Center to autonomous weapon operation and are described as Modes of Operation. The alternate modes can be implemented either for tactical reasons or because of equipment failures. However, centralized control to the maximum extent possible is the prime operational objective. There are four such modes of operation during the SAGE era and two modes of operation which are applicable prior to SAGE. All four modes described below cover the SAGE era while Modes III and IV outline the method of operation with the manual environment.

[REDACTED]

(1) Mode I. The primary mode of operation is Mode I. Complete control of the air battle within a SAGE subsector, with the functions of surveillance, identification and intercept direction or target weapon pairing, will be performed at the SAGE Direction Center.

(2) Mode II. If the primary SAGE Direction Center is inoperative, the adjacent SAGE Direction Centers will accept portions of air defense responsibility in the disabled subsector through the cross-ties provided. The operations ordinarily performed by a disabled subsector will be performed by the adjacent subsectors.

(3) Mode III. In this mode of operation the primary SAGE Direction Center or the adjacent SAGE Direction Center do not assign tracks to specific AA Fire Units. The Joint Manual Direction Center will be responsible for all weapon control and target assignment functions in the assigned geographic area.

(4) Mode IV. In this mode of operation, AA Batteries operate autonomously. The weapon target assignments will be accomplished at the Batteries.

3. Other Considerations.

a. The surveillance requirement presently stated by the Army for the Missile Master was studied in detail. An analysis was made to determine the number of radars required to meet the presently established 100' requirements.

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A theoretical study for 4/3 earth curvature with zero degrees shows that 63 radars screening/would be needed for an Antiaircraft weapons complex to provide 100' coverage to a range of 200 miles. This was compared to the 500' coverage planned for ADC radars in the New York area. This comparison led to the conclusion that the 100' coverage was unrealistic and economically unacceptable. The two coverage diagrams are attached, Map 1, 2.

b. There is a surveillance requirement for Air Traffic Control (CAA). The Civil Aeronautic Administration requires surveillance data in the area surrounding most of the major cities of the United States. This requirement is similar to the Nike requirement in most areas. The Civil Aeronautic Administration has requested a joint study of ADC radars to meet their requirement based on joint use of facilities. As most ADC radar sites are not located in the immediate vicinity of large cities there is a requirement for new radars. It is imperative that air traffic control and air defense operational activities be integrated to insure effective operation of both agencies and to prevent duplication. The joint use concept of radar facilities will meet the operational requirement of CAA, ARAACOM and ADC in many locations. See Annex "B" for specific locations where radars can be jointly used.

4. Summary.

An analysis of the CONAD system has shown that the

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basic principles outlined above can be fulfilled. The procedures which have been evolved to implement the integration of the FSG-1 into CONAD are technically feasible, operationally desirable, and do not impose unrealistic additional costs.



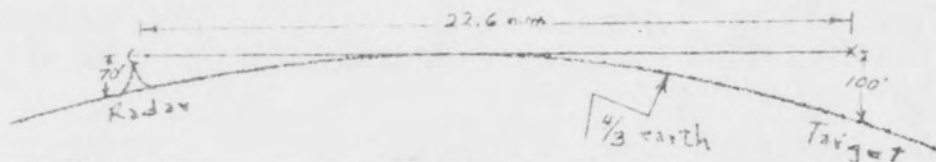
ADOCE-EG  
7 Sep 56

FULFILLMENT OF 100 FOOT RADAR COVERAGE

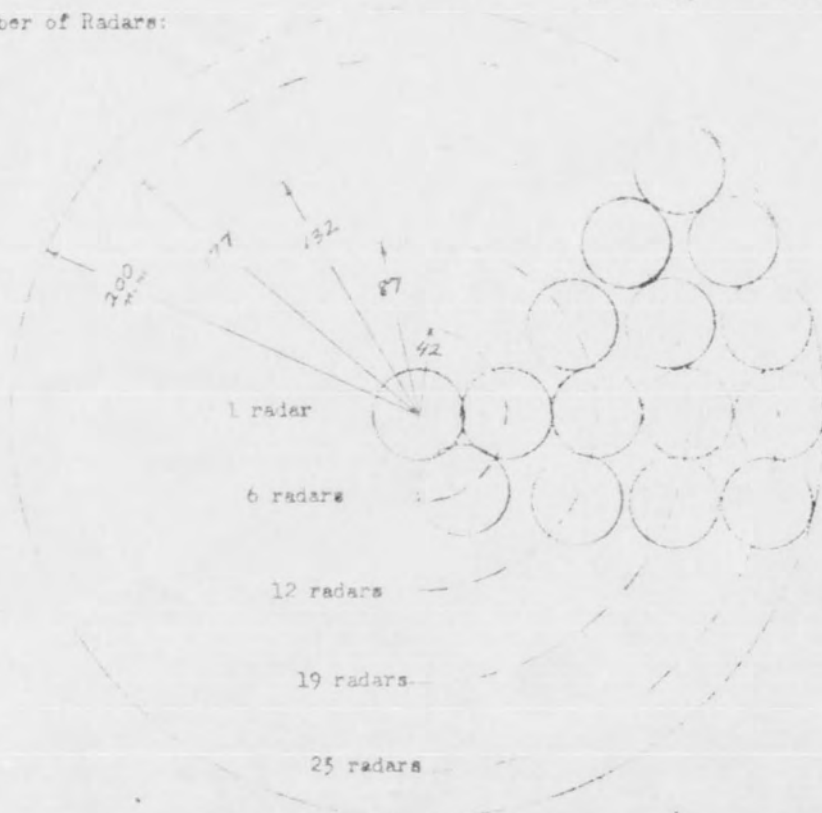
Assumptions:

Radars are located 70' above a spherical earth; 100 foot coverage from adjacent radars is to be tangent under standard refraction conditions; total area to be covered is a circle of 200 NM radius.

Line-of-sight coverage:



Number of Radars:

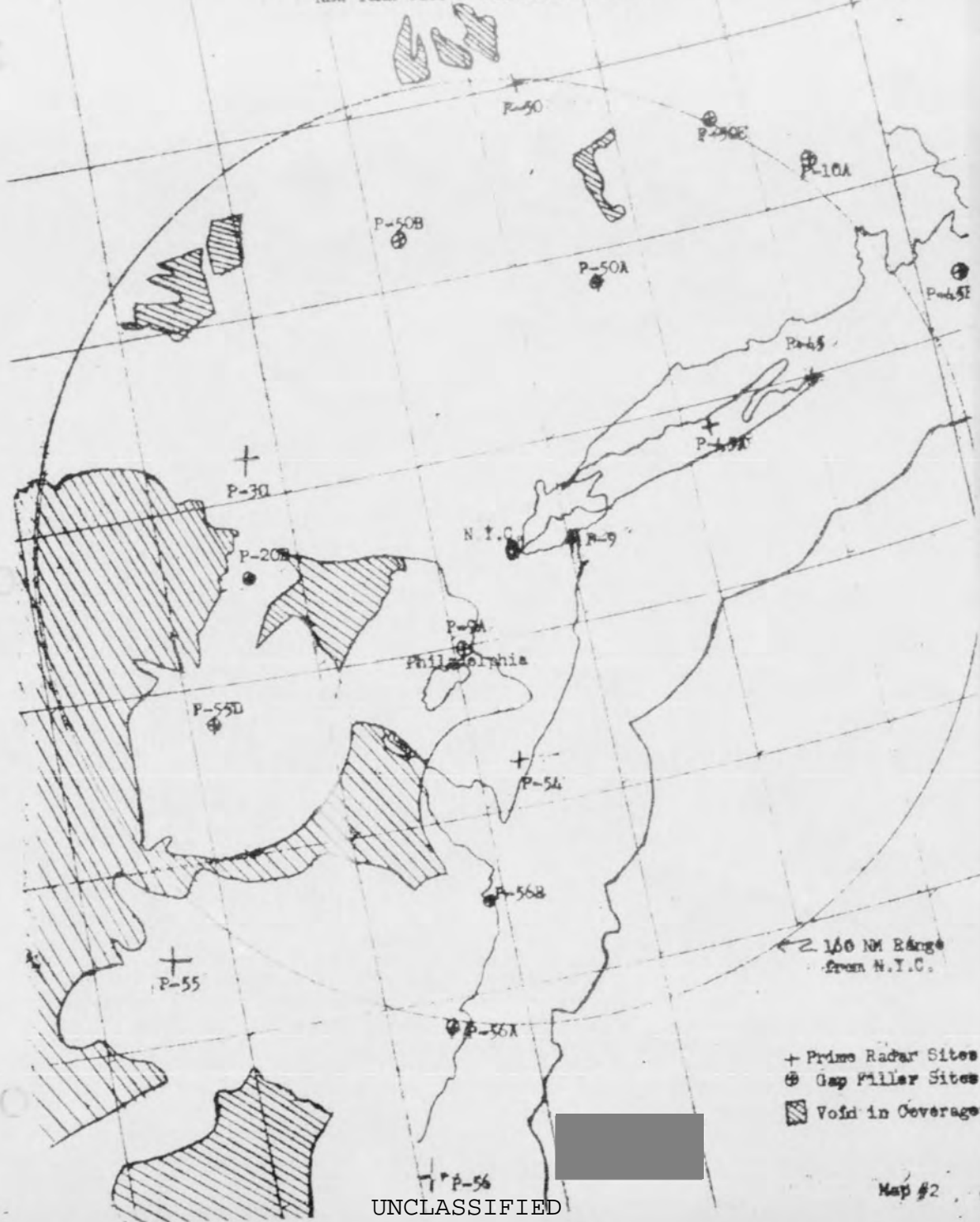


63 radars total

Map #1

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500' COVERAGE FROM ADC RADARS  
NEW YORK CITY - PHILADELPHIA AREA



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## ANNEX B

PROCEDURES FOR INTEGRATING MISSILE MASTER  
into the  
MANUAL ENVIRONMENT

1. General. This annex covers a brief description of the procedures to be used and the facilities required for the integration of the Missile Master into the manual environment. At present, there are no means in the Air Defense System to exercise effective centralized control of AA weapons as ADC Direction Centers are separate from Army Anti-Aircraft Operator Centers (AAOC). Combining these two facilities to function as a joint Direction Center is in consonance with the CONAD objective. Co-location of the FSG-1 and the Manual Direction Center Equipment (GPA-37) is accepted as a fundamental requirement for the procedures outlined herein.

2. Integration of FSG-1 in a specific area.

a. A specific example for the geographical area - Philadelphia and New York - has been selected to describe the method of integration. The procedures to be used and the facilities required in this area will apply to all regions in which the FSG-1 is located.

b. The attached map (No. 3) shows the existing and planned radar facilities for the Philadelphia-New York area. The five radar direction centers in this region (P-9, P-45, P-54 TT-3 and TT-4) will be equipped with the GPA-37 Course Computing Group for the control of interceptors. The AA firing complexes in Philadelphia

[REDACTED]

and New York will require FSG-1 for control of NIKE.

c. NIKE and Air Force weapons are deployed in this region such that both can be employed in the same air space. The integrated use of all available weapons can be achieved by use of a suitably located centralized facility that has available the complete air surveillance picture and the capability for control of all weapons. The two locations best suited for establishing the Joint Manual Direction Centers in this area are at or near New York City and Philadelphia. See Map 3.

d. The radar direction center at Highlands, New Jersey (P-9) meets the requirement for a Joint Manual Direction Center in the vicinity of New York City. There is, however, no ADC radar station suitably located to meet the requirements for the Philadelphia AA weapons complex. A new radar site near Philadelphia would meet AA needs and could also fill the requirements for the use of other weapons in this area. The operational requirements for surveillance and weapon control facilities could best be met in this area by: (1) establishing P-9 and a new site near Philadelphia as Joint Direction Centers, each being equipped with FSG-1 and the normal equipment used at a Manual Direction Center; (2) reducing P-54 to gap filler status or limiting its control capability; (3) maintaining P-45, TT-3 and TT-4 as radar Direction Centers; and (4) changing the deployment of gap filler radars to provide 500' coverage to the maximum range of NIKE units.

[REDACTED]

e. With this arrangement, the Joint Manual Direction Center at P-9, and at the new location at Philadelphia, 34 would be responsible for all action pertaining to the gathering of air surveillance and identification data and the commitment and control of all available weapons in the defined geographical area. Data on the air situation outside the assigned area would be by cross-tell from adjacent radar Direction Centers and/or the Air Division Combat Center.

3. Integration of the FSG-1 in Continental Air Defense System.

a. Further detailed study will be required for the Philadelphia-New York area and for the eight additional areas in which the FSG-1 will be located. Similar study will be required for other areas as additional FSG-1 and/or modified Missile Master Systems for small AA complexes may be established as CONAD requirements.

b. A tentative study has been made for the first ten proposed FSG-1 locations in the same manner as that made for the Philadelphia-New York area. This study indicates that Joint Manual Direction Centers will be required in the priority indicated.

	<u>Missile Master</u>	<u>Manual Direction Center</u>
1.	Ft Meade, Md.	New Facility
2.	New York	P-9 Highlands, N.Y.
3.	Detroit	P-20 Selfridge AFB
4.	Niagra-Buffalo	P-21 Lockport AFS
5.	Seattle	P-1 McChord AFB

	<u>Missile Master</u>	<u>Manual Direction Center</u>
6.	Boston	New Facility
7.	Chicago	New Facility
8.	Philadelphia	New Facility
9.	Los Angeles	New Facility
10.	Pittsburg	New Facility

Eight of the joint facilities could be used jointly with CAA in addition to meeting the military requirements. The eight are: Detroit, Buffalo, Seattle, Boston, Chicago, Philadelphia, Los Angeles and Pittsburg.

c. There are possibly four present Manual Direction Centers (P-31, P-54, P-15 and P-63) which could be deleted or reduced to gap filler status if new facilities are activated to meet the Joint Manual Direction Center criteria. Certain of the currently planned ADC gap fillers should be deleted or redeployed to insure solid 500' coverage in these areas where NIKE can be employed. The changes mentioned above in the overall U. S. ADC radar deployment are shown on the attached Map 4.

#### 4. Joint Facility Description.

a. Initially, the method of combining the FSG-1 and the GPA 37 will be to locate all operating positions (surveillance, tracking, identity, and control) for both equipments in the same operations room. Duplicating functions will be deleted or combined. The separate storage and computing components of the FSG-1 and GPA-37 will be required and could be housed in building annexes to the joint operation room. The attached chart #5 shows a

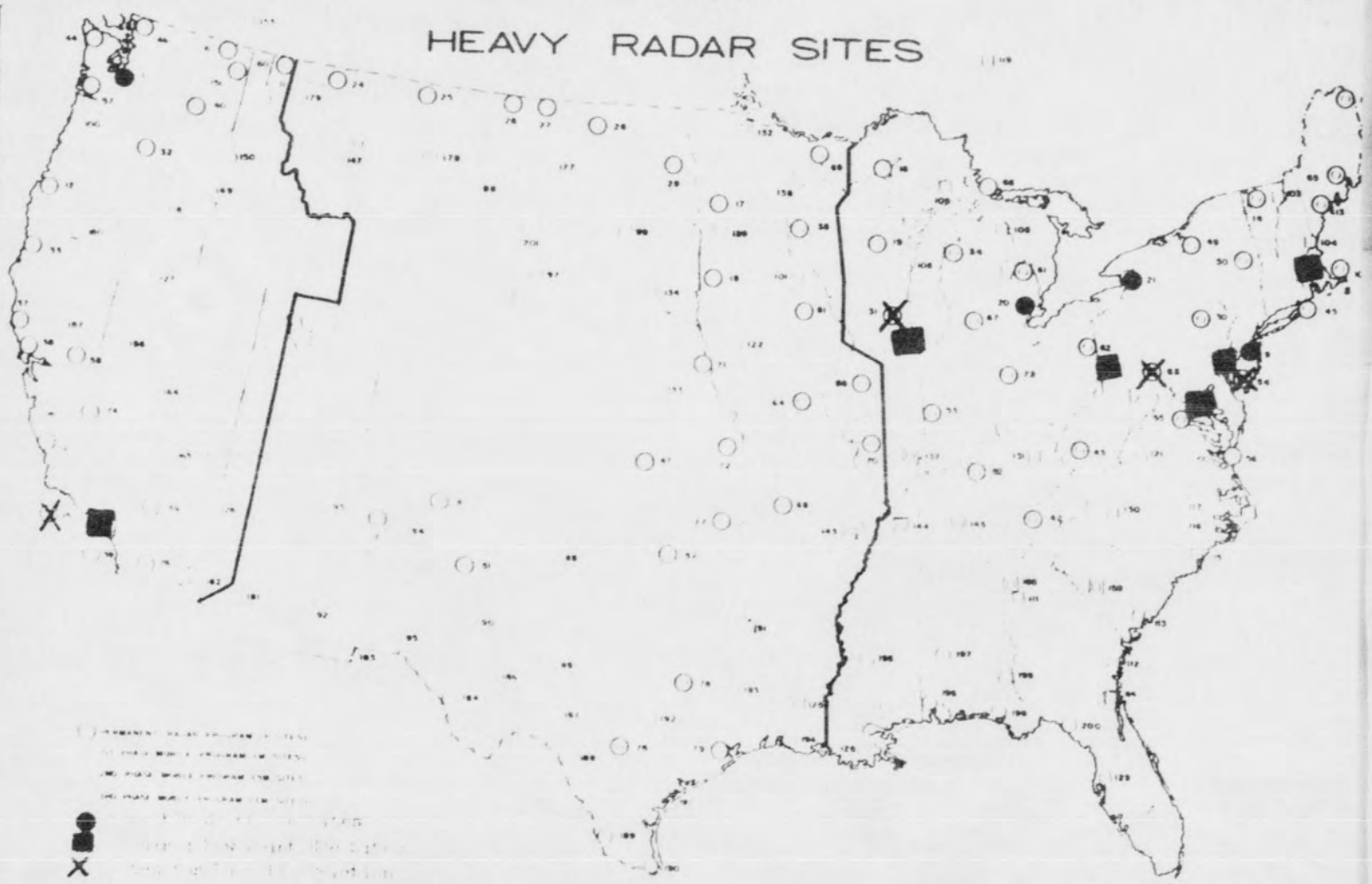
[REDACTED]

proposed layout of Joint Manual Direction Centers. This chart also shows the general layouts of operations rooms of a Missile Master, and a standard ADC Direction Center with GPA-37 for comparison with the joint facility. A cost analysis of these facilities is outlined in Annex D.

b. The Joint Manual Direction Center with the FSG-1 for control of NIKE and GPA-37 to control interceptors provides considerable potential for further combination of facilities and functions. The GPA-37 and the FSG-1 both contain radar aided tracking, analogue conversion and identity equipment. Manual functions such as tracking, identity, surveillance and command are duplicated in both systems. A composite system which incorporates all these functions and facilities into one system can be achieved at a Joint Manual Direction Center which includes an FSG-1. A technical study by Research and Development Agencies will be required to determine the degree to which this can be accomplished.

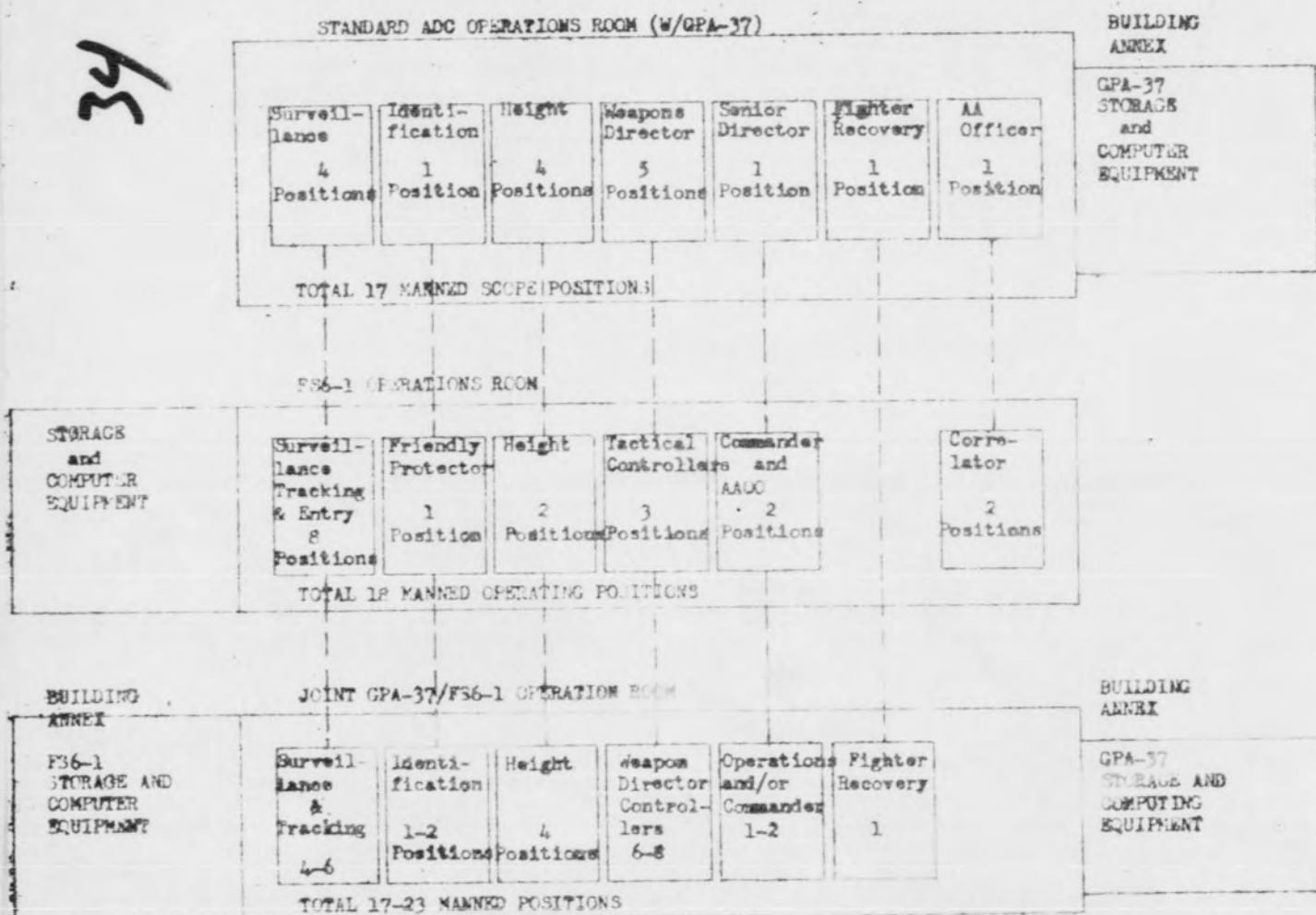
██████████  
ADC RADAR DEPLOYMENT

# HEAVY RADAR SITES



Map 24





COMPARISON OF GPA-37 AND FS6-1 FACILITIES WITH A PROPOSED JOINT FACILITY


CHART # 5

## ANNEX C

OPERATIONAL PROCEDURES FOR MISSILE MASTER IN THE SAGE ERA

1. The method of employment of AA weapons in the SAGE era will be the assignment of designated targets to individual AA Batteries by the SAGE Direction Center through the AN/FSG-1 (Missile Master).
2. The AN/FSG-1 will function to support the SAGE system and serve as "back up" in the event of temporary degraded control capability of the SAGE system.
3. The primary mode of operation in the semiautomatic air defense environment will be centralized control of the entire family of air defense weapons to insure optimum utilization of all available weapons. The SAGE Direction Center with its AN/FSG-7 computer will receive inputs from all data sources having information on friendly and hostile airborne targets, and will then select and assign individual targets to individual weapons. For weapons with their own separate guidance and control systems, (such as NIKE), the technical components of the basic data gathering environment, SAGE and the guidance and control systems will be inter-connected. This interconnection and the related detailed operational plans will be designed to permit maximum weapon effectiveness, and to prevent duplication of facilities. The weapon-target pairing of AA weapons will be performed automatically by the FSQ-7 computer, and the Antiaircraft

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 Weapons Director in the SA E Direction Center will monitor the computer assignment. Targets within AA weapons range will automatically be assigned to the AA Batteries unless manual intervention by an Antiaircraft Weapons Director occurs. This insures, as an example, NIKE employment on all hostile targets within NIKE range unless a negating tactical decision is made and followed by positive action by a human being to override an automatically generated series of commands.

4. To insure reliability and continuity in the primary mode of operation, the AN FSG-7 computer will be duplexed. In addition, critical communication circuits, both digital and voice, will be also duplexed and separately routed. Additional back-up capability for the SAGE system is available within the basic components that support the system. Weapon control facilities, such as the GPA-37 for control of interceptors, and the FSG 1 for control of AA weapons, will be located at AIC radar sites. The air situation will be available at this location and the air battle can be fought at this location in the event of degradation of the SAGE system. The radar site/FSG 1 complex will be referred to as a Manual Direction Center in this Annex. The various methods of air defense operation which range from fully centralized control by the primary direction center to autonomous weapon operation are described as Modes of Operation. The alternate


[REDACTED]

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modes can be implemented either for tactical reasons or because of equipment failures. However, centralized control to the maximum extent possible is the prime operational objective. The modes of operation describe a degradation of centralized control effectiveness, but operation in alternate modes of operation does not necessarily mean an equal degradation of air defense effectiveness.

5. The delineation of modes of operation of the air defense system is dependent upon the degree of centralized control that can be exercised by the SAGE Direction Center or by the supporting facilities of the overall air defense system. Basically, these modes of operation are defined as follows:

a. Mode 1 (Primary Mode). The Joint SAGE Direction Center will make the target assignment for all air defense weapons including long range and medium range interceptors, BOMARC, TALOS, NIKE and other weapons which may be available. Control of all air defense weapons is vested in the Joint Subsector Commander of the SAGE subsector in which the weapons are located. Target assignment for Antiaircraft weapons will be made at the Joint SAGE Direction Center. Weapon status, air surveillance data, target assignment and operational engagement status will be passed directly between the SAGE Direction Center through the Missile Master system to the Antiaircraft weapons. The FSQ-1 will be used

  
in Mode I conceptionally as a switching and communications central. The commitment of Antiaircraft weapons against available targets in adjacent subsectors will be by request of the adjacent direction center and approval of the direction center having operational control. Where two or more Antiaircraft defense systems exist in the same subsector, coordination of target assignment will be accomplished by the AN/FSQ-7 computer program under the supervision of the Antiaircraft Weapons Directors in the SAGE Direction Center.

The functions of monitoring, supervision and coordination for Antiaircraft weapons will be accomplished at the Joint SAGE Direction Center by the Antiaircraft Officer, the Antiaircraft Weapons Directors and the Antiaircraft Weapons Directors' Assistants. The Antiaircraft Officer advises the Joint Subsector Commander, or his representative, and coordinates matters concerning the employment and capabilities of Antiaircraft weapons within the subsector. The Antiaircraft Weapons Director and the Antiaircraft Weapons Director's Assistant comprise an Antiaircraft Weapons Direction Team similar to the Weapons Direction Team for BOMARC, TALOS and manned interceptors. The Antiaircraft Weapons Direction Team accepts target assignments directly from the Senior Weapons Director. The computer program automatically makes target to fire unit assignments, based on optimum operational procedures. The AA Weapons Directors monitor computer

[REDACTED]

assignments and may override or modify such assignments as the situation dictates. Individual targets may be designated for assignment to AA weapons by the AA Weapons Director through the use of intervention switches on his console.

The fire unit will receive the target assignment information via automatic data link. The Fire Unit Commander will implement and monitor the target-weapon assignment and the actual interception of the target by the NIKE missile. The fire unit will forward to the Joint SAGE Direction Center, by digital data link, the weapon engagement status. A voice circuit will also be available for operational coordination of target or weapon information, as well as for the dissemination of states of preparedness, conditions of warning and states of fire and for reporting long-term weapon availability status.

The primary mode (Mode I) of operation will be the most effective means of conducting the air defense mission and every effort will be made to maintain this mode of operation.

b. Mode II. In the second mode of operation AA weapons located in the primary subsector will be controlled by an adjacent subsector. Under this mode of operation the AA Directors of the adjacent subsector(s) accept responsibility for target assignment to designated AA weapons located in the disabled subsector, insofar as each particular

[REDACTED]

AA Fire Direction Center is concerned. The assignment of specific targets to AA Batteries will be through the FSG-1 and the FSG-1 will function as a switching relay between the adjacent SAGE Direction Center and the AA Batteries. The computer program of the adjacent subsector(s) will be designed to accept these additional inputs and provide data for the assignment of targets to fire units in disabled subsectors. The second mode of operation will be inferior to Mode I in two respects. The low altitude capability will be degraded due to the loss of gap filler radars which are not connected to adjacent direction centers. The degree of degradation will vary, depending on the low altitude capability of the long range radars in that particular area. The second limitation is an undetermined factor which will vary in each subsector. The computer may reach its maximum capacity more quickly if it must assume responsibility for an adjacent area as well as its normal SAGE subsector area. Thus, the adjacent SAGE Direction Center may suffer some degraded control capability. This possibility will depend entirely upon the tactical situation existing at the time that a SAGE computer must take on the responsibility for an adjacent area. Voice circuits between the adjacent direction center and designated weapons in the disabled subsector, will be available for operational coordination of target of weapon information, as well as for the dissemination of states of

[REDACTED]

preparedness, conditions of warning, and states of fire.

c. Mode III. The facility which will be available to assume the responsibility for weapon control in Mode III is the Manual Direction Center (an ADC radar site - FSG-1 complex). This mode of operation would normally result from loss of the automatic data link circuitry between SAGE Direction Centers and the Manual Direction Center or the complete ineffectiveness of the SAGE Direction Centers to exercise centralized control. In the former case, and if voice communication circuits still exist between the two facilities, the AA Weapons Director in the SAGE Direction Center has available to him the overall air situation for the subsector and he can recommend target priority to the Manual Direction Center. The SAGE Direction Center can designate the states of fire for AA weapons (Weapons Tight, Weapons Free, Hold Fire) if voice circuit exists. In either case in this mode of operation, the target-weapon assignment will be made at the Manual Direction Center. The Manual Direction Center Commander will be responsible for the designation of friendly aircraft, based on the air situation and identity available to him.

d. Mode IV. This mode of operation is autonomous operation by the AA Batteries. The Battery Commanders make the target-weapon assignment. An SOP will aid in providing economical distribution of fire among the AA Batteries.



