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HISTORY OF THE 42D BOMB WING (H)

1 AUGUST THRU 30 SEPTEMBER, 1956

(unclassified title)

at Loring AFB, Maine

MICROFILMED

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HISTORY OF THE 42D HEAVY BOMBARDMENT WING

1 AUGUST - 30 SEPTEMBER 1956

(unclassified title)

Prepared for the Historical Section of the Information Services Office, 42d Air Base Group, by A/1C John J. Houlihan and A/1C Homer F. Welch, Historians, under the supervision of Major Peter O. E. Bekker, Historical Officer.

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F R O N T I S P I C E

PHOTO OF:

COLONEL DONALD E. HILLMAN

COMMANDER

42D HEAVY BOMBARDMENT WING (SAC)

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TABLE OF CONTENTS

	Page
FRONTISPIECE	
FOREWORD	
CHRONOLOGY	
ORGANIZATION, ADMINISTRATION AND PERSONNEL	1
Brief Unit History	1
Personnel	6
THE MISSION AND ITS IMPLEMENTATION	8
Over-All Mission	8
Operations And Training	8
Projects And Developments	10
Flying Training	11
Ground Training	12
MAINTENANCE AND SUPPLY	14
B-52 Conversion	14
ROSTER OF KEY PERSONNEL	16
BIBLIOGRAPHY	17
LIST OF EXHIBITS	18

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FOREWORD

This report contains the History of the 42d Heavy Bombardment Wing (SAC) for the period 1 August 1956 to 30 September 1956. The origin and organization of this bomb wing are recounted along with important activities--mission and mission implementation, operations and training, supply, maintenance, personnel and facilities--being emphasized for the reporting period.

The information contained herein, relative to the History of the 42d Heavy Bombardment Wing at Loring Air Force Base, Maine, a unit of the 45th Air Division (SAC), covers activities of the wing and assigned organizations. It is related to previous monthly histories of the wing since its activation.

The present report was supervised by Major Peter O. E. Bekker, USAF, Historical Officer (Information Services Staff Officer), and written by Airman First Class Homer F. Welch, Jr., AF 19495273, Historian, and by Airman First Class John J. Houlihan, AF 32246878, Historian.

Like other month's reports, this history is subject to change, and additional information or suggested corrections will be welcomed.

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CHRONOLOGY

1. 42D Bomb Wing participated in 1956 SAC Bombing, Navigation and Reconnaissance Competition held at Loring Air Force Base 24 through 31 August, 1956

2. Last B-36 left from Loring AFB 6 September , 1956

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ORGANIZATION, ADMINISTRATION AND PERSONNEL

Brief Unit History

The 42d Heavy Bombardment Wing was activated at Limestone Air Force Base, Maine, on 25 February 1953 and was assigned to the Eighth Air Force.[1] Actually, the 42d was "re-activated". The parent unit to the 42d Bomb Wing was the 42d Bombardment Group, Medium, Army Air Forces, which had served in the South Pacific during World War II.[2]

The three primary squadrons of the World War II bomb group--the 69th 70th and 75th[3]--were again "re-activated" with the 42d Wing.[4] During the war these bomb squadrons flew the B-25 "Billy Mitchell" bombers and were designated "Medium".[5] When activated again in 1953, the squadrons were re-designated "Heavy"[6] and the B-36 "Peacemaker" bomber became the primary aircraft.

During the fighting in the Pacific, the 42d Medium Bomb Group distinguished themselves by winning many battle credits and a Distinguished Unit Citation.[7]

---

1. SAC GO 10, 25 Feb 53 /per DAF Ltr, 322 (AFOMO 410h), 24 Mar 53.
2. USAF Hist Div Study, Sep 55:"Hist Data per 42 Bomb Group (M) 1941-1946".
3. Ibid., also "Hist Data per 69th, 70th and 75th Bomb Sqdns (H).
4. SAC GO 10.
5. WD Ltr, AG 320.2 (10-17-40), M (Ret)M-C, 20 Nov 40.
6. DAF Ltr, 322 (AFOMO 410h), 24 Mar 53.
7. Battle credits awarded group for China Defensive and Offensive (Cir 1, Hq 13th AF, 10 Jun 46), and for action in the Bismarck Archipelago, Luzon, New Guinea, Northern Solomons (WD GO 12, 12 Feb 46) and Southern Philippines (DA GO 29, 21 Apr 48). For a mission near Balikpapan on the Isle of Borneo, Netherlands East Indies from 23-30 Jun 45, the group received a Distinguished Unit Citation (WD GO 44, 13 May 46).

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In 1946, while stationed in Japan, the 42d Bomb Group was de-activated.[8]

In this same year, 1946, a seemingly unrelated event was taking place back in the United States; the construction of a small airstrip in the northern part of Maine. Seven years later, on "Limestone"[9] AFB, the 42d was reactivated.

Original construction of the base itself was begun in the winter of 1946-47. During the initial construction period, up to the winter of 1952-53, Limestone AFB was garrisoned by a small group of AF personnel.[10] The base did not come under the jurisdiction of Strategic Air Command until February 1953.[11]

When the 42d Bomb Wing was activated, the construction program went into high gear, hangars, docks, an extension to the runway, barracks--- many important facilities were initiated.

The first B-36 aircraft arrived during the latter part of March, 1953, just a few weeks after the wing had been activated. In April 53 the wing launched its first training missions. By October '53, not quite nine months after the wing was activated, the B-36 crews were flying more than 1,000 hours a month.[12]

---

8. GO NO. 60, Hq 5th AF, 20 Apr 46, pursuant to instructions in WD Ltr, AG 322 (26 Mar 46), OB-I-E-M, 26 Mar 46.
9. Named after Limestone Village, 7 miles from the base.
10. When first assigned, Jun 50, this group was designated a base detachment. Later re-designated 4215th Base Svc Sqdn, Then 4215th Air Base Sqdn (the latter discontinued per SAC GO 10 when the 42d Wing was activated).
11. SAC GO 18, 21 Apr 53
12. Inscribed on plaque awarded WCO by Convair, 5 Dec 55.

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At the time of activation , Brigadier General (the Colonel) Bertram C. Harrison, United States Air Force, was named commander. When the 45th Air Division was activated on 8 October 1954,[13] General Harrison became the new division commander and Colonel Jerome Tarter, USAF, took over as the wing commander.[14]

The 45th Air Division became the highest base echelon on activation in Oct 54.[15] Another important change occured in Oct '54, when the base was officially dedicated and re-named "Loring" on the first day of that month, in honor of Major Charles J. Loring, Jr., a Maine jet hero, who was awarded the Congressional Medal of Honor, posthumously, for action in Korea.[16]

Before the air division came into being, the 42d Bomb Wing Headquarters had been the highest base echelon. The supporting units to the wing, the 47d Air Base Group, had been activated with the wing in 1953.[17] Under the division setup, the wing and air base group received equal status, ie. lateral communication with each other.[18]

The primary squadrons, previously mentioned, were augmented in Feb '55, with the activation of the 42d Heavy Air Refueling Squadron.[19] The KC-97 tanker aircraft took its place on the flight line along with the bomb squadron's B-36s.

---

13. SAC GO 69, 8 Oct 54 (Sec I).
14. Officers Roster, 45th AD, 1-31 Oct 54 (RCS: 8AF-PI). Brig. Gen. W. K. Martin, USAF, became dic cmdr 18 Jun 55 and Brig. Gen. Harrison was reasgd Ramey AFB, P. R.
15. See 45th AD Organ. Chart, Exhibit # 1.
16. DAF GO 34, 15 Sep 54 (para 6).
17. SAC GO 10, actually "re-activated". WW II parent was 42d Svc Gp., AAF, disbandod in Belgium, 1945 (Ltr, Hq IX AF Svc Cmd, 22 May 45 (pursuant to WD Ltr, AG 322 OB-1-AFRPG-M, 4 Apr 45).
18. SAC GO 10. Also see Exhibit # 1.
19. SAC GO 79, 8 Dec 54.

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Activated with the wing to render maintenance ssupport were the 42d Armaments & Electronics Maintenance Squadron, 42d Periodic Maintenance Squadron and 42d Field Maintenance Squadron.[20] A medical group was also activated (see below).[21] Necessary base support was made possible by the activation of the air base group squadrons,[22] and special attached units to group headquarters.[23]

Organizationally, the 42d Wing Headquarters was set up in two sections--the coordinating staff and the personal-specialist staff--which are directly responsible to the wing commander.[24] The wing coordinating staff--the directorates of personnel, materiel and operations--work on equal status with personnel, materiel and operations directorates of the 42d Air Base Group Headquarters, and both staffs are responsible to the higher division directorates.[25] The wing-personal-specialist staff includes[26] the comptroller, adjutant, air inspector, office of safety[27] and headquarters squadron.

The 42d Medical Group, activated as a wing unit in February '53,[28] had been operating the base hospital function since activation. In Feb '54, after being activated one year, the 42d Medical Group was re-designated the 42d Tactical Hospital.[29]

---

20. SAC GO 10.
21. Ibid.
23. Ibid., listed, they are: 548th AAA Bn. (U. S. Army), 2-7 Weather Det (MATS), 3080th Aviation Depot Gp. (AMC), OSI Det., 524th AF Band, Resident Auditors, 1947th AACS (MATS) and 1292d AACS (MATS) The latter two organizations were combined 15 Jul 56 (designated 1292d AACS).
22. See Exhibit # 1.
24. See Exhibit # 1. Hq Agencies function IAW SAC Man-20-1, Dec 54
25. Ibid.
26. See Exhibit # 1.
27. Est. 1 Apr 55 per SAC Directive (8th AF Msg, CS 186, 8 Mar 55.)
28. SAC GO 10 .
29. SAC GO 3, 27 Jan 54.

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A month later, in March '54, the base hospital which had been functioning since February '53, was designated the 4034th USAF Hospital.[30] Lieutenant Colonel James G. Langford, USAF, who had been named commander of the base hospital, commanded the 42d Tactical Hospital[31]--the "flying" medical facility of the wing.

Wing conversion to the B-52 "Stratofort" intercontinental bomber, was to occur in 1956.[32] The first assigned B-52 aircraft arrived in May '56.[33]

Key personnel changes were also made in mid-1956. Col. Donald E. Hillman, USAF, became the new wing commander 1 June.[34] The 42d Tactical Hospital changed command 24 August when Col. Vance H. Marchbanks, Jr., USAF, took over.[35]

The base construction program had been speeded up in 1955 to prepare for the all-jet B-52. Over one-thousand feet of concrete extensions were accomplished on both ends of the runway--plus taxiway shoulder stabilization. A huge double-cantilever maintenance hangar was finished and eleven new luria docks were begun. Other projects included fuel pipe lines, runway and taxiway lighting systems and communications facilities.[36]

---

30. SAC GO 17, 15 Mar 54
31. Officers Roster, 45AD, 1-31 Mar '54
32. 8th AF Programming Plan 27-55, 26 Oct 55.
33. Ibid., Incl. 2. Actually, 1st B-52 to land at Loring occurred 9 Jan 56 (acft was conduction cold weather tests for Air Proving Grnd in flight from Englin AFB, Fla. to Alaska).
34. Officers Roster, 45AD, 1&30 Jun 56. See Frontispiece, photo, Col. Hillman. Col. Tarter, previous comdr, was reasgd Hq USAF.
35. Officers Roster, 45AD, 1-31 Aug 56. Previous cmdr, Lt. Col. Langford, was reasgd Lockbourne AFB, Ohio.
36. AIO Program Status Report, MCP FY 51-57 (31 Dec 55). Interview, Mr. L. H. Hirsch, CIV, USED Inspector, Corps of Engrs., U. S. Army (New England Div.) at office by author, 17 Oct 55. Interview, Mr. M. Jalbert, CIV AIO Supdt., at 42d AIO by Author, 27 Jan 56.

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Personnel

Five hundred and two officers and 2,493 airmen were assigned to the 42d Wing in August--and by the end of September the wing had gained sixteen more officers and forty-seven more airmen.[37]

September 30th, the wing personnel office provided an analysis[38] showing current status and noting critical shortages of personnel. In the officer ranks it was found that fourteen were not manned in required specialties (MIRS), and forty-three B-36 crew members could not be effectively assigned[39]. The B-36 officers were caught up in the conversion to the B-52 and were either awaiting pilot training, reassignment or separation.[40]

In this same analysis report, it was found that 772 airmen were not MIRS.[41] This number had decreased from August's total of 823 not MIRS.[42] An accelerated program of on-the-job-training (OJT) and testing was helping to alleviate the matter.[43] However, the great majority of these airmen were not MIRS due to other reasons:[44] 1) "five" level, specialist airmen could not be OJT'd due to maximum manning at the "seven", technician level, 2) fifty-five "seven" level airmen not on any type of OJT found cross-training to other fields prohibited by the project guidance program, and 3) ninety-one airmen assigned in unauthorized specialties could not be cross-trained to other fields because of the project guidance rules.

---

37. File, 42DP, Hq 42BW. Also File, BCSS, Hq 42ABG (Daily Strength Rep'ts).
38. Monthly Analysis Rept, Hq 42 BW (1-31 Aug 56 and 1-30 Sept 56) RCS: SAC U54 (8AF-1). See Exhibit #2.
39. Ibid., as of 30 Sept 56.
40. Ibid., see breakdown (pilots, obsvrs, engrs, ECM).
41. Monthly Analysis Rept, Hq 42BW (1-30 Sep 56). See Exhibit # 2.
42. Ibid., Rept (1-31 Aug 56).
43. File, 42C, Hq 42BW, Memo For: Staff Members (Minutes of Staff Meetings), 3 Aug 56.
44. Monthly Analysis Rept, Hq 42 BW (1-30 Sep 56). See Exhibit # 2.

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Shortages found to be critical in the airmen ranks were in B-52 direct support skills (armament systems and aircraft engine maintenance).[45] Higher headquarters was informed of this important need by the wing commander on 8 October 1956, and by his wing personnel section on 30 September.[46] The wing was also short of officers in the armament field.[47]

Overages in the old B-36 direct support skills were being cross-trained into some of these AFSC shortages.[48] Also, ninety-six of the 125 initial input of B-52 qualified airmen personnel arrived in Sept. to increase the manning situation.[49] The major increase in authorization of B-52 manning slots came in from the 42d Field Maintenance Squadron--from 742 to 905 airmen, in August.[50]

---

45. Ref SAC B-52 UMD, Hq 42 BW. Also see Exhibit # 2, Monthly Analysis rept, Hq 42BW (1-30 Sep 56), 120-day projected losses.
46. Heavy Jet Bomb Air Tng Rept, Hq 42BW (1-30 Sep 56) RCS: 2-SAC-T12, Part V - Wing Commander's Remarks. See Exhibit # 3.
47. See Exhibit # 2, 120-day projected losses.
48. See Exhibit # 3, Part V, para 10c and 10d.
49. File , 42DP, Hq 42BW (Sep 56).
50. IAW 8th AF Msg, DPLM 67433, 17 Jun 56, Increase in Electrical and Hydraulic Shops.
51. Unit Hist Rept, 42DO, Hq 42BW (1-31 Aug 56 and 1-30 Sep 56). RCS: ISO-D2.

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THE MISSION AND ITS IMPLEMENTATION

Over-All Mission

The 42D Heavy Bomb Wing was activated, primarily, to administer a force capable of flying strategic bombardment operations in any part of the world.[1] In performing this task the latest technical knowledge and advanced weapons are utilized.[2]

In addition to long-range bombardment, air-to-air refueling is a part of the wing mission.[3] Other tasks of the wing, secondary in nature, are the training of assigned United Stattes Air Reserve personnel and/or units, and the participation by the wing in civilian emergencies, such as the assistance which might be rendered during a time of disaster.[4]

Aircrews and ground support units are constantly tested in their work in order to maintain a high degree of efficiency.[5]

Operations and Training

Wing Operations

The August period found the wing primarily concerned with the 1956 SAC Bombing and Navigation Competition, and with the welding of the ever-increasing number of B-52 aircraft at the station into an effective weapon. During the bombing competition for which Loring AFB acted as the host for the heavy division[6], one of the most oustanding records set was the maintenance record of "no ground aborts".[7] For the first time in the eight year history of the competitions there were no disqaulifications and every wing entry took off exactly on schedule.

1. 8th AF Reg 23-9, 1 Apr 54 as amended.
2. Ibid.
3. 8th AF Reg 23-9A, 2 Feb 55.
4. As outlined in 8th AF Reg 23-9.
5. Wing flies long-range simulated bomb missions IAW B-52 training commitments and as directed by opns orders from higher headquarters. Missions are related to EWP.
6. Exhibit # 4.
7. Interview by the authors with Major Arthur E. Magrill, Opns Hq 42d BW, 24 Oct 56.

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During the September period the activities of the wing were directed toward making the first B-52 crews combat ready. This called for increases in flying training, stepped-up ground training programs, and the planning of future missions. The greatest setback suffered by the wing program during this period came on the 18th of September, when all B-52s were ordered grounded.[8] This grounding was oredered to accomplish maintenance checks found necessary as the result of a B-52 accident at Castle AFB.

September also saw the last of the B-36s depart from Loring AFB. Crewing the aircraft enroute to its new station at Biggs AFB were three members of the original crew who flew the aircraft to Loring three years ago;[9] Major Arthur E. Magrill, Captain Willie G. Williams and First Lieutenant Thomas G. Loveland.

Wing Observer Functions During SAC BOMB/Nav Competition

One observer from the Wing Observer Section was assigned to work Closely with Armaments and Electronics and the wing competing observers in a liaison capacity during the bombing competition.[10] His purpose was to follow up any troubles experienced on the wing's competing aircraft, and to assist in any way possible bothe A&E and the competing observers. The wing observer section also set up the target study and mission planning facilities for the bombing competition with all necessary supplies and equipment, and worked in close conjunction with the Strategic Evaluation Group and the Eighth Air Force representative on this project. They also supplied visiting crews with target study facilities prior to the competition and offered target study supervision whenever it was desired.

8. See SAC MSG M4-1222267 19 Sep 56, also AMC MSG MCMTO 26 Sep 56.
9. See Exhibit # 5 (photo of General Martin and crew of B-36).
10. 42d DO Hist Rept Hq 42BW, 1-31 Aug 56.

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Projects and Developments

"Operation Benchwarmer"[11], the SAC Commander's Bombing Competition had to be postponed because of the grounding of the B-52 during that period. Further information on this competition will be included in a later history.

On approximately 15 May, 1956, the need for a complete MA6A In-Flight Maintenance Manual was realized. After 8th AF had been queried as to the availability of such a manual, and had stated that to their knowledge none was available, the Wing Observer Section in conjunction with the Tech Reps and the Bomb/Nav Systems officer commenced the preparation of this manual and completed it on 1 Sep '56.[12] On approximately the 7th of Sep, MA6A In-Flight Maintenance Manuals published by USAF were received from 8th AF. Certain errors and omissions were noted in the USAF Manual and consequently the 42d Bomb Wing IFM is now being used to make corrections and additions to the USAF IFM.[13]

Considerable trouble has been experienced by B-52 observers in picking up the KC-97 tanker beacon signals. In an attempt to pinpoint the trouble, questionnaires for both B-52 and KC-97 observers were prepared and distributed, with the request that said questionnaires[14] be completed after each mission.