[REDACTED]

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The SOP will insure as near a uniform target-weapon assignment as is possible under this mode of operation. If a voice circuit is in being between Batteries and the Manual Direction Center, states of fire can be designated by the Manual Direction Center.

6. This paragraph describes the various conditions under which a shift from one mode of operation to another may be required. Whenever a change in mode of operation is made, it is operationally desirable to return to a more effective mode of operation as soon as time and capability will permit. It is possible to foresee tactical situations which may be more effectively handled by a shift in operation, such as, sharing the conduct on an air battle in one subsector with its adjacent neighbors. Computer programs and SOP's will be required to insure that such changes in operation will provide the most effective control system at any time. For simplicity the many variables have been divided into two broad categories - Planned and Orderly Implementation and Automatic Implementation by SOP.

a. Planned and Orderly Implementation.

(1) General. When a condition arises (whether it be for tactical reasons or equipment failure) that can be corrected by directing a shift in modes of operation, such a decision can be made and carried out while the communication capability still exists to do so in an orderly manner.

[REDACTED]

[REDACTED]

The operational effectiveness of the direction center to conduct air defense in a subsector is directly related to the effectiveness of the components and communication supporting system. The basis for change from one mode to another will depend on the degree of control effectiveness that can be exercised by the direction center. Partial or major loss of control capability will determine whether control remains with the primary direction center (Mode I) or is shifted to another agency (Mode II, III, or IV).

(2) Flexibilities of Mode I. There is considerable flexibility in Mode I for the employment of all weapons. The capability inherent in the SAGE system and the components thereof (Manual Direction Center) provide the subsector commander with many alternative methods of weapons employment. Consequently, the subsector commander need not necessarily shift the entire subsector to a less effective mode simply because of a partial loss of capability of the system. For example, a partial loss of capability might occur if the digital data circuit between the primary direction center and a Manual Direction Center (radar site-FSG-1) became inoperative. However, target priority could still be made by the AA weapon Director by voice communication. In addition, "Condition of Warning" and "States of Fire," based on the current air situation, could be passed to the Manual Direction Center by the SAGE Direction Center.

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The integrated target assignment function for all weapons would again be assumed by the SAGE Direction Center when the data circuit was restored. Should the control function be further deteriorated by the loss of digital data circuits to large numbers of weapon units, consideration should be given to a shift from Mode I to Mode II.

(3) Shift from Mode I to Mode II. There is also flexibility in the overall SAGE system based on the mutual support of one subsector by the adjacent subsectors. The subsector commander can exploit this capability in the event of a major loss of capability in the primary subsector, such as:

(a) Both Computers Out, Communication Operational.

1. The loss of both computers in the primary SAGE Direction Center would be a major loss of capability in that subsector. If communication existed to the batteries and to the adjacent direction center, the subsector commander could direct the shift from Mode I to Mode II.

2. The procedure for shift from Mode I to Mode II would be as follows: The AA Weapon Director of the primary SAGE Direction Center will direct the Battery Commanders to switch to the second mode of operation and accept target assignment from the adjacent direction center.

[REDACTED]

At the same time the adjacent direction center will be requested by the primary direction center to take control of the AA Batteries in the primary subsector.

(4) Shift from Mode I to Mode III. The emergency capability of the Manual Direction Center (radar site/FSG-1 complex) provides additional flexibility which is available to the subsector commander. This shift might be directed in such cases as:

(a) Primary SAGE Direction Center Computers Operational, Communication (Data) Out to Manual Direction Center.

1. Even though the computers are operating in the primary subsector, the data circuit necessary for target assignment to a Manual Direction Center could be inoperative. In addition, the use of voice circuit for designation of target priority might be unsatisfactory because of numbers of targets and speed of transmission of information. In this case it might be desirable to shift the Manual Direction Center to Mode III and the SAGE Direction Center designate the states of fire for the area supervised by the Manual Direction Center.

2. The decision to shift or remain in Mode I would be made by the SAGE Subsector Commander based on the tactical situation and on the capabilities of the direction center.

[REDACTED]

(b) Computers Out at Primary and Adjacent Direction Center, Communication Operational.


1. In the event of loss of computers at both the primary and adjacent direction center, the primary direction center will direct a shift to Mode III operation.

b. Automatic Implementation by SOP.

(1) General. When a condition arises that can be corrected by shifting mode of operation, but the capability does not exist to do so in an orderly manner, an alternate mode of operation must be adopted automatically through SOP by the unit affected.

(2) Communication Loss. In general, the conditions which require an automatic shift in mode of operation are those where complete loss of all communication occurs. These conditions, loss of communications, could occur during any mode of operation which had been orderly implemented. Automatic shift to the next best mode of operation for which a capability exists will be accomplished by the Weapon Commander (Manual Direction Center or Battery Commander) who has been cut-off from his control authority.

(3) Shift to Mode IV. Complete loss of communications to a higher control element will require that the AA weapon unit immediately shift to Mode IV, autonomous operation, regardless of which former mode it had

  
been operating under. The state of fire will be immediately adopted consistent with the condition of warning existing at the time of communication loss.

(4) Procedure. When complete communication loss occurs, the commander who has lost control will immediately attempt to re-establish some means of communication to the weapon unit. Likewise, the AA Weapon Unit Commander who has been cut-off from his control authority will attempt to re-establish communication with any or all of his designated control authorities (Mode I, II, or III).

[REDACTED]

ANNEX D

COST ANALYSIS  
INTEGRATION OF MISSILE MASTER (FSG-1) INTO CONAD

1. GENERAL. In making a cost analysis, it is necessary that item costs be established. The cost of ADC facilities and the FSG-1 sites as well, vary from site to site. Outlined below are the item cost used in this analysis, many of which are average figures and others are estimates based on experience.

2. SPECIFIC COSTS.

a. Manual Direction Center Facilities.

	<u>Item</u>	<u>Millions of Dollars</u>
FPS-20	Prime Search Radar	0.420
FPS-6	Height Finding Radar	0.358
FPS-14	Gap Filler (includes FST-1 Data Transmission Equip.)	0.115
	Ancillary Electronic Items at a Prime Radar Site	0.200
GPA-37	Course Computing Equipment with Six Control Positions	0.552

b. Missile Master Facilities.

	<u>Item</u>	<u>Millions of Dollars</u>
FSG-1	Equipment without Radars and Without Correlation Equipment Retrofit	4.900
FSG-1	Equipment with Radars and Correlation Equip. Retrofit (Army Estimate)	7.000

[REDACTED]

3. CONSTRUCTION COSTS.

a. ADC Manual Direction Center

<u>Item</u>	<u>Millions of Dollars</u>
ADC Manual Direction Center w/Support Facilities	3.500
ADC Manual Direction Center w/Minimum Support Facilities	2.000
Gap Filler Site	0.150

b. Missile Master.

<u>Item</u>	<u>Millions of Dollars</u>
Separate FSG-1 Site w/Support Facilities	2.500
Separate FSG-1 Site w/Minimum Support Facilities	1.000


4. ANNUAL OPERATING COSTS.

<u>Item</u>	<u>Millions of Dollars</u>
ADC Manual Direction Center	1.200
Gap Filler Site	0.025
Separate Missile Master w/Radars	2.000
Joint Direction Center w/FSG-1	2.200

5. TOTAL COSTS.

a. The average capital cost of an ADC Manual Direction Center, with three associated Gap Fillers, is approximately \$6,283,000, with the annual operation costs being \$1,325,000. The capital cost of a Separate Missile Master System with radars is estimated to be approximately



 \$9,500,000, with the annual operating costs being \$2,000,000. Reductions in these costs are realized if separate support facilities are not required, i.e., troop housing, messing, etc. For comparison purposes, this factor is omitted for both the Manual Direction Center and the Missile Master facility.

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b. The total costs for a combined Joint Manual Direction Center can only be roughly estimated as further study and decision is required to determine what specific equipment can be deleted. It is assumed that the cost of the FSG-1 can be reduced \$150,000 by deletion of certain operating positions at a joint facility, and that separate radars for the Missile Master are not required. The capital costs of a joint facility would then be approximately \$10,600,000 (construction 4 million, equipment 6.6 million,) with the annual operating costs being \$2,200,000.

#### 7. SUMMARY.


a. The Department of the Army has committed or obligated \$96,500,000 for the first ten Missile Master Systems. It is estimated that approximately an additional \$10,000,000 would be required to complete the military construction program for the ten sites. The total costs of ten Missile Master Systems as separate facilities is in the order of \$107,000,000, and the annual operating costs would total \$20,000,000.

b. Under the joint use concept ten joint Direction Centers would be required for the first 10 Missile Master Systems. Four existing prime radar sites would be converted to joint Direction Centers and six new joint facilities would be constructed. Total capital cost for this method of implementation would be \$79,476,000 based on the following cost estimates:

<u>Item</u>	<u>Millions of Dollars</u>
Ten FSG-1 Equipments (less certain operating positions)	47,500,000
Conversion of 4 prime sites to Joint Direction Centers	4,000,000
Construction of 6 new Joint Sites	24,000,000
Dismantling 4 Prime Sites	200,000
Two Additional Complements of Radar Equipment (4 sets of equipment can be reallocated from prime sites that will be deleted)	3,776,000

c. The figures outlined above show that implementation of the joint use concept will result in a net saving of about \$27,000,000 in capital costs as compared to implementation of separate Missile Master Systems, and a considerable saving in annual operating costs.

d. Integration of CAA facilities under the joint use concept will further increase the net savings that will

  
accrue in over-all government costs. Specific figures related to the CAA requirements were not available for use in this study. It is to be noted that CAA has a requirement for new radars at the same locations as the six new joint Direction Centers. CAA funds for equipment and construction could be jointly used to reduce the military expenditures.

  
PROPOSED CONAD PLAN OF TESTCENTRALIZED CONTROL OF ARMY AA WEAPONS BY SAGE

1. Purpose. To test the feasibility and the operational desirability for the centralized control of Antiaircraft Batteries through an economical implementation of the SAGE system and the Missile Master system, or some modification thereof, for the more effective utilization of the Antiaircraft units of the Army in Continental Air Defense.

2. General. The initial SAGE computer program is not being designed to assign targets direct to AA Batteries, but rather to assign targets to manual AOC's or FSG-1 Fire Direction Centers. A modified computer program for SAGE is planned that will integrate all new air defense weapons, including BOMARC, TALOS, new interceptors and the FSG-1. The modified program will be designed to assign targets direct to AA Batteries. Considering the difficulties now being encountered in computer programming, extra-ordinary effort at a rate of progress greater than is now being achieved is necessary to integrate the FSG-1 (and NIKE) as soon as the early SAGE subsector becomes operational. Such a diversion of available programming effort for this purpose will undoubtedly result in further delay of operation for SAGE as a whole, and cannot be accepted.

3. Objectives.

- a. To determine the technical feasibility of

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utilizing an AN/FSQ-7 SAGE Direction Center to make primary assignments of targets directly to AA fire units through the AN/FSG-1 Antiaircraft Defense System.


b. To determine the operational feasibility of centralized control of all Army AA fire units utilizing AN/FSQ-7 Direction Centers and AN/FSG-1 Antiaircraft Defense Systems.

c. To determine the operational desirability of centralized control of all Army AA fire units utilizing AN/FSQ-7 Direction Centers and AN/FSG-1 Antiaircraft Defense Systems.

d. To determine the most economical integration of the SAGE and Missile Master Systems through the elimination of unnecessary duplication of functions and facilities.

4. Test Program. In order to accomplish the above objectives fully, it is considered necessary to conduct a series of tests as follows:


a. First, the technical feasibility of the concept outlined in 1 above can be tested by preparing a computer program, connecting the AN/FSQ-7 Direction Center to an AN/FSG-1 Antiaircraft Defense System (including AA fire units) and requiring the system to perform in a manner which could be expected to exist under battle conditions. This operation would be considered a laboratory type test conducted largely by engineer personnel, and employing a high degree of

  
simulation. From this test we might expect to determine answers to the following questions:

- (1) Can the computer be programmed to make target assignments to AA fire units?
- (2) Are targets selected by the computer and assigned to AA fire units in an optimum manner under all likely conditions of attack?
- (3) Are accurate displays of computer selection presented on necessary consoles in the SAGE Direction Center?
- (4) Can manual override decisions be applied to these target assignments by responsible Army individuals in the AN/FSQ-7 Direction Center.
- (5) Can the target assignments be transmitted with acceptable time delays and with sufficient accuracy to permit rapid target acquisition by AA fire units?
- (6) Can all necessary data be exchanged between the two systems with acceptable timings and accuracy?

It is estimated that this test could be conducted at SAGE ESS (Lincoln Laboratory) during 1958.

b. Secondly, the feasibility test of the operational concept should be designed to determine whether or not the principles of centralized control which were demonstrated to be technically feasible on a comparatively limited scale can be extended to control, under all modes of operation, all AA fire units normally found within an operational

  
SAGE subsector. This test can be accomplished by employing the SAGE Direction Centers in two adjacent subsectors, at least two Missile Master Systems in each subsector, at least one manual fire direction center in one or the other of the two SAGE subsectors and all AA fire units located within these SAGE subsectors. The test should provide for AA defenses which overlap SAGE subsector boundaries. The tests should be conducted as complete air defense system tests employing simultaneously all available air defense weapons.

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(1) Single aircraft, and multiple tracks of single objects and small formations, attacking at different altitudes.

(2) Multiple tracks of sufficient density, and altitude variation, to permit the simultaneous employing of all available Army AA weapons.

(3) At least one saturation type attack in which the full capacity of the entire air defense system is utilized requiring the simultaneous employment of all air defense weapons enumerated above.

(4) ECM attacks interspersed with all of the tests in the three subparagraphs above.

The operational feasibility tests would be expected to determine whether or not the target-to-fire unit assignment made by the SAGE Direction Center for all AA weapons are

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accomplished in the optimum manner and in sufficient time to permit engagement at maximum weapons range. It is estimated that this test could be conducted at McGuire and Stewart Subsectors in 1959.

c. Thirdly, in order to determine the operational desirability for the centralized control of Antiaircraft Fire Units it is believed necessary to have a standard for comparison. If the foregoing tests prove that centralized control provides effective operation there can be little doubt of its validity. However, to conclusively determine that centralized control is the best method of operation a comparative test of the Army's decentralized mode of operation is required. At the present time the Army is developing the Missile Master System to operate in either a centralized mode or a decentralized mode. However, as each SAGE Direction Center becomes operational with an AA program in the computer, the Missile Master systems in that subsector would be regarded as complementary rather than primary fire direction systems for AA weapons. After the first two adjacent SAGE Direction Centers become operational with AA programs in their computers, the operational feasibility tests described above for centralized control could be conducted and, for comparison, the Army mode of operation also could be tested. Only as a result of such a comparative test can the operational desirability of one mode over the other be



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ascertained, or a combination of both developed to function as required under varying conditions of attack.

5. Instrumentation and Records.

a. General administration and supervision should be administered by an agency of the Department of Defense.

b. Data collection and reduction should be accomplished by a joint organization comprised of approximately equal representation from both Services.

c. Detailed plans and procedures will be developed after approval of the foregoing general concept and plans.

6. Recommended Test Agencies.

a. The USAF agencies responsible to provide USAF test participation should be AFGC and ARDC with support by SAC and ADC.

b. The Department of Army agencies responsible for test should be COMARC Board 4, Department of Army R&D, with support provided by ARAACOM.

c. Such Department of Defense agencies as recommended by Secretary of Defense.

UNCLASSIFIED

C O P Y

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THE SECRETARY OF DEFENSE  
WASHINGTON

Oct 30 1956

MEMORANDUM FOR THE SECRETARY OF THE ARMY  
THE SECRETARY OF THE AIR FORCE

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In forwarding CINCONAD's recommendation, the Secretary of the Air Force, as executive agent, in his memorandum of 1 October 1956 concurred in principle in CINCONAD's plan for integrating the MISSILE MASTER system into the Continental U.S. Air Defense manual system and testing and economical implementation of an integrated SAGE and MISSILE MASTER system. He also commended the plan to the Secretary of Defense for approval.

I concur in the basic concepts of CINCONAD's plan.

Accordingly, the Army will:

a. Coordinate with CINCONAD in selecting sites suitable for co-locating MISSILE MASTERS and ADC manual radar direction centers in each of the following AA defense areas:

New York	Chicago
Detroit	Philadelphia
Niagara Falls-Buffalo	Los Angeles
Seattle	Pittsburgh
Boston	

(These sites are in addition to the site for the Washington-Baltimore defense which has been previously approved by the Secretary of Defense.)

b. Initiate necessary actions for construction of facilities and installations of MISSILE MASTERS in each of the above areas on the selected sites.

c. Withhold procurement of additional MISSILE MASTERS beyond the ten indicated above, or modified MISSILE MASTERS for small AA weapon complexes, pending CINCONAD's determination of requirements, and approval of these requirements by JCS.

d. As determined and requested by CINCONAD, procure and install radars for joint use at sites where no compatible ADC or CAA operated radars are expected to be operational at the appropriate time.

The Air Force, as executive agent, will request CINCONAD to:

a. Determine the requirement for new or relocated surveillance radars to meet all military and other government

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agency needs. CINCONAD will advise his component commanders of the requirement for and request the appropriate component commander to arrange for procurement and installation of new radars at sites where no compatible ADC or CAA operated radars will be operational at the appropriate time. 35

b. Determine the requirement for additional MISSILE MASTERS, or modified MISSILE MASTERS for small AA weapon complexes, and advise the JCS of this determination as a matter of priority.

In response to a request by this office, a technical plan for the integration of MISSILE MASTER into the Continental Air Defense Environment is now under preparation by the Office of the Assistant Secretary of Defense (Research and Development). The plan will be predicated upon the operational concepts and the basis for integration of the systems as proposed by CINCONAD, and will outline actions that must be initiated by contractors, the contracting agencies and operating agencies of the Military Departments to achieve a timely and efficient readjustment of equipment development programs which will be affected. Studies and tests needed for delineating possible modifications in the MISSILE MASTER systems are to be presented in the plan. In the meantime, installation of MISSILE MASTER should not be held up. The equipments may be retrofitted as necessary as soon as the planned studies and/or tests clearly indicate the definitive modifications which should be determined upon.

/s/

REUBEN B. ROBERTSON, JR.  
Deputy



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 HIST FILE

DEPARTMENT OF THE AIR FORCE  
 OFFICE OF THE CHIEF OF STAFF  
 UNITED STATES AIR FORCE  
 WASHINGTON, D. C.  
 11 March 1957

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SUBJECT: (U) Technical Plan - SAGE Missile Master

TO: Commander-in-Chief  
 Continental Air Defense Command  
 Fort Air Force Base  
 Colorado Springs, Colorado

1. In a memorandum dated 30 October 1956, the Deputy Secretary of Defense occurred in the basic concepts of the CINCONAD plan for integrating Missile Master into the SAGE and manual systems. It was further stated in this memorandum that a technical plan was under preparation by the Assistant Secretary of Defense, R&D, pointing out specific technical problems and assigning these technical problems to appropriate agencies concerned to insure technical integration of the two systems.

2. Attached as Inclosure No. 1 is a copy of the approved OASD, R&D, technical plan for integrating Missile Master with the manual air defense and SAGE system. It is requested that your headquarters take the necessary action to:

- a. Monitor the studies, program and contract actions and tests outlined in the plan.
- b. Expand the study on radar coverage, which was assigned by the 30 October memorandum, to include the questions raised with respect to the AN/FPS-6 and AN/FPS-8 radars in Section III 1A of the plan, and initiate appropriate action.
- c. Submit at an early date for approval by the Secretary of Defense an over-all program for accomplishing the tests referred to in Section III 3 (including estimates of cost, manpower, and facility requirements for each fiscal year). Additionally, provision should be made in the planned tests to furnish answers to the questions raised in Section III 3 of the plan.

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Ltr to GINC, ComADC, subj: (U) Test Plan - MAOR Missile Master (Cont)

d. Upon completion of the tests, submit the test results, together with his conclusions and recommendations, to the Secretary of Defense for approval.

GEORGE B. WHITE  
Colonel, U. S. Air Force  
First Chief of Staff

1 Inclosure  
Memorandum for Secretary  
of Army and Air Force,  
28 January 1957, with 1  
inclosure: Technical Plan

[REDACTED]

THE SECRETARY OF DEFENSE  
Washington

36  
January 28 1957

MEMORANDUM FOR THE SECRETARY OF THE ARMY  
THE SECRETARY OF THE AIR FORCE

In a memorandum of 30 October 1956 I concurred in the basic concepts of CINCONAD's plan for integrating the MISSILE MASTER system into the Continental U. S. Air Defense manual system and testing and economical implementation of an integrated SAGE and MISSILE MASTER system. The concepts and policies outlined therein are reaffirmed and installation of MISSILE MASTER systems in 10 AA defense areas should proceed in accordance with those instructions. It was indicated in the memorandum that a technical plan for the integration of MISSILE MASTER into the Continental Air Defense Environment was under preparation by the OASD (R&D). This plan has been completed and is predicated upon the operational concepts and the basis for integration of the systems as proposed by CINCONAD and outlines actions that must be initiated by contractors, the contracting agencies, and operating agencies of the Military Departments to achieve a timely and efficient readjustment of equipment development programs which will be affected. Studies and tests needed for delineating possible modifications in the MISSILE MASTER system are presented in the plan (attached as Inclosure 1).

In endorsing the technical plan and directing its implementation, it is emphasized that CINCONAD will be expected to monitor the studies, program and contract actions, and tests which are delineated in the plan. The need for the studies, actions and tests outlined have been supported by the Military Departments concerned. I am therefore requesting these departments to proceed with implementation of the plan, advising CINCONAD of progress at appropriate intervals.

Accordingly, the Air Force, as executive agent, will request CINCONAD to:

- a. Monitor the studies, program and contract actions and tests outlined in the plan.
- b. Expand the study on radar coverage, which was assigned by the 30 October memorandum, to include the questions raised with respect to the AN/FPS-8 and AN/FPS-8 radars in section III IA of the plan, and initiate appropriate action.
- c. Submit at an early date for approval by the Secretary of Defense an overall program for accomplishing the tests referred to in section III 3 (including estimates of

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and in making arrangements for the addition of any provider specified in the plan and the further answers to the questions raised in section III A of the plan.

d. Upon completion of the tests, submit the test results, together with his conclusions and recommendations, to the Secretary of Defense for approval.

The Air Force will:

- a. Organize a group to study and make appropriate recommendations concerning the linking of NIKE batteries to SAGE as outlined in section III ID.
- b. Modify the contracts for SAGE to provide for equipment changes as outlined in sections III 2A, B, C, F, G, and H.
- c. Support CINCOMAB in providing the test program called for in section III 3.

The Army will:

- a. Initiate studies relative to data link equipment and display consoles and take such additional related steps as designated in sections III IB and C of the plan.
- b. Modify the provisions of the contract for MISSILE MASTER to provide for equipment changes as designated in sections III 2A, D, and E.
- c. Support CINCOMAB in providing the test program set forth in section III 3.

Signed  
 ROBERT B. ROBERTSON, JR.  
 Deputy

Incl.  
 Technical Plan

TECHNICAL PLAN FOR  
INTEGRATION OF THE MISSILE MASTER INTO THE CONTINENTAL AIR DEFENSE  
ENVIRONMENT

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I. INTRODUCTION:

In a memorandum of 30 October 1950<sup>1</sup>, the Deputy Secretary of Defense concurred in a CINCONAD plan for integrating the Missile Master System into the Continental Air Defense Environment. As a Manual Air Defense Environment is in being and the SAGE and Missile Master programs are in a relatively advanced stage of development, the integration of Missile Master into the Continental Air Defense Environment will require adjustments affecting equipment development programs. It is the purpose of this technical plan to reiterate the plans and basis for integration of these systems as laid out by CINCONAD, and to outline actions that must be initiated by contractors, the contracting agencies, and other agencies of the Military Departments to achieve a timely and efficient readjustment of the equipment development programs affected. For clarity, the agencies directly concerned with executing various studies and program actions have been designated in the plan.

II. ASSUMPTIONS:

This technical plan is based on seven assumptions. The first five assumptions set forth below were drawn from the operational concepts, submitted by CINCONAD under date of 19 September 1950, which outline the doctrine for centralized control of all air defense weapons both prior to and during the SAGE era. The last two assumptions presented (Nos. 6 and 7), while not covered in the operational concepts proposed by CINCONAD, follow logically from the CINCONAD plan.

<sup>1</sup> Confidential memorandum from the Deputy Secretary of Defense, dated 30 October 1950, to the Secretaries of the Army and the Air Force.



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It is assumed:

1. That the Missile Master System (AM/PSG-1), or some modification thereof, will be employed with SAGE.
2. That an Air Defense Command (ADC) Manual Direction Center (MDC) and an Antiaircraft Operations Center (AADC) of the Missile Master System will be co-located to form Joint Manual Direction Centers (JMDC).
3. That the four basic modes of operation set forth below will be established:

A. Mode I:

In the primary mode of operation, target assignments for antiaircraft (AA) weapons will be made at the Joint SAGE Direction Center (DC). Weapon status, air surveillance data, target assignment and operational engagement status will be passed directly between the SAGE DC, through the Missile Master System, to the AA weapons.

B. Mode II:

In the second mode of operation, AA weapons located in a disabled subsector will be controlled by the Joint SAGE Direction Center in an adjacent subsector. Target assignments will be passed from the adjacent SAGE Direction Center, through the Missile <sup>Master</sup> System, to the AA weapons.

C. Mode III:

In the third mode of operation, SAGE DC's do not

assign target tracks to specific AA Fire Units. The JMXC will be responsible for all weapon control and target assignment functions in the assigned geographical area.

D. Mode IV:

In the fourth mode of operation, the AA Fire units will operate autonomously. The weapon target assignments will be made at the Fire Units.

4. That in Modes I and II, target assignments developed by the SAGE DC for AA Fire Units will be passed through the AADC to the Fire Units without modification.

5. That a single integrated environment will provide the surveillance and identification data for all weapon control systems used in the Continental Air Defense Command. Raw video radar data will be made available to the AADC from this radar environment. (Note: The determination of requirements and the procurement and installation of equipment for this environment will be in accordance with the procedures outlined in the Deputy Secretary of Defense memorandum of 30 October<sup>1</sup>.)

6. That for the purposes of this technical plan, the primary AA weapons to be associated with the Missile Master System will be NIKÉ I and NIKÉ B.

7. That in Modes I and II, reference data and target assignment data for any guns (90/120 mm) comprising part of the AA defense will be transmitted from the SAGE Direction Center to the AADC by voice and will not be part of the computer program.

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III. ACTIONS NECESSARY:1. Studies

Studies will have to be conducted before initiating actions necessary to the Missile Master-Manual Direction Center equipment and Missile Master-SAGE equipment integration. Those listed below are considered to be the most urgent and important ones. Retrofitting may be indicated as a result of some of these studies.

A. As directed in the Deputy Secretary of Defense memorandum of 30 October<sup>1</sup>, CINCONAD will initiate studies to determine requirements for and the location of gap filler radars, height finding radars and other prime radars in areas where the Missile Master System is to be employed, to insure that satisfactory radar coverage is provided for the effective employment of weapons. As an early part of this task, CINCONAD should determine the feasibility and desirability of using the AN/FPS-8 radars, currently under procurement for the Army, in lieu of ADC type radars at JMC's or at other appropriate locations, and advise the Army with respect to their procurement program. As a second part of this task, CINCONAD should study the need for additional height finder radars (two AN/FPS-6's) at JMC locations for the AACC's use in generating target tracks in Mode III.

B. The Department of the Army should organize a study group, including appropriate Air Force representation, to study the technical feasibility of transmitting track

data from an Nike Missile (SAM) equipment) to an SACG by means of automatic data link equipment. The Department of the Army should advise CINCPAC of the results of this study so that action may be initiated to procure whatever equipment is required.

C. The Department of the Army should organize a group, including appropriate Air Force representation, to study the functions of consoles in the Missile Master System and in the Manual Direction Center and assess the technical feasibility of eliminating duplicating consoles in these systems. The Department of the Army should advise CINCPAC of the results of this study so that appropriate action may be initiated to modify equipments.

D. The Department of the Air Force should organize a group, including appropriate Army representation, to study the feasibility of extending the NIKE Battery Data Loop to the SACF DC so that the AA Weapons Director at the DC will have available Battery tracking and engagement information.

## 2. Program and Contract Actions:

The actions presented below are those which should be undertaken at the earliest possible date:

A. The Departments of the Air Force and Army should take steps to provide test jacks and data "pick up points" in Missile Master and SACF equipment for the collection of

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MISSILE MASTER and SAGE equipment for the collection of essential data during the testing of the integrated systems.

E. The Department of the Air Force should program any additional AN/FST-2 equipments, which are required for linking the SAGE computer and any new prime radars which are added to meet AA of CMA requirements.

G. The Department of the Air Force should contract for the procurement of 750 bit-per-second output sections for SAGE computers to facilitate transfer of information from the SAGE DC to MISSILE MASTER.