Since the data presented in Appendix II, Tech Order IB-52-1 for determining the characteristics of a high performance turn in B-52 aircraft was considered too voluminous for efficiently computing degree of bank for gross weight and altitude during flight, a composite chart[15] was devised by the Wing Aircraft Performance Engineer Section.

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11. See Exhibit # 6 (42d Bomb Wg Opns Flimsy 225-56, Cmdrs Comp "Benchwarmer"
12. See Exhibit # 7 (MA6A In-Flight Main. Manual, Hq 42BW).
13. From 42 DO Hist Rept 1-30 Sep 56.
14. See Exhibit # 8 (B-52 and KC-97 Observers Check Lists).
15. See Exhibit # 9 (composite chart for .82 and .84 Mach.).

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This composite chart is expected to serve the purpose of the two charts in the tech order and will be used in making "Hi Jinks" turns as outlined in AF Interim Training Directive titled " Special Release Tactics" 1 Aug 56.

To establish a standard procedure for navigation while flying Grid Navigation, and until such time as 8th AF, SAC or USAF published a set procedure, an Operations Memo titled "Grid Navigation Procedures"[16], was published and distributed to the B-52 observers. Also included in this operations memo is an Emergency Procedure for Steering By Use of The Bomb/Nav System.

The wing also published a letter on the subject of "Fuel Management After Take-Off (B-52 Aircraft)[17], which directs changes to be made in the aircraft commander's and pilot's chack lists which will require the initiation of step 1, ("8% Mains ") of the normal fuel usage sequence immediately after take-off. The reason given for this is to prevent exceeding CG limit of 32%, which might happen if climb fuel is used only from the main tanks.

Flying Training

The 45th Air Division Director of Operations reported that forty-seven crews had finished B-52 training at Castle AFB, Calif., and were assigned to tactical wing squadrons on 30 September.[18]

All tactical squadrons excppt the 70th Heavy Bomb Squadron and the 42D Heavy Air Refueling Squadron, were training to upgrade the non-combat ready crews to combat ready.[19]

16. See Exhibit # 10 (Opns Memo # B35-2, Hq 42 BW)
17. See Exhibit # 11 (Ltr Hq 42BW, 42DOT4 "Fuel Management After Take-Off).
18. 45 AD Oplan 1-55, 8 Oct 55 , Rept of Dir of Opns.
19. IAW SAC Reg 50-43, 10 Oct 56. Also see exhibit # 12 (photos of tac sqdns 50-43 sched. Wing Control, dtd 31 Aug 56 and 30 Sep 56).

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The 70th was programmed to ferry the remaining B-36s from Loring through September.[20] The air refueling organization was just beginning the first month of their scheduled training quarter in September.[21]

None of the training priorities concerning B-52 aircraft were completed fully.[22] In September the B-52s were grounded.[23] Out of 638 flying hours programmed for non-combat ready crews in Sep., only 309 hours and forty-five minutes were accomplished.[24] In Aug., B-52 crews flew a combined total of only 434 hours and twenty-five minutes.[25]

The KC-97 aircraft in the wing flew a total of 755 hours in Sep.,[26] and 752 hours and fifteen minutes in Aug.[27] The wing ferried the last B-36 aircraft in Sep--the total ferrying period lasted thirty-two hours and forty minutes.[28] In Aug the wing spent 110 hours and forty-five minutes ferrying B-36s.[29]

Ground Training

Ground training activities within the wing returned more nearly to normal during the month of September (during August much of the classroom space was devoted to the use of other commands participating in the SAC Bomb/Nav Competition). Wing units however, did not push their block training programs as vigorously as they had in August, due probably to the fact that this was the first rather than the last month in a training phase.

---

20. Monthly Ops Plan, 42 BW, Sep 1956 (27 Aug 1956), Annex A, Par 2, Exhibit # 13.
21. Ibid. IAW SAC Reg 50-8, 16 May 1955
22. See Exhibit # 3, Part V- Wg Comdrs Remarks.
23. IAW SAC MSG M4-122267, 19 Sep 1956 and AMC MSG MCMTC, 26 Sep 1956.
24. See Exhibit # 3, Part V, Par 1a(1).
25. Rept of Acft Status and Purpose of Flt, Hq 42 BW (1-31 Aug 1956) RCS: 1-AFA1. See Exhibit # 14
26. Ref Air Tng Rept, Hq 42 BW (1-30 Sept 1956) RCS: 9-SAC-T12, Part V Sq Comdrs Remarks, also photos air ref combat crews and fly sched, Exhibit 15.
27. See Exhibit # 15
28. B-36 Air Tng Rept, Hq 42 BW (1-30 Sep 1956) RCS: 1-SAC-T12, Part V-Wg Comdrs Remarks. Also photos 70th BHS sched, Wg Control. See Exhibit # 16.
29. See Exhibit # 16.

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The goal for SAC Regulation 50-24 Phase III training during September was 33% of assigned non-crew strength, except for the air refueling unit whose members come within the scope of that directive. Non-aircrew training achievements for the wing ranged from zero tp sixty-two percent, averaging about twenty-seven percent. Thirty-six percent of the air refueling crew members received Phase III training. Training required by SAC Regulation 50-45 continued normally, with sixty crew members completing all or part of their block training assignments. Fifty crew members underwent a four-day refresher course in Special Weapons, and fifty-six attended a four-hour course concerning the "In-Flight Maintenance of the MA6A Bomb/Nav System".

The capability of the Mobile Training Detachment was considerably lessened by the transfer of their Electronics Section to Westover AFB the 19th of September. However, 109 students entered the Mechanical Training Section of MTD during the month and 104 completed this training.

A special course of eight hours of instruction in B-52 familiarization was attended by eighteen staff officers, sixteen of whom completed the course. These graduates are currently receiving an additional thirty-six hours of instruction in B-52 Cruise Control.

Quotas received for off-base schools were fully utilized during September. Ten airmen received Basic Altitude Indoctrination, and thirty-five crew members and maintenance personnel underwent refresher courses in Altitude Indoctrination. One quota for the Advanced Survival School at Stead AFB was Received and filled, while three persons attended the Radar Maintenance Upgrading Course.[30]

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30. From 42 Dir. of Opns Activities Rept, September 1956, Hq 42 BW.

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With respect to the Survival School, it was learned in August that only those who have never received this training may be scheduled to attend until this first of next year. Tactical bomb units are now closely screening all training records in order to verify the number of crew members who must be scheduled in the remaining months of 1956.

MAINTENANCE AND SUPPLY

B-52 Conversion

In-commission rate for the B-52 aircraft during August was fifty-four perecnt with a rise at the end of September to over eighty-seven percent.[1] There were no B-52 aircraft listed as out of commission for parts (AOCP) in either month.[2]

However, it was noted in the B-52 Conversion Progress Reports:[3]

> "Shortages of equipment, both 'Z' and Non-Z account items continue to restrict maintenance activities. For example, there is only one serviceableengine sling available though twenty-four are authorized."[4]

> "The publication of an AFSD to support the minor repair of J-57 engines has been further delayed. SAAMA originally agreed to publish the AFSD in July, In August, the publication date was established as the 15th of September; it has now been delayed to the 15th of October. As yet, the availability of an AFSD covering engine repair has not affected the progress; however, as the hours on engines increase, the availability of engine parts will become critical."[5]

The wing received ten new B-52 aircraft in August and five in September.[6] A total of twenty B-52s were assigned to Loring as of 30 Sept 1956.[7]

At the end of the reporting period, the unit authorized list (UAL) for the tactical squadrons was 89.9%; for the maintenance squadrons, 93.4%.[8]

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1. Rept of Acft Status and Purpose of Flt, Aug and Sep 1956, HQ 42BW, RCS: 1-AF-A1 See Exhibit #
2. Unit Hist Rept, 42DM (1-31 Aug 1956 and 1-30 Sep 1956) RCS: ISO-D2.
3. 45th AD Oplan 1-55, 8 Oct 1956, Sect II.
4. Ibid., Par 1a.
5. Ibid., par 2e.
6. Unit Hist Rept, 42DM (1-31 Aug 1956 and 1-30 Sep 1956) RCS: ISO D-2
7. 45AD Oplan 1-55, 8 Oct 1956, Sec II, para 1b.
8. Ibid., Para 2c.

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In August, the first B-52 periodic inspection was accomplished while being closely monitored and reviewed.[9] Considerable trouble was found with the armament and electronics phase of the inspection, which disrupted the normal schedule.[10]

9. Unit Hist Rept, 42d PMS (1-31 Aug 1956) RCS: ISO-D2

10. Ibid.

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ROSTER OF KEY PERSONNEL
AS OF 30 SEPTEMBER 1956

COMMANDER	DONALD E. HILLMAN	COLONEL
DEPUTY COMMANDER	WOODROW P. SWANCUTT	COLONEL
DIRECTOR OF OPERATIONS	DON W. BAILEY	COLONEL
DIRECTOR OF MATERIEL	GERARD G. WOLKE	COLONEL
DIRECTOR OF PERSONNEL	HARVEY N. SMITH	LT COL
COMDR, 42D TAC HOSP	VANCE H. MARCHBANKS	COLONEL
ADJUTANT	FRANK WIGGLESWORTH	MAJOR
COMDR, 69TH BOMB SQ	ROBERT R. SCOTT	LT COL
COMDR, 70TH BOMB SQ	JOHN R. RISHER	LT COL
COMDR, 75TH BOMB SQ	WALTER C. STEWART, JR.	LT COL
COMDR, 42D AIR REF SQ	WILLIE H. SONNTAG	MAJOR
COMDR, 42D A & E SQ	TOM B. STEWART	LT COL
COMDR, 42D FM SQ	GEORGE A. LINKO	LT COL
COMDR, 42D FM SQ	LORENZO CALIENDO	MAJOR

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LIST OF EXHIBITS

1. Organizational Chart
2. Monthly Analysis, Hq 42D BW - RCS: SAC - U54 (8 AF-1)
3. Heavy Jet Bombardment Air Tng Rept for Sep 1956, RCS: 2-SAC-T12
4. 1956 SAC Bomb/ Nav/ Reconn Comp Information Booklet
5. Photo of General Martin and crew of last B-36 to leave Loring AFB
6. 42D BW Opns Flimsy 225-56, Comdrs Comp " Operation Benchwarmer"
7/ MA6A In-Flight Maintenance Manual, Hq 42D BW
8. Questionnaires for B-52 and KC-97 observers
9. Composite Chart For .82 and .84 Mach.
10. Opns Memo Number B-35-2 "1525 Observers Grid Navigation Procedures"
11. Ltr Hq 42D BW " Fuel Management After Take-Off"
12. Photos of Tactical Squadrons 50-43 for Aug and Sep 1956
13. Monthly Opns Plan Hq 42D BW for Sep 1956
14. Rept of Acft Status, Hq 42D BW, 1 thru 31 Aug 1956 and Rept of Acft Status , Hq 42D BW, 1 thru 30 Sep 1956.
15. Refueling Air Training Report for Sep 1956, RCS: 9-SAC-T12, Hq 45th AD, and photos.
16. B-36 Air Training Report for Sep 1956, Hq 45th AD, RCS: 1-SAC-T12.

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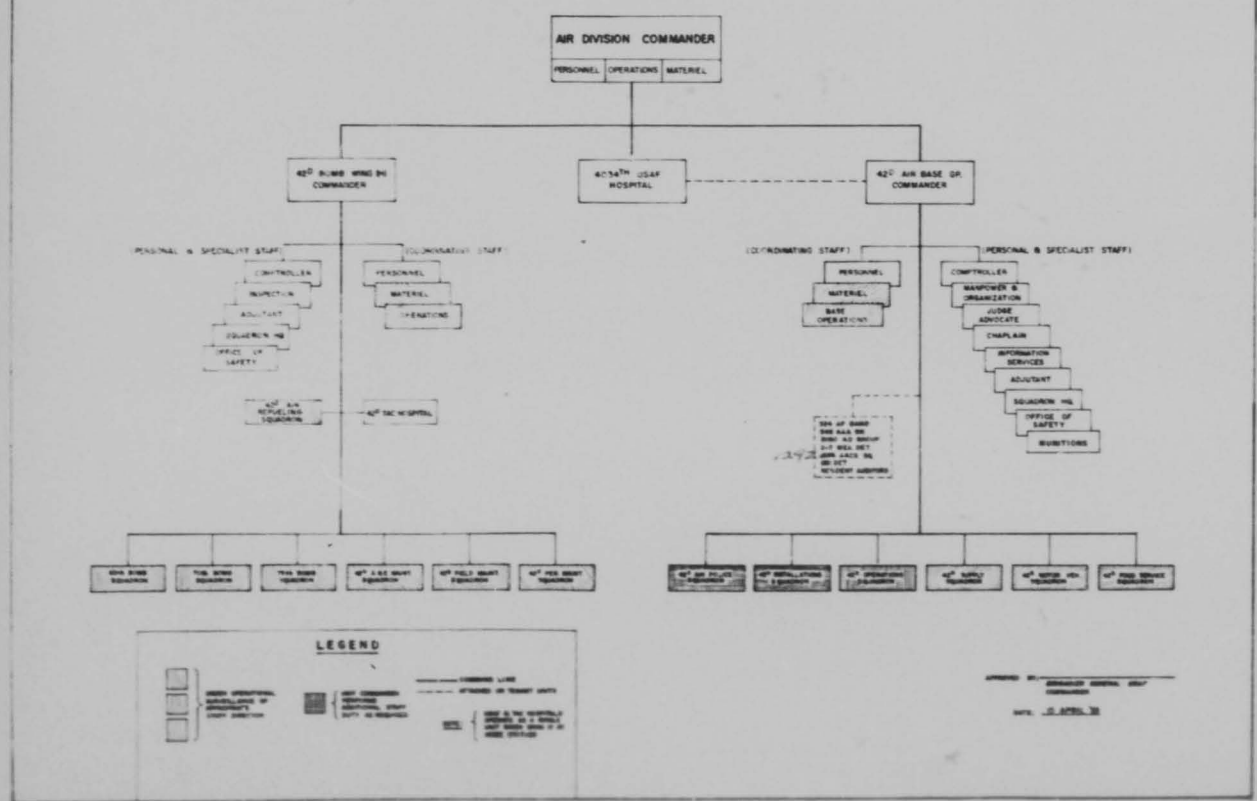
ORGANIZATION CHART

45TH AIR DIVISION



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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base, Maine

MONTHLY ANALYSIS - RCS: SAC - U54(8AF-1)

Personnel analysis showing current status, critical shortages of personnel, and other tabulations reflecting reason for loss of points in the SAC Management Control Statement.

A. PERSONNEL:

1. Manning in Required Specialties.

a. Officer Manning:

MONTH	AUTH	ASGD	% BODY MANNING	MIRS	%MIRS	% MIRS CHANGE	SAC RATING SCORE *
Jul	469	508	108	406	86.6	∮ 1.1	60
Aug	465	502	108	419	90.1	∮ 3.5	80
Sep	465	518	111	442	95.1	∮ 5.0	100

(1) Officers not Manned in Required Specialties as of 30 September:

UMD POSITION	GRADE, NAME, ORGN	PAFSC	DAFSC	REASON
Intel Photo-Radar Off	1Lt Chatman, 42BW 1Lt Biagiotti, 42BW	11240 7231	2041 2041	Directed Duty Directed Duty
Dep Director of Material	LtCol Etherington, 42BW	4316	4316	Position currently unauth. Request for UMD change submitted 28 Sep 56.
Personnel Off	1Lt Dickerman, 42BW	7321	7321	Off filling WO Position
Intel Off	1Lt Johnson, 42BW	2054	2054	DOS Oct 56
Acft Maint Off A cft Maint Off	1Lt Foley, 69 BMS 1Lt Peloubet, 75BMS	6421 4341	4341 4341	Directed Duty Directed Duty
Supply Off	1Lt Dow, 42FMS	4361	6421	DOS 13 Oct 56
Job Con Off	1Lt Pierson, 42BW	4351	4351	This non-rated officer is not MIRS because he is filling hte rated position of UR Officer in Quality Control, AFSC 4334 (Flight Test Maintenance Officer). He has effectively performed duty in the UR section for 14 months and his

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Hq, 42d Bombardment Wing (H) (SAC), L ring Air Force Base, Maine, Subj: Monthly Analysis - RCS: SAC - U54(8AF-1)

UMD POSITION	GRADE, NAME, ORGN	PAFSC	DAFSC	REASON
DOS is June 57; therefore it is considered advisable that he continue to fill this position until a better qualified replacement becomes available.				
OIC Propulsion Branch	Capt O'Neal, 42FMS	1234A	4341	Off filling WO Position
Air Ops Off	Maj Hume, 42 BW	1416	1435	Off TDY at Intcp Contr Tng. Upon compl he will be rsgd to ADC
Navigator KC-97	2Lt White, 42 ARS	1531A	1521P	Off susp from fly status pending final decision of FEB action which was forwarded 21 Sep 56
Gen Med Off	Capt Frascati, 42TH	9326	9326	Officers do not have professional tng to be assigned to auth medical specialist positions
	Capt Schain, 42TH	9326	9326	

Crew - The following officers are former B-36 crew members (except 3 ECM officers who did not receive B-52 training for reasons indicated) who cannot be effectively assigned to any authorized vacancies and whose status is indicated.

STATUS	PILOTS	OBSERVERS	ENGINEERS	ECM	TOTAL
Awaiting DOS	1	8	5	2	16
Pending EDCSA	3	2	2		7
Awaiting assignment instructions	4	2	2		8
Awaiting pilot training		5	5		10
Pending board action		1		1	2
SEP	8	18	14	3	43
AUG	20	21	16	12	69
JUL	20	21	16	12	69

The following officers who were trained on staff or overage crews are excess to current authorizations but will be used in implementing the 1.6 ratio in November and/or as replacements for 1 observer and 4 ECM operators currently assigned crews who have DOS prior to June 57.

ECM Officers 9
Observers 10

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Hq, 42d Bombardment Wing (H) (SAC), Loring AFB, Me, subj: Monthly Analysis - RCS: SAC - U54(8AF-1)

SUMMARY OF NON-CREW OFFICERS NOT MIRS JULY THRU SEPTEMBER

AFSC	TITLE	JUL	AUG	SEP	REASON
1435	Air Operations Off			1	PCS to ADC after compl of Intcp Contr Tng
1521P	Acft Obsr, T-33-97		1	1	FEB Board
2044	IntelPhoto-Radar Off	1	1	2	Directed Duty
2054	Intel Off	2		1	DOS Oct 56
4316	Acft Maint Staff Off		1	1	UMD Positions Requested 28 Sep 56
4344	Acft Maint Off	1	3	3	(2) Directed Duty (1) WO Position
4351	Job Control Off			1	Non-rated Off filling Rated Position. DOS Jun 57
4361	Fab and Repair Off	2			
6424	Supply Off		1	1	DOS 13 Oct 56
7024	Administrative Off	1			
7324	Personel Off	1	2	1	Off filling WO Position DOS Dec 56
7351	Ground Safety Off	1			
9326	General Medical Off	5	5	2	Off's do not have Professional Tng to be asgd auth positions
43100	Acft Maint Supt	1			
	TOTAL	15	14	14	

(2) Critical Officer Shortages Requiring Action by higher headquarters.

The following 120 day projected critical shortages of officers are furnished higher headquarters for programming purposes to improve manning in required specialties in the most critical areas only but do not include all projected officer shortages.