D. The Department of the Army should provide for a 1500 bit-per-second SAGE data output in all the MISSILE MASTER Systems to facilitate transfer of information from MISSILE MASTER to the SAGE DC.

I. The Department of the Army should modify MISSILE MASTER to provide for the passing of target-battery assignments from SAGE to the Fire Units and for the optional display of these assignments at the AADC.

F. The Departments of the Air Force (Lincoln) and Army should change the digit coding and message forms for the SAGE/MISSILE MASTER data transmission frames to be responsive to detailed requirements stated by CINCOMAD.

G. The Department of the Air Force (Lincoln) should modify the existing AA Director's situation display consoles of SAGE to enable the NIKK Director to monitor the computers' target-Fire Unit designations in an effective manner.

H. The Department of the Air Force (Lincoln) should undertake the preparation of a SAGE computer program designed to perform automatically the functions necessary for assigning targets direct to NIKK Fire Units in Modes I and II and for transmitting reference tracks and data for Modes I, II, and III.

### 3. Tests:

Engineering and field tests of SAGE and MISSILE MASTER, as individual systems, have been planned. CINCOMAD has submitted plans for testing to determine the feasibility and operational desirability for centralized control of AA weapons through an economical implementation of SAGE and MISSILE MASTER, or some modification thereof. In addition, it will be necessary to test MISSILE MASTER and a Manual Direction Center operating together as a JADC.

These tests will require programming of money, support facilities, instrumentation and personnel. For this reason, CINCOMAD should submit at an early date for approval by the Secretary of Defense an overall program for accomplishing these tests. In

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developing the program it is expected that CINCPAC will include estimates of cost, manpower, and facility requirements for each year in which testing will be scheduled. This will facilitate making necessary arrangements for funding and assignment of personnel. In this connection, it should be noted that COMNAV Board 4 and Air Defense Command have already made considerable progress in developing detailed plans of test and full use should be made of these efforts.

Among the questions which should be answered, in the course of testing to determine the operational desirability for the centralized control of AA Fire Units, are the following:

A. Is the target-Fire Unit assignment data, that is generated by the SAGE DC, accurate and timely enough for optimum employment of the Nike weapon?

B. Does a SAGE DC have the capability for handling the fire direction functions for AA weapons in an adjacent disabled subsector?

C. Is the air situation generated by the SAGE Computer comparable to the coverage obtained by the acquisition radars of the Nike Fire Units associated with MISSILE MASTER: or do the Nike Units see targets that are not tracked by the SAGE Computer?

Several questions, which should be answered in testing the co-location and integration of MISSILE MASTER and Manual Direction Centers, are the following:

A. Is it feasible to transmit track data from the MEC equipment (AN/GPA-37) to the AACG data store by means of automatic data link equipment?

B. Does the MISSILE MASTER System, when operating in Mode III with a raw video input from the prime radar at the JMDG, but no automatic track data from the MEC, require height information to generate target tracks which are satisfactory enough to insure that when assigned to Fire Units the Fire Unit acquisition radars readily acquire the proper targets?

C. Are all the consoles, that are proposed for employment at an AACG, needed to provide an effective capability in the third mode (Mode III) of operation of AA weapons?

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(U) SAC - MISSILE MASTER Integration

DCS/P&amp;O

ICS/O&amp;F

27 Mar 1957

Lt Col F. K. Nichols/2029/egl

1. Attached for your information and file is a copy of a staff study that has been approved by the Chief of Staff. Pertinent comments by the Chief of Staff, on the recommendations contained in this study, are as follows:

a. Paragraph 16. The TWI to the component commands was approved and dispatched on 26 March. A comeback copy was prepared for DCS/P&O.

b. Paragraph 17. The letter to the Executive Agent was approved and dispatched on 26 March. A comeback copy was prepared for DCS/P&O.

c. Paragraph 18. The recommendation was not approved with the decision being that this matter would be handled by separate action.

d. Paragraph 19. The decision was rendered that a separate task group would not be established. DCS/O&F was assigned the direct responsibility for preparing a test plan for SACF/Missile Master integration, with such assistance by representatives of other offices and components as necessary.

e. Paragraph 20. Decision on this recommendation was deferred, as this is a matter to be determined as a part of the specific action regarding the preparation of a test plan.

f. Paragraph 21. As the radar coverage study has already been undertaken, the recommendation was approved.

2. Prior to submission of the staff study to the Chief of Staff, Colonel Murray, Colonel Seibert, General Pierce and General Stayton provided verbal concurrence. It has been generally agreed that the task of preparing a test plan and the monitoring of the follow-on actions will require direct participation by various offices of DCS/P&O. A member of DCS/O&F is now discussing this subject informally with members of your office, and it is expected that positive decisions on the exact method of approach will be made within the next week.

1 Incl  
Staff Study, subj as above,  
27 Mar 57.

PAK:LL . N-AL  
Brig General, USAF  
DCS/Coms and Tlect

Lt Col F. K. Nichols

STAFF STUDY

22 March 1957

BY: OCESS

SUBJECT: SAGE-MISSILE MASTER INTEGRATION

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PROBLEM:

1. To determine COMAD actions to accomplish tasks on SAGE/Missile Master integration assigned by OSD Memo, 28 Jan 1957.

FACTORS:

2. CINCOMAD has been directed to: (a) Submit at an early date for approval by the Secretary of Defense an overall test plan for determining the feasibility and operational desirability for centralized control of AA weapons through economical implementation of SAGE and Missile Master, or some modification thereof; (b) Monitor the studies, programs and contract actions and tests outlined in the plan; (c) Complete a study on radar coverage relative to joint requirements for co-located and integrated MM/DC's.
3. The Departments of Army and Air Force have been directed to take specific study and contract actions on technical matters related to SAGE-Missile Master integration, and to support CINCOMAD in providing a test program.
4. Specific instructions have been provided to ADG and ARAAOCM by Hq USAF and Hq Army on action to be taken on construction of the first 9 joint MM/DC's and the installation of technical facilities.
5. ADG has requested CINCOMAD to approve a document covering a proposed method of employment for AA weapons in the SAGE era.
6. ADG and COMABO have prepared proposed test programs for determining the feasibility and desirability of SAGE Missile Master integration.



SAGE-Missile Master Integration (Continued)

DISCUSSION:

7. ARAACOM and ADC are holding joint meetings to finalize construction and installation plans for the first 9 joint facilities. Results are not yet known, but these implementation matters could be accepted as details that must be resolved by component commands. Some detailed CONAD guidance may be required if ARAACOM/ADC disagreements arise.
8. DA has advised ARAACOM (by telephone conversation) that: (a) SCPL is being directed to take the action regarding Army responsibilities for technical matters outlined in the OSD memo; (b) ARAACOM is being assigned the responsibility for resolving the problems relative to the possible deletion of duplicating console positions; (c) and CONARC is being directed to submit a proposed test program to Hq USAF, for such use as CONAD desires.
9. Hq USAF has advised ADC (by telephone conversation) that the entire subject will ultimately be given to the planned Air Defense Management Board (Gen Hutchinson's new organization). In the interim ADC will be responsible for operational matters, with such APOC assistance as proves necessary. ARDC will be responsible for technical aspects.
10. The CONAD action on approval of the currently proposed method of employing AA weapons in the SAGE era (commonly known as the "Blue Book") is directly related to a test program. It must be accepted that decisions on modes of operation, in great detail, must be made prior to completion of any test. Preparation of SAGE computer

SAGE-Missile Master Integration (Continued)

programs must be underway long before collocated HQ/DC's will be available in the field. Therefore, resolution of disagreements on how the system will operate, with decisions on known technical and operational problems, will be required prior to the time any test is conducted.

11. There are two significant questions relative to CONAD's capability and responsibility. The first is, does CONAD now have or is it planned to have a staff that can deal with R&D and technical planning questions, manpower and cost determinations, and fiscal year breakouts of programs. The second is, how much of the responsibility for technical integration of the air defense system is to be assigned to CINCONAD, and how much is to be retained by OSD and the individual services. There are no known decisions or clear policies on these questions.

CONCLUSIONS:

12. In the absence of specific policy to the contrary, CONAD must accept the responsibility for providing authoritative direction, to all agencies involved, on SAGE-Missile Master integration.

13. CONAD must rely heavily on component commands and other Army and Air Force agencies for assistance and recommendations in formulating the test plans.

14. CONAD need not intervene directly in the action ARAACOM and AIC is now taking to implement the physical facilities at the first 9 sites; CONAD participation in the implementation matters can be confined to resolution of inter-service disagreements as they arise.

15. A revised document covering the employment of AA weapons during the SAGE era, for all modes of operation, must be prepared prior

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SAGF-Missile Master Integration (Continued)  
 to preparation of a test plan for SAGF-Missile Master integration. 31

RECOMMENDATIONS:

16. COMAD advise ARAACOM and ADC to proceed with the implementation tasks as outlined in the Hq USAF message APODC 53057. See attached TWI.
17. COMAD advise Hq USAF, as executive agent, that action will be taken as outlined in the OSD memo, with a specific request being included that assistance to COMAD by specific Army and Air Force agencies be directed by the DA and DAF. See attached letter.
18. COMAD approve the "Blue Book", in principle, for planning purposes, and initiate immediately a project to prepare a revised, and more comprehensive, document covering the employment of AA weapons in the SAGF era.
19. CINCOMAD establish a task group composed of representatives of various staff sections, or designate one specific staff section, to prepare a test plan for SAGF-Missile Master integration.
20. The test plan should be prepared following the completion of a revised "Blue Book", with the plan being designed to verify the decisions made concerning the employment of AA weapons, rather than the plan being designed to provide information to make decisions.
21. COMAD DCS/C&F monitor the study now underway by ADC and ARAACOM on the radar coverage for the joint W/W/DC's.

F. K. NICHOLS  
 Lt Colonel, USAF  
 Director of Systems

2 Attachments.



L/Col FENichols/fo/4 Feb 57  
 EXT 2029

HEADQUARTERS  
 CONTINENTAL AIR DEFENSE COMMAND  
 ENT AIR FORCE BASE  
 COLORADO SPRINGS, COLORADO

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Feb 1957

**SUBJECT:** (Unclass) Implementation of Missile Master  
 (AN/FSC-1) Program

**TO:** Chief of Staff, United States Air Force  
 As Executive Agent for COMAD  
 Washington 25, D. C.

1. References:

a. COMAD letter to Chief of Staff, USAF, as  
 Executive Agency for COMAD, subject: (U) Integration of  
 SAGE and Missile Master, dated 19 September 1956.

b. Memorandum from the Secretary of Defense for  
 the Secretary of the Army and the Secretary of the Air  
 Force, dated 30 October 1956.

2. The matters outlined in reference "b" have been  
 reviewed jointly by Continental Air Defense Command, Army  
 Antiaircraft Command, and Air Defense Command. Following  
 are the COMAD requirements for the implementation of the  
 first ten AN/FSC-1 Missile Masters.

a. New York, Detroit, and Niagara Falls -  
 Buffalo Defenses: Missile Master buildings be constructed  
 immediately adjacent to the Air Defense Command Equipment  
 and Operations building at Air Defense Command sites P-6,  
 P-20, and P-21. The Antiaircraft Operations Room in the  
 Missile Master building be expanded, and all required Air  
 Defense Command operating positions placed in the expanded  
 Operations Room. Air Defense Command technical equipment  
 will remain in the Air Defense Command buildings.

b. Other Defenses: New co-located and integrated  
 Missile Master/Air Defense Direction Centers be constructed  
 at:

Fort Meath (Boston)  
 Arlington Heights (Chicago)  
 ADC Site P-9A (Philadelphia)  
 San Pedro Hill (Los Angeles)  
 South Park Military Reservation (Pittsburgh) 2029  
 Fort Lawton (Seattle) 4 Feb 57

At these sites, the Missile Master buildings should have --  
 the necessary internal modifications to permit (1) installa-  
 tion of Air Defense Command technical equipment within the

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COMCS, Hq COMAD, Subj: (U) Implementation of Missile Master  
(AM/FSG-1) Program

building, and (S) expansion of the Antiaircraft Operations Room to permit the location of all Missile Master and Air Defense Command operating positions within the expanded Operations Room.

c. Pt Heads: Co-location and integration of a Missile Master and Air Defense Direction Center at this site is required, basically the same as outlined in paragraph "b" above. Modification of the Missile Master building and movement of Air Defense Command personnel and equipment must be accomplished in a manner that will not cause undue interference with the technical testing of the AM/FSG-1.

3. These requirements have been provided to Army Antiaircraft Command and Air Defense Command. It is requested that the Departments of the Army and Air Force proceed with the implementation of the first ten integrated Missile Master/Air Defense Direction Center facilities as outlined above.

Copies Furnished:  
Comdr, ADC  
CG, ARAACON  
COMNAVFORCOMAD

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FM HEDUSAF WASH DC  
TO RJEEDEN/CINCONAD ENT AFB COLO  
INFO RJEEDEN/COMAIRDEFCOM ENT AFB COLO  
RJEEDEN/CGARAACOM ENT AFB COLO

Action: COOPR  
Info: COOPO

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[REDACTED] FROM AFODC 53057  
REFERENCE CIRCULAR DATED 4 FEBRUARY 1957, SUBJECT: IMPLEMENTATION  
OF MISSILE MASTER (FSO-1) PROGRAM. THE FOLLOWING IS AN AIR FORCE EXECUTIVE  
AGENT MESSAGE FOR CINCONAD AND IS CONCURRED WITH BY THE DEPARTMENT OF THE ARMY.  
IN ACCORDANCE WITH YOUR REQUIREMENTS, THE DEPARTMENT OF THE ARMY INTENDS TO  
PROCURE REAL ESTATE AND CONSTRUCT A MISSILE MASTER OPERATIONS BUILDING  
IMMEDIATELY ADJACENT TO THE AIR DEFENSE COMMAND EQUIPMENT AND OPERATION  
BUILDING AT NEW YORK, DETROIT, AND NIAGARA FALLS. AT THE OTHER SITES INDICATED  
BY YOUR LETTER, THE DEPARTMENT OF THE ARMY WILL CONSTRUCT A NEW FACILITY. THE  
BUILDING AT ALL SITES WILL BE SUBJECT TO ESSENTIAL INTERNAL MODIFICATION TO PERMIT:  
A. INSTALLATION OF AIR DEFENSE TECHNICAL EQUIPMENT WITHIN THE BUILDING AT ALL  
SITES EXCEPT NEW YORK, DETROIT, AND NIAGARA FALLS. B. EXPANSION OF THE ANTI-  
AIRCRAFT OPERATIONS ROOM TO PERMIT LOCATION OF ALL MISSILE MASTER AND AIR DEFENSE  
COMMAND OPERATING POSITIONS WITHIN THE EXPANDED OPERATIONS ROOM AT ALL SITES.  
IMPLICATIONS OF YOUR REQUIREMENT HAVE NOT BEEN DETERMINED BY THE DEPARTMENT  
OF THE ARMY TECHNICAL AGENCIES SINCE SPECIFIC REQUIREMENTS ARE UNKNOWN. IN  
ORDER TO INSTALL MISSILE MASTERS WITHOUT DELAY, AS DIRECTED BY DEPARTMENT OF  
DEFENSE, THE DEPARTMENT OF THE ARMY WILL PROCEED WITH PRESENTLY KNOWN REAL  
ESTATE REQUIREMENTS AND CONSTRUCTION BASED ON PRESENT BUILDING DESIGN AT NEW  
YORK, NIAGARA FALLS AND DETROIT. FIRM JOINT REQUIREMENTS FOR REMAINING SITES TO  
INCLUDE LAND SPACE REQUIREMENTS, SPECIFIC SITE LOCATIONS, AND SPACE AND  
TECHNICAL REQUIREMENTS WITHIN THE MISSILE MASTER BUILDING ARE REQUIRED TO AVOID  
FURTHER DELAY AND REDESIGN OR RETROFIT PROBLEMS DURING BUILDING CONSTRUCTION.  
ARAACOM AND ADC REQUIREMENTS AND RESULTING AGREEMENT WILL BE REVIEWED AND  
APPROVED BY YOUR HEADQUARTERS. CONFIRMATION OF COMPLETION OF THIS ACTION SHOULD BE  
SENT TO THE DEPARTMENT OF THE AIR FORCE AS EXECUTIVE AGENT BY 15 APRIL 1957. THIS  
IS NOT INTENDED TO DELAY POSSIBLE CONCURRENT ACTIONS WITHIN THE DEPARTMENT OF  
THE AIR FORCE AND THE DEPARTMENT OF THE ARMY TOWARD IMPLEMENTATION OF YOUR 4  
FEBRUARY 1957 LETTER. IN THIS REGARD, BY SEPARATE ACTION: CGARAACOM IS BEING  
DIRECTED TO: A. INITIATE NECESSARY REAL ESTATE PLANNING REPORTS ON AN EXPEDITED  
BASIS BASED ON ARMY REQUIREMENTS FOR P-20, P-21, P-9. B. INITIATE NECESSARY  
REAL ESTATE PLANNING REPORTS ON AN EXPEDITED BASIS FOR REMAINING SITES BASED UPON  
JOINT REQUIREMENTS. C. COORDINATE WITH ADC AND OTHER APPROPRIATE AGENCIES ON  
INTERNAL BUILDING ARRANGEMENTS.  
ADC IS BEING DIRECTED TO FURNISH ARAACOM AND CONAD ON AN EXPEDITED BASIS: A. AIR  
FORCE REAL ESTATE REQUIREMENTS, SITE LAYOUT PLANS, AND SPACE AND TECHNICAL REQUIRE-  
MENTS WITHIN THE MISSILE MASTER BUILDING AT ALL SITES. B. RIGHT OF ENTRY TO ARMY  
FOR CONSTRUCTION AIR FORCE INSTALLATIONS CONCERNED.

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HEADQUARTERS  
U.S. ARMY AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

41  
HEADQUARTERS  
AIR DEFENSE COMMAND  
Ent Air Force Base  
Colorado Springs, Colorado

SUBJECT: (U) Plans for COMAD (Joint) Direction Centers at Ten (10) Locations

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

1. References

- a. Headquarters USAF message to Headquarters Air Defense Command, APODC 53056, 15 March 1957.
- b. Department of the Army message to Headquarters U.S. Army Air Defense Command, DA 919461, 15 March 1957.
- c. Headquarters USAF message to Headquarters Continental Air Defense Command, APODC 53057, 15 March 1957.
- d. Headquarters Continental Air Defense Command message to Headquarters Air Defense Command and Headquarters U.S. Army Air Defense Command, COMSS 80014, 22 March 1957.

2. The attached plans for COMAD (Joint) Direction Centers at ten (10) locations have been prepared jointly by Headquarters U.S. Army Air Defense Command and Headquarters Air Defense Command and are forwarded for your approval in accordance with reference 1d.

3. Tabs A, B, and C are site layouts for Highlands Air Force Station, New Jersey, Selfridge Air Force Base, Michigan, and Lockport Air Force Station, New York, showing physical location of facilities at these locations. On-site surveys were performed jointly at each location.

4. Tabs D, E, and F are lists of facilities to be constructed or installed at the three (3) joint sites located at Highlands Air Force Station, Selfridge Air Force Base and Lockport Air Force Station. Funds required for each line item are shown. No attempt has been made to determine the Command responsible for funding action on items contained in the lists or the source of required funds. We believe that this should be resolved at Department of Army and Department of Air Force level, and suggest that the plan be forwarded with this recommendation.

DUPLICATE



[REDACTED] 41

B/L fr U.S. Army Air Defense Command and Air Defense Command, Subj:  
(U) Plans for CONAD (Joint) Direction Centers at Ten (10) Locations

5. Tab G is a typical layout for a CONAD (Joint) Direction Center. Obviously, relocation of some facilities will be required dependent on real estate availability and terrain features.
6. Tab H is a list of facilities to be constructed or installed at the remaining seven (7) sites. Required funding is shown. Sufficient time was not available to allow on-site surveys of these locations. For this reason the list was compiled for a typical joint site with the assumption that no presently constructed support facilities will be available. It is believed probable that some deviation from this list will be necessary at several sites. The extent of required changes cannot be determined until on-site surveys are completed at each location. It is believed that the information contained in Tab G and H is sufficiently detailed and accurate to allow required budgetary actions to proceed. We recommend that required funding actions be taken at Departmental level.
7. Tab I shows arrangement of facilities within the joint operations room.
8. Tab J shows the location of AN/FST-2 and AN/GPA-37 equipments within the Missile Master building. This drawing is applicable to those sites other than Highlands, Selfridge, Lockport, and Fort Meade. Because of the non-standard Missile Master building at Fort Meade, space for Air Force "backroom" equipment will be determined by the site adaptation team. This space was originally intended as maintenance area and a ready room. Consequently a separate maintenance area is required and will be provided in a separate building, adjacent to the Missile Master building. The ready room will be relocated within the Missile Master building.
9. Tab K is a recommended procedure for satisfying wire requirements. If this proposal is approved, action will be taken with telephone companies to determine firm funding information.
10. Tab L is a list of radar requirements proposed by ADC for funding purposes. Preliminary survey was based upon a map study since lack of time precluded physical study of areas concerned. It is recognized that final radar requirements cannot be resolved until clutter and coverage diagrams for each area concerned are available for study and an on-the-ground survey is completed, and the problem resolved jointly by ADC and USARADCOM.

11. Army Air Defense Command and Air Defense Command  
 CONAD (Joint) Direction Centers at Ten (10) Locations

12. Tab M is a list of factors which must govern subsequent  
 planning and development of the CONAD (Joint) Direction Centers.

a. Reference paragraphs a and b, Tab M, these problems  
 will be studied jointly by both services and our recommended solu-  
 tion will be forwarded at a later date.

b. Reference paragraph h, Tab M, necessary permits for  
 Army construction at ADC sites will be furnished by ADC upon approval  
 of the attached plans by your headquarters. Right of entry for  
 construction permits will be granted commercial agencies as required.

c. Reference paragraph i, Tab M, our recommendations as to  
 the host service and the support base are as follows:

CONAD JOINT DIRECTION CENTER	SUPPORT BASE	HOST SERVICE
1. Washington-Baltimore Defense	Fort Meade	Army
2. Boston Defense	Fort Dawes or Fort Banks	Army
3. New York Defense	McGuire AFB	Air Force
4. Niagara-Buffalo Defense	Niagara Falls Municipal Airport	Air Force
5. Detroit Defense	Selfridge AFB	Air Force
6. Philadelphia Defense	McGuire AFB	Air Force
7. Pittsburgh Defense	Greater Pittsburgh Muni- cipal or Youngstown Municipal Airport	Air Force
8. Chicago Defense	Fort Sheridan	Army
9. Seattle Defense	Fort Lawton	Army
10. Los Angeles Defense	Fort MacArthur	Army

12. Tab N is the ADC proposal for reprogramming of ADC technical  
 equipment for use at CONAD (Joint) Direction Centers. Operational  
 dates are estimated. Cost figures are included.

s/t S.R. MICKLESEN  
 Lieutenant General, USA  
 Commanding  
 U.S. Army Air Defense Command

s/t J.H. ATKINSON  
 Lieutenant General, USAF  
 Commander  
 Air Defense Command

14. Incls:

1. Tab A Site Layout Highlands, N.J. (SECRET)
2. Tab B Site Layout Selfridge AFB, Mich. (SECRET)
3. Tab C Site Layout Lockport, N.Y. (SECRET)

[REDACTED] 48  
B/L fr U.S. Army Air Defense Command and Air Defense Command, Subj:  
(U) Plans for CONAD (Joint) Direction Centers at Ten (10) Locations

4. Tab D Site Facility Lists, Highlands, N.J. (~~CONFIDENTIAL~~)
5. Tab E Site Facility Lists, Selfridge AFB, Mich. (~~CONFIDENTIAL~~)
6. Tab F ~~Site Facility Lists~~, Lockport, N.Y. (~~CONFIDENTIAL~~)
7. Tab G ~~Typical Site Layout~~, COMAD (Joint) Direction Center (S)
8. Tab H Facility List for Typical COMAD (Joint) Direction Center (S)
9. Tab I Drawing of Facilities within Joint Ops Room (UNCLASSIFIED)
10. Tab J Location of "Backroom" Equipments. (UNCLASSIFIED)
11. Tab K Wire Communications (UNCLASSIFIED)
12. Tab L Gap Fillers (~~CONFIDENTIAL~~)
13. Tab M Factors Governing Subsequent Planning (~~CONFIDENTIAL~~)
14. Tab N Reprogramming of USAF Technical Equipments. (~~SECRET~~)

UNCLASSIFIED

[REDACTED]

412  
2 May 1957

Joint Letter COMADC and CG USARADCOM, 30 Apr 57, subj: (U) Plans for CONAD (Joint) Direction Centers at Ten (10) Locations

COMSS-F

1st Ind

Hq Continental Air Defense Command, Ft. LRP, Colorado Springs, Colorado

TO: Chief of Staff, United States Air Force, as Executive Agent for CONAD, Washington 25, D. C.

1. The technical and operational portions of the plan provided in the basic correspondence are approved. Approval of the detailed plans for support facilities is considered a matter for final decision by the Service Departments.

2. Reference paragraph p, Tab H, to basic letter. Request action be initiated to resolve the land acquisition matter at Ft. Heath.

FOR THE COMMANDER-IN-CHIEF:

14 Encls  
n/s

FILE COPY

Copy Furnished:  
COMADC  
CG USARADCOM

DDI - W/R.

MEMO FOR RECORD: On 15 Mar USARADCOM and ADC were directed by Lt Col F.K. Nichols 2029  
their respective Service Departments to submit for approval to 2 May 57  
CONAD a joint plan for the implementation of the ten (10) collocated  
Missile Master--ADC Radar Sites. This plan was provided by the basic  
correspondence. The plan was reviewed in detail jointly by P&O and egl  
DCS/C&E and was found to be in consonance with previously approved  
CONAD technical and operational requirements. A major portion of  
the plan is devoted to support facilities and matters such as swimming  
pools, housing, and similar facilities. CONAD's approval, therefore,  
of the plan is restricted to only the technical and operational portions.  
The comment on the Ft. Heath problem is made because the referenced TAB  
recommends that "CONAD secure" additional land at this site.

Comeback copy COMSS-F (Lt Col Nichols)

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secret  
x

1959 [REDACTED]

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UNCLASSIFIED

(when filled in)

COPY OF INCOMING CLASSIFIED MESSAGE

SEE CRYPTO SECTION BEFORE DECLASSIFYING.

READING FILE

CONO21HQAO30  
RR RJEDEN  
DE RJEPHQ 143  
R 211942Z  
FM HEDUSAF WASH DC  
TO CINCONAD ENT AFB COLO  
BT

~~48~~  
21 May 57

Action: Coop  
Info: Coop  
Dis: Suspense: 23 May 57  
47-6709

FROM AFOAC-E/A 56336.

THIS IS AN EXECUTIVE AGENT MESSAGE. DEPARTMENT OF THE ARMY CONCURS. REFERENCE ADC - ARADCOM LETTER OF 30 APRIL 1957, SUBJECT: PLANS FOR CONAD (JOINT) DIRECTION CENTERS AT TEN (10) LOCATIONS, AND YOUR 1ST INDORSEMENT THERETO. HEADQUARTERS AIR FORCE AND HEADQUARTERS ARMY ARE PRESENTLY STUDYING YOUR PLAN AND PROCEEDING TO IMPLEMENT. YOU WILL BE ADVISED OF RESULTING PROGRAMMING ACTION AND FUNDING. REQUEST YOUR EARLIEST ASSISTANCE ON RESOLUTION OF ADC - ARADCOM. PROBLEMS LISTED ON TAB M OF YOUR PLAN.

BT  
21/1955Z MAY RJEPHQ



--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION--  
PHYSICALLY REMOVE ALL INTERNAL REFERENCES BY DATE-TIME GROUP PRIOR TO DECLASSIFICATION.

CONAD HIST FILE

50

UNCLASSIFIED

READING FILE

UNCLASSIFIED

COPY

43  
26 April 1957

COOOP-T

SUBJECT: CONAD Organizational Concepts During SAGE Era. (U)

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

1. Request you provide this Headquarters with your recommended CONAD organizational concepts for the SAGE Combat Centers, SAGE Direction Centers and the co-located Missile Master Direction Center facility. In addition, it is requested that you recommend the concepts during the transitional phases of the development of the SAGE system.

2. The best estimation available at this time as to operational dates of the combined MM/DC facility are as follows:

New York	P-9	1 May 59
Detroit	P-20	1 May 59
Niagara-Buffalo	P-21	1 May 59
Boston	Ft Heath	1 Sept 59
Chicago	Arlington Heights	1 Sept 59
Pittsburg	South Park	1 Sept 59
Philadelphia	P-9A	1 Jan 60
Washington-Baltimore	Ft Meade	1 June 60

3. Your recommendations are also solicited as to the CONAD operational concepts of the MM/DC sites in the various phases of operation.