AFSC	TITLE	AUTH	ASGD	PROJECTED (120 DAYS) GAINS	LOSSES	%MANNED
3234	Armament Systems Off	5	2	1		60
3244	Armament Oper Off	4	3		1	50
4334	Flight Test Maint Off	4	1	1		50
6424	Supply Off	11	11		1	* 91
9356	Med Off, Aviation Med	5	4			80
9446	Otolaryngologist	1	0			0
9636	Radiologist	1	0			0
9716	Nurse, Administrative	1	0			0
9836	Oral Surgeon	1	0			0

*AFSC 6424 critical because 2 of asgd officers are entry level.

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b. Airmen Manning

DIRECT SUPPORT MONTH	AUTH	ASGD	% BODY MANNING	MIRS	% MIRS	% MIRS CHANGE	SAC RATING SCORE
Jul	1894	1786	94.3	1152	62.9	+07.7	10
Aug	1894	1827	96.4	1235	65.2	+02.3	10
Sep	1898	1931	101.7	1383	72.8	+07.6	10
INDIRECT SUPPORT							
Jul	611	675	110.5	376	61.5	-01.4	10
Aug	611	666	109.0	435	71.2	+09.7	10
Sep	615	609	99.0	385	62.6	-08.6	10

Reasons For Loss Score:

(1) SUMMARY OF AIRMEN NOT MANNED IN REQUIRED SPECIALTIES

	JUL	AUG	SEP
010's in excess of helper level positions			25
010's training in position w/o vacancy			9
3 level airmen on OJT-C for the 5 level where no vacancy exists			106
3 level airmen on OJT-C for the 5 level where vacancy exists			248
3 level airmen on OJT-C for the 7 level (no 5 level) where vacancy exists			2
3 level airmen on OJT-D to career fields where vacancy exists at higher skill level			4
5 level airmen not on any type of OJT due to maximum manning at 7 level			110
5 level airmen on OJT-C for 7 level where no vacancy exists at lower skill level			100
5 level on OJT-D to authorized career fields where vacancies exist at 7 level			22
7 level airmen not on any type of OJT and cross training prohibited by Project Guidance			55
Airmen in unauthorized AFSC's which cannot be cross-trained due to Project Guidance			91
TOTAL AIRMEN NOT MIRS	937	823	772

Asm asgd (2540) - Asm MIRS (1768) - 772 Total Asm not MIRS

(2) Critical Airman Shortages Requiring Action by Higher Headquarters.

The following 120 day projected critical shortages of airmen are furnished higher headquaters for programming purposes to improve manning in required specialties in the most critical areas only, but do not include all projected airmen shortages.

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AFSC	AUTH	SEP UAFSC	AUG UAFSC	% OF CHANGE	PROJECTED 120 DAYS LOSSES	GAINS	% MANNED
32170K	4	0	0	00.0	0	0	00.0
323X0Q	58	17	17	00.0	0	0	24.3
323X1Q	46	37	22	↓32.6	2	0	76.0
431X1X	630	358	295	↓10.0	3	0	56.3*
432X0	205	168	145	↓11.2	0	29	96.1

*See Footnote

(3) Skill level distribution

DIRECT SUPPORT	42BX	7 LEVEL	5 LEVEL	3 LEVEL	010
[redacted]	1898	475	1063	360	0
ASGD	1931	383	1068	461	19
PERCENTAGES	101.7	80.7	100.5	128.4	
INDIRECT SUPPORT					
AUTH	615	88	399	125	3
ASGD	609	83	238	220	68
PERCENTAGES	99.0	94.3	59.6	176.0	

(4) Grade level distribution

DIRECT SUPPORT	42BX	MSGT	TSGT	SSGT	A1C	A2C	A3C	AB
AUTH	1898	270	205	449	614	360	0	0
ASGD	1931	154	183	278	475	643	173	25
PERCENTAGES	101.7	57.0	89.3	61.9	77.4	178.6		
INDIRECT SUPPORT								
AUTH	615	42	46	199	201	124	3	0
ASGD	609	36	33	83	88	230	124	15
PERCENTAGES	99.0	85.7	71.7	41.7	43.8	185.5		

(5) Losses by Primary AFSC during Sep

LOSSES	3 LEVEL	5 LEVEL	7 LEVEL	TOTAL
Discharged	3	36	5	44
Transfered	3	6	3	12
Total this month	6	42	8	56
Total this year	116	576	148	840
Average monthly loss	13	64	16	93

(PROJECTED 120 DAYS)

LOSSES	3 LEVEL	5 LEVEL	7 LEVEL	TOTAL
	7	67	15	89

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(PROJECTED 120 DAYS CONT'D)

GAINS:	3 level	5 level	7 level	Total
	56	22	4	82

NET GAINS OR LOSSES:

	3 level	5 level	7 level	Total
	+ 49	- 45	- 11	- 7

(6) LOCAL ACTION TO IMPROVE MANNING—

(a) 860 airmen on OJT of 860 eligible

(b) Test results and upgrading action.

1. Air Force Job Knowledge Test

	Last Quarter	Jul	Aug	Sep	This Quarter
Number eligible for testing	306	58	56	66	180
Number tested	115	18	43	10	71
Number passing tests	105	15	35	8	58
Number upgraded to 3 level	88	29	31	9	69
% passing test	91.3	83.3	81.4	80.0	81.6
Average % passing test to date this year	98.7	91.2	93.5	88.8	
Number passing test but not yet upgraded	17	3	7	6	16

2. Airman Proficiency Tests

	Last Quarter	Jul	Aug	Sep	This Quarter
Number eligible for testing	171	402	44	191	637
Number tested	129	296	36	146	571
Number passing tests	101	247	16	___*	208
Number upgraded to 5 level	111	74	9	85	168
Number upgraded to 7 level	19	3	4	7	24
% passing tests	91.3	83.3	81.4	80.0	___*
Average passing tests to date: this year	72.9	77.1	75.6	___*	___*
Number passing tests but not yet upgraded:		241	244	142	

*Sep test results not received

NOTE: Continued difficulty in getting a larger percentage of eligible airmen tested results from unwillingness of individual to take test, non recommendation by supervisor and continued failure of unit commanders to support testing program. Effective in October, Base Personnel will indentify all airmen eligible for testing (previously only airmen eligible for APT were identified) and will require squadrons to have individual sign roster indicating his unwillingness to be tested, have supervisor indicate whether or not he feels each individual is qualified to be tested and have Squadron Commander review and sign entire roster. It is anticipated that this procedure will better enable the Commander to be familiar with the number of

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Airman Proficiency Tests cont'd

personnel of his unit not being tested and the reasons.

a. The table below shows the shortages in each squadron in meeting the USAF goal of 10% upgrade training each month of all airmen in the program. Cumulative shortages in Column 10 are the product of the number of months considered and the difference between Column 7 (Monthly Average Number Upgraded) and Column 8 (10% of number in training as listed in Column 2.)

SQUA[redacted]RTAGES IN MEETING USA[redacted]AL OF 10% UPGRADE TRAINING

1	2	3	4	5	6	7	8	9	10
	NO. IN PROGRAM		PERCENTAGE	NUMBER UPGRADED			USAF REQUIREMENTS		
UNIT	TOTAL	OVER 5 MOS	OVER 5 MOS	THIS MONTH	TO DATE	MONTHLY AVERAGE	10% OF NO IN TRNG	SHORTAGES MONTHLY	SHORTAGES TO DATE
Mr Hq Sq	51	24	47.1	3	76	8.4	5.1	00.0	00.0
69 BMS	62	16	25.8	0	23	2.5	6.2	3.7	33.3
70 BMS	83	31	37.3	0	19	2.1	8.3	6.2	55.8
75 BMS	68	20	29.4	15	33	1.6	6.8	3.2	28.8
42 ABS	69	39	61.9	8	28	3.1	6.3	5.2	28.8
42 FMS	323	94	29.0	44	228	25.3	32.3	7.0	63.0
42 FMS	71	10	14.1	35	53	5.8	7.1	1.3	11.7
42 AEMS	92	46	50.0	6	179	19.8	9.2	0.0	00.0
HOSPITAL	47	33	70.2	0	68	7.5	4.7	0.0	00.0
42 BW	860	313	36.3	111	707	78.5	WING TOTAL		221.4

b. The adequacy of the OJT program in those squadrons showing a cumulative shortage in Column 10 of the above table must be correlated with the percentage of body manning and the effective manning and the percentage of airmen in the program over 5 months.

1	2	3	4	5	6	7	8
					% BODY	% ON OJT	
UNIT	AUTH	ASGD	MENS	% MENS	MANNED	OVER 5 MOS	REMARKS
Mr Hq Sq	164	175	96	58.5	106.7	47.1	
69 BMS	161	155	84	51.5	95.0	25.8	
70 BMS	161	171	88	53.9	104.9	37.3	
75 BMS	161	155	102	62.6	95.0	29.4	
42 ABS	220	190	145	65.9	86.4	61.9	
42 FMS	987	889	666	71.4	98.0	29.0	
42 FMS	273	223	172	63.0	81.7	14.1	
42 AEMS	345	453	240	69.5	131.0	50.0	
HOSPITAL	115	129	95	82.6	112.1	70.2	
42 BW	2513	2540	1688	67.2	101.0	36.3	

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4. Summary of Results:

NUMBER OF AIRMEN ON OJT AND UPGRADE BY MONTHS IN WING

IN PROGRAM	JUN	JUL	AUG	SEP	
TOTAL	920	898	902	860	
1 Month	126	118	116	77	
TOTAL	794	780	786	783	
2 Months	230	117	107	131	
TOTAL	564	663	679	652	
3 Months	115	221	97	85	
TOTAL	449	442	582	567	
4 Months	[redacted]	105	202	88	
TOTAL	310	337	380	479	
5 Months	56	116	86	166	DIV AVERAGE PERCENTAGES JAN-SEP
OVER 5 Months	254	221	294	313	
% of total Now in Program	27.6	24.6	32.6	36.4	27.26
% Not Upgraded After 5 Months	34.2	28.4	33	39.7	34.4
No. Upgraded This Month	52	68	49	111	
% Upgraded	5.7	7.4	5.5	12.3	9.87
Wg Average % Upgraded Monthly	9.28	9.02	8.58	8.88	
Div Average % Upgraded Monthly	11.29	10.46	10.11	9.87	

2. AWOL Rate:

	Last Quarter	Jul	Aug	Sep
Number of AWOL's	4	4	4	3
Strength	2358	2643	2687	2753
Monthly Rate	1.69	1.51	1.48	1.09
Quarterly Rate	.81	1.36	1.36	1.36
% of Score	100	100	100	100
Score	30	30	30	30

3. Reenlistment Rate:

	Last Quarter	Jul	Aug	Sep
Number Eligible	195	73	77	65
Number Reenlisting	29	18	14	20
Loring Reenlistments	29	16	14	18
% of Score	30	30	20	30
Score	12	15	10	12

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PERSONNEL STATUS - AIRMAN

		HQ 42 BW AUTH / ASGD	69TH AUTH / ASGD	70TH AUTH / ASGD	75TH AUTH / ASGD	42 AREFS AUTH / ASGD	FMS AUTH / ASGD	PMS AUTH / ASGD	A&E AUTH / ASGD	TAC HOSP AUTH / ASGD	TOTAL AUTH / ASGD
BODY MANNING	D	46 / 48	136 / 129	136 / 162	136 / 127	167 / 160	768 / 740	246 / 203	263 / 382	0 / 0	1898 / 1931
	I	118 / 127	27 / 26	27 / 29	27 / 28	53 / 30	139 / 149	27 / 20	82 / 71	115 / 129	615 / 609
EFFECTIVE MANNING	D	46 / 27	136 / 72	136 / 77	136 / 86	167 / 125	768 / 584	246 / 160	263 / 184	0 / 0	1898 / 1315
	I	118 / 69	27 / 12	27 / 11	27 / 16	53 / 20	139 / 82	27 / 12	82 / 56	115 / 95	615 / 373
SKILL LEVEL DISTRIBUTION 7	D	42 / 37	58 / 38	58 / 33	58 / 30	94 / 62	75 / 97	28 / 33	62 / 53	0 / 0	475 / 383
	I	35 / 29	5 / 8	5 / 5	5 / 5	5 / 2	14 / 17	3 / 3	11 / 9	5 / 5	88 / 83
5	D	4 / 11	51 / 73	51 / 77	51 / 65	51 / 66	542 / 585	148 / 107	163 / 284	0 / 0	1063 / 1068
	I	65 / 37	16 / 7	16 / 8	16 / 12	41 / 14	99 / 46	21 / 8	54 / 37	71 / 69	399 / 238
3	D	0 / 0	27 / 17	27 / 32	27 / 31	22 / 32	151 / 243	70 / 61	36 / 45	0 / 0	360 / 461
	I	18 / 49	6 / 10	6 / 11	6 / 9	6 / 6	26 / 62	3 / 6	17 / 21	37 / 46	125 / 220
2/0	D	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 15	0 / 0	0 / 0	0 / 0	0 / 15
	I	0 / 10	0 / 1	0 / 1	0 / 0	1 / 5	0 / 21	0 / 3	0 / 2	2 / 1	3 / 44
1/0&W	D	0 / 0	0 / 1	0 / 0	0 / 1	0 / 0	0 / 0	0 / 2	0 / 0	0 / 0	0 / 4
	I	0 / 2	0 / 0	0 / 1	0 / 2	0 / 3	0 / 3	0 / 0	0 / 2	0 / 8	0 / 21

AF FORM 757
8 Feb 56

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RANK DISTRIBUTION - AIRMAN

		HQ 42 BW		69TH		70TH		75TH		42 AREFS		FMS		PMS		A&E		TAC HOSP		TOTAL	
		AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD
M/SGT	D	22	25	37	18	37	15	37	12	73	31	29	30	11	8	24	15	0	0	270	154
	I	18	15	3	3	3	2	3	2	3	0	6	5	1	2	4	6	1	1	42	36
T/SGT	D	20	11	21	19	21	14	21	16	21	33	46	47	17	16	38	27	0	0	205	183
	I	17	10	2	1	2	3	2	2	2	2	8	7	2	1	7	3	4	4	46	33
S/SGT	D	2	4	31	16	31	22	31	30	26	19	193	107	61	33	74	47	0	0	449	278
	I	39	13	8	8	8	5	8	3	35	5	39	28	8	2	17	7	37	12	199	83
A/1C	D	2	6	20	42	20	40	20	31	25	25	349	199	87	42	91	130	0	0	614	475
	I	26	10	8	3	8	4	8	7	5	6	62	16	13	1	37	15	34	26	201	88
A/2C	D	0	2	27	27	27	43	27	24	22	39	151	292	70	68	36	148	0	0	360	643
	I	18	51	6	7	6	7	6	10	7	9	24	43	3	10	17	28	37	65	124	230
A/3C	D	0	0	0	6	0	8	0	11	0	10	0	91	0	36	0	11	0	0	0	173
	I	0	27	0	4	0	7	0	3	1	8	0	43	0	4	0	11	2	17	3	124
A/B	D	0	0	0	1	0	0	0	3	0	3	0	14	0	6	0	4	0	0	0	85
	I	0	1	0	0	0	1	0	1	0	0	0	7	0	0	0	1	0	4	0	15
TOTAL	D	46	48	136	129	136	142	136	127	167	160	768	740	246	203	263	[illegible]	0	0	1898	1831
	I	118	127	27	26	27	29	27	28	53	30	139	149	27	25	82	91	115	129	615	[illegible]

BW Form 173
8 Feb 65

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1. Officer Manning

a. Quarterly Trend

MONTH	AUTH	ASGD	% BODY MANNED	MIRS	NOT IRS	% MIRS	SAC RATING SCORE
Jun 56	471	522	111	400*	120*	85.5%*	50
Jul 56	469	508	108	406*	100*	86.3*	60
Aug 56	465	502*	10[illegible]*	419*	83*	90.2%*	80

* Computed less Warrant Officer authorizations and assigned

b. Current Manning Status by Unit

SQUADRON	AUTH	ASGD	% BODY MANNED	MIRS	NOT MIRS	% MIRS
Hq 42BW	66	65	98.5	61	4	92.5
69 BHS	82	91	111	71	20	86.6
70 BHS	82	82	100	66	16	80.5
75 BHS	82	117	142.7	82	35	100
42 ARS	98	98	100	97	1	99
42 FMS	7	8	114.3	7	1	100
42 PMS	4	5	125	4	1	100
42 AFMS	10	8	80	8	0	80
42 TAC HOSP	34	28	82.4	23	5	67.7
42 BW TOTAL	465	502	108	419	83	90.2

c. Identification of Officers not assigned in Required Specialties:

AFS	PAFSC	DAFSC	GR NAME	ORGN
Intell Photo-Radar Officer	7231	2041	1/Lt Biagiotti	42BW

Officer is overage in this field with a directed duty assignment. No other officer can be transferred from this specialty that would increase the effective manning of the Wing.

Acft Maint Staff Officer	4316	4316	L/C Etherington	42BW

Officer is filling an unauthorized position. Wing is already over or full in the related position of 4344, and officer is non-rated; therefore, cannot hold 4334 position in which there is a shortage.

Personnel Officer	1525A	7324	Capt. Brown	42BW

Officer is overage but being transferred PCS on 45th ADiv SO 177, Par 21, with EDCSA 7 Sep 56. His primary of 1525A already has an overage of 21.

Personnel Officer	7321	7321	1/Lt Dickerman	42BW

Officer is filling an authorized warrant officer position but cannot be computed as effectively manned. With the loss of 1/Lt Shuman, Parl, SO 174, with EDCSA 6 Sep 56, and Capt Hofacker TDY until Nov 56 the Wing will have 4 officers present for duty against 6 authorized positions---two of whom are at the entry level.

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Acft Maint Officer	6421	4341	1/Lt Foley	69BMS
Acft Maint Officer	4341	4341	1/Lt Pelcubet	70BMS

Above officers are recent graduates of the maintenance course at Chanute AFB and are non-rated; therefore, cannot be assigned against our 4334 shortage.

Supply Officer	4361	6421	1/Lt Dow	PMS

Officer has DOS of 13 Oct 56 and can best be utilized in the supply field. All other positions for which he is qualified are either not authorized or filled.

Acft Maint Officer	4344	4344	Capt Sherry	PMS

Officer is overage but being reassigned on 45th ADiv SO 177, Par 16, with EDCSA 7 Sep 56. Officer is non-rated; therefore, cannot be assigned against the shortage of 4334.

Acft Obsr, KC-97	1521A	1521P	1/Lt Pennington	ARBFS

Officer is overage but being reassigned on 45th ADiv SO 177, Par 20, with EDCSA 19 Sep 56.

Medical - Five Ineffectives

The following officers are holding crew positions on the B-36 or B-52 and cannot be computed effective because of the B-52 Manning Document or lack of a corresponding shortage in another squadron. Staff work is being completed to reduce this number to a bare minimum upon ferry of the last B-36 to its new station. When these transfers are completed the only overages left in this category will be individuals with a DOS too soon to economically transfer or individuals with an approved pilot application awaiting entry into training. Some of the latter may also be lost if our request to transfer the flight engineers in this category to prevent their loss of flight pay is approved by Headquarters SAC.

Pilots	20
Observers	21
Flight Engineers	16
ECM Officers	12
	69

d. The following shortages contribute tolow effective manning as overages cannot be applied because of AFSC qualifications:

Presently effectively manned:		419
Shortages:		
Pilots-1245	25	
Pilots-1236	1	
Operations Officer-1435	1	(To be filled by Maj Edenbo)
Armament Systems Officer-3234	3	
Flight Test Officer-4334	3	(One to be filled by Capt Hedin)
Supply Officer-5424	1	
*Armament Operations Officer- 3244	1	
TAC Heap	11	
TOTAL Shortages	46	
TOTAL Authorized		465

* Critical Shortage

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The following Warrant Officers positions are not computed in the Effective Manning, however they are authorized on our UMD:

1 - Armament Superintendent-32000	Short
1 - Personnel Superintendent-73000	Short
1 - Acft Maint Superintendent-43100	Filled

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MANNING BY CAREER FIELDS AS OF 31 AUG 56

CAREER FIELD	DESCRIPTION	NO AUTH	NO ASGD	% MANNED	PROJ LOSSES 4 MONTHS	GAINS 4 MONTHS	% MANNED 4 MONTHS
0002	Gen Officer	1	1	100%			100%
0016C	Dir of Personnel	1	*1	100%			100%
0036C	Dir of Operations	1	1	100%			100%
0046C	Dir of Material	1	1	100%			100%
0056C	Comptroller	1	*1	100%			100%
0066A	Squadron Commander	4	2				
0066C	Dep Wing Commander	1	*2 1	100% 100%			100% 100%
1234A	Pilot, B-36	0	11				
1245	Pilot, B-52	92	* 9 16		7		
1234C	Pilot, KC-97	60	*50 41	72%		4	76%
1416	Opns Staff Officer	11	*18 3	98%	2	1	97%
1435	Air Opns Officer	11	*8 6	100%			100%
1525A	Acft Obsr, Nav-Obsr B-52, B-36	100	*4 69	91%	1		82%
1525P	Acft Obsr, Nav-Bomb KC-97	31	*52 1	121%	17	8	112%
2016	Intell Staff Officer	2	*31 *1	103% 50%	1	 1	100% 100%
2044	Intell Photo-Rad Off	2	1				
2054	Intell Officer	4	*2 1	150%		1	200%
3016	Comm-Elect Staff Off	1	*4 1	125% 100%	1		100% 100%
3024	ECM Officer	47	15				
3054	Air Electronics Off	1	*44 *1	125% 100%	3	7	134% 100%
32000	Armament Supt	1					
3216	Armament Staff Officer	3	1				
3234	Armament Systems Off	5	*2 *2	100% 40%			100% 40%

* Denotes Entry Level AFSC

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CAREER FIELD	DESCRIPTION	NO AUTH	NO ASGD	% MANNED	PROJ LOSSES 4 MONTHS	GAINS 4 MONTHS	% MANNED 4 MONTHS
3244	Armament Opns Off	4	2				
			*1	75%			75%
43100	Acft Maint Supt	1	1	100%			100%
4316	Acft Maint Staff Off	6	3				
			*4	117%			117%
4324	Acft Perf Eng	5	19				
			*2	420%	9		240%
4334	Flt Test Maint Off	4	*1	25%			25%
4344	Acft Maint Off	7	4				
			*6	143%	1		129%
4355	Production Control Off	3	*3	100%			100%
6416	Supply Staff Off	1	1	100%			100%
6424	Supply Officer	10	8				
			*2	100%	1		90%
6746	Management Analysis Off	1	*1	100%			100%
7024	Administrative Off	5	1				
			*5	120%	1	1	120%
7324	Personnel Officer	4	2				
			*3	125%	3		50%
73000	Personnel Supt	1					
7354	Grnd Training Officer		*1				
8616	Aero Engineer	1	*1	100%		1	200%

* Denotes Entry Level AFSC

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(42D TAC HOSP)

CAREER FIELD	DESCRIPTION	NO AUTH	NO ASGD	% MANNED	PROJ LOSSES 4 MONTHS	GAINS 4 MONTHS	% MANNED 4 MONTHS
9025	Medical Serv Admin	2	1				
			*1	100%			100%
9034	Medical Supply Off	1	*1	100%	1		
9124	Sanitary & Hygiene Eng		1				
9316	[redacted] Staff Off	1	2	200%			200%
9326	Medical Off, General		2				
9356	Medical Off, Aviation	5	3	60%	3		
9386	Internist	1	1	100%			100%
9416	General Surgeon	1	1	100%			100%
9446	Otolerygologist	1					
9636	Radiologist	1					
9716	Nurse, Admin	1					
9734	Nurse, Operating Room	1	1	100%			100%
9744	Nurse, Anethetist	1					
9754	Nurse, General	12	8				
			*1	75%	1		67%
9826	Dental Off, General	4	3	75%			75%
9836	Oral Surgeon	1					
9856	Prothodentist	1	1	100%			100%
9926	Veterinary Off, General		1				
		468	503	108%	47	24	102%

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2. Airmen:

a. The following are shortages of airmen direct support skills under the 45 aircraft B-52 UMD. These shortages are reported to higher headquarters in the SAC Management Control Statement. They include:

AFSC	AUTH	ASGD
32170K	4	0
323X0G	58	17
323X1G	46	22
431X1E	630	295
432X0	205	145

b. Overages in the following B-36 direct support skills are being cross-trained into the above listed shortages:

AFSC	OVERAGE	CROSSTRAIN TO
323X0A	34	323X0G
323X0B	44	
323X1A	7	323X1G
323X1B	21	
423X1	11	323X1G
431X1B	82	431X1E

c. Ninety-five (95) of the 125 initial input have arrived to increase the assigned B-52 qualified personnel. Lower skill level airmen are being placed on OJT immediately upon assignment. Seven level airmen are performing the duties of instructors in the OJT program.

d. The following leveling action will take place within the wing during the month of September:

(1) Thirty-six (36) 421X2 and forty-three (43) 423X0 are being re-assigned from the Bomb Sqs to 42d FMS. This action is necessary due to the recent UMD changes.

(2) Thirty-seven (37) surplus 432X1 in the Bomb Sqs are being reassigned to the 42d AMEWS, 42d FMS, 42d PMS and base flight.

e. Coordination with Direct rate of Personnel, Air Base Group indicates no leveling action is warranted between wing and group during the month of September.

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f. Airman Manning

(1) Quarterly Trend:

(a) Direct Support Skills:

MONTH	AUTH	ASGD	% BODY MANNED	MIRS	NOT IRS	% IRS
JUNE	2148	1779	82.8	1185	594	55.2
JULY	1894	1786	94.3	1192	594	62.9
AUGUST	1894	1827	96.4	1235	592	65.2

(b) Indirect Support Skills:

MONTH	AUTH	ASGD	% BODY MANNED	MIRS	NOT IRS	% IRS
JUNE	632	677	107.1	398	279	62.9
JULY	611	675	110.5	376	299	61.5
AUGUST	611	666	109.0	435	231	71.2

(2) Current Manning Status By Units:

(a) Direct Support Skills:

SQUADRON	AUTH	ASGD	% BODY MANNED	MIRS	NOT IRS	% IRS
Hq 42BW	44	44	100	23	21	52.2
69 BHS	136	126	92.6	54	72	39.7
70 BHS	136	158	116.3	54	104	39.7
75 BHS	136	190	139.7	83	107	61
42 ARKFS	167	143	85.3	118	25	70.7
42 FMS	766	604	78.8	520	84	67.9
42 PMS	246	177	67.8	134	43	54.5
42 A&E	263	385	146.3	180	205	68.4
TAC HOSP	0	0	00.0	0	0	00.0
42 BW	1894	1827	96.4	1235	592	65.2

Direct Support Skills include the 30, 32, 33, 42, 43 career fields and AFSC 472X0 and 534X0 as prescribed by SAC Technical Pamphlet 170-1, dated 1 May 1956.

(b) Indirect Support Skills:

SQUADRON	AUTH	ASGD	% BODY MANNED	MIRS	NOT IRS	% IRS
Hq 42BW	117	131	111.8	73	58	62.4
69 BHS	26	31	119.2	15	16	57.7
70 BHS	26	29	111.5	9	20	34.6
75 BHS	26	31	119.2	15	16	57.7
42 ARKFS	53	35	66	26	9	49
42 FMS	139	183	131.6	85	98	61.2
42 PMS	27	22	81.4	9	13	33.3
42 A&E	80	70	85.3	56	14	60.3
TAC HOSP	115	134	116.5	111	23	96.5
42 BW	611	666	109	435	231	71.2

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(3) Identification of airmen who are not assigned in required specialties and/or do not possess authorized AFSC. Ineffective (823).

(a) Assigned personnel possessing unauthorized AFSC (157). Included are the following AFSC:

AFSC	OVERAGES	ACTION
323X0A	34	Airmen are projected for cross-training to AFSC 323X0G shortages. Project Guidance waivers will be submitted where necessary.
323X0B	44	
323X1A	7	16 airmen have been declared surplus. Remainder are cross-training to AFSC 323X1G or have short DOS.
323X1B	21	
423X1	11	7 airmen have been declared surplus. Remainder are crosstraining to AFSC 323X1G or have short DOS.

(b) Overages in lower skill levels in which there are vacancies at the higher skill levels (507). Included are the following AFSC:

AFSC	OVERAGES
301X1A	33
321X0E	65
323X1G	26
423X0	65
431X3	21
472X0	25
534X0	20
641X1	31
702X0	46

1 Number of 010 level airmen (included in the above figure):

ASVD	TRAINABLE	LOW APTITUDE
103	75	28

(c) Overages in authorized career fields (159). Included are the following AFSC:

AFSC
301X0A
431X1B
423X0E
552X0
552X1
702X0
732X0

(4) Airman Status:

(a) AWOL Rate:

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**Average Daily Strength	AWOL	RATE	SQUADRONS
2463	3	1.21%	75BHS - 1 42A&E - 1 TAC HOSP - 1

(b) Reenlistment Rate:

Eligible to reenlist	77
Total number reenlisting	14
Reenlisting for LAFB	14
Total Rate (Aug)	18.2%
Rate for LAFB (Aug)	18.2%

** Average daily strength derived by Statistical Control section of Air Base Group.

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RANK DISTRIBUTION - AIRMAN

		HQ 42 BW		69TH		70TH		75TH		42 AREFS		FMS		PMS		A&E		TAC HOSP		TOTAL	
		AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD	AUTH	ASGD
M/SGT	D	24	24	37	10	37	10	37	10	73	23	29	21	11	7	24	12	0	0	272	117
	I	18	16	3	3	3	2	3	3	3	2	6	9	1	2	4	7	1	1	42	45
T/SGT	D	20	10	21	14	21	15	21	11	21	34	46	45	17	15	38	25	0	0	205	169
	I	15	10	2	2	2	1	2	3	2	2	8	6	2	1	7	3	4	4	44	32
S/SGT	D	0	4	31	13	31	19	31	31	26	19	184	80	61	27	74	37	0	0	448	230
	I	40	9	8	8	8	6	8	8	35	7	39	28	8	3	17	7	37	12	200	88
A/1C	D	0	3	20	39	20	46	20	43	25	21	348	117	87	43	91	109	0	0	611	421
	I	25	12	8	5	8	3	8	3	5	4	62	31	13	1	37	14	34	26	200	99
A/2C	D	0	3	27	39	27	46	27	68	22	30	149	231	70	46	36	178	0	0	358	641
	I	19	40	5	6	5	9	5	8	7	11	24	28	3	6	17	20	37	59	122	187
A/3C	D	0	0	0	11	0	22	0	24	0	13	0	99	0	38	0	20	0	0	0	227
	I	0	42	0	7	0	7	0	6	1	9	0	76	0	9	0	17	2	29	3	202
A/B	D	0	0	0	0	0	0	0	3	0	3	0	11	0	1	0	4	0	0	0	22
	I	0	2	0	0	0	1	0	0	0	0	0	5	0	0	0	2	0	3	0	13
TOTAL	D	44	44	136	126	136	150	136	150	167	143	766	604	246	177	263	385	0	0	1894	1827
	I	[illegible]	132	26	31	26	29	26	31	33	35	139	183	19	22	81	79	115	134	611	[illegible]

BW Form 153
8 Feb [illegible]

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PERSONNEL STATUS - AIRMAN

		HQ 42 BW AUTH	HQ 42 BW ASGD	69TH AUTH	69TH ASGD	70TH AUTH	70TH ASGD	75TH AUTH	75TH ASGD	42 AREFS AUTH	42 AREFS ASGD	FMS AUTH	FMS ASGD	PMS AUTH	PMS ASGD	A&E AUTH	A&E ASGD	TAC HOSP AUTH	TAC HOSP ASGD	TOTAL AUTH	TOTAL ASGD
BODY MANNING	D	44	44	136	126	136	158	136	190	167	143	766	604	246	177	263	385	0	0	1894	1827
	I	117	131	26	31	26	29	26	31	53	35	139	183	27	22	82	70	115	134	611	666
EFFECTIVE MANNING	D	44	23	136	54	136	54	136	83	167	118	766	520	246	134	265	180	0	0	1894	1166
	I	117	79	26	15	26	9	26	15	53	26	139	85	27	9	80	56	115	121	611	399
SKILL LEVEL DISTRIBUTION 7	D	44	38	58	26	58	28	58	29	94	61	75	87	28	29	62	53	0	0	477	397
	I	32	29	5	12	5	4	5	5	5	4	14	18	3	3	11	11	5	5	85	91
5	D	0	10	51	26	51	88	51	97	51	50	542	397	148	82	165	234	0	0	1059	1194
	I	66	41	16	7	16	7	16	11	41	18	99	51	21	5	54	32	71	28	400	230
3	D	0	0	27	22	27	48	27	63	22	32	149	170	70	64	36	40	0	0	360	439
	I	39	48	5	11	5	12	5	13	6	6	26	62	3	12	17	21	37	62	121	249
010	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	I	0	11	0	1	0	2	0	0	1	5	0	49	0	2	0	4	2	1	3	75
010U	D	0	0	0	2	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	5
	I	0	8	0	0	0	4	0	2	0	8	0	3	0	0	0	8	0	8	0	37

PM FORM 157
8 Feb 56

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base
Maine

42DOT 8 October 1956

SUBJECT: (Unclassified) Heavy Jet-Bombardment Air Training Report for September 1956, RCS: 2-SAC-T12.

TO: Commander
Eighth Air Force
Westover Air Force Base
Massachusetts

1. Submitted herewith in accordance with Annex II, SAC Regulation 50-23, dated 1 May 1956, is the Heavy Jet Bombardment Air Training Report, RSC: 2-SAC-T12.

2. If inclosures are withdrawn or not attached, the classification of CONFIDENTIAL on this correspondence may be cancelled in accordance with Air Force Regulation 205-1.

FOR THE COMMANDER:

Raymond L. Haggard Jr.
For JOSEPH H. JACOBY
Major, USAF
Adjutant

5 Incls
1. SAC Form 493 (4 pgs)
2. SAC Form 493a (2 pgs)
3. SAC Form 493b (2 pgs)
4. SAC Form 493c (2 pgs)
5. Comdrs Remarks (9 pgs)

cc: CINCSAC
ATTN: DOTRS (T12) (1 cy Incl 1 thru 5)
COA (T12) (1 cy Incl 1 thru 5)
D/Pers (1 cy Incl 5 only)
D/Mat (1 cy Incl 5 only)

COMDR 8AF
ATTN: ODT4 (1 cy Incl 1 thru 4, 10 cys Incl 5)
COM (1 cy Incl 1 thru 4, 5 cys Incl 5)

CC199C
9602C

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42D BOMBARDMENT WING (H) (SAC)
SEPTEMBER 1956

PART V - WING COMMANDER'S REMARKS FOR SEPTEMBER 1956:

1. Hours flown performing missions ordered by:

a. Higher headquarters:

COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1) Ferrying Aircraft	00:00	40:45
(2) "Bench Warmer" 8AF OPS ORDER 225-56	50:00	00:00
TOTAL	50:00	40:45

(a) Reference commitment (1): Due to sporodic delivery dates of B-52 aircraft it was not possible to allocate time for this item.

(b) Reference to commitment (2): Grounding of all B-52s by SAC Message M4122267 dated 19 September 1956 precluded fulfillment of this OPS ORDER.

b. Eighth Air Force Training Priorities:

(1) Programmed and accomplished for current month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
1	AFR 60-2	00:00	See Note (a)
2	"Bench Warmer" 8AF OPS ORDER 225-56	50:00	00:00
3	Noncombat ready crew training	638:00	309:45
4	Combat ready and above	12:00	00:00
	TOTAL	700:00	309:45
	Test Hops	00:00	9:00
	HIGHER HEADQUARTERS	50:00	40:45
			359:30

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(a) Reference priority 1: Proportional share of AFR 60-2 completed within other priorities.

(b) Reference priority 2: 8th AF Ops Order 225-56 was cancelled due to grounding of all B-52s by SAC Msg M4122267 dated 19 September 1956.

(c) Reference priority 3 & 4: Difference in these times was the result of the grounding of B-52 aircraft by SAC Msg M4122267, dated 19 September 1956.

(2) Flying time programmed for the following month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED
1	AFR 60-2	00:00
2	Support Higher Headquarters "Bench Warmer" 8AF OPS ORD 225-56	50:00
3	Noncombat ready crew training	1000:00
	TOTAL	1050:00

2. Weather or local conditions:

a. Air Refueling for B-52s was cancelled on two missions due to weather. One B-52 landed early due to weather.

3. Air Traffic Control Delay Information:

a. ATC Delay:

TYPE	TOTAL NUMBER	TOTAL TIME
Departure	1	:07
Total	1	:07

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4. Restrictive directives:

a. All B-52s grounded 18 Sept 56 (Conf. by SAC MSG M4-122267, dated 19 Sept 56), through 25 Sept 56. B-52s grounded 26 Sept to 27 Sept pending TOC as per AMC MSG MCMTO-9-35-E, dated 26 Sept 56.

b. All but three of the Wing B-52s restricted from air refueling per SAC MSG DOTRPP 25461, dated 28 Sept 56.

5. Combat Crew Member Gains and Losses:

a. Crew members gained:

(1) Eleven aircraft commanders

(2) Eleven pilots

(3) Ten observers

(4) Two gunners

b. Crew members lost:

(1) One aircraft commander to 42d OPRON as simulator instructor this sta.

(2) Four pilots, three to 42d OPRON this sta for simulator instructors; one to Hq 42dBW this sta.

(3) One B-36 observer to 19th ADIV Carswell AFB.

(4) One gunner discharged.

6. Crew member changes:

a. One pilot

b. Two observers

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7. New Crews:

a. N-23 received from the B-52 training program.

b. N-24 " " " " " "

c. N-25 " " " " " "

d. N-26 " " " " " "

e. N-28 " " " " " "

f. N-45 " " " " " "

g. N-46 " " " " " "

h. N-47 " " " " " "

i. N-49 " " " " " "

j. N-50 " " " " " "

k. N-53 " " " " " "

l. N-59 " " " " " "

8. Crew Status Changes:

a. Not applicable for this reporting period.

9. Standardization Crews:

a. N-85 assigned 1 July 1956

b. N-75 assigned 1 July 1956

10. Additional Materiel and personnel problems:

a. The delay in obtaining crystals for radio net "B" as authorized in SAC Manual 66-12 has resulted in the loss of many maintenance man-hours through lack of communications. Subject crystals are due in on or about the 19th of October.

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b. The following is a list of personal equipment items which are critically short:

(1) P-4 Helmets.