FOR THE COMMANDER-IN-CHIEF:

/s/t/ HARVEY T. ALNESS  
Major General, USAF  
DCS/Plans & Operations

M/R This letter was directed by Col Jeffus as a result of the recent Commanders' Conference and his phone conversations with General Agan wherein he requested some MM/DC operational dates. These dates were required from ADC C&E who have developed some estimates after coordinating with USEARADCOM. They are based on a go date of 1 May 1957 and using the following time requirements: 2 to 4 months for land acquisition 4 months site design, 2 months bids, 1 1/2 (over)

UNCLASSIFIED

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HEADQUARTERS  
CONTINENTAL AIR DEFENSE COMMAND  
ENT AIR FORCE BASE  
COLORADO SPRINGS, COLORADO

44  
12 APR 1957

COCOP-T

SUBJECT: (Unclassified) Co-Location and Integration of ADDCs and AAOCS

TO: Commander, CONAD Forces, each CONAD Region

1. It is desired that a study be made as to the feasibility of co-locating and integrating those primary Antiaircraft Operations Centers (AAOCs) which were not included in the first ten integrated Missile Master/Direction Center facilities implementation program recently approved by the Departments of Army and Air Force.
2. Inclosed herewith, as a matter of ready reference, is a listing of the twenty-six (26) primary AAOCs indicating those ten sites which have already been approved for integration and those for which maximum integration is still a matter of extreme concern.
3. It is realized that, in some case, co-location and integration may not be operationally and economically feasible; however, in other cases, it may be possible to integrate the existing weapons control systems of the ADDCs and AOCs without major technical complications. Whether this action can be accomplished in one or the other of the existing facilities, or whether a single, new, integrated structure is the answer, is a matter for your consideration.
4. With the view in mind that the air defense system for CONAD must be a system based on the integration of fire power of all air defense weapons and that this system must employ a single operational control channel down to the lowest level where sufficient intelligence is available to permit a coordinated and integrated effort, comments and recommendations on further integration of those ADDCs and related primary AAOCs applicable to your command are desired not later than 22 April 1957.

FOR THE COMMANDER-IN-CHIEF:

1 Incl  
List of Primary  
AAOCs

*Harvey F. Alness*  
HARVEY F. ALNESS  
Major General, USAF  
DCS/Plans & Operations

UNCLASSIFIED

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LIST OF PRIMARY AAOC's

FIRST REGION, Army Air Defense Command

<u>Defense Area</u>	<u>Location</u>	<u>SITE NO.</u>	<u>GEOREF</u>
Boston *	Ft Hanks, Mass.	B21	HJEM013230
Hart-Bridgeport	New Britain, Conn	HA57	HJCM143398
New York *	Miller Field, L. I., N.Y.	NY55	BJAB543340
Nia-Buf *	Ft Niagara, N. Y.	NY91	GJMP568160
Loring	Loring AFB, Me	L514H	HGHB06 55C
Thule	Thule AFB, Greenland	TH12H	HMG205334

SECOND REGION, Army Air Defense Command

Cleveland	Parma Heights, Ohio	CL59	GJDM134222
Norfolk	Norfolk Army Base, Norfolk, Va	N55	GJPG409550
Philadelphia *	Swarthmore, Pa.	PH58H	GJPK387537
Pittsburgh *	Broughton, Pa.	P150H	GJKL591189
Savannah	Savannah River Project, Georgia	SA	GJJD164172
Wash-Balt *	Ft Meade, Md	W13H	GJPKL64070

FOURTH REGION

Carswell AFB **	Fort Worth, Texas	CR202H	FJHC343466
Ellsworth AFB	Rapid City, S. D.	RO2HR	FJBQ547093

FIFTH REGION

Chicago *	Chicago, Ill	C39	GJCM251474
Detroit *	Selfridge AFB, Mich	DO2	GJHM099377
Milwaukee	Milwaukee, Wisc	M96	GJCP021075
S. S. Marie	Ft Brady, Mich	SS501	GKFB384269

SIXTH REGION

Fairchild	Fairchild AFB, Wash	F703H	EKCC200373
Hanford	Hanford, Wash	H03	EKAB263397
Los Angeles *	Ft MacArthur, Cal	L 43C	EJBD424428
San Francisco	Ft Barry, Cal	SP83	DJNH283497
Seattle	Ft Lawton, Wash	S90	DKNC350397
Travis	Travis AFB, Cal	T101	DJFJ041169
Castle **	Castle AFB, Cal	CA618H	DJHQ256224
March AFB **	March AFB, Cal	MA802	EJCD230543

\* Indicates Missile Master/Direction Center facility approved for implementation  
 \*\* AAOC's to be inactivated o/a 15 June 57

Co-location considered feasible by Conad Region Commander



COPY

## Co-location &amp; Integration of ADDCs

COOP

COOP-T

3 May 57

Lt Col Matteson/2088/bll

1. The following comments have been received from Region Commanders with regard to the CONAD request for recommendations pertaining to further integration of ADDCs and AOCs.

a. Western CONAD Region

(1) Of the 4 primary AOCs not scheduled for integration (Fairchild, Hanford, San Francisco, and Seattle), co-location is considered feasible only in the case of the Fairchild AOC and the related Geiger ADDC (SM-151). (Reference Incl 1)

(2) Co-location action at ADCC-ADCC is not concurred in by CG, 6th ARADCOM Region.

b. Central CONAD Region

Co-location of the only primary AOC (Ellsworth AFB) in this region with its related ADDC (M-97) is not favorably considered due to lack of adequate, available facilities (Incl 2).

c. Eastern CONAD Region

Of the 7 primary AOCs not scheduled for integration (Hartford-Bridgeport, Loring, Cleveland, S.S. Marie, Milwaukee, Savannah) it is recommended that the AOCs at Loring AFB, Sault Saint Marie and Savannah be co-located with their associated direction centers (Incl 3).

2. In view of the above, it appears that co-location is feasible for the following AOCs:

- a. Fairchild AFB, Washington
- b. Loring AFB, Maine
- c. Sault Saint Marie, Ft. Brady, Michigan
- d. Savannah, Savannah River Project, Georgia.

3. Recommend command approval to initiate such action.

## 4 Incls:

1. Ltr, CCFWCR, re co-location.
2. Ltr, CCFCCR, " "
3. Ltr, CCFECC, " "
4. List of Primary AOC

/s/t/ VICTOR E. MATTESON  
Lt. Col. GS  
Asst Ch, Tactics & Techniques  
Div.

COOOP-T, Hq CONAD, 12 Apr 57, Subj: (Unclassified) Co-  
Location and Integration of ADDCs and AAOCs

CFECS

1st Ind

Hq CONAD Forces, Eastern CONAD Region, Stewart Air Force  
Base, New York

TO: Commander-in-Chief, Continental Air Defense Command,  
Ent Air Force Base, Colorado Springs, Colorado

1. This study has been made from the position that the fire power of all air defense weapons will be employed through a single operational control channel down to the lowest level where adequate air battle information is available to exploit their flexibility and destructive power. When SAGE is operational, the division control centers and sector direction centers will be the primary CONAD echelons concerned with selection of weapons and direction of the air battle.
2. This concept was developed on the premise that the SAGE sector direction center is the lowest level which has a reliable capability to control air defense elements within an area large enough to allow rapid and effective application of air defense weapons against high speed targets. It is believed that optimum probability of high speed target destruction by defense aircraft and missiles will be realized by use of the SAGE direction center which has knowledge and control of an area of operations large enough to permit maximum flexibility in tactical employment of weapons. To willfully relegate direction of the air battle to an element with a capability less than that of the SAGE sector direction center would be to reduce effectiveness of the defense.
3. There are requirements for a back-up to the SAGE system and for the ability to effect control of all weapons from joint control facilities before SAGE becomes operational. CONAD Direction Centers (Manual) are the logical elements to fill this need. AAOCs and ADDCs should be co-located where feasible. CAA radar requirements should also be included in a single compatible program. Although information on this headquarters relative to the CAA radar program is limited, there are strong

COOOP-T, Hq CONAD, 12 Apr 57, Subj: (Unclassified) Co-  
Location and Integration of ADDCs and AAOs (Contd)

indications that some duplication will occur unless immediate steps are taken to work out satisfactory solutions to this phase of the radar integration program.

4. Prior to SAGE becoming operational, CONAD Direction Centers should be manned in accordance with the extent to which automatic facilities become operational. Inclosure 1 shows the dates on which SAGE direction centers and Missile Masters are scheduled to become operational. CONAD Direction Centers having GPA-37 and FSG-1 facilities will need to be manned for full 24-hour operation until SAGE direction centers become operational. As soon as a SAGE direction center becomes fully operational, the manning for GPA-37 facilities in its sector can be reduced to the personnel necessary for its maintenance and the monitoring of inputs to the SAGE direction center, plus control specialists for a one-shift operation. As FSG-1 facilities phase into more automatic handling of information and direction of weapons, its personnel can likewise be reduced. This would provide emergency back-up, as well as day-to-day continuity, without being prohibitive in critical personnel specialties and without costly full-time duplication of the SAGE direction center functions.

5. It is considered basically unsound to construct Missile Masters or CONAD Direction Centers within the immediate defended area of any point defense or to allow manual AAOs to remain in positions where they are vulnerable to destruction by the attacks directed against the areas they defend. This should be avoided in planning and consideration should be given to relocation in those areas where this overriding principle has been violated. It is recognized that Missile Masters or AAOs must be reasonably close to the defense which they will control. Moves which will degrade radar coverage or delay the operational dates of SAGE should be avoided.

6. After study of these and related factors, the following conclusions have been reached:

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COOP-T, Hq CONAD, 12 Apr 57, Subj: (Unclassified) Co-Location and Integration of ADDCs and AAOCs (Contd)

a. Loring AFB, Sault Ste Marie and Savannah AAOCs and direction centers should be co-located at their associated direction centers.

b. Milwaukee and Cleveland should not have a CONAD direction center co-located with the AAOC. Operational control until SAGE becomes operational and in SAGE Mode III operation should be exercised by the CONAD direction centers at Chicago and Pittsburg, respectively. Establishment of CONAD direction centers at Milwaukee or Cleveland would constitute uneconomical overlap and duplication with the CONAD direction centers at Chicago and Pittsburg.

c. A CONAD direction center should be established at Hartford-Bridgeport if Missile Master is installed in this defense. The primary radar at Montauk should then be reduced to gap-filler status. If Missile Master is not installed at Hartford-Bridgeport, a CONAD direction center would not be established and pre-SAGE and Mode III operational control would be exercised by the ACW squadron at Montauk.

d. A CONAD direction center should be established at Cape Charles if Missile Master is provided Norfolk. If not, the AAOC and ACW squadron should not be co-located, in view of the communication and control difficulties which would arise if the AAOC were moved to Cape Charles and the possible loss in radar coverage and increase in vulnerability if the radar were moved to Norfolk.

e. Prompt action should be taken to insure coordination of this program with CAA plans for heavy radar.

7. Recommend:

a. Continuance of the SAGE concept that the sector direction center will direct the air battle.

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CPE-5-652-57

COOP-T, Hq CONAD, 12 Apr 57, Subj: (Unclassified) Co  
Location and Integration of ADDCs and AAOCs (Contd)

44

b. Where Missile Masters or manual AAOCs are co-located or integrated, manning of control elements be consistent with above recommendations, status of SAGE phasing, and back-up requirements.

✓ c. The Loring AFB, Sault Ste Marie and Savannah AAOCs be co-located with their associated direction centers.

d. The Milwaukee and Cleveland AAOCs not be co-located with CONAD direction centers.

e. If Missile Master is installed at Hartford-Bridgeport, the facilities be co-located and Montauk be reduced to gap-filler status; if not, a separate AAOc be retained.

f. If Missile Master is installed at Norfolk, this site be co-located at Cape Charles provided this is technically feasible; if not, a separate AAOc be retained.

g. Action be taken to coordinate CAA requirements for heavy radar.

8. This correspondence is classified SECRET in accordance with paragraph 30b(2)(k), AFR 205-1.

- 1 Incl
- w/d Incl 1
- Added 1 Incl
- 2. Chart, SAGE
- Direction Center
- & Missile Master
- Phasing

*Arthur C. Agan, Jr.*  
 ARTHUR C. AGAN, JR.  
 Brigadier General, USAF

For  
 EUGENE F. CARDWELL  
 Major General, USA  
 Commander

UNCLASSIFIED



COOP-T, Hq CONAD, 12 Apr 57, Subj: (U) Co-Location and Inter-  
of ADCs and AAOCs

CWCDR

1st Ind

44  
9 APR 1957

Headquarters CONAD Forces, Western CONAD Region, Hamilton Air Force  
Base, California

TO: Commander-in-Chief, Continental Air Defense Command, Ent Air Force  
Base, Colorado Springs, Colorado

1. This headquarters concurs that co-location of AAOC's and  
ADDC's is operationally desirable. An initial study, however, indicates  
that of the four primary AAOC's applicable to this command, co-location  
appears feasible only in the case of the Fairchild AAOC and the Geiger  
ADDC for the following reasons:

a. SM-151, Geiger Field, Washington, is programmed to  
become operational in October 1957.

b. The operations building can accommodate the planned ADDC  
and the equipment and personnel of the Fairchild AAOC.

c. The GTA-6A telephone system to be installed in the Geiger  
ADDC can be modified to include the ten additional ten-line key boxes  
required.


2. Co-location of the three remaining AAOC's and associated ADDC's  
in the Western CONAD Region is not considered to be economically feasible  
due to the magnitude of costs required for the following:

a. Major construction would be required for co-location of  
P-40, P-58 and P-38 and their associated AAOC's. Existing facilities  
are inadequate.

b. Present telephone communications require major augmentation  
of cable capacity to accommodate increased traffic.

3. In view of the lead time required for development of design  
criteria, budgeting, and construction, it is not considered practical to  
co-locate the ADDC's and associated AAOC's, other than the Fairchild AAOC-  
Geiger ADDC, for the interim period prior to SAGE operation.

*Copy 7-3*

  
COOP-T, Hq CONAD, 12 Apr 57, Subj: (U) Co-Location and Integration  
of ADDC's and AAOC's.

4. Headquarters 6th Region, Army Air Defense Command, does  
not concur with the concept of co-locating and integrating primary  
AAOC's and ADDC's.

2 Incl  
Incl #1- w/c  
Added:  
2- 1st Ind, WCONAD, to  
6th RAADCOM & their  
2nd Ind to this Hq.

*Hugh A. Parker*  
HUGH A PARKER  
Major General, USAF  
Commander



UNCLASSIFIED

COOP-T, Hq CONAD, 12 Apr 57, Subj: (U) Co-Location and Integration of  
ADDCs and AACCs

CWDRQ

1st Ind

16 APR 1957

44

Headquarters CONAD Forces, Western CONAD Region, Hamilton Air Force Base,  
California

TO: Commanding General, 6th Region Army Air Defense Command, Ft Baker,  
California

1. Request your comments and recommendations on feasibility of the  
proposal set forth in paragraph 1 of the basic letter.

2. In view of the short suspense date indicated in paragraph 4 of  
basic letter, your comments requested by 1200 hours, 18 April 1957.

BY ORDER OF THE COMMANDER:

*Lyman L. Woodman*  
LYMAN L. WOODMAN  
Lt Col, USAF  
Adjutant

1 Incl:  
n/c

UNCLASSIFIED

Incl #2

6275-00250

0322

4/18/57-1

UNCLASSIFIED

SARC-3 381 (12 Apr 57) 2d Ind (S)  
SUBJECT: Co-Location and Integration of ADDC's and AOC's (U)

HQ 6TH REGION, ARMY AIR DEFENSE COMMAND, Fort Baker, California 18 APR 1957

TO: Commander, CONAD Forces, Western CONAD Region

1. The principle of integration of fire power of all air defense weapons under one control is concurred in by this command. However, control is not gained by co-location or integration of the AOC and its related ADDC. The functions of AOC's and ADDC's differ. An anti-aircraft operations center is comparable to an air defense (division) control center where coordination of effort is carried out, whereas an ADDC is equivalent to the fire control radar of a ground-based weapons system. Both the ADDC and the fire control radar are concerned with placing the weapon on the target.

2. This command feels therefore that from the point of view of functionality it would be better to tie together, if such is necessary, the AOC's and ADDC's. Other practical reasons support this view, as follows:

a. Experience has shown that the information available from any one particular ADDC is limited and the cross-told information is more often than not too late for beneficial use by the AA defense. Better results insofar as AA is concerned could be obtained by direct active liaison with ADDC's. An example of this is the recent decision to remove the liaison detachment of the 108th AAA Group in Los Angeles from the ADDC at San Clemente Island to the ADDC at Norton Air Force Base.

b. The operational control exercised by CONAD with respect to the AA, in effect, is to insure that some fire power is assigned to each enemy airborne weapon. Obviously, such a function is impossible at the ADDC. In essence the ADDC supplies the AA identification information only.

c. With respect to the practicability of integration of the AOC's listed in Inclosure 1:

(1) Fairchild, Hanford, and San Francisco AOC's are too remote from the nearest ADDC for consideration as a joint facility.

✓ (2) Travis AOC is expected to be abolished as a primary and to be integrated with San Francisco.

(3) Funds are not available for movement or construction.

3

UNCLASSIFIED

Copy 1 of 6 Copies

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0323

SARC-3 361 (12 Apr 57) 2d Ind (S) **44**  
SUBJECT: Co-Location and Integration of ADDC's and AACG's (C)

3. For the reasons indicated above, it is the view of this command that the co-location and integration of AACG's with their related ADDC is not feasible.

FOR THE COMMANDER:

1 Incl  
n/c

Copy furnished (all corres.):  
CG, ARADCOM

*W. F. Spurgeon*  
W. F. SPURGEN  
Colonel GS  
Chief of Staff

X 7-5900

COOP-T, Hq CONAD, Subj: (U) Co-Location and Integration of AAOCs

CFCR

1st Ind

19 APR 1957

Hq CONAD Forces, Central CONAD Region, Grandview AFB, Missouri

TO: Commander in Chief, Continental Air Defense Command, Ent AFB, Colorado Springs, Colorado

1. Within the Central CONAD Region there is currently only one operational antiaircraft operations center (AAOC). This is at Ellsworth AFB. The antiaircraft unit at Carswell AFB is already non-operational in preparation for deactivation 15 June 1957.

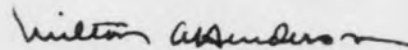
2. At Ellsworth AFB integration of the ADDC and the AAOC is not feasible at this time for economic reasons. Such integration would require that an entirely new facility be constructed. Information available at this headquarters indicates that the space requirements for an AAOC is approximately 40 x 36 feet which is comparable to the space within an ADDC.

3. The AAOC at Ellsworth AFB is being expanded for the change over of weapons system in the near future, but it will still be in the same building requiring a minimum amount of funds since the circuitry is already installed. The building housing the present AAOC is approximately one quarter of a mile from the ADDC. It is not believed that any space exists at Ellsworth AFB that can accommodate both AAOC and ADDC operations in a common location.

4. The integration of the ADDC at Duncanville, Texas with the CAA facility programmed for construction at Amon G. Carter Airport in Fort Worth, Texas is currently under study by the CADP and ADC staffs. The requirement for an AAOC in this area will not exist for approximately two years. As soon as a decision is reached on the integration of our ADDC with the CAA facility, the feasibility of further integration of the programmed AAOC will be considered by this headquarters.

FOR THE COMMANDER:

1 Incl: w/d



MILTON A. HENDERSON  
Capt, USAF  
Asst Adjutant

2

CONAD X7-5900

[REDACTED]

44

Co-location and Integration of ADCs and AOCs

COOPO

COZLC

16 May 57  
Lt Col Nichols/2039/es

/ 2

1. The information provided in the replies from the CONAD Regions is not considered sufficient to support the conclusion that co-location of AOCs and DCs is not feasible. The effectiveness of AA weapons and, in turn, the over-all air defense capability, is being seriously impaired by deficiencies in the existing system. The gain in operational capability to be achieved by co-location is potentially so great that the feasibility of this action should be explored further before final conclusions are made. The following specific views of this office apply as indicated:

a. Western CONAD Region 1st Ind.

Concur with co-location of the Geiger Field and Fairchild facilities as recommended in para 1.

Reference para 2, as presented, the communication and construction problems, with associated dollar costs, should not be accepted as prohibitive reasons against co-location of other facilities. This conclusion could be supported only by a detailed study of each facility in which operational gain is compared with manpower considerations, initial costs, recurring costs, and similar factors.

The conclusion made in para 3 is not considered valid. Co-location is operationally desirable in SAGE Mode III and IV, and is extremely desirable for technical reasons in all SAGE Modes.

b. Central CONAD Region 1st Ind.

Reference paras 2 and 3. The location of an AOC and DC within one-quarter mile, as now exists at Ellsworth AFB, is considered an unacceptable situation. Without more detailed justification, the cost of new construction (if necessary) to house a joint operations room at this base is not considered a sufficient problem to preclude co-location.

Reference para 4. The planning for the AOC in the Ft. Worth - Dallas area should be done on the basis that co-location of the AOC with the Duncanville DC is a requirement. Specific instructions to this effect should be provided USARADCOM, ADC and Central CONAD Region.

c. Eastern CONAD Region 1st Ind.

Concur with paras 7a, b, c and g of the Eastern Region 1st Indorsement.

Reference para 7d. Appropriate modification in the responsibilities, functions, and equipment facilities of the Chicago Joint Missile Master - ADC, relative to the Milwaukee AA Defense could permit a satisfactory solution short of

[REDACTED]

COPY FOR COLONEL NICHOLS

44

COMELC, Subject: Co-location and Integration of ADDCs and AAOCS (Cont'd)

co-location. The situation at Cleveland presents a peculiar problem. The plan for the location of a Missile Master at Pittsburgh calls for the reduction of the radar site at Brookfield, Ohio, to gap-filler status. This site, P-62, is the nearest DC to Cleveland. Further detailed study would be required to determine if the best solution for this area would be to create a new joint AAOCS - DC at Cleveland. A cursory analysis indicates that this is the best solution.

Reference paras e and f. A detailed study should be made regarding the co-location of the Hartford/Bridgeport AAOCS with the Montauk DC, and the Norfolk AAOCS with Cape Charles. The comments made in the 2nd and 3rd paras of 1a, above, also apply to these sites.

2. An additional major factor bearing on this problem is that USARADCOM is now processing a requirement for electronic fire direction equipment (similar in function to the MM) for all AAOCS. The size and exact functioning of this new equipment will vary from site to site, but there is every reason to believe that additional or new construction will be required at all AAOCS to house this equipment. Correlation of the planning for this new equipment with the plans for integrating existing facilities could result in the conclusion that co-location is feasible as well as desirable at virtually all locations.

3. It is recommended that the CONAD Regions, USARADCOM and ADC be requested to submit detailed studies on how the various facilities can be co-located. If, after these detailed studies are completed, the conclusion is still held that co-location is not feasible, then the Regions and Component Commands should submit specific recommendations as to how the deficiencies in the current AAOCS - DC functioning can be overcome and proper operational integration can be accomplished.

4. It is also recommended that CONAD establish the requirement that, where applicable, all planning for new AAOCS and/or DC facilities be made on the basis of co-location.

1 Incl  
m/s

PAUL H. LONG  
Colonel, USAF  
Asst. DCS/Comm

[REDACTED]

44

Co-location and Interration of AADCs and ADCs

COOPO

WNLG

16 May 57  
Lt Col Nichols/2039/ss

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1. The comments by the COMAL Regions pertaining to the difficulties involved in moving all AADCs to Radar Direction Centers, or vice versa, are considered correct. It is believed, however, that in all cases co-location and integration is operationally the most desirable solution. For some specific existing facilities co-location is feasible, as indicated in Comment #1.

2. Investigation of alternate solutions to the integration problem, short of co-location, should be made. If an acceptable alternate method can be achieved, then the cost and difficulty of moving all existing AADCs and/or DCs would be considered prohibitive. It is the opinion of this office that there is a good possibility for such an alternate solution.

3. An example of a method by which closer operational integration could be achieved is discussed below as a possibility for exploration, rather than a positive recommendation. This example is based on the premise that the transfer of track information, including identification, between AADCs and DCs is one of the predominant weaknesses in today's operation. Two conclusions on this situation are also accepted: battery radars and FPS-1Ds now in the field obtain radar-target data that could and should be better utilized; and AF derived track information is an essential requirement for effective utilization of AA weapons.

a. Communications facilities could be provided for the surveillance operators and tellers in the DCs to broadcast over a telephone circuit the same track information to plotters in the AADC as well as to those in the DCs. Battery or FPS-1D derived track data that is now fed into AADCs could also be broadcast directly into DCs. This would make the same information available within the AADC and DC on a timely basis.

b. Another method by which this same basic objective could possibly be achieved would be to increase the number of AA tellers and operators in the DC, with a change in the internal functioning within the DC, relative to the passing of track data to and from AA firing units.

4. The above example is not considered complete as many additional factors are involved. Changes in functions and responsibilities would also be necessary in DCs and CCs as well as AADCs. It is the opinion of this office, however, that exploration of arrangements such as those cited above can provide a solution short of co-location. It is also believed that some changes in communications facilities

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COKLC, Subject: Co-location and Integration of ADDCs and AOCs (cont'd)  
would be required for this type solution, but these changes would not  
be unduly difficult to implement.

1 Encl  
a/s

PAUL H. LONG  
Colonel, USAF  
Asst. DCS/Comm

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## Colocation and Integration of ADCCs and AAOCs

COOPO  
COOOP-T (IN TURN)

COOPR

28 May 57  
Lt Col Kekoa/2163/dmg

44

1. The general impression that is gained after reviewing the indorsements by the CONAD Regional commanders is that, somehow, the regional commanders have not been imbued with the spirit of CINCONAD's desire to increase air defense effectiveness by colcoating air defense weapon control facilities. It seems that they do not have a full appreciation of CINCONAD's objective and his concept for the employment of air defense weapons. A full-scale program designed to educate not only the CONAD Regional commanders, but also the CONAD Division commanders and their staffs as well, appears to be in order at this time. Only in this way can we expect to spread the CONAD "story."

2. Specific comments on the indorsements forwarded by the regional commanders follow:

a. Western CONAD Region.

- (1) Concur with the colocation of Fairchild AAOC and the Geiger ADCC.  
 (2) Reference paragraphs 2 and 3. Concur with subparagraph 1a, Comment 2, by COELC.

b. Central CONAD Region. Concur with subparagraph 1b, Comment 2.

c. Eastern CONAD Region. Concur with subparagraph 1c, Comment 2. However, this concurrence is made with one reservation. The colocation of the Bridgeport-Hartford AAOC with the Montauk DC and the Norfolk AAOC with the Cape Charles DC introduces a matter which has not been officially stated as policy. The announced policy of CINCONAD is that missile masters, or modifications thereof, will be colcoated with their associated ADCC's. The Bridgeport-Hartford and Norfolk proposals do not involve the installation of new, programmed firedirection systems such as missile master. Therefore, it appears that CONAD should announce that our policy includes the relocation of existing AAOC's, even though not programmed for new equipment, in order to effect its colocation with its associated ADCC. Although the planned move of a control facility and the installation of a new fire direction system are covered by current CONAD directives, the policy with respect to a directed relocation of an existing control facility not associated with new, programmed equipment is not clear-cut.

3. There seems to be general agreement on the part of the regional commanders that colocation is desirable. On the other hand, recommendations for colocation have been limited. This probably resulted from the fact that each regional commander has been given the latitude to establish the criteria by which he was to determine whether or not colocation of the weapon control facilities in his region was desirable either from an operational or economic viewpoint. It is highly

DUPLICATE

44

SUBJECT: Colocation and Integration of ADDCs and AAOCs

COMMENT NO. 3 Cont'd

probable that these criteria must have varied with each commander. However, the major reason presented in each instance wherein colocation was not favored was that of monetary limitations. It is believed that the overriding criterion for determining the feasibility of collocating AAOCs and ADDCs should be whether or not colocation would provide increased coordination, efficiency and air defense effectiveness. Further, final decision on colocation of facilities should rest with this headquarters after all information has been made available upon which a sound decision can be made.

4. In view of the above it is recommended that:

a. If CONAD's colocation policy includes the directed relocation of an existing control facility not associated with new, programmed equipment, such policy should be clarified and promulgated.

b. We take another try at this problem with a more positive approach and, at the same time, solicit the active support of the CONAD Regional commanders.

1 Incl  
n/c

ARTHUR J. PIERCE  
Brig General, USAF  
Dir, Plans & Requirements

CONAD HIST FILE

54

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14 May 1957  
SECRETARIAT  
Adut  
Asst  
Prot

CINCONAD	HCR
	HCI
SECRETARIAT	SEC
Adut	SAG
Asst	SAY
Prot	SPL
INFO SERVICES	NFO
404	CLC
	ESS
	EPD
	EEW
DCS-1	INT
CS & Train	KD
Rec & Ext	IRE
Com	IOI
3 DCS-PMO	OP
104	OP
Plans	OPA
Com	COG
Ops	OGA
CONAD	
COMNAVFORCONAD	
CG ARMA CWO	
RCAP LIAISON	

COCPA

SUBJECT: Collocation of AACC and ADCC Installations

TO: Commanding General, U.S. Army Air Defense Command  
Commander, Air Defense Command

1. A decision was recently made by CINCONAD to collocate anti-aircraft operations centers (AACCs) and air defense direction centers (ADDCs) and integrate their activities into a joint command direction center wherever it was economically feasible. Letters have been dispatched to all three COMAD Regional commanders requesting a survey be made of their respective areas and recommendations be made to this headquarters concerning possible collocation of AACCs and ADCCs.

2. In view of the above decision, it is requested that any future plans for new installations or relocation of present AACCs or ADCCs be forwarded to this headquarters for review prior to finalization of such plans.

FOR THE COMMANDER-IN-CHIEF:

MARSHALL S. CARTER  
Major General, USA  
Chief of Staff

RE: [unclear]

Letters were written to the Air Defense Command to the three COMAD Regional commanders directing them to make an investigation in their areas and report back to this headquarters for the collocation of existing ADCCs and AACCs wherever it is economically feasible. It is desired to have this information in the future wherever possible.

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Record Evaluation  Permanent  Long Term Value  Temporary Only 1 Jan 58

JOINT MESSAGEFORM		SECURITY CLASSIFICATION	
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PRECEDENCE	TYPE MSG (Check)		ACCOUNTING SYMBOL
ACTION <b>PRIORITY</b>	BOOK	MULTI	ORIG. OR REFERS TO
INFO <b>ROUTINE</b>		SINGLE	CLASSIFICATION OF REFERENCE
FROM: <b>CINCONAD</b>		<b>X</b>	<b>AF</b>
TO: Chief of Staff, USAF, WASH DC			SPECIAL INSTRUCTIONS
INFO: CINCAL ELMENDORF AFB ALASKA			
FROM COOPR X 031			
<p>Chief of Staff, USAF, as Executive Agent for CONAD. This message in three parts. Part one. Reference is made to Top Secret letter this headquarters, 6 June 1957, subject, Air Defense Requirements for aska, which established the requirement for collocating the AAOC (AN/MSG-4) and associated ADDC in the Ladd-Eielson defense and in the Elmendorf-Fort Richardson defense. Part two. CINCAL has recommended, and this headquarters approves, expansion of the present ADDC facilities at Murphy Dome for colocation of the ADDC and AAOC in the Ladd-Eielson defense. A survey selecting a site to colocate the ADDC and AAOC in the Elmendorf-Fort Richardson defense is expected to be completed about 1 September 1957. Part three. Recommend that the Joint Chiefs of Staff approve the colocation of the ADDC and AAOC at Murphy Dome in the Ladd-Eielson defense and so advise the Department of the Army, the Department of the Air Force and this command.</p>			
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[REDACTED]

MEMORANDUM FOR RECORD

46

SUBJECT: Colocation of AAOC's-ADDC's in Alaska

1. Alaska submitted an "Alaskan Command Air Defense Requirements Plan," dated 25 March 1957, covering the period from 1957 to 1966. This plan did not include a requirement for the colocation of the AAOC's and ADDC's in Alaska.

2. This headquarters in verbal conference with members of the CINCAL staff and by letter to the JCS dated 6 June 1957, subject, Air Defense Requirements for Alaska, stated: "A requirement exists for two Army Defense Control System sets in FY 1960 (AN/MSG-4). One system should be installed to control the fire of antiaircraft units in defense of the Ladd/Eielson bases (Fairbanks), and the other system to control antiaircraft units in defense of Elmendorf-Fort Richardson (Anchorage) and the IREM sites at Willow Run and Hidden Lake. Each of the AN/MSG-4's will be interconnected with the data processing elements of the BADGE system. Colocation of the AN/MSG-4 and the associated ADDC is established policy."

3. As a result of this expressed CONAD requirement for Alaska, AAC in message to CINCONAD dated 23 May, OP-3A-0436, stated: "This headquarters in coordination with U.S. Army Alaska, is now reviewing possible locations for Joint Direction Centers in the Anchorage and Fairbanks areas, considering vulnerability to target areas, tactical radar coverage, and accessibility from logistic stand point . . . . To preclude program delay we have selected Murphy Dome in the Fairbanks area and Mount Susitna in the Anchorage area for the construction of Joint Direction Centers. Mount Susitna will be funded as a new facility and Murphy Dome by expansion of present facilities. This action will allow these facilities to be included in the FY 1959 MCP provided your headquarters provides sufficient support to assure the services direct their inclusion . . . ."

4. In reply, CONAD message to CINCAL, COOPRX-026, dated 31 May, stated: "Colocation of ADDC's and AAOC's where feasible is an established policy by CINCONAD. Selection of Murphy Dome in Fairbanks area is approved. Selection of Mount Susitna or an alternate should be reviewed and recommendation submitted for the 1960 MCP."

5. In reply to CINCONAD, CINCAL message OPN 5204, dated 7 June, stated: "This command strongly desires to include collocated ADDC-AAOC's in FY 59 not FY 60 MCP. Although final ADDC-AAOC site in Anchorage area cannot be selected in time for submission in our request for FY 59 MCP, Mount Susitna site can be used for funding in FY 59 MCP request and the site changed later if necessary. All

potential site costs are so similar that the use of Susitna for MCP funding is appropriate. Developing studies by our joint committee on ADDC-AAOC siting indicates increasing attractiveness of Susitna but final choice of site depends largely on equipment performance evaluation now in progress."

6. CONAD replied to CINCAL in message COOPR X-029, dated 11 June, stating: "CINCONAD continues to recognize requirement for colocation of ADDC and AAOC at earliest practicable date. Therefore, if a suitable operational site in the Anchorage area, including Mount Susitna, can be selected in time for inclusion in FY 1959 MCP, such action is approved."

7. On 12 June, before CINCAL had received message COOPR X-029, Col Necrasson, J-3 ALCOM, in telephone conversation with Gen Pierce, stated that representatives of the Air Force and Joint Electronics Committee were there and they would support these two locations and do their best to get them in the budget if CINCONAD approved. This would allow better use of 2½ million dollars presently set up for one of the sites.

8. Based upon this information, a message was prepared recommending JCS approval of the colocations at Murphy Dome and Mount Susitna. This message was not concurred in by Operations, Col Jeffus. His action was based in large part on a discussion with Gen Muehleisen, ADC, who recently returned from ALCOM. Gen Muehleisen stated that the inaccessibility of Mount Susitna was such that a collocated AAOC-ADDC there was not practical. A telephone conversation with Col Necrasson established that the plan was to go by barge from Anchorage about 30 miles to a landing at Grants Point and build a road to the top of Mount Susitna (about 20 air line miles - 4397 feet high). Col Jeffus was of the opinion that CONAD should not request JCS approval of Mount Susitna when practical considerations made it likely that the location would later be changed. The matter was referred to Gen Carter, who decided the message should not be sent. Gen Carter stated that this headquarters should see what CINCAL replied to COOPR X-029.

Col Carter, Asst J-3 of ALCOM, was notified by telephone of this status. Col Carter stated that the present site of the ADDC at Fire Island was not considered appropriate for colocation. He reemphasized that ALCOM wanted to get the sites in the MCP for 1959 (made up by 1 July 1957). Col Carter stated that about five other sites were under consideration for colocation but it would be a matter of several months before the radar survey was completed. He stated that it was probable that Mount Susitna would not be the site selected, but that since it would cost the most it was desirable to request the funds for colocation there. Col Carter stated that consideration was being given to placing the radar on Mount Susitna

[REDACTED]

and remoting the information to a colocated AAOC-ADEC down near Anchorage. In this case, maintenance men would be sent to the radar by helicopter. He did not know whether it would be necessary to build a road to construct the radar on Mount Susitna. 46

9. CINCAL replied to COOPR X-029 in message OPN 5222, stating that: "This headquarters (ALCOM) is giving highest priority to surveys for selection of ADDC-AAOC site in Anchorage area. Firm choice of site expected prior to 1 September 1957. With your support this date will permit inclusion in FY 59 MCP. Results of surveys and studies together with recommendation for site will be furnished to you at earliest possible date."

10. CINCONAD in message COOPR X-031 to the Chief of Staff, USAF, as Executive Agent, "Recommended that the Joint Chiefs of Staff approve the colocation of the ADDC and AAOC at Murphy Dome in the Ladd-Eielson defense . . . ."

11. CINCONAD in message COOPR X-032 notified CINCAL that "this Headquarters (CONAD) will request approval of the Joint Chiefs of Staff for the colocation of the ADDC and AAOC in the Anchorage area when a firm choice of site is made by your (ALCOM) command," and referred to action taken by this headquarters to obtain JCS approval for colocation at Murphy Dome in the Fairbanks area.

12. This completes the action required at this time. Future action contemplated:

a. When notified of JCS decision in regard to colocation at Murphy Dome this headquarters will inform CINCAL.

b. When informed of firm choice of CINCAL for colocation in Anchorage area this headquarters will request approval of JCS. It is recommended, if CINCAL's choice is Mount Susitna, that a group of qualified officers from this headquarters visit Alaska to reaffirm this choice prior to making a recommendation to the JCS.

[redacted] when filled

COPY OF INCOMING CLASSIFIED MESSAGE

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SEE CRYPTO SECTION BEFORE DECLASSIFYING

READING FILE

CONAD DIST FILE

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 RM RJEPMQ RJEDEM  
 DE RJKDAG 14C  
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 FM CGMGR AAC ELMENDORF AFB ALASKA  
 TO RJEDEM/CINCONAD ENI AFB COLO  
 INFO RJEPMQ/COFS HEDUSAF WASHDC  
 ZEN/CINCAL ELMENDORF AFB ALASKA

Action: Copy  
 Info: Copy  
 X7-6976

[redacted] / FROM OP-3A 04636.  
 MESSAGE COOPK023 DATED 20 MAY 1957. THIS MESSAGE  
 IN THREE PARTS. PART I. REFERENCED MESSAGE REQUIRES COLOCATION OF  
 ADDC AND AAGC IN ANCHORAGE AND FAIRBANKS AREAS. TARGET DATE FOR CO-  
 LOCATED FACILITIES IS 1959; THEREFORE, FISCAL YEAR 1959 MILITARY  
 CONSTRUCTION PROGRAM FUNDS WILL BE REQUIRED TO CONSTRUCT JOINT  
 FACILITIES IN THESE AREAS. THIS HEADQUARTERS IN COORDINATION WITH  
 UNITED STATES ARMY, ALASKA, IS NOW REVIEWING POSSIBLE LOCATIONS FOR  
 JOINT DIRECTION CENTERS IN THE ANCHORAGE AND FAIRBANKS AREAS CON-  
 SIDERING VULNERABILITY TO TARGET AREAS, TACTICAL RADAR COVERAGE,

PAGE TWO RJKDAG 14C  
 AND ACCESSIBILITY FROM A LOGISTIC STANDPOINT. IT IS ESTIMATED THE  
 FINAL SELECTION OF A LOCATION WILL BE TOO LATE TO MEET THE FISCAL  
 YEAR 1959 MILITARY CONSTRUCTION PROGRAM REQUIRED DATE. TO PRECLUDE  
 PROGRAM DELAY WE HAVE SELECTED MURPHY DOME IN THE FAIRBANKS AREA AND  
 MOUNT SUSITNA IN THE ANCHORAGE AREA FOR THE CONSTRUCTION OF JOINT  
 DIRECTION CENTERS. MOUNT SUSITNA WILL BE FUNDED AS A NEW FACILITY  
 AND MURPHY DOME BY EXPANSION OF PRESENT FACILITIES. THIS ACTION WILL  
 ALLOW THESE FACILITIES TO BE INCLUDED IN THE FISCAL YEAR 1959 MILITARY  
 CONSTRUCTION PROGRAM PROVIDED YOUR HEADQUARTERS PROVIDES SUFFICIENT  
 SUPPORT TO ASSURE THE SERVICES DIRECT THEIR INCLUSION. INTERSERVICE  
 AGREEMENT ON ADJUSTMENT OF FUNDS CAN BE WORKED OUT AT DEPARTMENTAL  
 LEVEL. PART II. REFERENCED MESSAGE SUPPORTS THE NEW DEFERMENT OF THE  
 WEST WALL PROGRAM. CONSTRUCTION OF THESE STATIONS IS CATEGORICALLY  
 THE SAME AS THE FACILITIES IN PART I ABOVE IN THAT FISCAL YEAR 1959  
 MILITARY CONSTRUCTION PROGRAM FUNDS ARE REQUIRED. PART III REQUEST  
 IMMEDIATE ACTION AS THESE FACILITIES CANNOT BE INCLUDED IN THE FISCAL  
 YEAR 1959 MILITARY CONSTRUCTION PROGRAM PRIOR TO RECEIVING DIRECTIONS  
 FROM HEADQUARTERS USAF. THIS MESSAGE HAS BEEN COORDINATED WITH THE  
 ALASKAN COMMAND.  
 BT  
 28/1855Z MAY RJKDAG

NKA--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION--  
 PHYSICALLY REMOVE ALL INTERNAL REFERENCES BY DATE-TIME GROUP PRIOR  
 TO DECLASSIFICATION.

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ACTION	ROUTINE	BOOK	MULTI	SINGLE		AAC OP-3A-04636	<del>SECRET</del>
INFO				X	AF		
FROM:	CINCONAD						SPECIAL INSTRUCTIONS
TO:	CINCAL ELMENDORF AFB ANCHORAGE ALASKA						
<p>FROM COOPR X-026. Reference SECRET message from Cmr AAC, OP-3A-04636. This message in two parts.</p> <p>PART I. Colocation of ADDC's and AAOC's where feasible is an established policy by CINCONAD. Colocation in the annual period must be compatible with Semi-Automatic Ground Environment program for your theater and will be continued in use as backup for Mode III operations after the semi-automatic system becomes available. Selection of Murphy Dome in Fairbanks area is approved. Selection of Mount Susitna or an alternate should be reviewed and recommendations submitted for the 196D military construction program. PART II. Your reference to new deferment of WEST WALL program is not understood, and any suggestion of this was not intended by our message COOPR X-023. Completion of WEST WALL is highest priority.</p> <p>M/R: Attached.</p>							
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A. J. PIERCE, Brig Gen, D/P&R							
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MEMORANDUM FOR RECORD: 48

As a result of an info copy of our message to JCS giving the ground environment requirements for Alaska, the Alaskan Air Command selected Murphy Dome in the Fairbanks area and Mount Susitna in the Anchorage area for the location of the joint direction centers. We have been informed by Alaska that there is no problem in colocation at Murphy Dome in the Fairbanks area, but that it will cost from 6 to 7 million dollars to colocate at Mount Susitna since it required building a road from sea level to 4,000 ft. altitude.

In our discussions with Col Necrason, it appears that it may be possible to select another site at much lower cost if we will defer the completion date until 1961. It is recommended, therefore, that we approve the Fairbanks colocation and defer decision on Anchorage until Alaska has had further chance to review this problem.

Their reference to the new deferment of the WEST WALL program was not understood by this headquarters or by Col Carter in CINCAL, whom we contacted by red phone--but it may be tied up in the question of reallocating funds for construction at Mount Susitna.

JOINT MESSAGEFORM			SECURITY CLASS	
SPACE BELOW RESERVED FOR COMMUNICATIONS				
<b>READING FILE</b>				
PRECEDENCE		TYPE MSG (Check)		ACCOUNTING SYMBOL
ACTION	PRIORITY	BOOK	MULTI	SINGLE
INFO	ROUTINE		X	
FROM:	CINCOMAD			AF
REFERENCE				
SPECIAL INSTRUCTIONS				
TO: Chief of Staff, USAF, WASH DC				
INFO: CINCAL ELMENDORF AFB ALASKA				
[REDACTED] OM COOPR X 031				
Chief of Staff, USAF, as Executive Agent for COMAD. This message in three parts. Part one. Reference is made to Top Secret letter this headquarters, 6 June 1957, subject, Air Defense Requirements for Alaska, which established the requirement for col locating the AAOC (AN/MSG-4) and associated ADDC in the Ladd-Eielson defense and in the Elmendorf-Fort Richardson defense. Part two. CINCAL has recommended, and this headquarters approves, expansion of the present ADDC facilities at Murphy Dome for colocation of the ADDC and AAOC in the Ladd-Eielson defense. A survey selecting a site to colocate the ADDC and AAOC in the Elmendorf-Fort Richardson defense is expected to be completed about 1 September 1957. Part three. Recommend that the Joint Chiefs of Staff approve the colocation of the ADDC and AAOC at Murphy Dome in the Ladd-Eielson defense and so advise the Department of the Army, the Department of the Air Force and this command.				
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LT COL O W GRIEST				
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DATE		TIME		
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MONTH		YEAR		
JUNE		1957		

JOINT MESSAGEFORM				SECURITY CLASSIFICATION		
SPACE BELOW RESERVED FOR COMMUNICATION CENTER						
READING FILE				650		
PRECEDENCE		TYPE MSG (Check)		ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
ACTION	ROUTINE	BOOK	MULTI	SINGLE	OPN 5204	SECRET
INFO				X	AF	
FROM: CINCONAD					SPECIAL INSTRUCTIONS	
TO: CINCAL ELMENDORF AFB ANCHORAGE ALASKA						
<p>Reference your OPN 5204 and our COOPR X-026. This message in two parts. Part I. With regard to colocation of ADDC and AAOC in the Mount Susitna area, the following considerations served as background for our message COOPR X-026. Information available locally indicated that the cost and construction difficulties incident to location of a facility on Susitna might prove, insofar as 1959 MCP is concerned, infeasible. Also of primary concern was the consideration that proposed colocation could not be accomplished for less than six million dollars. For this reason, it was considered that a budgetary approach on a firm location would be more practical, even if such action delayed submission until FY 1960. Part II. CINCONAD continues to recognize requirement for colocation of ADDC and AAOC at earliest practicable date. Therefore, if a suitable operational</p>						
					DATE	TIME
					11	1730
					MONTH	YEAR
					Jun	1957
SYMBOL				SIGNATURE		
COOPR						
TYPED NAME AND TITLE (Signature, if required)				TYPED (or stamped) NAME AND TITLE		
D. E. GRIEST, Lt Col, USA				I. W. LEDONIX		
PHONE 2841				LCDR, USN		
SECURITY CLASSIFICATION				Asst. Adjutant		
READING FILE						

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JOINT MESSAGEFORM - CONTINUATION SHEET		SECURITY CLASSIFICATION			
FROM:		[REDACTED]			
CINCONAD		50			
<p>site in the Anchorage area, including Mount Susitna, can be selected in time for inclusion in 1959 MCP, such action is approved.</p>					
<p>A PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION - PHYSICALLY REMOVE ALL INTERNAL REFERENCES BY DATE. TIME GROUP PRIOR TO DECLASSIFICATION</p>					
SYMBOL	UNCLASSIFIED	PAGE NR	NR OF PAGES	SECURITY CLASSIFICATION	INITIALS
COOPR		2	2	[REDACTED]	

DD FORM 173-1  
MAY 55

U. S. GOVERNMENT PRINTING OFFICE: 1955-382238

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MEMORANDUM FOR RECORD

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1. In referenced message COOPR X-026 to CINCAL, this headquarters approved the colocation of the ADDC and AAOC at Murphy Dome for the Fairbanks area for 1959 MCP. In view of the fact that CINCAL indicated Mount Susitna might not be the best spot for colocation in the Anchorage area, this headquarters stated that the colocation there should be reviewed and recommendations submitted for 1960 MCP.

2. In reply, CINCAL, in message OPN 5204, strongly desired to include colocation at Mount Susitna in the 1959 MCP for funding purposes with the understanding that, if a better spot for collocating the ADDC and AAOC in the Anchorage area was found, the site would be changed later.

3. This message recognizes the requirement for colocation at the earliest practicable date, but states that, to be included in the 1959 MCP, the site selected must be a suitable operational site.



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COMBAT ADJ

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- 12 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/0/0/
- 16 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/0/0/
- 17 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/32/33/
- 18 FT SQ/Langle/7-36/13/0/0/3/0-0/0/0/37/0/0/1 Increase  
proficiency of crown.
- 19 FT SQ/Henson/7-36/13/0/0/3/0-0/0/0/37/15/
- 20 FT SQ/Henson/7-36/13/0/0/3/0-0/0/0/33/12/
- 56 FT SQ/Right/7-36/13/0/0/3/0-0/0/0/30/30/
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- 59 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/31/24/
- 60 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/35/22/
- 61 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/27/25/
- 62 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/0/0/
- 62 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/35/15/
- 63 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/0/0/
- 63 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/32/15/
- 71 FT SQ/Soldado/7-36/13/0/0/3/0-0/0/0/27/20/
- 71 FT SQ/Soldado/7-36/13/0/0/3/0-0/0/0/0/0/
- 74 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/20/20/
- 75 FT SQ/Presque Isla/7-36/13/0/0/3/0-0/0/0/33/10/
- 76 FT SQ/Presque Isla/7-36/13/0/0/3/0-0/0/0/30/19/
- 82 FT SQ/Arrestar Isla/7-36/13/0/0/3/0-0/0/0/29/23/

ADJUT-0

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SECRET



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SECRET

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- 84 FI SQ/Commission/T-87/2/2/2/0/0/0/0/2/2/3/0/0/
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due to reassignment of crews.
- 126 FI SQ/Commission/T-87/2/2/2/0/0/0/0/2/2/3/0/0/

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COMTR ADC

484 FI SQ/K.../to aircraft and/or crews assigned.  
 497 FI SQ/Gal.../to aircraft and/or crews assigned.  
 498 FI SQ/Gal.../to aircraft and/or crews assigned.  
 518 FI SQ/Clean.../to aircraft and/or crews assigned.  
 538 FI SQ/Arso.../to aircraft and/or crews assigned. crew transfer  
 to F-37.18.  
 538 FI SQ/Larson.../to aircraft and/or crews assigned. crew  
 transfer from F-37.18.  
 539 FI SQ/Arso.../to aircraft and/or crews assigned.  
 551 ARW W.../to aircraft and/or crews assigned.  
 552 ARW W.../to aircraft and/or crews assigned.  
 677 REV FLT/.../to aircraft and/or crews assigned.  
 678 REV FLT/.../to aircraft and/or crews assigned.  
 679 REV FLT/.../to aircraft and/or crews assigned.  
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AG-02  
A-927-23

22 JAN 57

MM RJEDEN  
DE RJEKCR 08  
M 222022Z ZEK  
FM COMSEACOM PEPLERRELL AFB WFLD  
TO RJEDEN/CINCONAD ENT AFB COLO  
INFO RJEDEN/ADC ENT AFB COLO

X7-1315

Susp 28 Jan 57

[REDACTED] OM NECPP 5813. REF YOUR SECRET MESSAGE COOP-T  
X011. THIS MSG IN SIX PARTS. PART I. PERMANENT ADC TYPE STORAGE  
FACILITIES FOR MB-1 ARE PROGRAMMED FOR CONSTRUCTION AT GOOSE AB.  
BOD DATE EXPECTED TO BE ABOUT JAN 58. HQ 8TH AIR FORCE WAS IN-  
FORMED BY SECRET LETTER, THIS HQ, NECMO, SUBJECT "BASE SUPPORT OF  
FIS'S (UNCL)", DATED 18 JAN 57, THAT ADDITIONAL MANPOWER IS  
REQUIRED FOR SECURITY AT GOOSE AB TO SUPPORT F-89J WEAPONS SYSTEM.  
INFORMAL INFORMATION FROM CMDR, 7ADS, INDICATED HE WILL BE RE-  
SPONSIBLE FOR SECURITY OF THE STORAGE AREA WHEN COMPLETED. PART II.  
F-89J SCHEDULED FOR DELIVERY TO 59TH FIS, GOOSE AB AS FOLLOWS:

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PAGE TWO ICR 08  
JULY, 70; AUGUST, 10; SEPT, 8. PART III. PLANNING MB-1 LIMITED  
CAPABILITY PHASE IS BEING BASED UPON FACTORS CONTAINED IN MESSAGE,  
HQ USAF, APOOF OC F/2 51064, 15 JAN 56. PART IV. THIS HQ IS RE-  
QUESTING COAMA AND SAAMA TO FURNISH ASSEMBLY AND CHECKOUT EQUIP-  
MENT DURING JUNE 1957. PART V. THE 59TH FIS IS TO REORGANIZE UNDER  
OT 1135, PART II, COLUMN G, DATED 30 SEPT 56, EFFECTIVE APRIL 57.  
REORGANIZATION INCLUDES AN INCREASE OF 3 W/O AND 40 AIRMEN PRIMARILY  
IN THE 322XOE AND 311XOE FIELDS. INCREASED MANPOWER AUTHORIZATION WAS  
GRANTED THIS COMMAND BY HQ USAF. THE INCREASE  
WAS RETURNED O HQ USAF BY SECRET LTR, THIS HQ, NECMO, SUBJECT  
"MANPOWER AUTHORIZATION CHANGE (UNCL)", DATED 21 JAN 1957. THIS  
LTR REQUESTED THAT THE MANPOWER SPACES BE TRANSFERRED TO HQ ADC.  
THIS HQ DOES NOT HAVE TRAINED PERSONNEL FOR SUPPORT OF THE MB-1.  
REQUIREMENTS FOR QUALIFIED PERSONNEL WAS INCLUDED IN NEAC SKILL  
FORECAST (SAF-P2) REPORT DEC 56 FOR JUNE 57 REPORTING. PART VI.  
DC HAS BEEN FURNISHED WITH INFORMATION COPIES OF CORRESPONDENCE  
RELATING TO SUBJECT. YOUR HQ ALSO WILL BE FURNISHED WITH  
INFORMATION COPIES OF FUTURE CORRESPONDENCE.  
BT  
22"2117Z JAN RJEYCR

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OOOOP

SUBJECT: Re-equipping of Operational Units

4 Apr 57

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

1. On 19 March the Air Research and Development Command briefed this headquarters on the major weapons systems under development for air defense. In the course of this briefing it became apparent that there were major deficiencies in some of the systems which will have a serious impact on the operational capability of air defense units if re-equipped as scheduled.

2. For example, the present arrangement by which existing operational squadrons become non-operational due to re-equipping with the F-102 aircraft can no longer be accepted. The first 102 squadron has been non-operational since May 1956, whereas a period of three months is considered normal for re-equipping and training a unit, provided a full complement of aircraft, an integrated weapon fire control system, and associated support equipment is available and proven prior to re-equipping.

3. It was also noted that the F-104 presentation indicated that re-equipping of the first unit with this type aircraft could more realistically be established around December 1957 than the present date of June 1957.

4. The F-105 aircraft now appears to have better performance than originally forecast. Its long range and high speed gives it a promise of a bright future for air defense, but it should not be brought into the inventory until proven-out as an effective weapons system.

5. The problems connected with the F-106 aircraft indicate that it should be kept in the development process until operationally proven as a weapons system and only thereafter brought into the air defense inventory.

6. It is considered that all the century series aircraft, with the exception of the F-104, should have an atomic weapon capability as soon as practicable.



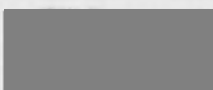
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7. As a general policy, therefore, COMAB desires that service components furnish for COMAB's operational control weapons systems which are operationally capable of carrying out their mission. In the event this is not feasible according to the scheduled program, the re-equipping of units with new types of ordnance, armament, fire control systems, and aircraft must be delayed until such time as that re-equipping will provide operationally capable units.

8. It is realized that this policy may interfere with service programmed conversions. However, the responsibility for air defense rests with COMAB, and this command can no longer afford to degrade the operational status of the command because of inadequate weapons systems. Request you take necessary action to insure compliance with this policy.

A. E. FAIRBANK  
Colonel, USAF  
Commander-in-Chief

COMNAV



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AFOOP OP D 373.2

3 DEC 1953

SUBJECT: (Uncl) Operational Concept of the F-102A

54

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

1. The attached copies of Operational Concept for F-102A Aircraft are forwarded for your information. This concept has been developed in accordance with the provisions of revised AFR 5-47, and will be utilized as the basis for the development of a logistics concept and an operational plan for the F-102A.

2. It is desired that your Headquarters develop an operational plan for the F-102A based on the attached operational concept and the provisions of AFR 5-47. In order to provide guidance for AMC in the development of a logistics plan, it is desired that your operational plan be submitted to this Headquarters for approval prior to 10 January 1954.

BY ORDER OF THE CHIEF OF STAFF:

1 Incl:  
Opnl Concept for F-102A  
Cys 12 thru 16 Ser "A"

s/t J. C. JENSEN  
Colonel, USAF  
Chief, Operational Plans Div.  
Directorate of Operations

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OPERATIONAL CONCEPT OF THE F-102A

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I. GENERAL DESCRIPTION

1. The Convair F-102A is a single place, delta wing, jet-propelled, all-weather fighter-interceptor aircraft. The principal mission of the F-102A is to intercept and destroy hostile aircraft under all conditions of weather and visibility using guided missiles and rockets. It is designed to operate from ground-alert and under ground control and to fulfill requirements of the air defense system.

2. This aircraft incorporates a triangular vertical tail surface with power operated surface controls. The landing gear is of the fully retractable, tri-cycle type. Auxiliary braking is provided by a sixteen foot drag chute.

3. The pilots section is pressurized and provisions are made for ejection of the pilot. Provisions are also made for cockpit entry and exit without the use of separate ladders or platforms.

4. The radar equipment is located in the nose section and in an electronic bay immediately behind the pilot.

5. The armament is located in bays in the bottom mid-section of the fuselage and is extended down and into the slip stream during the firing pass.

6. The first forty deliveries of the F-102A will be powered by the J57-P-11 engine; subsequent models will have the ADV. J57 (JT3N) with a maximum thrust, using afterburner, of 16,000 pounds. The final models will have the J67-W-1 which will have a maximum thrust with afterburner of 21,500 pounds.

## 7. Dimensions.

Wing Span	-----	38.1
Incidence	-----	0°
Dihedral	-----	0°
Sweepback	-----	60°
Length	-----	52.4'
Height	-----	18.0
Tread	-----	14.7'

II. ORGANIZATION

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1. The F-102A is designed as an all-weather fighter-interceptor and will be

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part of the unit equipment of a fighter-interceptor squadron. Three squadrons will be deployed in units of 25 aircraft. It is anticipated that additional personnel will be required to successfully maintain the desired combat readiness of its armament, i.e., GAR-1.

2. Formation of new organizations of this type do not require major changes in our present all-weather fighter-interceptor squadron structure concept for construction of rocket and Falcon storage areas.