(2) PK2 - 1 man life raft

(3) MD1 - life raft container

(4) A-17 flying boots (Other types will not fit ejection seat stirrups)

(5) MD5 parachute and F1A release

(6) Flying gloves

(7) 6 man life raft

c. The following are shortages of Airmen Direct Support Skills under the 45 B-52 UMD.

AFSC	AUTH	ASGD
32170K	4	0
323X0G	58	17
323X1G	46	27
431X1E	630	340
432X0	205	164

d. Overages in B-36 Direct Support Skills will receive the following action:

AFSC	AUTH	ASGD	ACTION
323X0A	0	34	Airmen are projected for cross-training to AFSC 323X0G shortages. Project Guidance waivers are being submitted where necessary.
323X0B	0	44	

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AFSC	AUTH	ASGD	ACTION
323X1A	0	8	16 airmen have been declared surplus.
323X1B	0	17	Remainder are cross-training to AFSC 323X1G or have short DOS.
431X1B	86	164	Overages cross-training to 431X1E.

e. Ninety-six (96) of the 125 initial input have arrived to increase the assigned B-52 qualified personnel. Lower skill level airmen are being placed on OJT immediately upon assignment. Seven skill level airmen are performing the duties of instructors in the OJT program.

11. Refueling Data:

a. Number of refueling sorties scheduled and confirmed: 29

b. Number of sorties:

(1) Airborne - 29

(2) Effecting complete electronic rendezvous - 19

(3) Transferring required fuel - 19

c. Number of aborts due to:

(1) Adverse weather - 2

(2) Aircraft malfunction - 0

(3) Electronic rendezvous equipment malfunction - 0 (See Wing Commander's comments)

(4) Refueling equipment malfunction - 0

(5) Other causes - Tanker cancellation: 4, Tanker aborts: 4

12. Comments and Recommendations of the Wing Commander:

a. The grounding of B-52s and the restriction prohibiting air refueling has precluded upgrading of crew according to plan. As soon as air re-

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fueling is again permitted a number of crews will complete standardization checks and be upgraded.

b. Emphasis is being placed on heavy weight air refuelings; as yet no aerial refueling has been conducted to maximum weights, and refueling capability is not known at this time. Some difficulty has been experienced at weights over 400,000 pounds and emphasis will be placed on this subject as soon as the B-52s are again released for air refueling.

c. The Wing needs eight (8) Recordaks to maintain the target study program. There are, in possession, four (4) Recordaks and two (2) Flofilm microfilm readers. The later are not satisfactory although they are authorized equipment. The Flofilm type are difficult to keep in commission and no Company Representatives are available to assist in maintenance. A UAL change was requested on 4 May 1956 for four (4) additional Recordaks and was dissapproved by Special Aircraft Equipment Evaluation and Audit Team at Castle Air Force Base with a note that Hq. SAC has previously submitted a request to AMC for increased authorization of this item for Target Intelligence. It is recommended that at least eight (8) readers be authorized per Wing and that the Recordaks be purchased in preference to the Flofilm type due to the reliability and ruggedness of the Recordaks.

d. Delivery of the B-52 Simulator has again been delayed until March 1957 and seriously handicaps this unit's training program. It also complicates local checkout of pilots due to SAC Reg 51-19 which requires that aircraft commanders and co-pilots complete the Simulator Course with

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a minimum of thirty (30) hours Simulator operation. The Wing is presently in the process of some local checkouts and will require quotas to the Simulator Course at Castle Air Force Base or a waiver of this requirement.

e. Much difficulty is being experienced in obtaining parts for the T-2A Ultra-sonic Trainer. The trainer was out of commission for the greater portion of the month and has just recently (26 Sept) been put in an operational status. In its present configuration it is not suitable for B-52 observers and requires modification. The modification kit is due to arrive in mid-October.

f. There is still an unsatisfactory condition existing with the APN69-APS64 rendezvous. It is difficult to determine what portion is due to observer technique and how much to APN69 malfunction. There is no test equipment (APM-67) on this station to check the APN-69 for tolerence. A carefully monitored test is being run to determine the cause of our rendezvous problems. A procedure has been outlined for Beacon operation and has been distributed to the squadrons.

g. Use of APT-9 Equipment has been prohibited as a result of the findings of the Accident Investigation Board at Castle Air Force Base.

13. Ground Training:

a. Not applicable for this reporting period. (No combat ready crews assigned)

14. Hi Jinks Tactics:

a	b	c	d	e	f	g	h
N-74	Yes	Yes	No	No	Yes	6	Sept 56

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42D BOMBARDMENT WING (H) (SAC)
SEPTEMBER 1956

a	b	c	d	e	f	g	h
N-76	Yes	Yes	No	No	No	6	Sept 56
N-77	Yes	Yes	No	No	No	4	Oct 56
N-78	Yes	Yes	No	No	No	3	Oct 56
N-84	Yes	Yes	No	No	No	3	Oct 56

DONALD E. HILLMAN
Colonel, USAF
Commander

PART V DIVISION COMMANDER'S REMARKS, 45TH AIR DIVISION (SAC)

I concur with the remarks and recommendations of the Wing Commander.

W. K. MARTIN
Brigadier General, USAF
Commander

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A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-
N85	B52C	001	013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N75	B52C	002	015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stdb Totals	-	003	028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N14	B52C	001	011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N15	B52C	001	010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N16	B52C	001	009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N17	B52C	001	009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N20	B52C	002	022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N22	B52C	002	017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N29	B52C	001	011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N54	B52C	002	013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N55	B52C	002	019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N72	B52C	002	012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N73	B52C	002	016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N74	B52C	002	021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N76	B52C	004	027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I

UNIT: 42d Bombardment Wing (H) | MONTH: Sept 1956 | PAGE NR: 2 | NR OF PAGES: 4 | REPORT CONTROL SYMBOL: 2-[illegible]-T12

A. GENERAL						B. BOMBING												C. NAVIGATION									
1	2	3	4	5	6	7	8 RADAR ATKS - CAMERA SCORED				9 VISUAL ATKS CAMERA SCORED MACH.84		10 VISUAL RELEASES - MACH.84						11 NIGHT CELESTIAL					12	13 CELESTIAL GRID		14	15
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR			TOTAL LEGS	CIRCULAR ERROR				NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	CIRC. ERROR	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	SQUADRON STREAM	RBS AT MACH.84	IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL	M-19 NR OF REL.	M-19 C. E.		1	2	3	4					
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	53-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54
N77	B52C	002	016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N78	B52C	003	028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N80	B52C	001	012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N81	B52C	001	010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N84	B52C	003	033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N86	B52C	003	027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NCR Totals	-	036	323	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-
Wing Totals	-	039	351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5X Trng	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	-	-	-	-	-
Pract Trng	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	007	-	-	-	-	005	020	-	-	001	005

IN14 ECM - Survival 1-10 Sept.

IN15 ECM - Survival 1-10 Sept; Pilot - TDY 21-24 Sept.

IN16 ECM - Survival 1-4 Sept; A/C - Leave 5-9 Sept; A/C - TDY 25-27 Sept.

IN17 No pilot assigned 17-24 Sept.

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A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	OF PRESS TERN AU. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	

IN18	Entire crew TDY B-52 school 1-30 Sept.
IN21	Entire crew TDY B-52 school 1-17 Sept.
IN22	Nav - TDY 6-10 Sept; VO - TDY 14-23 Sept; Nav & TDY 23-26 Sept.
IN23	Entire crew TDY B-52 school 1-7 Sept.
IN24	Entire crew TDY B-52 school 1-6 Sept.
IN25	ECM - survival 12-27 Sept.
IN26	Entire crew TDY B-52 school 1-17 Sept .
IN28	Entire crew TDY B-52 school 1-17 Sept.
IN29	ECM - TDY 21-24 Sept.
IN45	Entire crew TDY B-52 school 1-20 Sept.
IN46	Entire crew TDY B-52 school 1-25 Sept.
IN47	Entire crew TDY B-52 school 1-25 Sept.
IN49	Entire crew TDY B-52 school 1-20 Sept.
IN51	Entire crew TDY B-52 school 1-27 Sept.
IN52	A/C - DNIF 1-9 Sept; Pilot - survival 10-18 Sept.
IN53	Reformed from disbanded B-36 crew; TDY B-52 school 19-30 Sept.
IN54	Pilot - TDY 18-19 Sept.

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HEAVY [illegible]T BOMBARDMENT AIR TRAINING REPORT - PART I	UNIT: 42d Bombardment Wing (H)	MONTH: Sept 56	PAGE [illegible]	NR OF PAGES: 4	REPORTS CONTROL SYMBOL: 2-[illegible]C-T12

A. GENERAL — 1 Crew Number (6-10); 2 Type and Model Aircraft (11-15); 3 Number of Sorties (17-19); 4 Flying Time (21-23); 5 USCM (26-27); 6 Bomber Stream (30-31)

B. BOMBING — 7 RBS at Mach .84 (13-15); 8 Radar Atks - Camera Scored: Radar Obs. IBDA (17-19), Fixed Angle (21-23); Navigator Mach .84 IBDA (25-27), Fixed Angle (29-31); 9 Visual Atks Camera Scored Mach .84: Radar Obs. (33-35), Navigation (37-39); 10 Visual Releases - Mach .84: Radar Observer Total (41-43), M-19 Nr of Rel. (46-47), C.E. (48-51); Navigator Total (52-54), M-19 Nr of Rel. (57-58), C.E. (59-62)

C. NAVIGATION — 11 Night Celestial: Total Legs (13-15), Circular Error 1 (17-19), 2 (21-23), 3 (25-27), 4 (29-31); 12 Nr of Day Celestial Nav. Legs (33-35); 13 Celestial Grid: Total Legs (37-39), Circ. Error 1 (41-43), 2 (45-47); 14 Number of Radar Grid Nav. Legs (49-51); 15 Nr of Press Pattern Nav. Legs (52-54)

Crew Number	Remarks
IN55	A/C - TDY 1-4 Sept.
IN59	Reformed from disbanded B-36 crew; TDY B-52 school 19-30 Sept.
IN72	VO- TDY 1-4 Sept; Pilot - TDY 12 - 14 Sept.
IN73	TG - Leave 6-17 Sept.
IN74	Nav - Leave 1-12 Sept; A/C - TDY 13-15 Sept.
IN76	A/C - TDY 5-8 Sept; ECM - DNIF 19-30 Sept.
IN77	A/C - TDY 5-10 Sept; A/C - TDY 12-13 Sept; Nav - Hosp 20-26 Sept.
IN78	A/C - TDY 10-11 Sept; Pilot - TDY 25-27 Sept.
IN79	VO - TDY 4-11 Sept; Nav - TDY 12-15 Sept; VO - TDY 17-30 Sept.
IN80	ECM - survival 1-9 Sept.
IN81	ECM - survival 1-9 Sept; Pilot - leave 26-30 Sept.
IN82	Entire crew TDY B-52 school 1-30 Sept.
IN85	TG - survival 1-16 Sept.
IN86	No TG assigned 4-11 Sept.
IN88	Entire crew TDY B-52 school 1-30 Sept.

SAC Form 483 [illegible]

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42d BOmbardment Wing (H)	Sept. 1956	1	2	2-SAC-T12

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 8 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSION
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	
N85									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
N75									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Stdb Totals									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N14									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
N15									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
N16									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
N17	Not Applicable							Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Not Applicable	-
N20									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N22									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N29									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N54									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N55									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
N72									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
N73									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N74									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
N76									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-

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AVY JET BOMBARDMENT AIR TRAINING REPORT – PART II

UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
42d Bombardment Wing (H)	Sept 1956	2	2	2-SAC-T12

D. CREW NUMBER	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS				H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 5 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
5-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	
N77									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
N78									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N80									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N81									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N84									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N86									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
NGH Totals	Not Applicable							Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Not Applicable	-
Wing Totals									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
5X Trng									012	012	-	-	-	-	020	-	-	-	-	-	-	-	-	-		-
Pract Trng									045	045	001	001	003	003	161	020	020	007	[illegible]	[illegible]	[illegible]	010	-	-		013

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART III	UNIT: 42d Bombardment Wing (H)	MONTH: Sept 1956	PAGE NR: 1	NR OF PAGES: 2	REPORTS CONTROL SYMBOL: 2-SAC-112

I. GENERAL J. ECM

31	32				33				34		35		36								37		38		39	
CREW NUMBER	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
	ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)		ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)						T-464/ALT-7		T-465/ALT-7		ALT - 6 OR 8 (S-BAND)		APT-9 (C) ALT - 6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65
N85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stdb Totals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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H[illegible] JET BOMBARDMENT AIR TRAINING REPORT – PART III	UNIT 42d Bombardment Wing (H)	MONTH Sept 1956	PAGE NR

I. GENERAL	J.																			
31	32				33				34		35		36							
CREW NUMBER	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS							
	ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)		ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)						T-464/ALT-7		T-465/ALT-7		ALT - 6 OR 8 (S-BAND)		[illegible]	
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUN[illegible]	
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-[illegible]	
N77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
N78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
N80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NCR Totals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wing Totals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5X Trng	-	-	-	-	-	-	-	-	-	-	-	-	-	-	007	-	-	-	-	-
Pract Trng.	023	-	025	-	023	-	024	-	-	-	-	-	009	-	017	-	015	-	016	-

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HEAV. JET BOMBARDMENT AIR TRAINING REPORT – PART IV | UNIT: 42d Bombardment Wing (H) | MONTH: Sept 1956 | PAGE NR | NR OF PAGES: 2 | REPORTS CONTROL SYMBOL: 2[illegible]C-T12

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O. MISCELLANEOUS															
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPLETED PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. OR CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEATHER (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR BOMB RADAR OBSERVER	RADAR BOMB NAVIGATOR	RBS VISUAL ATTACK RADAR OBSERVER	RBS VISUAL ATTACK NAVIGATOR	Gp. Weapons Simulated Missions	A/C Take-offs	Gp Take-offs & Ldgs	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro Out	CP Gyro Out				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	52-54	57-59	61-63	64-65	67-68													
N85	-	-	-	-	-	-	-	001	-	-	-	-	001	-	-	-	-	001	003	001	-	-	-	-	-				
N75	-	-	-	-	-	-	-	-	-	-	-	-	001	-	-	-	-	006	002	005	003	-	-	001					
Stdb Totals	-	-	-	-	-	-	-	001	-	-	-	-	002	-	-	-	-	007	005	006	003	-	-	001	-				
N14	-	-	-	-	001	-	-	-	-	-	-	-	003	-	-	-	-	008	006	001	001	-	-	-	-				
N15	-	-	-	-	-	-	-	001	-	-	-	-	004	002	-	-	-	006	-	001	-	-	-	-	-				
N16	-	-	-	-	-	-	-	-	-	-	-	-	003	-	-	-	-	007	-	-	-	-	-	-	-				
N17	-	-	-	-	-	-	-	-	-	-	-	-	003	-	-	-	-	003	-	002	-	-	-	-	-				
N20	-	-	-	-	-	-	-	001	-	-	-	-	010	-	005	-	-	004	-	003	002	-	-	-	-				
N22	-	-	-	-	005	-	-	-	-	-	-	-	005	-	-	-	-	016	-	001	-	-	-	-	-				
N29	-	-	-	-	001	-	-	001	-	-	-	-	004	-	001	-	-	008	008	-	001	-	-	-	-				
N54	-	-	-	-	001	-	-	-	-	-	-	-	012	-	-	-	-	003	-	001	-	-	-	-	-				
N55	-	-	-	-	-	060	-	002	002	-	-	-	009	-	-	-	-	004	-	002	-	-	-	-	-				
N72	-	-	-	-	002	-	-	001	-	-	-	-	-	-	-	-	-	001	-	001	-	-	-	-	-				
N73	-	-	-	-	001	-	-	-	-	-	-	-	004	-	-	-	-	013	008	001	-	-	-	-	-				
N74	-	-	-	-	002	-	-	002	-	-	-	001	008	-	006	-	-	012	006	004	003	-	-	-	-				
N76	-	-	-	-	-	-	-	-	-	-	-	-	002	-	-	-	-	004	-	002	001	-	-	-	-				

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HE — JET BOMBARDMENT AIR TRAINING REPORT – PART IV

UNIT: 42d Bombardment Wing (H) | MONTH: Sept 1956 | PAGE: 2 | NR OF PAGES: 2 | REPORTS CONTROL SYMBOL: 2-SAC-T12

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O.					MISCELLANEOUS												
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Crew Number	Total Hours	Hours 40,000 Feet and Above	Hours 30,000 Feet and Below	Nr of Compl Pilot Proficiency Missions	Airborne Radar Directed Approach	Press. Flt in Combat Position	Month Last Stand-Bd Ck. Succ. Completed	Emergency Procedure Drill	Simulated Strike Reports	Night Cell Missions	Air Refueling (In Flight)	Water Injection Takeoff	Radar HBS Radar Observer	Radar HBS Navigator	RBS Visual Attacks Radar Observer	RBS Visual Attacks Navigator	Sp. Weapons Sim. Missions	A/C Take-offSlide	CP Take-offSlide	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro out	CP Gyro out				
N77	–	–	–	–	002	–	–	004	–	–	–	001	007	–	001	–	–	004	–	002	–	–	–	–	–				
N78	–	–	–	–	003	–	–	002	–	–	–	001	003	001	–	003	–	010	003	004	003	–	–	–	–				
N80	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	002	–	001	–	–	–	–	–				
N81	–	–	–	–	–	–	–	–	–	–	–	–	002	–	–	–	–	002	–	001	–	–	–	–	–				
N84	–	–	–	–	–	–	–	–	–	–	–	–	006	–	004	–	–	008	008	001	001	–	–	–	–				
N86	–	–	–	–	002	–	–	003	–	–	–	–	004	–	–	–	–	024	018	003	–	–	–	–	–				
NCR Totals	–	–	–	–	020	060	–	017	002	–	–	003	089	003	017	003	–	139	057	031	012	–	–	–	–				
Wing Total	–	–	–	–	020	060	–	018	002	–	–	003	091	003	017	003	–	146	062	037	015	–	–	001	–				
5X Trng	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	046	032	008	003	–	–	–	–				
Pract Trng	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				

A. Average number of CR and higher category crews assigned: 0

B. Average number of CR and higher category crews available: 0

C. Average number of NCR Crews assigned: 34.0

D. Average number of NCR crews available: 21.5

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General Information

1956 SAC BOMBING-NAVIGATION-RECONNAISSANCE COMPETITION

LORING AFB, ME

24-30 AUGUST

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INDEX

Page No.

Duty hours....2
Billeting
Messing Facilities
Uniform policy
Climate and clothing....3
Automobile regulations
Transportation
Officers Club hours of operation
Officers Club entertainment schedule....4
NCO Club hours of operation
NCO Club entertainment schedule....4-5
Service Club entertainment schedule....5-6
Base Exchange....7
Barber Shops
Bank
Laundry and dry cleaning
Clothing Sales Store
Shoe Repair
Telegrams and personal telephone calls....8
Postal facilities
Base Locator
Weather Forecast
Finance
Legal Assistance
Commissary
Base Chapels....9
Chaplains
Base Newspaper
Medical and dental facilities
Cameras and firearms....10
Gymnasium
Library
Softball diamond
Bowling
Long Lake Recreation Camp
Wood Hobby Shop
Base theater schedule....11
Golf driving range
Skeet shooting

Taxi servicing and parking plan....12
Maintenance facilities and parking plan by wings....13-14
Maintenance plan....15-16
Map Loring AFB, competition area and flight line
Map of competition headquarters
Map of Northern Aroostook County
Competition Rules

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DUTY HOURS

The duty hours at Loring AFB are 0800-1700 Monday through Friday.

BILLETING

Officers of the wing staff, crews and maintenance officers will be billeted in Bldg. 6100 on Georgia Road. VIPs will be housed in Bldg. 2112 in the Officer's Appropriated Housing Area and in BOQ Bldg. 2501.

Umpires, Scoring Committee officers and officers of the Strategic Evaluation Group will be billeted in Bldg. 6500. Airman crew members from VIP aircraft will be housed in the transient NCO quarters, Bldg. 6000, on Georgia Road.

MESSING FACILITIES

Competing crew members and support personnel will mess in dining hall #1, Bldg. 6100. This dining hall will be open 24 hours daily.

The Strategic Evaluation Group and Scoring Committee will mess in dining hall #5, Bldg. 6500, during duty hours. After duty hours dining hall #1 will be utilized.

Four snack bars will operate during the competition. For the convenience of all personnel, a snack bar will be located in the lobby of competition headquarters. This snack bar will remain open 24 hours a day. A mobile snack bar will operate on the flight line on a 24 hour schedule.

A small snack bar is permanently located in the south end of Base Operations near the In-Flight Kitchen. The VIP snack bar is located in the Ice Rink Warming House between the Service Club and Gymnasium. The latter will be operated as required.

Officers billeted in the VIP quarters may have their meals in their rooms if desired.

A cafeteria is located in the Base Exchange adjacent to competition headquarters. Hours of operation are from 0630-1830 Monday through Friday, 0730-1430 Saturday, and 0730-1230 Sunday.

In addition to the facilities listed above, the NCO Club, Officers Club and Service Club will operate messing facilities.

UNIFORM POLICY

Khakis are mandatory at Loring AFB through August.

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CLIMATE AND CLOTHING

August is usually the most pleasant month at Loring AFB. The minimum temperature averages between 45-50 degrees and the maximum ranges between 65-75 degrees. Average rainfall for August is 3½ inches. Normal lightweight summer clothing is suitable for the season.

AUTOMOBILE REGULATIONS

The speed limit on Loring AFB is 25 MPH except on the flight line within housing areas where the limit is 15 MPH. Parking is permitted only in marked parking areas. Except in housing areas, parking on the side of the road is not allowed. Competition personnel may drive civilian-type cars, rented for official use during the competition, only if they possess a valid driver's license from any state.

TRANSPORTATION

Competition personnel may obtain transportation by contacting the transportation clerk in the lobby of competition headquarters.

A commercial taxi service is operated on base and is located in the Youth Center, directly across from the NCO Club. On-base trips generally cost 25-50¢, depending on distance. Phone 2280 or 2289.

OFFICERS CLUB

The club is located on Utah Place near the BOQ. Facilities include a dining room, television room, bar and package store. Arrangements for special parties may be made through the club officer. Package store goods will be delivered to quarters for a 50¢ service charge. The uniform of the day may be worn in the club until 1900; after 1900, the class A uniform will blouse is required except when civilian clothes are specified.

HOURS OF OPERATION

	Mon. - Fri.	Sat.	Sun.
Package Store	1600 - 2200	1100 - 1400	1200 - 2200
Bar	1700 - 2330	1200 - 0100	1200 - 2330
Breakfast	0700 - 0800	0700 - 0800	
Lunch	1200 - 1300	1200 - 1300	1200 - 1300
Dinner	1730 - 2030	1730 - 2200	1730 - 2030
Sandwich snacks	2030 - 2330	2200 - 0100	2030 -

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ENTERTAINMENT SCHEDULE

21 August	Your host, 75th Bomb Squadron, civilian clothes.
22 August	Dance to the music of the Rythmn Kings at 2000.
23 August	Dance to the music of the Loringaires at 2000.
24 August	Happy hour, 1700-1800; dance at 2000 sponsored by AAA and AACS; civilian clothes.
25 August	Come-as-you-are dance at 2000; door prize for best costume.
26 August	Giovanni Combo, direct from New York, and gala floor show; civilian clothes.
27 August	Happy hour, 1700-1800; music by the Loringaires at 1900; bridge.
28 August	Giovanni Combo.
29 August	Last night, Giovanni Combo, 2000.
30 August	Cocktail hour prior to farewell dance with Jerry Mercer orchestra; civilian clothes.
31 August	Happy hour sponsored by AREF, 1700-1800; civilian clothes.

NCO CLUB

The NCO Club is located in Bldg. 6553 on North Carolina Road. Dress in the club after 1800 is class A uniform or civilian clothes when specified.

HOURS OF OPERATION

	Mon. - Fri.	Sat.	Sun.
Bar	1100 - 1330 1700 - 2300	0900 - 2400	0900 - 2330
Dining Room	0700 - 1400 1700 - 2200	0700 - 2200	0700 - 2200

ENTERTAINMENT SCHEDULE

22 August	Amateur show.
23 August	Larry at the organ.
24 August	The Rythmn Kings and vocalist.
25 August	Giovanni combo.
26 August	Special dinner, $1.00; organ music; Martin Fournier orchestra.
27 August	Dance to the music of the Rythmn Kings.

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28 August Larry at the organ.

29 August From New York, "Little Mr. Music" Jerry Mercer and his orchestra.

30 August Giovanni combo and floor show.

31 August Giovanni combo and floor show.

SCHEDULE OF EVENTS AT THE WHISPERING PINES SERVICE CLUB

AUGUST 21 THROUGH 31

Tuesday, 21 August

0930 ..... Welcoming coffee call
1330 ..... Pinochle tournament
1400 ..... Free television
1800 - 2000 Jazz music
2000 - 2200 Misc. Music
2030 ..... Hear the Loringaires
Refreshments later.

Wednesday, 22 August

1330 ..... Ping pong tournament
1400 ..... Free television
1600 ..... Static display of model aircraft and leathercraft. Classical music.
2030 ..... "Win As You Go"

Thursday, 23 August

1330 ..... Shuffleboard tournament
1400 ..... Free television
1800 ..... Bridge and canasta
2030 ..... Special movies of Maine and Canada

Friday, 24 August

0930 ..... Coffee call
1330 ..... Whist tournament
1400 ..... Free television
1800 - 2000 Listen to the classics
2000 - 2200 Operas in the Music Room
2030 ..... Jazz Band Concert

Saturday, 25 August

1330 ..... Beat The Clock Quiz Program
1400 ..... Free television
1800 - 2000 Monte Carlo
2000 - 2200 Jazz music in the Music Room
2030 ..... "Win As You Go"

Sunday, 26 August

0930 ..... Coffee and waffles
1000 ..... Record request in small lounge
1330 ..... Pick-your-choice-tournament
1400 ..... Free television
1900 ..... Jam session (We furnish the instruments)
2030 ..... Sunday special show

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Monday, 27 August

1330 ..... Ping Pong Tournament
1400 ..... Crafts lecture and lessons
1900 ..... Sing with the Loring Glee Club
2000-2200 Chess Maniacs
2030 ..... Indoor picnic

Tuesday, 28 August

1330 ..... Pinochle tournament
1400 ..... Craft lessons
1800 ..... Inspect our Photo Lab
1800-2000 Jazz Music
1830-2030 Flying Display of Model Aircraft
2030 ..... Live Music (refreshments)

Wednesday, 29 August

0930 ..... Coffee Call
1330 ..... Bid whist tournament
1400 ..... Craft lessons
1800 ..... Wiener Roast followed by The Loring Fair and Capades of 1956.

Thursday, 30 August

1330 ..... Shuffleboard tournament
1400 ..... Craft lessons
1500 ..... Smoker Poker
2030 ..... "Special Production"

Friday, 31 August

1330 ..... Truth or Consequences
1400 ..... Craft lessons
1800-2000 Musical shows in the Music Room
2000-2200 Operas
2030 ..... "Win As You Go"

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BASE EXCHANGE

The Base Exchange is located in Bldg. 5300 on Texas Road adjacent to competition headquarters. Hours of operation are from 0930-1730 Monday through Friday and 0930-1230 Saturday. The following facilities are housed in the exchange: watch repair, shoe repair, barber shop and cafeteria.

A complete line of personal items, clothing, records, magazines and household goods is offered by the Base Exchange.

BARBER SHOPS

Three barber shops are conveniently located on base. The Base Exchange barber shop is open from 0800-1800 Monday through Friday and 0800-1400 Saturday. The NCO Club barber shop is open from 0800-1730 Monday through Friday and 0800-1400 Saturday. A third barber shop is located in BOQ Bldg. 2500. Hours of operation are the same as those of the NCO Club barber shop.

BANK

The Northern National Bank of Presque Isle maintains a branch bank in the Base Exchange. Hours of operation are from 0900-1500 Monday through Friday.

LAUNDRY AND DRY CLEANING

Four day service is available for laundry and dry cleaning at the base facility which is in the basement of Bldg. 6000. Hours of operation are from 1100-1800 Monday through Friday and 1000-1200 Saturday.

The Immaculate Dry Cleaners and Laundry of Caribou maintain two branches on base. One is also in the basement of Bldg. 6000, directly across from the crew billets; the other is in the BOQ barber shop. Hours of operation are from 0900-1700 Monday through Friday and 0900-1200 Saturday. Four day service is also available.

CLOTHING SALES STORE

An Air Force Clothing Sales Store is in the basement of Bldg. 6000. The store is open from 1000-1800 Monday through Friday and 1000-1200 Saturday.

SHOE REPAIR

All kinds of shoe repairs are accomplished by the shoe repair shop in the basement of the Base Exchange. Hours of operation are from 0930-1730 Monday through Friday and 0930-1230 Saturday.

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TELEGRAMS AND PERSONAL TELEPHONE CALLS

A Western Union Office is located in the Communications Bldg. which connects with Base Headquarters. The office is open from 0800-1700 Monday through Friday and 0900-1200 Saturday.

Telephone calls of a personal nature may be made from numerous pay stations.

POSTAL FACILITIES

A mail room will be maintained in Bldg. 6100 to handle incoming mail for competition personnel. Such mail should be addressed as follows:

Name - Rank - Serial Number
Home Organization
SAC Bombing/Navigation/Reconnaissance Competition
Loring Air Force Base
Maine

The base branch of the U.S. Post Office is located in Bldg. 6541 on New Mexico Place. Complete postal service is available between the hours of 0800-1700 Monday through Friday and 0800-1200 Saturday.

BASE LOCATOR

A locator file for all competition personnel will be available at the receptionist's desk in the lobby of competition headquarters.

WEATHER FORECAST

Weather information may be obtained at the Base Operations Bldg. any time of the day or night. Phone 24255. A weather status board will be found in competition headquarters. This board will be kept current around the clock.

FINANCE

In case of emergency, partial payments may be obtained at the Finance Office, Room 116, Base Headquarters between the hours of 0800-1200 Monday through Friday. Per diem for competition personnel will not be paid at this station.

LEGAL ASSISTANCE

Legal assistance is available to competition personnel at the Legal Office which is located in Base Headquarters. The office is open from 0800-1000 Monday through Friday for counseling.

COMMISSARY

Open from 1000-1800 during weekdays and 0900-1300 Saturday, the commissary is located in Bldg. 5301 on Texas Road next to the Base Exchange.

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BASE CHAPELS

The Base Chapel is located behind the Base Exchange. Chaplains representing the Catholic, Protestant and Jewish faiths are available to competition personnel. For consultations during duty hours, phone the chaplain of your choice. After duty hours, the base switchboard operator will contact chaplains for those desiring their services. Following are names of chaplains, their phone numbers and schedule for services:

CATHOLIC

Chaplain (Major) Francis Quinn, phone 25155

Sunday masses are held at 0800, 0930, 1200 and 1600. Weekday masses are held at 1705 except on Saturday when mass is held at 0845.

Confessions are heard on Saturday from 1445-1615 and 1930-2030.

PROTESTANT

Chaplain (Major) William H. Biggs, phone 25194
" (Capt) William H. Petrich, phone 25156
" (1st Lt)Stanley A. Llewellyn, phone 26253
" (1st Lt)Herbert A. Biethauer, phone 25156

Sunday services are held at 1045 and 1930. A weekday service is held on Tuesday at 1930.

JEWISH

Chaplain (1st Lt) Paul Teicher,phone 25156

Services are held on Monday at 1830 and on Friday at 1900.

BASE NEWSPAPER

A special supplemental edition of the Loring AFB LIMELITE will be published and distributed daily to serve competition personnel.

MEDICAL FACILITIES

Two dispensaries will operate 24 hours a day during the competition. A flight line dispensary for all maintenance personnel will be located in Dock 41. The Base Dispensary is located in Bldg. 5200 on Georgia Road directly across the street from Bldg. 6000 and will be available to all competition headquarters personnel. A fully equipped hospital is located on Rhode Island Road.

Radio-equipped ambulance service will operate on the flight line on a 24 hour basis. The hospital EMERGENCY number is 2121.

Complete dental facilities are available at the Dental Clinic on Rhode Island Road. Phone 23117 for appointments and information.

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CAMERAS AND FIREARMS

All personal cameras and firearms must be registered with the Identification and Registration Section of the Air Police at the West Gate. Firing of privately owned weapons within the limits of Loring AFB is prohibited.

GYMNASIUM

The Gymnasium, Bldg. 5900, houses facilities for squash, handball, weight lifting, boxing, basketball, volleyball and badminton. Steam baths are also available in the gym 24 hours a day during the competition. These facilities can be used from 1000-2200 daily.

LIBRARY

Located on the main floor of Bldg. 6000 is the library stocked with the latest books and magazines. The library is open daily from 1000-2000.

SOFTBALL DIAMOND

The softball diamond on Rhode Island Road near the hospital is open for use by competition personnel until 1500 daily.

BOWLING

The bowling alley is located in the basement of Bldg. 6000. Hours of operation are from 1300-2200 daily.

LONG LAKE RECREATION CAMP

Loring AFB maintains a recreation camp on Long Lake, approximately 30 miles northwest of the base. The camp is equipped with cabins, boats, outboard motors and fishing tackle.

WOOD HOBBY SHOP

Located in Bldg. T-7204 on Arizona Road, the wood hobby shop is open from 1300-2200 daily. Everything but wood and paint is furnished.

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BASE THEATER

The Base Theater, Bldg. 5910, offers the latest in motion pictures. A daily matinee begins at 1330. Evening performances start at 1830 and 2030.

THEATER SCHEDULE FOR 21-31 AUGUST

Aug 21 -	STRANGE INTRUDER-Mature Edmund Purdom Ida Lupino	Aug 26 - 27	GUYS & DOLLS-Musical Marlon Brando Frank Sinatra Jean Simmons Vivian Blaine
Aug 22 -	NINETEEN EIGHTY FOUR-Suspense Edmond O'Brien Jan Sterling	Aug 28 -	Not Booked
Aug 23 - 24	FRISKY-Comedy Gina Lollabridga	Aug 29 -	CONQUEST OF SPACE
Aug 25 -	I'VE LIVED BEFORE-Mature Jack Mahoney Leigh Snowden Ann Harding	Aug 30 - 31	AMBASSADOR'S DAUGHTER-Comedy Olivia DeHaviland John Forsythe Myrna Loy

GOLF DRIVING RANGE

The range is open daily from 1400-1930 and is located on the main road into the base from the west gate.

SKEET SHOOTING

Facilities will be available on the afternoon of 27 and 28 August between the hours of 1330 and 1530 and during the two evenings from 1830-2030. A range official will be on hand as well as ammunition, clay pigeons and shot guns. Cost for skeet shooting will be the cost price of ammunition only. The skeet range is located on the dirt road directly opposite the west gate.

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TAXI SERVICING AND PARKING PLAN

FOR AIRCRAFT LANDING TO THE NORTH, RUNWAY ONE (1)

B-36s and C-124s will be turned off the runway at taxiway C. A Follow Me vehicle will lead the aircraft by way of taxiway C and F to the appropriate refueling pit. After refueling, the aircraft will be further taxied to its designated hardstand.

B-52s will be turned off the runway at the North taxiway. A Follow Me vehicle will lead the aircraft via taxiway A and E to the appropriate refueling pit. After refueling, aircraft will be towed to designated hardstands. Drag chutes will be picked up on the North runway immediately after clearing the runway.

FOR AIRCRAFT LANDING TO THE SOUTH, RUNWAY NINETEEN (19)

B-36s and C-124s will be turned off the runway at taxiway B. A Follow Me vehicle will lead the aircraft via taxiway B, along A and D to the appropriate refueling pit. After refueling, the aircraft will be further taxied to its designated hardstand.

B-52s will be turned off the runway at the south pad. A Follow Me vehicle will lead the aircraft via the main parking ramp, taxiway A and D to the appropriate refueling pit. Upon completion of refueling, the aircraft will be towed to its designated hardstand. Drag chutes will be picked up on the South pad immediately after clearing the runway.

TRANSIENT AIRCRAFT

Transient aircraft, regardless of direction of landing, will be turned off the runway at taxiway B. A Follow Me vehicle will lead the aircraft to the appropriate hardstand on the main parking ramp.

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MAINTENANCE FACILITIES AND PARKING PLAN

SECOND AIR FORCE

7th BW

NUMBER	DESCRIPTION	AIRCRAFT
45	Dock and Maint Off	B-36
46	Hard Stand	B-36
47	Hard Stand	B-36
44	Parking area for support acft	

11th BW

NUMBER	DESCRIPTION	AIRCRAFT
48	Dock and Maint Off	B-36
50	Hard Stand	B-36
52	Hard Stand	B-36
54	Parking area for support acft	

72d SRW

NUMBER	DESCRIPTION	AIRCRAFT
41	Dock and Maint Off	B-36
42	Hard Stand	B-36
43	Hard Stand	B-36
40	Parking area for support acft	

EIGHTH AIR FORCE

42d BW

NUMBER	DESCRIPTION	AIRCRAFT
7	Dock and Maint Off	B-52
8	Hard Stand	B-52
9	Hard Stand	B-52

FIFTEENTH AIR FORCE

5th BW

NUMBER	DESCRIPTION	AIRCRAFT
14	Dock and Maint Off	B-36
12	Hard Stand	B-36
16	Hard Stand	B-36
18	Parking area for support acft	

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6th BW

NUMBER	DESCRIPTION	AIRCRAFT
11	Dock and Maint Off	B-36
13	Hard Stand	B-36
15	Hard Stand	B-36
17	Parking area for support acft	
[redacted]SU		
34	Dock and Maint Off	B-36
32	Hard Stand	B-36
30	Hard Stand	B-36
36	Parking area for support acft	

92d BW

NUMBER	DESCRIPTION	AIRCRAFT
29	Dock and Maint Off	B-36
27	Hard Stand	B-36
26	Hard Stand	B-36
28	Parking area for support acft	

93d BW

NUMBER	DESCRIPTION	AIRCRAFT
22	Dock and Maint Off	B-52
23	Hard Stand	B-52
24	Hard Stand	B-52
25	Parking area for support acft	

95th BW

NUMBER	DESCRIPTION	AIRCRAFT
49	Dock and Maint Off	B-36
51	Hard Stand	B-36
53	Hard Stand	B-36
55	Parking area for support acft	

99th SRW

NUMBER	DESCRIPTION	AIRCRAFT
33	Dock and Maint Off	B-36
35	Hard Stand	B-36
31	Hard Stand	B-36
38	Parking area for support acft	

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MAINTENANCE PLAN

OPERATION. Maintenance will be performed in accordance with the provisions of SAC Manual 66-12, and related directives. Maintenance personnel from the visiting units will remain under the control of their respective maintenance officers. However, all shops in FMS and A&E will be open to specialist personnel for bench checks, and other maintenance work as required. In addition, the entire specialist dispatch system in the 42d Bomb Wing will be available to assist competition aircraft through the facilities of Job Control. This includes the facilities in the A&E Shop. The specialist dispatch and supply expeditor system will be available as required. Maintenance Control of the 42d Bomb Wing, located in the large DC Hangar, will control all servicing and aircraft movement on the flight line. This office will also maintain current status of all competition aircraft and will be responsible for maintaining the status board in competition headquarters. A member of Maintenance Control Section will be positioned at the status board for posting purposes. Transient aircraft will obtain maintenance support and necessary supplies through the facilities of Base Flight located in the Arch Hangar, Bldg. 8250.