### III. OPERATIONAL LIMITATIONS

#### 1. Aircraft performance characteristics:

a. Combat Radio . . . . .	540 (n mol)
b. Total Mission Time . . . . .	2.37 (hr)
c. Combat Ceiling . . . . .	56,700 (ft)
d. Rate of Climb sea level (max) . . . . .	20,850 (FPM)
e. Wing Loading (ll/sq ft) . . . . .	39.2
f. Service Ceiling . . . . .	57,700 (ft)
g. Time to Reach 50,000 ft . . . . .	6.1 (min)
h. Take-off Weight . . . . .	28,452 (lb)
i. Basic Speed 50,000 ft . . . . .	613 (kn)
j. Take-off Ground run at sea level . . . . .	1,620 (ft)
k. Ground Roll (Auxiliary brake) . . . . .	1,500 (ft)
l. Interception Altitude (max) . . . . .	56,700 (ft)

a. The F-102A has a capability against bombers similar to the USAF B-52, or types which have a mach of 1.2 at 50,000 feet. This interceptor will require GCI assistance in completing an all-weather aerial interception, therefore, the F-102A should be deployed in areas possessing a compatible ground electronic environment. Squadrons equipped with this aircraft must be based on installations that can provide ample hangar space for undercover maintenance. Although electronic maintenance has been simplified, considerable difficulty is encountered in exchanging electronic units during inclement weather without adequate protection. It is anticipated that this aircraft will be scrambled during periods of extremely low visibility and will require adequate beacons and GCA for recovery. Length of runway is not considered a governing factor as long as the auxiliary drag chute is operable on the aircraft, however, without the chute, an 8,000 foot runway would be a definite requirement during periods of

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[REDACTED]

low ceilings and rain.

2. Armament Characteristics.

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a. The 102A will be equipped with the MG-3 fire control system which incorporates the universal computer. This system permits attack runs with either missile or rocket armament. For missiles, a lead-collision course is calculated, and on rocket-firing attacks, either a lead-pursuit or a lead-collision course is available. The optical mode, although limited to lead-pursuit, rocket-firing attacks, is useful in the event the enemy employs electronic counter-measures or if the attack is at very low altitude where ground clutter may interfere. The MG-3 system will incorporate the use of 96 2.75" FFAR rockets or 6 Falcon missiles and 24 2.75" FFAR rockets. These rockets and missiles will be internally stored in bays located in the center of the underside of the fuselage. The mechanical arrangement of the missile bays is such that the missiles are extended for firing without rotating, thereby simplifying the orientation problem at launching. Kill probability against the B-32 type bombers using the MG-3 fire control system are estimated to be as high as .8. Kill probabilities are based on the fact that a radar lock-on has been made.

b. Due to the high cost of suitable targets and the lack of rocket ranges in many areas where this interceptor will be based, a portion of training missions will be dry-run type requiring a recording device. USAF has programmed each pilot to fly 40 live firing passes per year, which will be under the supervision of a weapons training school.

c. There is a requirement for bulk and ready storage of the rockets and the Falcon missiles. This storage space must be constructed to maintain the proper humidity and temperature control which is of extreme importance in maintaining continuous combat readiness of these weapons. A ready or immediate storage area must be available for assembly and check-out of the rockets and

[REDACTED]

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Falcon missiles previous to the final stages of arming the aircraft, and must be in close proximity to the using a/c.

#### IV. UTILIZATION RATES

1. The operational attrition per 100 sorties will be from .2 to 1.0 aircraft.. Non-Operational attrition will be 1.8% per month (this is based on the total F-102A aircraft inventory). Total sorties flown per month will be 24 and the average flying hours per month per aircraft will be 53 hours. Operational flying hours per month will be 48 and non-operational 5 hours. The above factors are based on computations extracted from data obtained on the F-99D. It is anticipated that these estimates will change slightly when more factual information is obtained on the actual flying characteristics of the F-102A.

2. The F-102A equipped with the MG-3 or the MC-1179 fire control system carrying 2.75" PFAR rockets and the Falcon missiles will be capable of meeting the following conditions of alert.

a. Two-minute alert: Four interceptors, loaded and heated, in the alert hangar.

b. Five-minute alert: Four interceptors, loaded and on the bard stand with operational temperature maintained.

c. Fifteen-minute alert: All remaining operational aircraft will be for normal squadron activity and, while on the ground, be prepared to meet the commitment.

d. Turn-around time: The squadron will gear its activities to provide a 15 minute turn for the aircraft executing successive missions. This estimated time will require extensive practice and experience, however, it is expected that it can be accomplished. Turn around time is the elapsed time from engine shut off in the parking area, reserivicing and rearwing until the aircraft is combat ready for a successive mission

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V. THEATER AND TIME OF DEPLOYMENT

1. The first four squadrons of F-102A's are programmed to re-equip units in the United States during the second half of FY 56. Present plans do not call for the deployment of this aircraft to overseas areas.

s/t E. M. RAMEY  
Maj/General, USAF  
Director of Operations, DCS/O

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[REDACTED] 54  
 Hq USAF AFOOP OP E 373.2 Subject: (Uncl'd) Operational Concept of the F-102A

ADOOOT-B (3 Dec 53)

1st Ind

25 Mar 1954

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

TO: Director of Operations, Headquarters USAF, Washington 25, D. C.

1. Attached is the Operational Plan for the F-102A Interceptor desired in paragraph 2, basic letter.
2. This plan differs from the concept in that methods of standing alert have been changed with the aircraft on two (2) minute alert standing by on the end of the scramble runway instead of in the alert hangar as outlined in the concept.

FOR THE COMMANDER:

1 Incl  
 w/d 1 Incl - 1  
 Added - 1 Incl  
 2. F-102A Opnl Plan,  
 cys 1 through 5

s/t JOSEPH D. HORNSBY  
 Lt Col, USAF  
 Asst Command Adj

Lt Col J. E. Mestemaker/mk  
 2602

EXTRACT COPY

SECRET

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COMADC ENT AFB COLO SPGS COLO

PRIORITY

COMSAAMA KELLY AFB SAN ANTONIO TEXAS

17 APR 1956

ADDOOT-B2 00746  
ADDOOT-B2 00687mSECRET  
SECRET

MAC-2A7 00826. For Col Sims. The fol req msg are fwd  
 \_\_\_\_\_. ADDOOT-B2 00746. For USAF only - Attn Dir of Opr. As a result  
 of acft mod proposals on F-102A and resultant slippage of acft dlvr, this hq  
 is taking act to accomp the fol program: (1) Asg first 25 small tail F-102A  
 acft to 327th FIS, George AFB. (2) Due to "Bell Boy" sked problems, asg first  
 23 big tail F-102A's to 11th FIS, Duluth. (3) Re-eqp 327th at George as second  
 sq to receive big tail acft. (4) Remainder of calendar 56 F-102 conversions  
 include 323 FIS, Truax; 31 FIS, Wurtsmith; and 317th FIS, McChord. We are  
 conducting an opr engr test at 327th FIS, George AFB, on the small tail acft to  
 detm adequacy of UAL, Supply, gnd supp, pers manning and tng programs. OST  
 for F-102A w/b conducted at 11th FIS, Duluth, on 1 Mar or as soon thereafter  
 as possible which will insure a minimum of 90 days opr of acft and associated  
 supp eqp. APGC w/b contacted during week of 2 Apr to detm their desires for  
 participation in OES to be held at 327th, George." "(SECRET) ADDOOT-B2 00687.  
 This msg in two parts. Part I for WADF. Ref F-102A conversions program and  
 its application to 327th at George AFB. Auth is granted to reduce 327th to  
 6 UE acft asap and to relieve sq from alert commitments 1 May 56. In view of  
 slow build-up in F-102A's stand down pd for 327th May exceed 105 days. Trf  
 instr for old UE acft will be prov by ADC of this hq by sep msg. First F-102A  
 is sked to arr o/a 16 Apr. Informal info indic F-102A build-up will be May 2,

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[REDACTED]

Jun-5, Jul-4, Aug-6, and Sep-7. The MED will arr George o/a 15 Apr. F-102A simulator dlvr date not firm and informal info inde aval o/a 15 May. 327th will retain small tail F-102's until aprx Nov. The 11th at Duluth will be eqp with first big tail acft and George w/b re-eqp as second sq to receive big tail acft. OST for F-102A is tentatively alkd for 11th at Duluth on 1 Mar 57. During pd May thru Aug an opr engr test will be conducted to detm adequacy of UAL, supply and gnd supp eqp, pers manning and tng programs. To assist in data coll a five man team of officers is proposed consisting of opr, supply, acft maint, pers and elect maint officers to be prov on a TDY basis under direction from this hq. Part II for 475th ADW. Due to slow build-up in F-102A, the two acft to be asg to your comd with opr sta at George will be delayed until Jul. However, it is recm that plts and maint pers from your comd be placed TDY to George during May or Jun to work with 327th and gain as much experience as possible prior to asgmt of your two acft."

[REDACTED] PAGE 2 of 2 PAGES



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56

23 May 1956

## MEMORANDUM FOR THE RECORD

SUBJECT: Discussions with General Putt Regarding LRIX and  
the TF-102

1. In company with Lt Colonel Butcher, Lt Colonel Evans, Major Berry, and Captain Carrington, I talked to General Putt, General Price, and General Ferguson regarding the long-range interceptor. Nothing specific came out of this meeting except in two fields. General Putt explained why the contract for the development of the LRIX had been so summarily cancelled, and General Price brought us up to date on the status of this aircraft.

2. General Price's explanation was that the competitions run in recent years covering the LRIX and the MRIX are not completely compatible with each other since the engines used in one case are of a different vintage than those proposed in the other. For that reason, the Air Research and Development Command has been asked to come in with some figures which will compare proposals using the same family of engines, time-wise. As soon as these figures are available, probably about 11 June, it will be possible to arrive at a course of action regarding a future Air Defense Command fighter.

3. I stated the Air Defense Command position which is, in essence, as follows:

The Air Defense Command is concerned over the prospect of having no development of a fighter for the future beyond the 101-B and the 102-B. ADC is firm in its conviction that a follow-on is required. ADC feels also that the present proposal of the North American Company for a weight of about 100,000 pounds is out of phase with the threat.

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MEMO FOR THE RECORD  
 Subj: Discussions with Gen Putt Re LRIX and TF-102

23 May 56

56

ADC feels that an aircraft of a speed of about 2.5 Mach number of a size smaller than the North American proposal, probably in the order of 65,000 pounds, an altitude capability of at least 60 and preferably more than 65,000 feet, and a supersonic dash capability of the order of 300 to 350 miles, is needed.

4. With regard to the TF-102, the Air Defense Command position taken was that we could live with the side by side version with the vertex generators but that we felt it necessary to have these aircraft in the number of 2 or 3 in addition of the 25 normally assigned to a squadron for unit equipment. There is a proposal to have a two-place 102B and since these will be in the tandem configuration, it might be possible to accept them within the unit equipment inventory.

5. General Thatcher came into the office during the conversation and put in a plug for 2-inch rockets. It is generally agreed that the 2-inch rocket load is superior to the 2-3/4-inch load. There seems to be a reluctance on the part of the procurement people to buy this rocket, however, in light of the fact that there is a large surplus of 2-3/4-inch rockets at the present time. I suggested that it would be very helpful for every pilot in the Air Defense Command to fire a load of the 2-3/4-inch live rockets, and this suggestion seemed to meet with a nod of approval. It was my view with regard to the 2-inch rocket that if we can get anything like the 25% to 100% improvement in kill capability attributed to the 2-inch rocket in comparison with the 2-3/4-inch, that we should proceed with plans to use the smaller weapon. Just how this would be done was not decided. Specifically, General Thatcher wanted to get a decision regarding some 36 sets of doors for the 102 which are presently built to carry the 2-inch rocket. There seems to be some confusion about this subject. Please refer to Lt Colonel Butcher for further details.

6. In General Ferguson's office I mentioned in passing the requirement for conducting realistic tests of all the weapons in the CONAD arsenal. Just how this can be done, I don't know, but I urge the Requirements Division to work on the problem. General Ferguson indicated that at long last we are able to achieve in the Eglin area a ground environment which will permit operational service testing of all the new Air Force weapons. I will try to go there as soon as convenient to look at this arrangement personally.

7. In General Ferguson's office also we talked about the F-36B modification program. This appears to be relatively well established

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MEMO for the Record  
 Subj: Discussions with Gen Patt Re LRIX and the TF-102

23 May 56

56

along ADC requirements lines except for the F-5 auto-pilot. The first aircraft to go into modification in July, but the exact number to be modified is not yet known. Enough will be reworked, however, to provide for the full inventory of the Air Defense Command and the Air National Guard. The number will probably turn out to be around 900.

8. There was brief mention of the TF-101B. In this aircraft, it will be possible to convert from a two-place interceptor to a two-place transition aircraft. A few kits, probably half a dozen per squadron, will be provided and the transition from one status to the other will take about 25 manhours. Under these conditions, I believe it possible to use for transition purposes, aircraft which are in the unit equipment inventory.

9. I raised the subject of the MB-1 rocket. I am assured by General Ferguson that the stability of the rocket and the characteristics of the propellant are such that there will be no difficulty with this weapon and that it will be placed in the inventory on schedule.

10. The FPS-7 was discussed briefly. General Neal was not present at this meeting but has much more complete notes on the subject. In general, the plan is to keep the FPS-7 in the inventory.

s/t E. E. PARTRIDGE  
 General, USAF  
 Commander

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COMMAND HISTORICAL ARCHIVES

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OPERATIONAL IMMEDIATE  
 ROUTINE  
 CINCONAD

X

AF

58

13 Nov 56  
 AFOPD 58608 SECRET

COFS USAF WASH DC

INFO: CINCAL ELMENDORF AFB ANCHORAGE ALASKA

COMADC ENT AFB COLORADO SPRINGS COLO (COURIER)

CG ARAACOM ENT AFB COLORADO SPRINGS COLO (COURIER)

COMIAVFORCONAD ENT AFB COLORADO SPRINGS COLO (COURIER)

~~SECRET~~ FROM COOPR 60408

For Cofs USAF as Executive Agency for CONAD. Your AFOPD 58608.  
 This message in two parts. Part one. Air Defense requirements in Alaska are based on the following factors peculiar to the Alaskan theater. (a) Alaska is located close to Soviet bases from which a variety of enemy weapon carriers can be launched against targets in Alaska. These carriers include tactical fighters and bombers and shorter range surface-to-surface missiles including IRBM's. Essentially the enemy does not have to utilize his long range bombers. Because of the numbers and types of delivery vehicles that the enemy can use, the problem of providing air defense for Alaskan bases is a very difficult one. Further, since the enemy is not required to use long range bombers no reduction is effected in the number of long range weapon carriers that might be used against targets in the continental United States, Canada and other parts of the world. (b) Again because of the proximity of Alaskan targets to Soviet strike bases and because of the limited radar coverage available, the capability of manned interceptors in air defense is reduced. (c) Despite these facts the bases in Alaska are

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vitality important, particularly at the present time, as SAC refueling bases. However, in the future as the SAC B-52 force builds up, as new long range bombers are introduced and as the ICBM comes into the inventory the importance of the Alaskan bases to support our nuclear offensive strike should decrease. (d) The possible requirement for Alaskan bases to support interceptor patrol operations along the DEW line and against mass raids against Canada and the United States must be kept in mind. Part two. Based on the above factors, the weapon and control requirements for Alaska appear at this time to be as follows: (a) Surface-to-Air Missiles: Close-in missile defenses are required for the Elmendorf, Ladd and Eielson areas. These defenses should consist of either one squadron of Talos deployed by detachments in the Anchorage and Fairbanks area, or by three battalions of Nike deployed in specific defense of Elmendorf, Ladd and Eielson. The Army program for Nike proposes three battalions in Alaska operational by FY 60. The Air Force program proposes one Talos squadron operational by FY 63. Based on these programs and the requirement for the earliest possible missile defense, the choice for missile defense of this area is Nike. A further study is required to determine whether Hawk units should also be included at the above-mentioned locations. (b) Interceptors: The six manned interceptor squadrons in Alaska should be reduced to four by end FY 58 and to two by end FY 60. Consideration should be given to providing the longest range interceptors available and to providing an in-flight refueling capability for these weapons in order to make them available for DEW line patrol and support for US air defense. No Bomarc requirement is seen at this time for Alaska. (c) Control Capability: GPA-37 capa-

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bility should be provided at the earliest possible date for at least four direction centers in Alaska. In view of the reduced number of interceptor squadrons the requirement for a Badge system for Alaska appears doubtful. However this requirement requires further study. Part three: Totally inadequate time available to effect desired coordination with other vitally interested headquarters, or to assure that foregoing estimates are firm CINCONAD requirements. We will continue study on urgent basis and keep you informed. Part four: Request information addressees this message. Send comments to CINCONAD as matter of urgency.

COOPR

COL JAMES F KIRKENDALL s/t  
2841

14 1900  
Nov 1956

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59

H  
CONNOOSHQA007MAGCOOB  
PP RJEDEB  
DE RJKDAG 5C  
P 210247Z  
FM CINCAL ELMENDORF AFB ALASKA  
TO RJEDEB/CINCONAD ENT AFB COLO SPGS COLO  
INFO ZEN/CONAAC ELMENDORF AFB

**PRIORITY**

ACTION: COOP  
INFO: COOP  
X7-7857

/ FROM OPN 5230  
REF REDUCTION EXEC AGCY MSG AFGPD 57349 CINCAL STRONGLY REITERATES  
HIS REQUIREMENT FOR ONLY TWO FIGHTER INTERCEPTOR SQUADRONS X THE  
REASONS FOR THIS RECOMMENDATION ARE EXPRESSED IN ALASKAN COMMAND  
AIR DEFENSE REQUIREMENTS PLAN 1957 - 1966 SUBMITTED TO CINCONAD ON  
26 MARCH 57 X THE FORCE REDUCTION PROPOSED WILL NOT ADVERSELY  
AFFECT THE DEFENSE OF CONUS OR ALASKA CMM NEITHER WILL IT CREATE  
AND UNDESIRABLE IMBALANCE OF AREA AND POINT DEFENSE WEAPONS X NO  
MORE THAN TWO FIGHTER INTERCEPTOR SQUADRONS CAN BE EFFECTIVELY  
EMPLOYED OR CONTROLLED WITH EXISTING OR PROGRAMMED GROUND ENVIRON-  
MENT X IN THE DEFENSIVE ROLE ALCOM CAN BEST SERVE BY PROVIDING

PAGE TWO RJKDAG 5C  
EFFECTIVE EARLY WARNING X ADRP 57-66 EMPHASIZES THIS X AN ADDED  
ADVANTAGE TO THIS DESIRED FORCE REDUCTION IS THE LARGE SAVING IN  
M AND O AND MCP 58 - 59 CONSTRUCTION FUNDS WHICH THE REDUCTION  
WILL AFFORD X RECOMMEND THAT EVERY EFFORT BE MADE TO REDUCE ALCOM  
TO TWO FIGHTER INTERCEPTOR SQUADRONS IN FY 58 X  
BT  
21/0305Z JUN RJKDAG

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SUSPENSE: 24 JUNE 1957

ACTION: COOPR  
INFO: COOPC

IT-7790

C  
OCONO23  
HRAO21  
PP RJEEN RJKDAG  
DE RJEPHQ 102  
P 191452Z  
FM HEDUSAF WASHDC  
TO RJEEN/CINCONAD ENT AFB COLO  
INFO RJEEN/COMAIRDEFCON ENT AFB COLO  
RJKDAG/COMAAC ELMENDORF AFB ALASKA

FROM AFOPD 57349. THIS IS AN EXECUTIVE AGENCY  
REFERENCE IS YOUR LETTER SUBJECT: AIR DEFENSE REQUIREMENTS  
FOR ALASKA, FILE COOPR, DATED 6 JUNE 1957. ADDITIONAL  
INFORMATION IS NECESSARY IN THE CONSIDERATION OF YOUR  
RECOMMENDATIONS CONCERNING IMMEDIATE PROGRAM CHANGE FOR FIGHTER  
INTERCEPTOR SQUADRONS IN ALASKA.  
THE POSITION OF ALASKA IN RELATION TO THE AIR DEFENSE POSTURE OF NORTH  
AMERICA AND PARTICULARLY THE U.S. IS RECOGNIZED IN PARAGRAPH 6 OF  
BOVE REFERENCED LETTER AND IN PARAGRAPH 7, YOUR LETTER, SUBJECT:  
FIGHTER INTERCEPTOR REQUIREMENTS FOR THE ALASKAN COMMAND, FILE COOPR,

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60

PAGE TWO RJEPHQ 102  
 DATED 28 MAY 1957. THE FORCE REDUCTION PROPOSED DOES NOT APPEAR  
 CONSISTENT WITH YOUR EXPRESSED VIEWS ON ALASKA'S ADDITIVE CAPABILITY  
 IN THE AIR DEFENSE OF THE U.S.  
 ACTION WITH REGARD TO YOUR PROPOSED PROGRAM CHANGE CANNOT BE  
 INITIATED UNTIL ALL FACTORS INVOLVED ARE CONSIDERED INCLUDING (1)  
 EFFECT ON DEFENSE OF CONTINENTAL U.S., (2) EFFECT ON DEFENSE OF  
 ALASKA ITSELF PRIOR TO ACHIEVEMENT OF PLANNED MISSILE UNIT DEPLOYMENTS  
 AND; ULTIMATE BALANCE OF LOCAL VERSUS AREA DEFENSE WEAPONS.  
 IN ADDITION, YOUR PROPOSED DEPLOYMENT AND UTILIZATION OF THE FIGHTER  
 INTERCEPTOR SQUADRON THAT WOULD BE EXCESS TO ALASKA IS REQUESTED.  
 COMMANDER ADC CAN FURNISH BASE UTILIZATION FACTORS.  
 REQUEST EARLIEST POSSIBLE RESPONSE. URGENCY IS DICTATED BY IMPENDING  
 DEPLOYMENT OF F-102A EQUIPPED FIGHTER INTERCEPTOR SQUADRONS.  
 BT  
 19/1512Z JUN RJEPHQ

SW E LO

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JOINT MESSAGEFORM

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PRECEDENCE	TYPE MBG (CLASS)	ACCOUNTING SYMBOL	ORIG OR REFERS TO	CLASSIFICATION OF REFERENCE
ACTION <b>PRIORITY</b>	BOOK MULTI SINGLE	<b>I</b>	<b>AF</b> <b>Original</b>	
INFO				
FROM <b>CINCONAD</b>				SPECIAL INSTRUCTIONS
TO <b>CINCAL ELMENDORF AFB ALASKA</b>				

from COOOP-T X064

403

Confirming telephone conversation, Colonel McCraen, your headquarters, Colonel Allen, this Headquarters, CONAD has approved recommended reduction from 6 to 2 Fighter Interceptor Squadrons in FT-58, as outlined in your ADRP 57-66. Both squadrons to be F-102A type. CINCONAD suggests you defer, rather than delete, MB-1 construction, and also proposes that squadrons be returned as complete and intact, manned and equipped units insofar as possible.

Approved for Release by NSA on 08-08-2013 pursuant to E.O. 13526

DATE	TIME
14	1900Z
MONTH	YEAR
May	1957

READING FILE

SYMBOL	0000P-T	SIGNATURE	
TYPED NAME AND TITLE (Inquirer if required)	Colonel Allen/all	TYPED NAME AND TITLE	J. W. LEDOUX 1ST LT USN Asst Adjutant
PHONE	2088	PAGE	1
SECURITY CLASSIFICATION		NO. OF PAGES	1

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AGC009

MM RJEPHQ RJEDEN  
 DE RJKDAG GC  
 M 220230Z  
 FM COMAAC ELMENDORF AFB ALASKA  
 TO RJEPHQ /COFS HEDUSAF WASH D C  
 INFO RJEDEN/CINCONAD ENT AFB COLO  
 ZEN/CINCAL ELMENDORF AFB ALASKA  
 BT

*Original: COOP  
 Info: COOP  
 Disposition: 2470057  
 X 7-6728*

[REDACTED] /FROM OP 04634. REFERENCE COOP-T X065 DATED 15 MAY  
 [REDACTED] CINCONAD TO COFS HEDUSAF WITH INFO CINCAL AND COMDR AAC.  
 IN VIEW OF CONAD'S ACCEPTANCE OF ALASKAN COMMAND PROPOSAL FOR DELETION  
 OF F-85J FIGHTER INTERCEPTOR SQUADRONS, IT IS CONSIDERED APPROPRIATE  
 TO BRING TO YOUR ATTENTION STATUS OF THE MB-1 ASSEMBLY AND STO-  
 RAGE FACILITY AT LADD AIR FORCE BASE. WORK STARTED 1 APRIL 1957,  
 BEING ONE PER CENT COMPLETE BY 30 APRIL 1957. CONTRACTOR IS MAKING  
 EXCELLENT PROGRESS AND SUBSTANTIAL AMOUNT WILL BE COMPLETED THIS  
 CONSTRUCTION SEASON. SCHEDULED DATE OF COMPLETION IS 15 AUGUST 1958.  
 IN VIEW OF EVENTUAL FUTURE REQUIREMENTS OF NUCLEAR AIR DEFENSE  
 WEAPONS, RECOMMEND CONTINUED CONSTRUCTION.  
 BT

22/0233Z MAY RJKDAG

NNNN

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AG027MHA027  
PP RJEDEB RJDAG  
DE RJEPHQ 115  
P 191628Z  
FM HEDUSAF WASH D C  
TO RJDAG/COMAAC ELMENDORF AFB ALASKA  
RJEDEB/COMAIRDEFCOM ENT AFB COLO  
BT

/S E C R E T/ FROM AFKPD 58356  
REFERENCES ARE: A. HQ USAF MESSAGE AFCAV 58015, 10 July 1957;  
B. HQ AAC MESSAGE P-1009, 13 JULY 1957; C. HQ ADC MESSAGE ADPRT-  
PA 00298, 17 JULY 1957. RECONSIDERATION OF PROGRAMMING IMPACT AS  
STATED IN REFERENCES B. AND C. HAS RESULTED IN RELEASE OF THE  
31ST FIS FOR DEPLOYMENT TO ALASKA AND THE 18TH FIS FOR RETURN TO  
WURTSMITH AFB AS ORIGINALLY PROGRAMMED. DEPLOYMENT ACTION WITH  
REGARD TO THE 11TH FIS AND THE 65TH FIS WILL BE DEFERRED PENDING  
JOINT CHIEFS OF STAFF CONSIDERATION EXPECTED BY 26 JULY 1957.  
DEPLOYMENT AND CONVERSION ACTION REGARDING 449TH FIS, 433D FIS,  
AND 66TH FIS WILL CONTINUE AS SCHEDULED.

BT  
19/1643Z JUL RJEPHQ

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DEFERRED  
CINCONAD

X AF X

COMCFECR STEWART AFB NEWBURGH N Y

COMCFCCR GRANDVIEW AFB MO

COMCFWCR HAMILTON AFB CALIF

INFO: COMADC ENT AFB COLORADO SPRINGS COLO (COURIER)

COMNAVFORCONAD ENT AFB COLORADO SPRINGS COLO (COURIER)

From COOOP-T X023.

Request your proposals for pre-planned deployment of augmentation fighter forces for FY commencing 1 Jul 57 be furnished this headquarters by 22 Feb 57. The following guide lines and criteria will be considered when developing your pre-planned deployment: (A) All SAC and TAC fighter forces will remain in place due to SAC fighter phasing out and TAC units being considered as a USAF directed mission outside ZI within first 30 days following commencement of hostilities. (B) ATC and ANG fighter forces will be only forces used for pre-planned deployment. (C) Naval and Marine fighter forces will be employed in place. (D) Pre-planned deployment will be limited to: (1) IFR range of aircraft without en-route refueling. (2) Air bases where operational and communications facilities and logistics support is or can be made available (NITE LIFE, etc.). (E) In place and pre-planned deployment of augmentation fighter forces will be published in a CONAD operations order. So much of this operations order as will apply to non-reserve forces will be implemented automatically upon declaration by CINCONAD of an quote, Air Defense Readiness unquote or higher states of air defense emergency. Request you

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notify corresponding Air Defense Force staff agencies that ADC, citing this message, will call a conference of defense force representatives later to consider support of pre-planned deployment plans.

M/R: ADC and COMNAVFORCONAD have requested CONAD's plan for "pre-planned" deployment of augmentation air forces. The pre-planned deployments will have to be based upon CONAD Region needs and plans. Therefore, the present message is being dispatched to secure the information on which component commands will need to plan support of the pre-planned deployment.

This message has been coordinated with ADC  
(Capt Jorgensen) & COMNAVFOR (Lt Cmdr Russell)

COOOP-T

7 1830 Z

Col. Jeffus/daf /s/t/  
2130

Feb 57

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17-6

0000 25  
HRA025CXRO02  
RR RJEDEN  
DE RJEKCR 06  
R M 031920Z ZEX  
FM COMDR HQ 64 CONAD DIV PEPPERRELL AFB NF  
TO RJEDEN/COMDR CONAD ENT AFB COLO  
INFO: JJEDEN/COMDR ADC ENT AFB COLO  
BT

ACTION: COOPR  
INFO: CDOPO  
SUSPENSE- 8 MAY 57

[REDACTED] /FROM ADOPR-P 506. SUBJECT IS AUGMENTATION FORCES.  
REQUEST INFORMATION PERTAINING TO THE AVAILABILITY AND YOUR  
DETERMINATION OF REQUIREMENTS FOR FIGHTER AIRCRAFT AUGMENTATION  
FORCES IN THE NORTHEAST. 64 AIR DIVISION (DEFENSE) OPERATION  
PLAN EATUN BASED UPON NEAC OPERATION PLAN 1-56 PROVIDES FOR THE  
EMPLOYMENT OF THE 506 STRATEGIC FIGHTER WING SQUADRONS AT HARRIS  
AIR FORCE BASE AND GOOSE AIR BASE. IT IS UNDERSTOOD THAT THE  
506 STRATEGIC FIGHTER WING IS BEING TRANSFERRED FROM STRATEGIC  
AIR COMMAND. WILL SQUADRONS OF THE 506 STRATEGIC FIGHTER WING  
BE DESIGNATED AS AUGMENTATION FORCES PRIOR AND SUBSEQUENT TO THE  
TRANSFER FROM STRATEGIC AIR COMMAND. DUE TO THE LIMITED USE OF  
SUCH FORCES, THE POSITION OF THIS HEADQUARTERS IS THAT FIGHTER  
AUGMENTATION IS NOT REQUIRED.

BT  
080502Z MARX HFJPUJY

ADMINISTRATIVE  
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JEACCO-OS 153  
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CINC CONAD

COMDR JEADF STEWART AFB NEWBURGH NY  
COMDR JCADF GRANDVIEW AFB GRANDVIEW MO  
COMDR JWADF HAMILTON AFB CAL  
COMDR AAC ELMENDORF AFB ANCHORAGE ALASKAINFO: CGARAACOM (COURIER)  
COMDR ADC (COURIER)  
COMNAVFORCONAD (COURIER)  
COMDR NEAC PEPPERRELL AFB ST JOHNS NEWFOUNDLAND

UNCLAS FROM COCCP \_\_\_\_\_.

THIS MESSAGE IN TWO PARTS. PART I. ATTACHMENT 2, PAGE 2 TO CONADR  
55-3 DATED 1 NOV 55 IS AMENDED TO INCLUDE CHECK MARKS FOR QUOTE  
NOTIFY AUGMENTATION FORCES UNQUOTE UNDER COLUMNS II AND III. REGUL-  
ATION NOW UNDER CONSIDERATION FOR COMPLETE REVISION. PART II. FOR  
JEADF. THIS ANSWERS YOUR JEACCO-OC 153.s/t MAJ WD FRYMIRE  
2722 - 2814

1 1

03 1530Z  
DEC 1956

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M/R CONRAD 56-3 has two attached checklist for guidance. Checklist #1 is a guide for air divisions and is primarily a list of agencies, etc., that should be notified under various states of preparedness or warning. Checklist #2 is a guide for all operating levels of actions that should be taken during various conditions. The checklists are not compatible in regard to "Notifying augmentation forces". This message corrects that and will be incorporated into the forthcoming revision.

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ADC 4-MISC  
ENBOON YMA035 TY409 IM037 PIA45HBA018  
RR RJEDEB RJEDEW RJEDEE RJEDEL RJEPMY RJEPSN RJEPMJ RJEKKB  
DE RJEPNB 166  
R 262043Z

FM HQ JEADE STEWART AFB NY COOPC  
TO RJEDEB/CINCPACD INT AFB CGLC  
INFO RJEPMY/COMDR 27 JOINT AD BOSTON AFB NY  
RJEDEW/COMDR 30 JOINT AD WILLOW RUN AFB MICH  
RJEPSN/COMDR 32 JOINT AD SYRACUSE AFB NY  
RJEKKB/COMDR 35 JOINT AD DEXBING AFB GA  
RJEDEE/COMDR 37 JOINT AD INDIANAPOLIS AFB IN  
RJEDEL/COMDR 58 JOINT AD WRIGHT AFB OHIO  
RJEPMJ/COMDR 85 JOINT AD ANDREWS AFB DC  
BT

30 NOV

09570

Info COSAG

(UNCLASSIFIED) JEAGCC-08 153. SUBJECT: CON DR 55-3,  
1 NOV 55. ITEM 13, ATTACHMENT TO SUBJECT REGULATION SPECIFIES  
THAT AUGMENTATION FORCES WILL BE NOTIFIED OF DECLARATION OF AIR  
DEFENSE READINESS AND AIR DEFENSE EMERGENCY. PAGE 2, ATTACHMENT  
2 UNDER "NOTIFY AUGMENTATION FORCES" DOES NOT MAKE PROVISION FOR  
NOTIFICATION ON DECLARATION OF AIR DEFENSE READINESS  
AND/OR EMERGENCY. PARA 5C(3)(2) REQUIRES THAT JOINT AIR DEFENSE  
DIVISIONS NOTIFY ALL FIGHTER-INTERCEPTOR UNITS AND ALL  
SUPPORTING FORCES FOR AIR DEFENSE READINESS. ASSUMING THAT  
"ALL FIGHTER-INTERCEPTOR UNITS" AND "SUPPORTING FORCES" ARE

PAGE TWO RJEPNB 166  
OUTLINED IN PARAGRAPH 5C(3)(2) INCLUDES AUGMENTATION FORCES,  
AND IN VIEW OF ITEM 13 OF ATTACHMENT 1, IT APPEARS THAT AT-  
TACHMENT 2 REQUIRES MODIFICATION TO INCLUDE CHECK MARKS FOR  
"NOTIFY AUGMENTATION FORCE" UNDER COLUMNS II AND III. REQUEST  
THIS HQ QUARTERS BE ADVISED OF PROPOSED ACTION.  
BT  
26/2122Z NOV RJEPNB

UNCLASSIFIED

0380

PRECEDENCE		TYPE MBG (OAcad)			ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
ACTION	ROUTINE	BOOK	MULTI	SINGLE		TOPL-CP	
INFO	ROUTINE			X	AP	7 QPUWM	SECRET
FROM:	CINCOMAD						
SPECIAL INSTRUCTIONS							
TO: COMR TAC LANGLEY AFB VIRGINIA							
INFO: COMR ADC KFT AFB COLO (COURIER)							
UNCLASSIFIED From COOCP-T <u>052</u> .							
This message confirms the agreements between Major General Alness, Headquarters CONAD and Lt. Colonel Tolle, Headquarters TAC as expressed in TAC SECRET message TOPL-CP 7 QPUWM dated 17 April 1957. This Headquarters concurs in these changes as regards the Letter of Agreement - TAC Support of ADC.							
M/R The change concurrence referred to in this TW is the result of a visit to this Headquarters by TAC personnel. The original Letter of Agreement - TAC Support of ADC stated, in part, that operational control of TAC fighters and fighter-bombers would revert to Commander of TAC ten days prior to date of scheduled deployment. In the CONAD indorsement to the Letter of Agreement, COOCP-T recommended that this paragraph be changed. - In general, the change stated that the fighters would revert to operational control of Commander TAC ten days prior to departure date, only on approval of CINCOMAD. Authority: USAF WFC document 57-2-II Section I paragraphs 6a(1)(a) and 6b(1) and Terms of Reference for CINCOMAD by JCS dated 4 Sept 1956. The paragraph changes							
cc. on reverse side						DATE	TIME
						22	1202
						MONTH	YEAR
						Apr	1957
SIGNATURE							
TYPED NAME AND TITLE (Signature, if required)							
Major Knott/bll							
PHONE - 2068		PAGE 1		NR OF PAGES 1			
SECURITY CLASSIFICATION							
UNCLASSIFIED							

DD FORM 173  
MAY 55

REPLACES DD FORM 173, 1 OCT 53, WHICH WILL BE USED UNLESS INDICATED OTHERWISE

UNCLASSIFIED

67

M/R Contd. referred to in this message are as follows:

1. Operational control of tactical fighter day units scheduled for general war deployment during the period D-Day through D+2 months may be retained by Continental Air Defense Command for the first 30 days after D-Day.

2. Operational control of tactical fighter bomber units scheduled for general war deployment during the first month after D-Day will revert to operational control of Commander, TAG, 10 days prior to date of scheduled deployment or not later than D+20 days, whichever is sooner. (NOTE: It is possible that some or all of these fighter bomber units may be deployed immediately subsequent to B-48 hours.)

Changes have been approved by Maj Gen Alness, Gen. Stayton and Col Jeffus.

35.21  
 28 54  
 1 45  
 1 17

[Redacted]

When filled in

COPY OF INCOMING (CLASSIFIED MESSAGE)

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE  
Section of this message in whole or in part is prohibited without approval of COMAD (Adm) (S)

SEE CRYPTO SECTION BEFORE DECLASSIFYING

68

DNNO20

READING FILE

PRIORITY

HQA030LGA025  
PP RJEJEN  
DE RJEPLG 161C  
P 172138Z  
FM COMDR TAC LAFB VA  
TO RJEJEN/CINC CONAD ENT AFB COLO  
INFO RJEJEN/COMRY ADC ENT AFB COLO  
BT

*Action Coord  
Info Suppl: Apr 57  
X7-5561*

[Redacted] R TOPL-CP 7 QPUMI SUBJECT: KUNCL) LETTER OF AGREE-  
MENT IN SUPPORT OF ADC. REFERENCE TAC LETTER, SUBJECT AS  
ABOVE, QU FEB 57, AND CONAD SECOND INDORSEMENT THERETO, QI  
MAR 57, TAC CONCURS IN PROPOSED CHANGES OUTLINED IN SECOND  
INDORSEMENT REFERENCED ABOVE WITH EXCEPTION OF PARAGRAPH 1 D.  
IN ACCORDANCE WITH AGREEMENT REACHED BETWEEN LT COLONEL TOLLE,  
THIS HEADQUARTERS, AND MAJOR GENERAL ALNESS, HEADQUARTERS  
CONAD, THIS PARAGRAPH SHOULD BE DELETED AND THE FOLLOWING  
PARAGRAPH 1 B AND C SUBSTITUTED THEREFOR:  
B. OPERATIONAL CONTROL OF TACTICAL FIGHTER DAY UNITS

PAGE TWO RJEPLG 161C  
SCHEDULED FOR GENERAL WAR DEPLOYMENT DURING THE PERIOD D-DAY  
THROUGH D+2 MONTHS MAY BE RETAINED BY CONAD FOR THE FIRST 30  
DAYS AFTER D-DAY.

C. OPERATIONAL CONTROL OF TACTICAL FIGHTER BOMBER  
UNITS SCHEDULED FOR GENERAL WAR DEPLOYMENT DURING THE  
FIRST MONTH AFTER D-DAY WILL REVERT TO OPERATIONAL CONTROL  
OF COMMANDER, TAC, TEN DAY PRIOR TO DATE OF SCHEDULED  
DEPLOYMENT OR NOT LATER THAN D+20 DAYS, WHICHEVER IS  
SOONER. (NOTE: IT IS POSSIBLE THAT SOME OR ALL OF THESE  
FIGHTER BOMBER UNITS MAY BE DEPLOYED IMMEDIATELY SUBSE-  
QUENT TO D+48 HOURS.)

REQUEST CONFIRMATION OF THE ABOVE CHANGES.

BT  
17/215Z APR RJEPLG

CONAD HIST FILE  
430.1

T

UNCLASSIFIED

SWLOPLS Q R U  
--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION--  
PHYSICALLY REMOVE ALL INTERNAL REFERENCES BY DATE-TIME GROUP PRIOR  
TO DECLASSIFICATION.

READING FILE

*Copy #3 9400*

[REDACTED]

When filled in)

COPY OF INCOMING ( ) CLASSIFIED MESSAGE

Reproduction of this message in whole or in part is prohibited without approval of COMAD (Ad 9)

SEE CRYPTO SECTION BEFORE DECLASSIFYING

DINNO 20

READING FILE

68  
PRIORITY

HGA030LGA025  
 PP RJEDEH  
 DE RJEPLG 161C  
 P 172138Z  
 FM COMDR TAC LAFB VA  
 TO RJEDEH/CINC CONAD ENT AFB COLO  
 INFO RJEDEH/COMRY ADC ENT AFB COLO

*Action Coord  
 Info: Choro  
 Insp: Insp: Page 57  
 X7-5561*

[REDACTED] /FR TOPL-CP 7 QPUUIM SUBJECT: KUNCL) LETTER OF AGREEMENT  
 FOR THE SUPPORT OF ADC. REFERENCE TAC LETTER, SUBJECT AS  
 ABOVE, QU FEB 57, AND CONAD SECOND INDORSEMENT THERETO, QI  
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 INDORSEMENT REFERENCED ABOVE WITH EXCEPTION OF PARAGRAPH 1 D.  
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 QUENT TO D+48 HOURS.)

REQUEST CONFIRMATION OF THE ABOVE CHANGES.

BT  
 17/215Z APR RJEPLG

CONAD HIST FILE

430.1

T

UNCLASSIFIED

SWLOPLS Q R U

PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION--  
 PHYSICALLY REMOVE ALL INTERNAL REFERENCES BY DATE-TIME GROUP PRIOR  
 TO DECLASSIFICATION.

READING FILE

Copy #3 346

69

289-457

2175

ADCOOP-8

SUBJECT: (Unclassified) Employment of ADC Augmentation Fighter Forces

TO: Commander-In-Chief  
Continental Air Defense Command  
Attn: COOCP-7  
Ent Air Force Base  
Colorado Springs, Colorado

1. Reference COMAD classified message COOCP-7 HDEJ dated 7 February 1957.

2. A conference was held at Headquarters ADC on 20 February 1957 to determine pre-planned deployment of augmentation fighter forces furnished by other USAF commands for the period commencing 1 July 1957. Representatives were furnished by CINCOMAD, Headquarters ADC, SAC, TAC, ATC and the three COMAD Regions.

3. As requested in your message cited above, each COMAD Region had developed plans for the employment of augmentation fighter forces in its area. These plans were the key expression of in-place and pre-planned deployment discussed during this conference. The COMAD Region plans were thoroughly reviewed in view of the over-all COMAD weapons system, operational aspects, support, communications and other command matters. As a result of the discussion, it was agreed by all conferees that the following D-Day employment of augmentation fighters from other major USAF commands, with certain indicated exceptions, be placed in effect as of 1 July 1957:

a. Western COMAD Region:

1 Det (16 acft) F-100 from Nellis to In-Place  
 1 Det (16 acft) F-100 from Nellis to Castle  
 1 Det (16 acft) F-100 from Nellis to McClellan  
 1 Det (16 acft) F-100 from Nellis to Klamath Falls  
 (The Klamath Falls detachment will have an effective date of 1 Jan 58. To insure logistic support at Klamath Falls, we are introducing planning at this time.)



✓

69

AFHQ-2, 1g, AIG, Subjects (Unclassified) Employment of AIG Augmentation Fighter Forces

b. Central COMUS Regions

- 1 Det (16 acft) F-84 from Perrin to In-Place
- 1 Det (16 acft) F-84 from Luke to In-Place
- 1 Det (16 acft) F-84 from Williams to In-Place
- 1 Det (16 acft) F-84 from Perrin to Little Rock
- 1 Det (16 acft) F-84 from Perrin to Webb
- 1 Det (16 acft) F-84 from Williams to Langhlin
- 1 Det (16 acft) F-84 from Williams to Sigge
- 1 Det (16 acft) F-84 from Luke to Hesse (effective 1 Jan 59) (Support delays at Hesse were indicated by AIG.)
- 1 Det (16 acft) F-84 from Luke to Kirtland

c. Eastern COMUS Regions

- 1 Det (16 acft) F-84 from Moody to In-Place
- 1 Det (16 acft) F-84 from Moody to Hunter (Savannah)
- 1 Det (16 acft) F-84 from Moody to Charleston

d. All other augmentation fighter forces not indicated in paragraph a, b, and c above, to be employed in-place.

e. Recommended approval of the employment outlined in paragraph three above.

FOR THE COMMANDER:

69

████████████████████  
 AOCOP-8, 8th Air Defense Command, 28 February 1967, Subject: (Unclassified)  
 Employment of AIX Augmentation Fighter Forces

COOOP-T

1st Ind

77-4-57

Headquarters Continental Air Defense Command, 8th Air Force Base, Colorado  
 Springs, Colorado

TO: Commander, Air Defense Command, 8th Air Force Base, Colorado Springs,  
 Colorado

1. The preplanned deployment of augmentation forces as proposed in the basic letter is approved.
2. This in place and preplanned deployment of augmentation fighter forces will be published in a COMAD Operations Plan at a later date.

FOR THE COMMANDER-IN-CHIEF:

HARVEY F. ALNESS  
 Major General, USAF  
 DCS/Plans & Operations

Subject: Employment of AIX Augmentation Fighter Forces  
 for Employment of Augmentation Fighters

1. All AIX A-104C fighters will be deployed to plate.
2. All AIX A-104C fighter forces will be deployed in preplanned increments.
3. AIX A-104C fighter forces will be deployed to plate.
4. Preplanned deployment increments:
  - (1) 1st wave of aircraft will be deployed.
  - (2) Air bases where operational and communications facilities and logistic support can be made available (White-Life, etc.)
5. AIC conference was held on 24 Feb 67 with SA, TA, ATO, ANS and 8th COMAD region representatives. Recommendations: AIX fighters would be employed in plate and that AIX augmentation fighters would deploy in accordance with desires expressed by the COMAD region representatives.

Maj. Gen. Alness  
 28 Feb 67  
 8 Mar 67

UNCLASSIFIED

MEMORANDUM FOR RECORD

B-3X

This communication is classified

3

in accordance with Para

33b

AFR 20-1, 1 Jan 64, or its successor version

CONAD HIST FILE

675

18 OCT 1956

AUSA-M

SUBJECT: (Unclassified) COMAD Operations Plan 4-57 (Draft)

TO: Commander-in-Chief  
Continental Air Defense Command  
Ent Air Force Base  
Colorado Springs, Colorado

1. COMAD Operations Plan 4-57 has been reviewed by this headquarters. It appears that the revised deployment schedule included in the plan is realistic and one that can be accomplished by this command. (UNCLAS)

2. In reply to your classified letter OOOOP-3, 23 July 1956, subject: (Unclass) COMAD Operations Plan 4-57, the inclosed detachment evaluation reports are submitted. A review of these reports revealed that Strategic Air Command bases were unavere of the proposed deployment for Air Training Command augmentation aircraft. It was further noted that Strategic Air Command representatives stated that they were unable to provide necessary support for deployed detachments. In order to operate from any deployment base, certain minimum essential operational facilities must be provided if Air Training Command deployed aircraft are to be effective. Therefore, it is requested that your headquarters take necessary action to insure that such facilities are made available to Air Training Command detachments. Upon receipt of notification from your headquarters that minimum operational requirements will be made available, survey teams will be dispatched by this command to deployment Air Force bases. It is requested that a representative from your command assist the Air Training Command survey team as necessary. These items that constitute minimum operational facilities were made known to your Augmentation Branch during a conference between representatives of our respective headquarters on 2 and 3 October 1956.

3. The proposed deployment plan requires that Air Training Command augmentation bases provide 16 combat-ready aircraft for "in place" operation, and at the same time deploy detachments. After careful consideration, it was determined that this could not be accomplished by Air Training Command units. However, 16 aircraft can be made ready for "in place" operation within, or less than four hours and can deployment accomplished within that time period. You will be advised of the time necessary to accomplish full deployment for each base.

4. Except as airlift requirements are concerned, Air Training Command is capable of providing support for all augmentation support personnel for detachments at this command. However, airlift for other logistic support cannot be provided by Air Training Command.

B-800-2

FM NO.

182

By AFM for AFM-2, Subj: (Unclas) COMB Operations Plan 4-57 (Draft)

Request Air Defense Command coverage for shift of corps base. Air Training Command will use organic shift to the extent it is available for high priority support base.

5. Your attention is invited to that part of the enclosure pertaining to shift requirements for Air Training Command detachments. It must be recognized that the change in the deployment schedule agreed upon during the referenced conference, in some instances, makes the shift requirements invalid. Pending receipt of notification from your headquarters that deployment bases can provide necessary support for Air Training Command organization aircraft, readjusted shift data will be forwarded.

6. When Air Defense Command Operations Plan 4-57 and lower echelon support plans are prepared, it is requested that the following distribution be made within Air Training Command:

a. Air Defense Command Operations Plan 4-57 to Headquarters Air Training Command, Headquarters Crew Training Air Force, Headquarters Flying Training Air Force, and Headquarters Technical Training Air Force. (UNCLASSIFIED)

b. Western, Eastern, and Central Air Defense Force support plans to this headquarters and to each of the Training Air Force Headquarters. (UNCLASSIFIED)

c. Air Division Defense plans, under which Air Training Command detachments will operate, to this headquarters, Training Air Force Headquarters, and to the bases to be used as task organizations in the appropriate division plan.

7. In addition to the above, it is considered appropriate to discuss the following points:

a. It is suggested that one additional crew tactical frequency be assigned so that deployment may be expedited. Assignment of such frequency, in lieu of full communication of aircraft, will increase time required for deployment and will facilitate rapid landing when landing of vehicles and communication cannot be accomplished at the same time. Full communication will be accomplished at destination. (UNCLAS)

b. The profile assigned for actual use deployment is sufficient. However, in order to expedite deployment of aircraft, request that a call used be authorized by CAC to give AFM clearance priority to deploying aircraft over other military aircraft during an exercise. (UNCLAS)

UNCLASSIFIED

UNCLASSIFIED

B-800-3

100-110M 71

183

Hq ATC Mr ATCFT-4, Subj: (Status) OASD Operations Plan 4-77 (Draft)

c. As pointed out by your Augmentation Branch, numerous changes must be made in WFO and OASD if 4-77 is to be effective. (UNCLASSIFIED)

d. It is understood that the radar facilities at Moody, Tyndall, and Perrin Air Force Bases will be used in the same manner as previously outlined in Operations Plan 4-55.

e. There was some discussion during the meeting at your headquarters concerning feasibility of converting Williams Air Force Base F-66F aircraft to the 200 gallon Partushin drop tanks. For your information, Williams Air Force Base is now equipping aircraft with the Partushin tanks. It is requested therefore that Air Defense Command take action to insure that Partushin tanks are furnished at Williams, Davis-Monthan, and Kirtland Air Force Bases.

f. Since several changes were made in the deployment schedule during the meeting at your headquarters, it appears appropriate to list this command's understanding concerning Air Training Command commitments for aircraft under your 4-77.

NUMBER AND TYPE AIRCRAFTDEPLOYMENT BASEHollis Air Force Base

\* 16 F-100A

Mather Air Force Base

\* 16 F-100A

Castle Air Force Base

16 F-100A plus balance

In place

\* To be accomplished as soon as capability will permit; anticipate date to be approximately 1 July 1977.

Lake Air Force Base

16 F-64F

Travis Air Force Base

16 F-64F

McClellan Air Force Base

16 F-64F plus balance

In place

Williams Air Force Base

16 F-66F

Kirtland Air Force Base

16 F-66F

Davis-Monthan Air Force Base

16 F-66F plus balance

In place

UNCLASSIF

ON 77

B-800-4

184

By MR Mr ST-4, Subj: (Index) GMS Questions Plan 4-77 (Draft)

<u>INDEXED TO THE AIRBASE</u>	<u>REMARKS</u>
<u>Windsor Air Force Base</u>	
16 F-60	Windsor Air Force Base
16 F-60	Walker Air Force Base
16 F-60 plus balance	In place
<u>Windsor Air Force Base</u>	
16 F-60 or F-610 plus balance	In place
<u>Trinidad Air Force Base</u>	
16 F-60	Minneapolis Air Force Base
16 F-60 plus balance	In place

4. This letter is classified SECRET in accordance with the provisions of paragraph 30b, Air Force Regulation 209-1.

FOR THE COMMANDER:

2 Encls:

1. GMS Mr ST-4, Subj: Copy of GMS ST-4-77 (Draft), w/2 Encls
2. Index MR Mr. ST-4, Subj: Copy of GMS, w/2 Encls

THOMAS A. SUITE  
Major, USAF  
Deputy Adjutant

UNCLASSIFIED

B-800-5X

105-5-OM3E

UNCLASSIFIED

(8)

675

ATCFF-4, HQ ATC, 22 October 1956, Subject: (Declassified) COMAD Operations Plan 4-57 (Draft)

23 OCT 1956

0000P

1st Ed

Headquarters Continental Air Defense Command, Fort Air Force Base, Colorado Springs, Colorado

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

Forwarded as a matter pertaining to your Command.

FOR THE COMMANDER-IN-CHIEF:

2 Incls  
v/s

Inclosure not necessary for A-Files

Maj Frymire

2722

2 Oct 56

IL-3007

UNCLASSIFIED

B-800-L

FILE NO.

0392

UNCLASSIFIED

(117)

*DM*

COOP-B, HQ COMAD, 25 Jul 56, 8431 (U) COMADOP/AD 4-56 (Draft)

TOP SECRET 1st Ind 13 August 1956

Hq Tactical Air Command Langley AFB, Virginia

TO: Commander-in-Chief, Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

Airlift requirements for the TAC augmentation requirements will be forwarded as soon as a survey has been made. Existing data will be classified and forwarded in about 15 September 1956.

FOR THE COMMANDER

430-1

AUG 1956  
TACOM  
AFC

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UNCLASSIFIED

118

HEADQUARTERS  
CONTINENTAL AIR DEFENSE COMMAND  
8571 AIR FORCE BASE  
COLORADO SPRINGS, COLORADO

25 Jul 56

COOP-3

SUBJECT: (Unclassified) CONAD OPERATIONS PLAN 4-56 (Draft)

TO: Commander  
Tactical Air Command  
Langley Air Force Base  
Virginia

1. Reference proposed CONAD Operations Plan 4-56.

2. Sufficient coordination has now been effected with the major task organizations, particularly SAC headquarters, relative to the use of certain of their bases for deployment purposes. As you may recall, during the planning meeting at this headquarters on 3 May 1956, the SAC representative was hesitant to offer their bases as deployment locations for augmentation forces without further investigation into the logistical and operational support which could be offered by SAC at those bases.

3. Now that SAC has given approval, we would like to save the remaining coordination on CONAD Operations Plan 4-56 (Draft) along at an accelerated pace to allow the task organizations sufficient time to publish their supporting plans. We have further tried to relieve this problem by establishing an effective date for this plan of 1 January 1957 — the numerical designation being changed accordingly at that time.

4. The most important remaining coordination, that of logistical support and airlift to deployment bases at present, has not been affected. This headquarters is asking each major command furnishing fighter aircraft to determine the logistic support and necessary airlift to save their detachments to deployment bases and insure a reasonable degree of operational capability upon arrival. In the proposed CONAD augmentation plan, your command is scheduled to send detachments from Glavis to Biggs Air Force Base, Foster to Laughlin Air Force Base, and George to Hamilton Air Force Base. In developing a workable Logistics and Airlift Annex, this headquarters suggests that your operational level units contact the various deployment bases to determine the support and operational requirements necessary for your deploying detachments. When these factors have

UNCLASSIFIED

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UNCLASSIFIED

1.19

Hq Continental Air defense Command, COOOP-8, (Unclassified) CONAD  
Operations Plan 4-56 (Draft)

been ascertained, request this headquarters be informed of the total  
airlift requirement and the airlift capability by detachment exist-  
ing within your operational units furnishing the augmentation fighters.  
Knowing this, we will then be able to complete the airlift require-  
ment through ADC and your 18th Air Force sources.

5. Your comments and suggestions relative to any other phase of  
this plan are also heartily invited at this time.

FOR THE COMMANDER-IN-CHIEF:

F. J. PALMSP  
Major USAF  
Asst. Chief of Staff

UNCLASSIFIED

0395

72

TOPL-GP, Hq Tactical Air Command, 12 Feb 57. Subject: (UNCLASSIFIED) Letter of Agreement - Tactical Air Command Support of Air Defense Command

18 MAR 1957

COOPF-T

2nd Ind

Headquarters Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

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

1. This headquarters has reviewed the Letter of Agreement and recommends the following amendments be incorporated:

a. (Reference paragraph 2a) Change "Air Defense Command" in the third line to read "Continental Air Defense Command" and "Commander, Air Defense Command" on the first line to read "Commander-in-Chief, Continental Air Defense Command."

b. Change paragraph 2b to read: "Tactical fighter and fighter bomber units scheduled for general war deployment during the period D-Day through D + 1 month will revert to the operational control of the Commander, Tactical Air Command, ten days prior to date of scheduled deployment, only upon approval by Commander-in-Chief, Continental Air Defense Command. The Commander-in-Chief, Continental Air Defense Command will be advised of the scheduled deployment date immediately upon receipt of movement directive from Headquarters USAF."

2. The above changes are made in view of the terms of reference contained in the USAF AF document 57-2-11, Section I, paragraph (a) and (b) and Terms of Reference for Commander-in-Chief, Continental Air Defense Command by the Joint Chiefs of Staff, dated 4 September 1956.

3. This headquarters concurs in the Letter of Agreement as written, provided recommended changes outlined in paragraph 1 of the 2nd indorsement are made a part thereof.

FOR THE COMMANDER-IN-CHIEF:

HARVEY T. ALANIS  
Major General, USAF  
ACE/Plans & Operations

M/R On reverse side.

CINCOMAD	MCR
Chiefs	NCS
SECRETARY	SEC
Adjutant	SAD
Public Affairs	SAV
Personnel	SPL
INFO SERVICES	MFO
DCS - CIE	ELC
Systems	ESS
Plans & Op	EPR
Exec Matters	EEV
DCS - I	INT
DCS - CIE	KCD
Plans & Estimate	IRE
DCS - I	ION
DCS - I	DPO
DCS - I	DDA
DCS - I	COG
DCS - I	DDA
COMADC	
COMNAVFORCOMAD	
CG ARAX COMAD	
RCAP LIAISON	

DUPLICATE

14 Mar 57  
b11

CX-7-471  
M

704385

M/R The Terms of Reference for CINCONAD, dated 4 Sept 1956 from JCS gives CINCONAD Operational control over forces assigned, attached or otherwise made available to him by the JCS for his air defense mission. It also stipulates that in the event the commander who made the augmentation forces available to CINCONAD considers the primary mission requires the return of forces to their permanent command assignment, an appropriate request will be made to CINCONAD. - If such a request is not granted, the next recourse is to the JCS. The WPC document 57-2-II, Section I stipulates that all agreements for operational use of forces from other major commands will be specifically agreed upon by CINCONAD and the major air command concerned. This document establishes the criteria for CINCONAD to assume operational control over these forces.