FACILITIES. Each competing wing will be provided with a multipurpose dock for storage of equipment, maintenance on their aircraft and necessary office space. Two parking stands will be available adjacent to the dock. Preflights and engine operation can be accomplished in these areas. Each multipurpose dock is equipped with two offices on the second floor, one on each end. The one to the south will be designated as the maintenance office and will be equipped with two desks, two tables, two executive chairs, and two straight back chairs. A telephone to the base switchboard and a second telephone to the Maintenance Control net will be installed. The office space on the north side of the building will be allocated the flight crews for storing personal equipment and other items which normally would not go to the billets.

A large A&E building 8800, located near the flight line, will be available for all A&E repair and maintenance for B-52 aircraft. A&E support for B-36 aircraft, including K3A and Q-24 mockups will be located on the second floor on the east side of the Arch Hangar, Bldg. 8250. The main A&E building will contain all necessary mockups for B-52 aircraft and the following: E-6 autopilot, A-14 autopilot and mockups to support ARC34, ARC27, ARC21, ARC3, ART13, ARN9, and APM70 equipment. Camera mockups are available for O-15, O-23, and K-38 equipment. Maintenance Control and FMS Shops are all located in the new DC Hangar, Bldg. 8280. Base Supply with the Expeditor System, is located in Warehouse 1 and 2.

The POL Section with gas trucks, ADI and oil trucks is located in the area south of the DC Hangar. Pumphouse 1 containing JP-4 with 3 servicing pits is located east of the Arch Hangar on the main ramp. Pumphouse 2 with avgas and 3 servicing pits is located immediately north of pumphouse 1. These six pits will be utilized to service all transient and VIP aircraft. Tactical aircraft requiring JP-4 will service from pumphouse 3, which has 4 servicing pits in parking ramp 1, and 2 pits in parking ramp 2. This will be the area in which the B-52 aircraft will be parked. Pumphouse 4 and 5, located in the north section of the parking area, services 4 pits in parking ramp 1 and 3 pits in parking ramp 2.

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These will be utilized for servicing all B-36 and support aircraft. Additional maintenance space will be available in the 8 Luria Docks, the large DC Hangar, and the old Arch Hangar if required. The crash fire station, located immediately south of Base Operations, will maintain fire control points throughout the competition area. Fire trucks for refueling and defueling will be made available through Job Control.

MAINTENANCE EQUIPMENT. The following items will be positioned in each B-36 maintenance dock for use of the B-36 units as required: four B-2 stands, eight B-4 stands, and two B-5 stands. One B-3 stand and four B-4 stands will be positioned in the B-52 dock for the 93d Bomb Wing. Other stands will be available on call through Job Control if required. In order to back up prepositioned equipment and to expedite requirements with a minimum of delay, multipurpose dock 21 will be utilized as a central pool for the following items of equipment: 7 ea A-2 tractors, 5 ea B-36 and 2 ea B-52 two bars; 20 ea B-10 power plants, 8 ea MA-1A air carts, 8 ea MD3 power plants, 5 ea gaseous oxygen carts, 2 ea LOX carts, 15 ea maintenance lights, type B-1, and 45 ea maintenance lights, Christmas tree type. These items will be dispatched by Job Control through the facilities of the telephone and/or radio communications net. Any other equipment on hand in the Ground Power Equipment Section will be made available on call through Job Control.

MAINTENANCE TRANSPORTATION. Each wing will be assigned a ½ ton pickup truck equipped with radio and 1 pickup truck without radio. Both trucks will be equipped with pintel hooks for towing. Radios will be tuned to Loring Maintenance Control frequency. Additional transportation will be available on call through Job Control for special purpose vehicles such as fork lifts and cranes, and for general purpose vehicles through the Base Taxi System.

SUPPLY. Supplies brought along by each unit will be positioned in the multipurpose dock and controlled as required by the unit involved. Additional support will be available through the facilities of the Supply Expeditor System and the radio and telephone nets. Parts will be exchanged on a one for one basis as required.

A representative of the maintenance section will meet each wing to act as host to the support personnel for maintenance matters and to assist as required.

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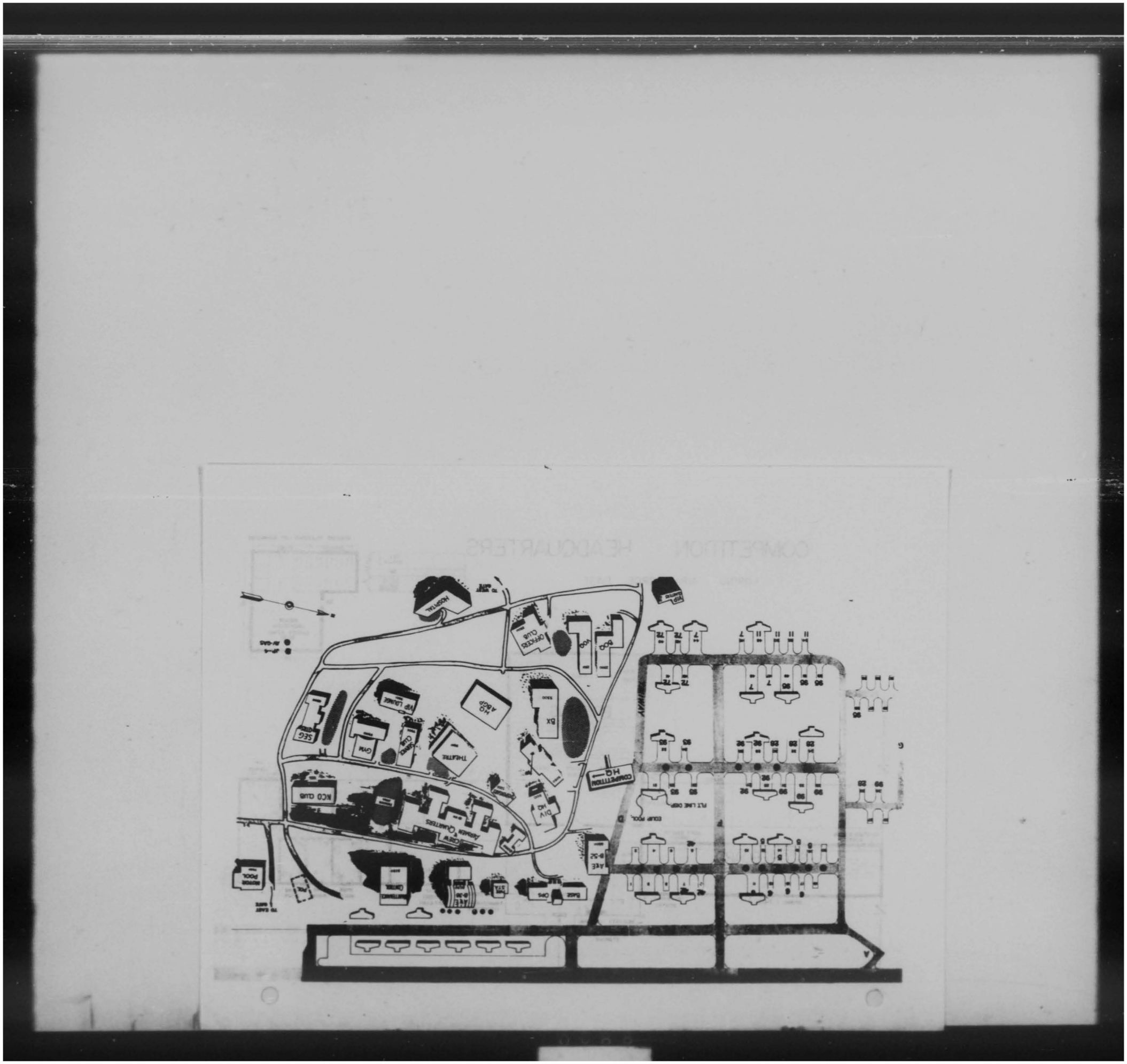

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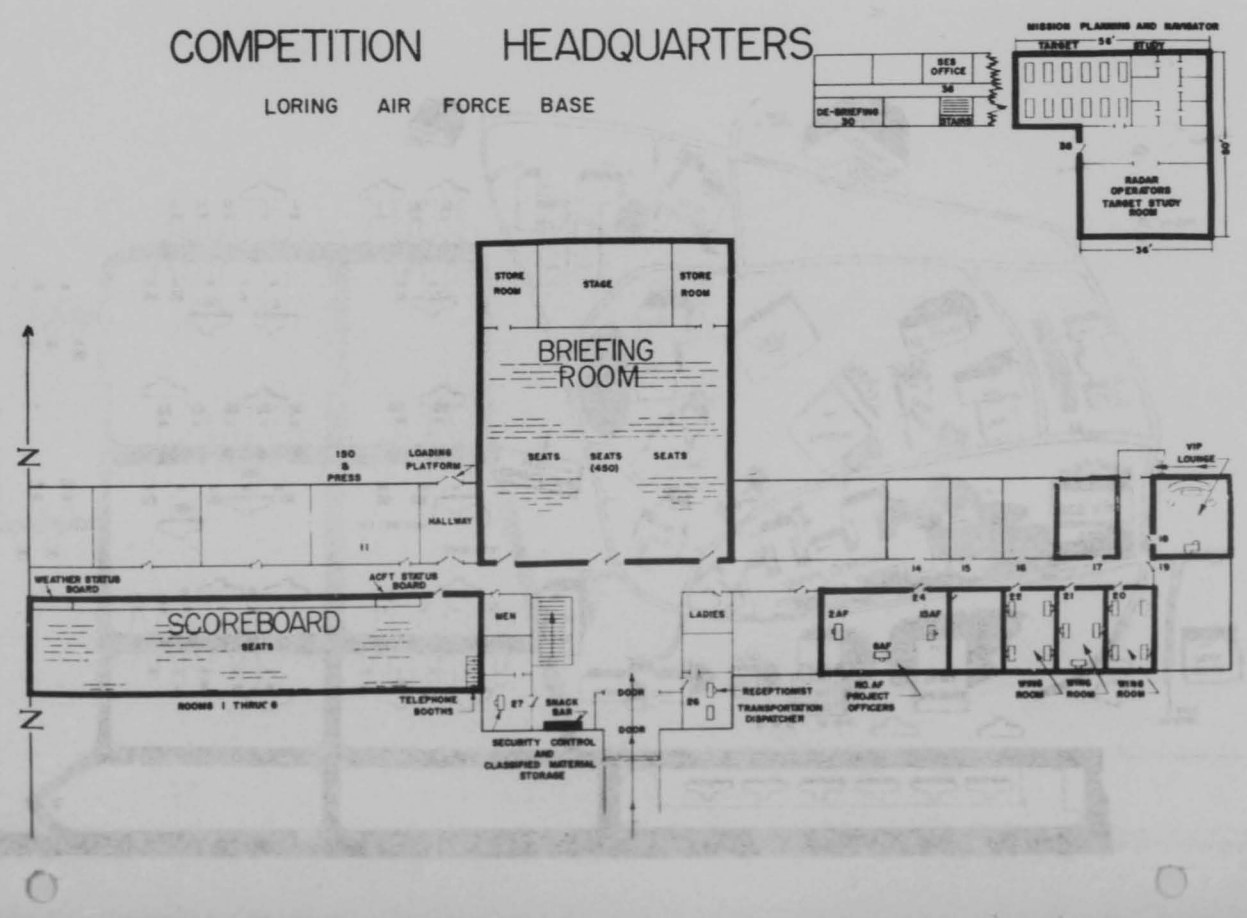
COMPETITION HEADQUARTERS

LORING AIR FORCE BASE



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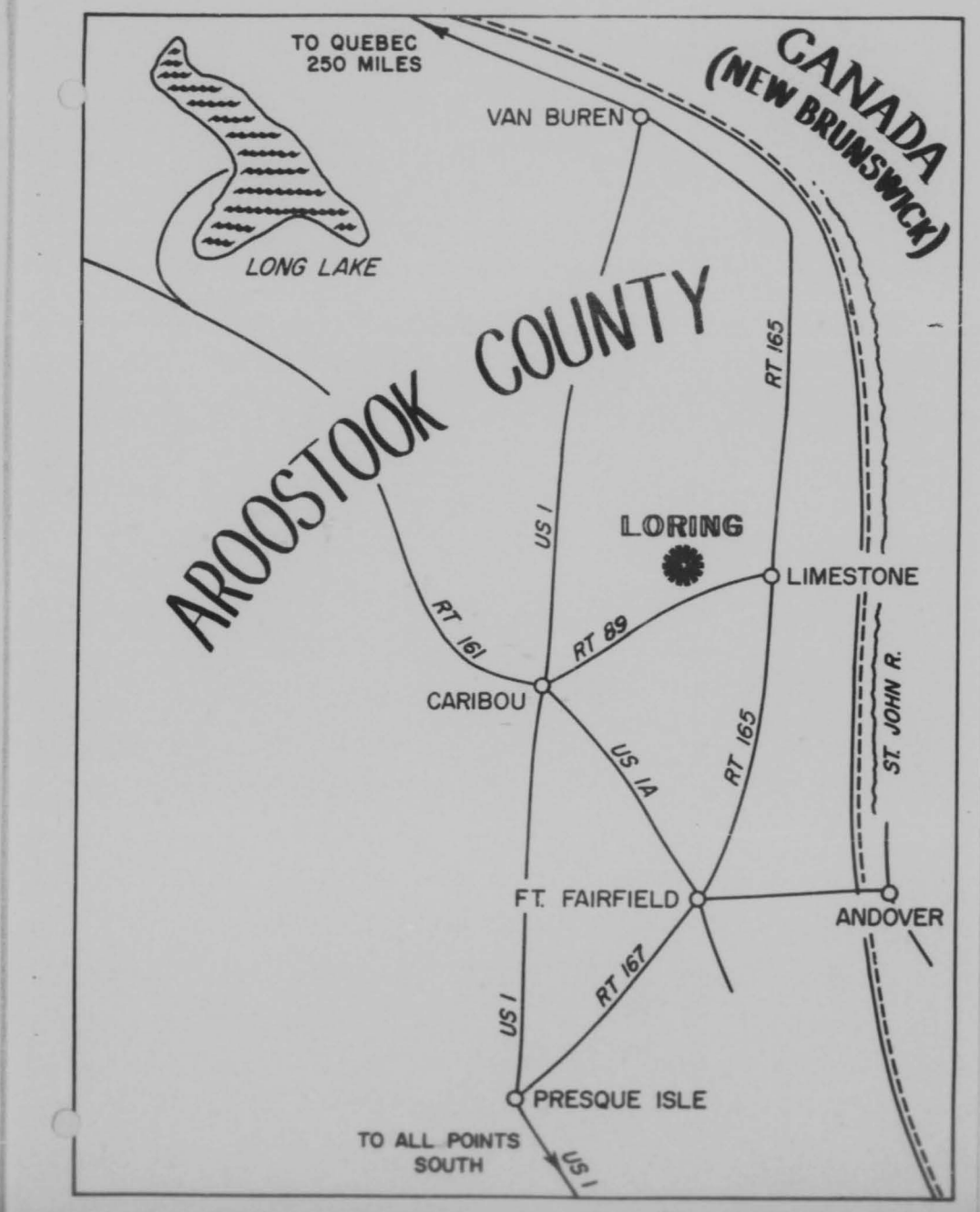

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HEADQUARTERS STRATEGIC AIR COMMAND
Offutt Air Force Base, Nebraska
June 1956

SAC ANNUAL BOMBING, NAVIGATION AND RECONNAISSANCE COMPETITION

I. PURPOSE. During the period 24-30 August 1956, a bombing, navigation and reconnaissance competition will be conducted at Lockbourne Air Force Base, Ohio, to determine the relative combat capability of bombardment and reconnaissance crews and wings, and to further the competitive spirit within the Strategic Air Command.

II. GENERAL.

1. Host - Eighth Air Force

2. Place:

a. Competition headquarters and staging base for B/RB-47 aircraft - Lockbourne Air Force Base, Ohio.

b. Staging base for B/RB-36 and B-52 aircraft - Loring Air Force Base, Maine.

3. Competition dates - 24-30 August 1956

4. Each bombardment and reconnaissance wing will be represented by two crews.

5. First briefing time and date to be announced.

6. All competition scores will be classified CONFIDENTIAL.

III. COMPETITION REQUIREMENTS.

1. Each crew will be scheduled to fly three missions. Each mission will include three radar RBS bomb runs and one night celestial navigation leg, and for RB-47 crews only, an additional photography requirement of one large scale target pin point and a tri-camera aerial photo-IP target run, both items to be accomplished concurrently.

2. To qualify for awards each crew must be scored as follows:

a. Bombing:

(1) The best six of the nine scheduled radar runs on RBS targets.

b. Navigation:

(1) The best two of the three scheduled night celestial navigation legs.

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c. Aerial photography: (RB-47 only)

(1) The best two of three large scale pin point accomplishments.

(2) The best two of three tri-camera IP-target runs.

NOTE: If more than 50% of the crews cannot accomplish either of the aerial photography requirements because of cloud cover, all crews will be scored on the basis of their best single accomplishment in this category and the point score for this accomplishment will be doubled.

IV. AWARDS.

1. Trophies will be presented to the winners of the overall competition as follows:

a. Winning SAC wing in the bombing and navigation competition. (The wing with the highest index in combined bombing and navigation competition in accordance with paragraph V, below, will be declared the winner of the Fairchild trophy and will be permitted to retain the trophy for one year).

b. A permanent trophy will be awarded to each of the following:

(1) Winning SAC wing in bombing.

(2) Winning SAC wing in navigation.

c. Individual trophies will be awarded to the crew members and maintenance teams of those crews as follows:

(1) The winning crew in combined bombing and navigation phases.

(2) The winning crew of the bombing phase.

(3) The winning crew of the navigation phase.

2. In addition to the overall competition, separate class competitions will be held for the B/RB-36, B-47/52 and RB-47 aircraft. Trophies will be awarded to the winners of the class competitions as follows:

a. B/RB-36:

(1) Winning wing, bombing and navigation.

(2) Winning crew, bombing and navigation.

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c. Aerial photography: (RB-47 only)

(1) The best two of three large scale pin point accomplishments.

(2) The best two of three tri-camera IP-target runs.

NOTE: If more than 50% of the crews cannot accomplish either of the aerial photography requirements because of cloud cover, all crews will be scored on the basis of their best single accomplishment in this category and the point score for this accomplishment will be doubled.

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b. A permanent trophy will be awarded to each of the following:

(1) Winning SAC wing in bombing.