73

UNCLASSIFIED

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[REDACTED]

TOPL-CP, Hq Tactical Air Command, 12 Feb 57, Subject: (Unclassified)  
Letter of Agreement -- Tactical Air Command Support of Air Defense  
Command

ADCOOP-B

1st Ind

Headquarters Air Defense Command, Ent Air Force Base, Colorado  
Springs, Colorado

MAH 1957

TO: Commander-in-Chief, Continental Air Defense Command, Ent Air  
Force Base, Colorado Springs, Colorado

1. This headquarters concurs in the joint agreement outlined in paragraph two (2), basic letter.
2. This letter of agreement is forwarded to your headquarters for further review and concurrence, and return to this headquarters in two (2) copies for necessary disposition.

FOR THE COMMANDER:

UNCLASSIFIED

73

LOPL-CP

SUBJECT: Letter of Agreement - Tactical Air Command Support of  
Air Defense Command (Unclassified)

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

1. On 25 January 1957, a planning conference was held at Langley Air Force Base, attended by representatives of your headquarters and Tactical Air Command. The purpose of this conference was to reach a joint agreement relative to Tactical Air Command fighter and airlift support of Air Defense Command as required by USAF WPC documents.

2. At the termination of the discussion, conferees were in joint agreement on the following:

a. All Tactical Air Command units with a fighter air defense capability, as reflected in the current ADC-V-10 reports, will be under the operational control of the Air Defense Command for a minimum of D+48 hours. Utilization beyond this time period will depend upon the situation and as mutually agreed upon by Commander, Tactical Air Command, and Commander, Air Defense Command.

b. Tactical fighter and fighter-bomber units scheduled for general war deployment during the period D-Day through D+1 month will revert to the operational control of the Commander, Tactical Air Command, ten days prior to date of scheduled deployment. Air Defense Command will be advised of this date immediately upon receipt of movement directive from Headquarters USAF.

c. Tactical Air Command fighter units will not deploy from home bases for air defense operations, however, if required by the tactical situation, individual aircraft may be recovered at other than their home bases.

d. In the air defense role, Tactical Air Command AC&W units will not be deployed.

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to TAC, TOPL-CP, Subject: Letter of Agreement - Tactical Air Command Support of Air Defense Command (Uncl)

- e. Air Defense Command will furnish the necessary communications for the employment of Tactical Air Command units in the air defense system.
- f. Troop Carrier aircraft utilized to deploy and redeploy Air Defense units on a preplanned basis will be available at on-load bases within twelve hours following the initial request for airlift from Air Defense Command.
- g. Preplanned Air Defense Command airlift requirements will be submitted to Tactical Air Command 6 1/2 months prior to the applicable WPC D-Date and will include:
  - (1) On-load and off-load bases
  - (2) Weight and cube of items to be airlifted from each base
  - (3) Number of personnel to be airlifted from each base
  - (4) Overall outside dimensions and weight of the largest item to be airlifted from each base
- h. Air Defense Command is responsible for logistic planning at Tactical Air Command bases to support the air defense mission.

3. For your information, the Tactical Air Command Operating Program (Short Title: TOP) reflects programmed rotation, aircraft conversion and equipping, and ZI force deployment of all Tactical Air Command units. Air Defense Command is included on the TOP's list of distribution. The latest TAC document #57-1, dated August 1956, will be revised in the near future to reflect program changes emanating from the USAF 59 series of programming documents. Units converting and re-equipping will be capable of providing only limited support to this mission; and units on rotation, maneuvers, exercises and/or deployments generated by this or higher headquarters may not be available. A supplemental ADC-V-10 report will be dispatched by electrical means by each participating unit whenever there is a 25% change of capability from that shown on the previous report.

4. Request your concurrence on the points of joint agreement outlined in paragraph 2.

FOR THE COMMANDER:

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A. R. SMITH, 3Lt  
CWO, W-2, USAF  
Act Adjutant

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JOINT MESSAGE FORM				SECURITY CLASSIFICATION	
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TO: COMDR TAC LANGLEY AFB VA					
CINCSAC OFFUTT AFB NEBR					
COMDR ATC SCOTT AFB ILL					
COMDR EADF STEWART AFB NY					
COMDR CADP GRANDVIEW AFB MO					
COM WADF HAMILTON AFB CALIF					
INF CINC B, COLO (COURIER)					
UNCLASSIFIED FROM ADOOP-B					
Reference conference held at this headquarters, 20 Feb 57, to determine deployment of SAC, TAC and ATC fighters augmenting ADC.					
CINCONAD has approved deployment agreed upon by conferees attending cited conference and, also, a subsequent change of Abilene AFB in lieu of Reese AFB. Desire commanders of air bases scheduled to receive deployed detachments be informed by their parent command headquarters so their staffs may be prepared to coordinate with ATC and ADC representatives who will be contacting deployment bases,					
SYMBOL			SIGNATURE		
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JOINT MESSAGEFORM - CONTINUATION SHEET		SECURITY CLASSIFICATION UNCLASSIFIED				
FROM: COMDR ADC						
<p>soon, to firm up operational and support plans for deploying detachments. FOR EADF, CADF and WADF. Request the Air Division (Defense) in whose area a deployment base is located, be appointed principal coordinating agency for all operational and support matters pertaining to an augmentation fighter detachment. FOR ATC and TAC. Desire all coordination necessary to firm up operational and support matters for deploying detachments be directed to or in coordination with the Air Division (Defense) having primary coordinating interest as expressed above.</p>						
SYMBOL ADDOOP-B		<table border="1"> <tr> <td>PAGE NR 2</td> <td>NR OF PAGES 2</td> <td>SECURITY CLASSIFICATION UNCLASSIFIED</td> <td>INITIALS m.l.s.</td> </tr> </table>	PAGE NR 2	NR OF PAGES 2	SECURITY CLASSIFICATION UNCLASSIFIED	INITIALS m.l.s.
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DEPARTMENT OF THE NAVY  
Office of the Chief of Naval Operations  
Washington 25, D. C.

OPNAV 05410.3A  
Op-603E2  
Ser 080P60

11 April 1957

OPNAV INSTRUCTION 05410.3A

From: Chief of Naval Operations  
To: Distribution List

Subj: Continental Air Defense Command and Naval Forces, Continental Air Defense Command; functions of

Encl: (1) Revised Terms of Reference and Mission, Continental Air Defense Command  
(2) Statement of Navy Policy and Guidance in Planning for Air Defense of the CONUS  
(3) Command and Operational Control Chart

1. Purpose. To provide guidance for the commander of the naval component of the Continental Air Defense Command, and for other naval commands, and to distribute the revised terms of reference and mission of Commander in Chief, Continental Air Defense Command (CINCONAD).

2. Cancellation. OPNAV INSTRUCTION 05410.3 is cancelled and superseded.

3. Background. The Joint Chiefs of Staff established the Continental Air Defense Command (CONAD), as a Joint Command effective 1 September 1954, with headquarters at Ent Air Force Base, Colorado Springs, Colorado. The Secretary of Defense designated the Department of the Air Force as executive agency for the command. The approved mission of CONAD and the revised terms of reference for the commander are contained in enclosure (1). The responsibilities of Commander Naval Forces, Continental Air Defense Command (COMNAVFORCONAD) are set forth in Annex "B" to enclosure (1).

4. Naval Components.

a. COMNAVFORCONAD has established subordinate commands at the Eastern, Central, and Western CONAD Region Headquarters. Enclosure (3) shows command and operational control relationships.

b. Where required, Naval Deputies are assigned to the staff of numbered CONAD divisions.

c. Ships permanently assigned to the contiguous radar coverage system will be under the command of the appropriate Sea Frontier Commander. Fleet ships temporarily assigned this duty will be under the operational control of the appropriate sea frontier commander while enroute to and from station. All ships and lighter-than-air units will be under the operational control of CINCONAD while on station in the system. The Sea Frontier Commanders will coordinate with the Commander Naval Forces Eastern Continental Air Defense Region (COMNAVFORCONADREGN) or the Commander Naval Forces Western Continental Air Defense Region (COMNAVFORWESTCONADREGN) in formulating plans for maintaining picket ships on station in the contiguous coverage system.

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d. Fleet, Force, and Sea Frontier Commanders, and the Chief of Naval Air Training will coordinate with COMNAVFORCONAD and the regional naval component commanders in planning for the employment of augmentation forces and other naval forces having an air defense capability, and for such joint training of these naval forces as may be desired.

5. Policy. Policy guidance for commanders of naval forces and facilities having an air defense capability is contained in enclosure (2).

*H. D. Felt*  
H. D. FELT  
VICE CHIEF OF NAVAL OPERATIONS

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Enclosure (1)

OPNAVINST 05410.3A  
(4-11-57)TERMS OF REFERENCE AND MISSION

1. The Continental Air Defense Command (CONAD) is established as a Joint Command under the Joint Chiefs of Staff with the mission of defending the Continental United States, Alaska and the Northeast area (formerly the USNEC area) against air attack. The Department of the Air Force is the executive agency therefor.
2. The Commander in Chief, Continental Air Defense Command (CINCONAD) will exercise operational control over the USAF Air Defense Command, the Army Antiaircraft Command and the Naval Forces, Continental Air Defense Command and the forces assigned, attached or otherwise made available to these commands. CINCONAD will not serve as a component commander of CONAD. The commander of each Service component command of CONAD will be the principal advisor to CINCONAD in matters of his Service which pertain to 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 temporary absence of the CINCONAD from his command, the interim command will pass to the next senior officer present for duty who is eligible to exercise command, regardless of Service affiliation.
3. The CINCONAD will establish and maintain a joint headquarters, separate from the headquarters of each of the component commands. In addition, the CINCONAD will establish and maintain a joint staff, as prescribed in paragraph 30244, Joint Action Armed Forces (JAAF) to operate under the basic principles set forth in paragraph 30302, JAAF. The size of the staff will be limited to the number of personnel required to permit CINCONAD to exercise over-all operational control and to accomplish broad over-all planning functions, with detailed operational and planning functions to be accomplished by the staffs of the respective component commanders and subordinate joint commanders, as appropriate, in accordance with the policies and procedures prescribed by the CINCONAD.
4. The CINCONAD shall have the authority to exercise operational control over all forces assigned, attached or otherwise made available to him by the Joint Chiefs of Staff or other proper authority for his air defense mission. This authority includes 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 air defense mission. Specifically, it includes:
  - a. The responsibility to determine the best procedures and methods for conducting the tactical air battle, for exercising the operational control of all assigned forces and for directing the engagement and disengagement of weapons.
  - b. The authority to centralize operational control of all air defense forces assigned, attached or otherwise made available, including the assignment of individual antiaircraft batteries to designated targets.
  - c. The authority to establish such subordinate joint organizations as he deems necessary for the accomplishment of his assigned mission.
5. 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) in accordance with existing inter-Service agreement. 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 operation of, these elements of the early warning system will be responsive to the needs of CINCONAD.

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6. The mission of CINCONAD is to:
  - a. Maintain the security of the Continental Air Defense Command, and defend the Continental United States, Alaska and the Northeast area against air attack.
  - b. Assist in the defense of Canada and Mexico against air attack in accordance with approved plans and agreements.
  - c. Support CINCAL, CINCPAC, CINCLANT, CINCARIB and CINCOSAC in their missions.
7. In carrying out his mission, CINCONAD will:
  - a. Establish such subordinate joint organizations as he deems necessary for the accomplishment of his assigned mission, including those necessary to permit centralized control and employment of all air defense weapons assigned, attached or otherwise made available.
  - b. Assign tasks, designate objectives and provide authoritative direction for component commanders and subordinate joint air defense commanders.
  - c. Develop and submit to the Joint Chiefs of Staff joint plans for the deployment and utilization of all forces, weapons and equipments allocated, attached or otherwise made available to him, to include those forces to be employed in the extension to seaward of the contiguous radar cover.
  - d. Prepare, in coordination with commanders of the forces concerned, and submit to the Joint Chiefs of Staff for approval, plans for the full utilization of all other military forces, including forces of the reserve components, which have an air defense capability and which can temporarily augment the air defense forces in the event of an emergency.
  - e. After consultation with appropriate commanders of unified or specified commands, determine and recommend to the Joint Chiefs of Staff the operational requirements for forces, air defense weapons and equipments of all elements of the continental air defense system. The development and procurement of air defense weapons and equipments will be responsive to the requirements laid down by CINCONAD as approved by the Joint Chiefs of Staff and will be accomplished by the Departments of the Army, Navy and Air Force in accordance with existing procedures.
  - f. Implement appropriate plans approved by the Joint Chiefs of Staff and exercise such emergency powers as may be delegated by proper authority.
  - g. Prescribe policies and procedures governing the detailed operational and planning functions to be accomplished by the staffs of the respective component commanders and subordinate joint commanders in the furtherance of CINCONAD's over-all operational control and planning functions.
  - h. Establish procedures and methods for conducting the tactical air battle, for exercising the operational control of all assigned forces and for directing the engagement and disengagement of weapons.
  - i. Exercise operational control over all forces assigned, attached or otherwise made available to him.

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- j. Specify the condition of combat readiness, to include states of alert, to be maintained by forces assigned, attached or otherwise made available and by augmentation forces while under the operational control of CINCONAD.
- k. In event of the likelihood of or actual air attack on North America, assume operational control of those forces specifically made temporarily available from other commands (augmentation forces). Operational control over such forces will be relinquished when the likelihood of the threat has dissipated or when the attack is ended. In the event the commander who made the augmentation forces available to CINCONAD considers that a primary mission requires the return of the forces to their permanent command assignments, an appropriate request will be made to CINCONAD. If such request is not granted, next recourse is to the Joint Chiefs of Staff.
- l. Coordinate with appropriate United States and allied commanders in the development and implementation of plans and in the establishment of procedures for early warning systems which will provide early warning of air attack for the defense of North America, to insure that these systems are designed and operated in a manner responsive to the CINCONAD's air defense requirements and in consonance with national policy.
- m. Determine and announce conditions of air defense warning based on the likelihood of air attack on the continental United States, Alaska or the Northeast area.
- n. Plan for and conduct air defense exercises, including participation by augmentation forces, coordinating such plans with other commands established by the Joint Chiefs of Staff and with military agencies of Canada and Mexico, as appropriate.
- o. Coordinate with appropriate military, governmental and non-governmental agencies in the development of policy and broad plans 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 the continental United States, Alaska and the Northeast area against air attack.
- p. Coordinate with the Federal Civil Defense Administration, State Civil Defense Agencies, and other non-military agencies on matters of participation in air defense.
8. Directives promulgated by CINCONAD in consonance with these terms of reference will govern all air defense operations concerning the continental United States, Alaska and the Northeast area in matters not otherwise covered by joint plans, doctrines or procedures approved by the Joint Chiefs of Staff or by appropriate inter-service agreements.
9. The CONAD organization, command relationships and the responsibilities of component commanders relating to the participation of forces provided by each Service are contained in the annexes hereto as follows:
- Annex "A" - Army Forces
  - Annex "B" - Naval Forces
  - Annex "C" - Air Force Forces
  - Annex "D" - Organization and Command Arrangements

Enclosure (1)

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(4-11-57)

Enclosure (1)

ANNEX "A"

RESPONSIBILITIES OF THE COMMANDING  
GENERAL, ARMY ANTI-AIRCRAFT COMMAND

1. Serve as the Commander of the Army component command of the CONAD.
2. Serve as the principal advisor to CINCONAD on U.S. Army matters pertaining to the CONAD.
3. Establish and maintain an appropriate Army headquarters and staff located in the immediate vicinity of the CONAD headquarters to accomplish detailed planning functions in accordance with the policies and procedures prescribed by the CINCONAD.
4. Coordinate with the other Service component commanders on matters of mutual interest and refer matters of disagreement to CINCONAD for resolution.
5. Provide for specific siting of Army units at tactical air defense positions in accordance with the basic deployment plans of and the tasks assigned by CINCONAD.
6. Place under the operational control of CINCONAD, or his designated subordinate joint air defense commanders, the combat-ready units of the Army Antiaircraft Command, including their surveillance and control elements, upon their emplacement at tactical air defense positions.
7. Arrange with the Department of the Army and other appropriate agencies for the support, administration, and equipping of Army units assigned or otherwise made available for the air defense of the continental United States and arrange for the development and procurement of air defense weapons and equipments for use by these units so as to be responsive to the requirements laid down by CINCONAD as approved by the Joint Chiefs of Staff.
8. Recommend to CINCONAD the forces, deployments, tactics, techniques, procedures, and equipments for Army Forces which contribute to the air defense of the continental U.S., Alaska and the Northeast area.
9. Recommend to CINCONAD plans and policies for the employment of the forces of the reserve components of the U.S. Army which can contribute to the air defense of the continental United States, Alaska and the Northeast area.
10. Advise CINCONAD of those forces of the U.S. Army, including Reserve and National Guard forces, which have an air defense capability and which can temporarily augment the continental air defense forces in an emergency and arrange for their use in accordance with the policies and procedures prescribed by CINCONAD.
11. Provide appropriate Joint Air Defense Commanders with required information regarding the status and operating characteristics of all Army forces assigned or otherwise made available to CINCONAD, and Army augmentation forces and facilities capable of employment in an emergency.
12. Provide or arrange for the necessary logistic support for Army augmentation forces when employed in the air defense of the continental United States.

Annex "A" - Enclosure (1)

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OPNAVINST 09410.3A  
(4-11-57)

Enclosure (1)

ANNEX "B"

RESPONSIBILITIES OF THE COMMANDER, NAVAL  
FORCES CONTINENTAL AIR DEFENSE COMMAND

1. Serve as the Commander of the Naval component command of the CONAD.
2. Serve as the principal advisor to CINCONAD on U.S. Naval matters pertaining to the CONAD.
3. Establish and maintain an appropriate Naval headquarters and staff located in the immediate vicinity of the CONAD headquarters, to accomplish detailed planning functions in accordance with the policies and procedures prescribed by the CINCONAD.
4. Coordinate with the other Service component commanders on matters of mutual interest referring matters of disagreement to CINCONAD for resolution.
5. Provide for Naval Forces in the extension to seaward of the contiguous radar coverage to be stationed and operated in accordance with the basic operational plans of, and the tasks assigned by, CINCONAD.
6. Make available to CINCONAD for his operational control while on station, the naval forces employed in the extension to seaward of the contiguous radar coverage of the continental air defense system.
7. Arrange with the Department of the Navy and other appropriate agencies for the support, administration and equipping of naval forces assigned or otherwise made available for employment in the extension to seaward of the contiguous radar coverage and arrange for the development and procurement of communications and surveillance equipments for use by assigned units so as to be responsive to the requirements laid down by CINCONAD as approved by the Joint Chiefs of Staff.
8. Recommend to CINCONAD deployments, tactics, techniques and procedures for Naval Forces made available for the air defense of the continental United States, Alaska and Northeast area.
9. Recommend to CINCONAD plans and policies for the employment of the forces of the reserve components of the U.S. Navy which can contribute to the air defense of the continental United States, Alaska and the Northeast area.
10. Advise CINCONAD of those forces of the U.S. Navy, including forces of the reserve components which have an air defense capability and which can temporarily augment the continental air defense forces in an emergency and arrange for their use in accordance with the policies and procedures prescribed by CINCONAD.
11. Provide appropriate Joint Air Defense Commanders with required information regarding the status and operating characteristics of all Naval forces assigned or otherwise made available to CINCONAD, and Naval augmentation forces and facilities capable of employment in an emergency.
12. Provide or arrange for the necessary logistic support for Naval augmentation forces when employed in the air defense of the continental United States.

Annex "B" - Enclosure (1)

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 (4-11-87)

Enclosure (1)

ANNEX "C"

RESPONSIBILITIES OF THE COMMANDER  
USAF AIR DEFENSE COMMAND

1. Serve as the Commander of the Air Force component command of the CONAD.
2. Serve as the principal advisor to CINCONAD on U.S. Air Force matters pertaining to the CONAD.
3. Establish and maintain an appropriate Air Force headquarters and staff located in the immediate vicinity of the CONAD headquarters to accomplish detailed planning functions in accordance with the policies and procedures prescribed by the CINCONAD.
4. Coordinate with the other Service component commanders on matters of mutual interest and refer matters of disagreement to CINCONAD for resolution.
5. Provide for the specific siting of Air Force units at tactical air defense positions in accordance with the basic deployment plans of and the tasks assigned by CINCONAD.
6. Place under the operational control of CINCONAD, or his designated subordinate joint air defense commanders, the combat-ready units of the USAF Air Defense Command, including air surveillance and control elements, upon their deployment to tactical air defense positions.
7. Arrange with the Department of the Air Force and other appropriate agencies for the support, administration, and equipping of Air Force units assigned or otherwise made available for the air defense of the continental United States and arrange for the development and procurement of air defense weapons and equipments for use by these units so as to be responsive to the requirements laid down by CINCONAD as approved by the Joint Chiefs of Staff.
8. Recommend to CINCONAD the forces, deployments, tactics, techniques, procedures and equipments for use by Air Force forces which contribute to the air defense of the continental United States, Alaska and the Northeast area.
9. Recommend to CINCONAD plans and policies for the employment of the forces of the reserve components of the U.S. Air Force which can contribute to the air defense of the continental United States, Alaska and the Northeast area.
10. Advise CINCONAD of those forces of the U.S. Air Force, including Reserve and National Guard forces, which have an air defense capability and which can temporarily augment the continental air defense forces in an emergency, and arrange for their use in accordance with the policies and procedures prescribed by CINCONAD.
11. Provide appropriate Joint Air Defense Commanders with required information regarding the status and operating characteristics of all Air Force forces assigned or otherwise made available to CINCONAD and Air Force augmentation forces and facilities capable of employment in an emergency.

Annex "C" - Enclosure (1)  
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(4-11-57)

Enclosure (1)

ANNEX "C"

12. Provide or arrange for the necessary logistic support for Air Force augmentation forces when employed in the air defense of the continental United States.
13. Plan for, organize, equip, administer and operate necessary elements of a Ground Observer Corps, including the manning of the military portion thereof.

Annex "C" - Enclosure (1)  
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OPNAVINST 05410.3A  
(4-11-57)

Enclosure (1)

ANNEX "D"

ORGANIZATION AND COMMAND ARRANGEMENTS

1. The mission of air defense is a functional mission carried out on a geographical basis. The component commanders of CINCONAD do not have specific Service combat missions. Service component commanders under CINCONAD provide combat ready forces; joint commanders under CINCONAD are responsible for combat operations. Since time of reaction to the threat is all-important, successful air defense must be predicated upon decentralization of authority to the greatest extent compatible with the optimum effective control and application of the total defense force available. It is essential that all forces of the military establishment, which have an air defense capability and which can be made available, be operated and controlled in the most effective manner as a part of an over-all coordinated continental air defense system. The Continental Air Defense Command has been established as a Joint Command under the Joint Chiefs of Staff for this purpose.
2. Commanders making augmentation forces available may place restrictions on the deployments of these forces in the event they are required for their primary Service missions.

Annex "D" - Enclosure (1)

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Enclosure (2)

OPNAVINST 05410.3A  
(4-11-57)

POLICY ON AIR DEFENSE OF CONTINENTAL UNITED STATES


1. The policy of the Chief of Naval Operations is to support the Commander in Chief, Continental Air Defense Command in the execution of his assigned responsibility for the defense of the Continental United States against air attack.
2. In an emergency, units of the Operating Forces of the Navy which may be in port or temporarily based ashore, units of the Reserve Fleets, and facilities (including aircraft) of the Naval Shore Establishment not regularly allocated to continental air defense, but having air defense capabilities, shall provide maximum practicable assistance, consistent with primary missions, to appropriate CONAD commands.
3. Naval forces and facilities which may be made available for temporary employment in continental air defense during an air defense emergency under CINCONAD's operational control, shall be known as naval augmentation forces. These forces will be drawn from the following major categories of the Naval Establishment:
  - a. The Fleets (including Fleet Marine Forces) which may be in port or temporarily based ashore and their assigned shore activities.
  - b. The Sea Frontiers, Naval Districts, and River Commands.
  - c. Naval Air Training Command, including the Naval Air Reserve Training Command.
  - d. Marine Corps Supporting Establishments and Marine Corps Air Reserve Training Command (Activities directly under the military command of the Commandant of the Marine Corps).
4. COMNAVFORSOUTHCONAD, COMNAVFORCENTCONAD, and COMNAVFORWESTCONAD, under the direction of COMNAVFORCONAD, will coordinate with CINCONAD and the commander providing naval augmentation forces. This coordination includes that which is necessary for preparation of plans, and procedures to provide for effective implementation of this policy.
5. The temporary employment of naval elements in port, temporarily based ashore, or ashore, under emergency conditions in continental air defense will be planned and coordinated by the cognizant naval component commanders of CONAD, in consultation with the commander concerned. COMNAVFORCONAD and his regional commanders have been authorized and directed to deal directly with the commands listed in paragraph 3 above, concerning the preparation of plans and operational procedures. Determination of the availability of forces and facilities available for such employment is a command responsibility.
6. In preparing detailed arrangements, the following points shall be observed:
  - a. Operating procedures should be based on current joint publications. In matters not yet covered by joint doctrine, interim procedures should be developed by mutual agreement with the clear understanding that such interim agreements will expire upon publication of pertinent joint publications. (CINCONAD is responsible for determining the best procedures and methods for conducting the tactical air battle).
  - b. Rapid and reliable communications and flow of operational intelligence should be provided for all echelons. Maximum practicable use of the Naval Communications System shall be made.

Enclosure (2)


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- c. Cognizant CONAD Commanders should be provided timely information relative to the status and operating characteristics of naval forces and facilities capable of, and available for, emergency employment.
- d. The availability of naval augmentation forces will be determined by the cognizant naval commanders. Commanders making augmentation forces available may place restrictions on the deployment of these forces in the event they are required for their primary Service missions.
- e. Determination of the requirement for temporary employment of available naval forces should be made by the cognizant CONAD commander.

Enclosure (2)  


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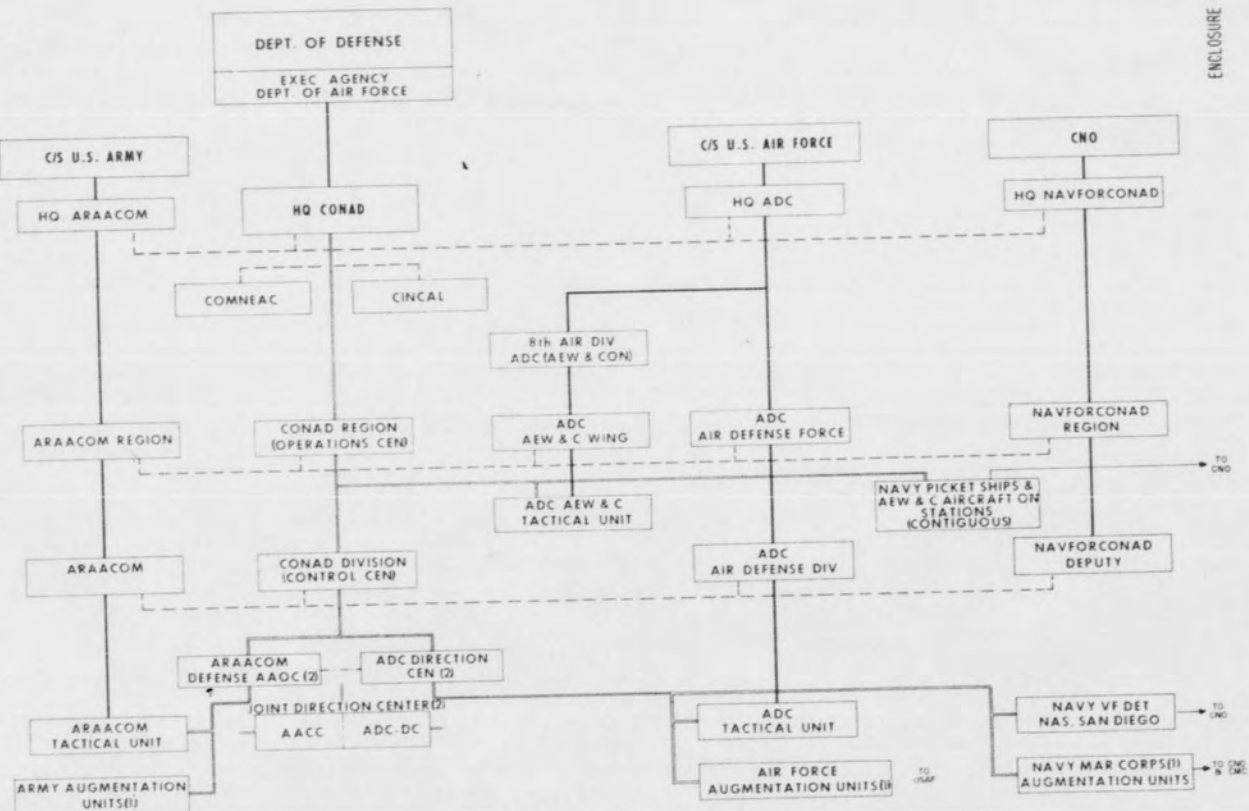
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ENCLOSURE (3) OPNAV INST 05410.3A

ENCLOSURE (3)



NOTES  
 (1) UNDER OPNL CONTROL OF CONAD WHEN COMMITTED ONLY  
 (2) OPERATIONAL CONTROL OF COMBAT ELEMENTS AS DESIGNATED BY DIVISION CDR

— COMMAND  
 - - - CONSULTATION & INTERSTAFF PLANNING  
 ——— OPERATIONAL CONTROL  
 - - - COORDINATION