(2) Winning SAC wing in navigation.

c. Individual trophies will be awarded to the crew members and maintenance teams of those crews as follows:

(1) The winning crew in combined bombing and navigation phases.

(2) The winning crew of the bombing phase.

(3) The winning crew of the navigation phase.

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a. B/RB-36:

(1) Winning wing, bombing and navigation.

(2) Winning crew, bombing and navigation.

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Offutt Air Force Base, Nebraska
June 1956

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4. Each bombardment and reconnaissance wing will be represented by two crews.

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2. To qualify for awards each crew must be scored as follows:

a. Bombing:

(1) The best six of the nine scheduled radar runs on RBS targets.

b. Navigation:

(1) The best two of the three scheduled night celestial navigation legs.

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b. B-47/52:

(1) Winning wing, bombing and navigation.

(2) Winning crew, bombing and navigation.

c. RB-47:

(1) Winning wing in combined bombing, navigation and aerial photography will receive the P. T. Cullen award and will be permitted to retain this award for one year.

(2) Winning crew, combined bombing, navigation and aerial photography.

V. SCORES AND WEIGHTS.

1. The appropriate tables in Annex II will be used for converting the circular errors for all navigation and bombing accomplishments to point values. The point values will be used in determining an index score for each phase of the competition in accordance with the weights specified in paragraphs 3 through 8 below. The maximum index that can be received for each phase is as follows:

PHASE	MAX INDEX
a. Rb-47 Wing, Reconnaissance Index	3600 points
b. Wing bombing and navigation	2000 points
c. Wing bombing	1500 points
d. Wing navigation	500 points
e. RB-47 Crew Reconnaissance Index	1800 points
f. Crew bombing and navigation	1000 points
g. Crew bombing	750 points
h. Crew navigation	250 points
i. Crew photo	800 points

2. In determining the winner of each phase of the competition, the competitors will be ranked according to index score except that those crews (and wings) not completing the minimum requirements (two thirds of the scheduled accomplishments as listed in Section III), will be ranked below those

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completing the minimums and in the order of their accomplishments. (Exception to this rule is made for aerial photography accomplishments which will be scored in accordance with Section III 2 c note). Crews (and wings) with equal accomplishment of minimums will be ranked according to their index scores. A wing will not be considered as completing the minimum requirements if either of its competing crews has failed to meet the crew minimums.

3. Crew Bombing Index.

The individual crew's bombing index will be the sum of the total points for the six best radar RBS runs accomplished.

4. Wing Bombing Index.

The sum of the crew bombing indices for the two crews of each wing will be the wing's bombing index.

5. Crew Navigation Index.

The individual crew's navigation index will be the total points received for the two best night celestial legs accomplished.

6. Wing Navigation Index.

The sum of the crew navigation indices for the two crews of each wing will be the wing's navigation index.

7. Crew Aerial Photography Index.

The individual crew's aerial photography index will be the total points received for the best two large scale pin point accomplishments and tri-camera IP-target runs unless cloud cover precludes full accomplishment. In this event the index will be computed in accordance with provisions of Section III 2 c note.

8. Crew Bombing and Navigation Index.

The sum of the crew bombing and navigation indices will be the crew's bombing and navigation index.

9. Wing Bombing and Navigation Index.

The sum of the crew bombing and navigation indices for the two crews of each wing will be the wing's bombing and navigation index.

10. RB-47 Crew Reconnaissance Index.

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11. RB-47 Wing Reconnaissance Index.

The sum of the crew reconnaissance indices for the two crews of each wing will be the RB-47 Wing's Reconnaissance Index.

VI. MISSIONS.

1. The competition missions will be flown as three separate missions, each consisting of the following scheduled accomplishments;

a. Three radar RBS runs.

b. One night celestial navigation leg.

c. One aerial photo tri-camera IP-target run and one large scale oin point photography requirement in conjunction therewith. (RB-47 crews only)

2. The order of take off of crews will be established for each type aircraft for the initial mission by drawing lots. The drawing for take off order will be accomplished at the competition headquarters as part of the official welcoming ceremony and will be arranged by the 3908th Strategic Evaluation Group. Wing commanders will designate the order of take off of crews within their respective wings at this time. This order of take off will then be rotated within elements by aircraft types for subsequent missions. To obtain proper conditions for aerial photography RB-47 aircraft will maintain the same block position in the B/RB-47 bomber stream.

3. Take off times and control times for each RBS run will be scheduled for all crews. All competing crews must meet their scheduled take off times within +-5 minutes.

a. Take off time will be considered as the start of the take off roll.

b. Aircraft failing to meet their scheduled IP control times within ± 3 minutes will be scored at the discretion of the RBS site; i. e., the RBS site will make the decision of whether or not the aircraft can be scored without interfering with other aircraft which are within the tolerance of their scheduled control times. If it is decided that the aircraft can be scored without interfering with other aircraft it will be scored; if not, the RBS site will declare an abort against the crew.

4. Navigation Conditions.

a. Procedures.

(1) The only navigation to be used on celestial navigation legs will be celestial and dead reckoning.

(2) The accomplishment of celestial navigation will be in accordance with SAC Regulation 51-11 with the following exceptions:

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(a) True heading checks, if required, will be accomplished at such a time as to permit completion prior to final heading correction.

(b) The celestial navigation leg will be plotted on a navigation chart (Blank JN or Mercator) provided by the 3908th SEG.

(c) ETA and final correction will be given to the umpire at least 10 minutes prior to termination of the celestial leg for conventional aircraft, and 5 minutes prior to termination of the celestial leg for jet aircraft. The radar set will be maintained below the perceptibility level and will be tuned immediately after the final course correction has been made.

(d) Scoring will be accomplished by RBS sites. Radar scope photography of the terminal point will be accomplished but will be developed and used for scoring only if an RBS score is not obtained.

(3) Altitudes to be flown on each competition mission will be assigned by the 3908th Strategic Evaluation Group. Each crew will adhere to its assigned altitude at all times except when forced by an emergency to leave the assigned altitude and/or the bomber stream. Changing altitude in order to obtain a celestial observation is not considered an emergency and is prohibited.

b. Navigation Scoring.

(1) All celestial navigation legs will be scored by an RBS site if possible. The following procedures will be used:

(a) Each aircraft will call in its DR position to the RBS site 15 minutes prior to its controlled ETA.

(b) Immediately after the navigator has given his final course correction and the aircraft has been placed on its final heading this heading will be called to the RBS site.

(c) Tone will be initiated 15 seconds prior to the ETA and will be terminated at the exact ETA.

(d) Distance from terminal point will be reported to the nearest $\frac{1}{4}$ mile.

(e) To maintain the proper bomber stream spacing, both for safety and to facilitate RBS scoring,

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crews will adhere as closely as possible to the briefed route on the celestial leg. If spacing of aircraft interferes with RBS scoring, aircraft will be scored at the discretion of the RBS site.

(2) In order to provide an alternate method of scoring, the following photograph procedures will be used:

(a) The O-15 camera will be placed on "Every Other Scan".

(b) The radar operator will take a minimum of two radar scope photos; one at navigator's ETA with fixed range markers and heading marker off. The second photo will be taken immediately after the first with the five mile fixed range markers and heading marker on. Additional photographs may be taken before or after the photographs required above; however, photos must be taken within plus or minus 3 minutes of ETA to be scored. In order to facilitate orientation by the photo interpreters in scoring the photography, it is suggested that additional photos be taken with radar on 30 and 50 mile ranges. These photos need not be taken within ± 3 minutes of ETA but should be as soon as possible after the required scoring photos.

(c) To insure maximum accuracy in the scoring, the radar scope will be expanded so as to place the terminal point or an identifiable return on the outer one-third of the scope.

(d) The clock in the scope camera will be synchronized with the navigator's time. If the scope camera clock cannot be synchronized, the radar operator will establish a time difference which will be recorded on the scope camera data plate. GMT will be used on all missions.

(e) The umpire will note and record the camera exposure number which appears to correspond nearest to ETA. This exposure number will be used by the photo interpreters to facilitate the location of the photo to be scored. However, in the final determination of the correct photo to be scored, the scorable frame nearest the ETA (as indicated by corrected scope camera clock) will be used to determine aircraft position. The ground speed used for determining ETA will be used to advance or retard that position as necessary to the exact time of the ETA.

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(f) O-15 magazines will be removed from the aircraft by the aircrew, marked with wing and crew number, and delivered to the umpire, who will turn them in to the scoring committee. The scoring committee will deliver the magazines to the 801st RTS laboratory if processing is required. The only exception to this procedure is as follows:

1. For aircraft staging out of Loring Air Force Base, film will be removed from the magazine by wing personnel in the presence of the crew umpire, placed in light-proof cans properly marked with wing and crew number, and delivered to the debriefing team by the umpire. Film will be transported by courier to the scoring committee.

(g) The radar scope photo for each required navigation terminal point for celestial navigation legs will be scored, if required, by the photo scoring team. These scores will be indicated to the nearest 1/4 nautical mile.

5. Bombing Conditions.

a. Altitudes.

(1) All RBS runs will be made at a minimum altitude of 33,000' PA.

(2) Altitude to be flown on each mission will be assigned by the 3908th Strategic Evaluation Group. Each crew will adhere to its assigned altitude at all times except when forced by an emergency to leave the assigned altitude and/or the bomber stream. Changing altitude in order to obtain better bombing conditions is not considered an emergency and is prohibited. Unauthorized changes in altitude will result in an abort for that run. Use of bombing optics is prohibited.

b. RBS scored radar bombing may be accomplished either during hours of daylight or darkness. Visual or radio assistance from any crew member will not be permitted from the start of the turn at the pre-IP until completion of the run.

c. No restrictions will be imposed upon full utilization of radar systems' capabilities in bombing.

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d. No restrictions will be imposed upon pre-flight or post flight inspections of radar equipment. Contrary SAC and/or numbered Air Force policies and regulations are waived for the competition.

e. Bombing Facilities.

(1) RBS Bombing.

(a) RBS sites at Richmond, Springfield, and Montreal will be utilized. Specific targets will be announced 17 August 1956. Selection of DGZ ~~s~~ will be made by the 3908th Strategic Evaluation Group.

(b) An RBS run will be made against each of the RBS sites.

(2) All RBS sites used in the competition will be equipped with HF, VHF and UHF communication facilities.

f. Method of Scoring.

(1) Radar Bombing.

(a) All RBS runs will be scored by the RBS detachments. Each air force is authorized one officer referee at each RBS detachment. Officer referees must be on official orders designating them as such and indicating a security clearance of SECRET.

6. Special rules for aerial photography are included in Annex I.

7. Training Credit.

Since August is a special training month, no training accomplished during the competition will be credited to crew's 50-8 or probation training records in this headquarters. All runs will be recorded as practice activity.

VII. UMPIRES, FOULS, AND PENALTIES:

1. A designated officer umpire will fly in each aircraft on all missions to insure compliance with competition rules.

2. Officers designated as official umpires will not be scheduled to fly in aircraft of their own wing. They will be assigned to the type aircraft with which they are familiar, but will not fly with the same crew twice.

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3. Duties of the Umpire.

a. The umpire will in no way interfere with the crew members in performing their mission.

b. The umpire will be thoroughly familiar with all the rules set forth to govern this competition and state these rules in event there is a question by the crew members.

c. The responsibility for complying with these rules rests with the crew, and the umpire will note any discrepancies or variances from the prescribed rules and report these to the judging and arbitration committee.

d. The umpire will complete an "Umpire's Certificate" after each mission and submit it to the Scoring Committee at debriefing.

e. The umpire will insure that bombing optics and view finders are masked for all RBS runs in accordance with instructions to be given during umpire's briefing by the 3908th Strategic Evaluation Group.

f. The umpire will observe the weather conditions frequently on the celestial navigation legs and record them on the weather cross section of the umpire's certificate.

g. All umpires will adhere to the standing operating procedures to be provided by the 3908th Strategic Evaluation Group.

4. Fouls and Penalties.

a. Aborts. Only three missions will be flown and no provisions will be made for making up uncompleted portions of aborted missions.

b. Crews will be credited with an abort for appropriate part of mission under any of the following conditions:

(1) Uncompleted portions of the mission due to crew error.

(2) Aircraft failing to meet scheduled take off times within ± 5 minutes.

(3) Bombing wrong city complex.

(4) Preliminary dry run on competition target.

(5) RBS could not score bomb runs because crew did not meet scheduled control time within ± 3 minutes.

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(6) Departure from assigned altitude for the purpose of obtaining better conditions for accomplishing navigation and bombing requirements.

c. Crews will be disqualified from the entire competition under any of the following conditions:

(1) Utilizing visual or radio aids during radar RBS runs.

(2) Utilizing visual, radio or radar means to obtain DR information on celestial navigation leg or mission.

(3) Use of unauthorized target materials on competition missions.

(4) Illegal assistance or any willful act which reflects unfavorably on the intent and purpose of the competition.

(5) Use of aircraft not assigned to wing.

d. Crews will receive a minimum score for appropriate part of mission under any of the following conditions:

(1) Completing final correction on celestial leg after the aircraft has passed abeam of termination point as plotted from briefed course.

(2) RBS ground abort.

(3) Unscorable aerial photography.

(4) Aerial photography not meeting the specifications of SAC Regulation 50-26.

(5) Aerial photography strips of insufficient length, i. e. less than 5 NM preceding or beyond the IP and/or target aiming points.

(6) Aircraft not within 4 NM of briefed course at a point 15 NM from the target on RBS bomb runs.

e. Crew will receive a zero score for all uncompleted mission requirements.

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VIII. COMMITTEES:

1. Judging and Arbitration Committee.

This committee will consist of four officers headed by the Director of Operations, Headquarters SAC, or his representative. Headquarters Second, Eighth and Fifteenth Air Forces, will each appoint one officer to this committee and forward his name to Headquarters SAC to arrive no later than 17 August 1956.

a. The functions of this committee are as follows:

(1) To arbitrate any differences that may arise between the crew and the umpire.

(2) Interpret the rules.

(3) Render decisions upon unusual circumstances that are not covered in prescribed rules.

(4) Determine winning wings and winning crews under rules prescribed herein.

(5) Amend the rules as the situation dictates and for the benefit of the majority.

b. All requests for arbitration on rulings must be submitted to the arbitration committee in writing. Request for arbitration should be submitted in four copies to the competition project officer addressed to the Chairman of the Arbitration Committee and authenticated by the unit commander or unit project officer. The Arbitration Committee will post one copy of the request for arbitration on the competition bulletin board. After arbitration is completed one copy of the arbitration request including the results will be retained by the scoring committee, one copy will be returned to the originating unit and one copy will be placed on the competition bulletin board. Units staging at Loring Air Force Base will submit requests for arbitration by the most expeditious means.

c. Requests for arbitration on scores must be made within ten hours of posting of the scores for the first two missions, and not later than midnight of the day on which the last mission is completed.

2. Scoring Committee.

This committee will consist of thirteen officers and Operations Analysis personnel, headed by an officer from the Training Division, Directorate of Operations, Headquarters SAC. Four officers will be furnished from

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Headquarters SAC and three from each numbered air force. One officer from each numbered air force will have knowledge of reconnaissance procedures. The Operations Analysis personnel will be furnished from Headquarters SAC. Names of the air force representatives will be forwarded to Headquarters SAC to arrive no later than 17 August 1956. The functions of the committee are as follows:

a. To determine the scores and rankings of the wings and crews under the rules prescribed herein.

b. To supervise the photo scoring team in the interpretation of all aerial photography.

3. O-15 Photo Scoring Team.

Each air force will furnish one representative, an observer, AFSC 1525, well qualified in scoring O-15 scope photography, to score celestial navigation legs that cannot be scored by the RBS site. This team will be under the jurisdiction of the scoring committee.

4. Access to the scoring committee rooms will be limited to members of the arbitration committee, scoring committee and the photo scoring team.

IX. RESPONSIBILITIES:

1. The Eighth Air Force is responsible for:

a. Providing all facilities required for the conduct of the competition in accordance with these rules.

b. Furnishing personnel to the 3908th Strategic Evaluation Group for debriefing crews and umpires.

c. Delivery of logs and forms to the scoring committee.

d. Upon arrival of competing aircraft at the staging bases, obtaining accurate crew roster and submitting it to the scoring committee and the 3908th Strategic Evaluation Group briefing team.

e. Providing necessary security for competition activities conducted at Lockbourne Air Force Base and at Loring Air Force Base.

f. Providing aircraft to the 3908th Strategic Evaluation Group to test fly the competition mission and obtain photography as required.

g. Providing a secure room to accommodate the scoring committee and photo scoring teams and such other facilities as may be needed by those teams.

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h. Determining the requirement for officers to act as umpires for this competition, and requesting the numbered air forces to furnish the required number, who will be of field grade rank, possessing AFSC 1525. Subject officers will arrive at staging bases prior to 2400 hours 22 August 1956 to be briefed by the 3908th Strategic Evaluation Group on the duties of the umpire. Necessary substitute umpires will be provided.

i. Publishing an arrival schedule for all participating wings.

j. Providing and maintaining appropriate score boards and status charts for the competition.

k. Providing necessary support to the conduct of the operation of aircraft from Lockbourne Air Force Base and Loring Air Force Base to include:

(1) Provision of adequate facilities for mission planning, briefing and interrogation of crews.

(2) Provision of adequate security.

(3) Provision of necessary administrative personnel for the conduct of competition activities at each staging base.

2. The Second Air Force is responsible for:

a. Coordination with the Eighth Air Force to determine the logistical support required at Lockbourne Air Force Base for B/RB-47 aircraft participating in the competition and to provide that support.

b. Coordination with Eighth Air Force to determine the logistical support required at Loring Air Force Base for B/RB-36 aircraft participating in the competition and to provide the support.

3. The Fifteenth Air Force is responsible for:

a. Coordination with Eighth Air Force to determine the logistical support required at Lockbourne Air Force Base for B/RB-47 Aircraft participating in the competition and to provide that support.

b. Coordination with Eighth Air Force to determine the logistical support required at Loring Air Force Base for B/RB-36 and B-52 aircraft participating in the competition and to provide the support.

4. The 3908th Strategic Evaluation Group is responsible for:

a. Formulating detailed plans of all missions to be flown during the competition, and forwarding them to Headquarters, Strategic Air

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Command, so as to arrive not later than 4 August 1956. Mission plans will be forwarded to the numbered air forces in such time as to assure dissemination to participating units on 17 August 1956.

b. Briefing and debriefing crews and umpires, including substitutes, on rules and responsibilities.

c. Assigning umpires to crews.

d. Coordinating mission routes, times and block altitude requirements with CAA to insure air traffic control clearance for the competition.

e. Selection of specific RBS targets.

f. Providing complete and standardized target materials for each target selected; forwarding such materials to the numbered air forces in such time as to insure receipt by participating units on 17 August 1956. Identical sets of target materials will be furnished each unit and will include:

(1) Best available radar scope photographs of all target areas.

(2) Vertical photos of all reconnaissance IP's and targets, and RBS targets.

(3) Height and structural overlays of radar target areas, if available.

(4) Target complex mosaic, series 25.

(5) Target complex charts, series 100, 100RI, 250 and 500, if available.

g. Maintaining operational control and being responsible for resolving all flight planning factors.

h. Maintaining an operational status board in proximity to the master scoreboard.

i. Conducting mission briefing for all competition missions.

j. Scheduling flight missions for all participating crews.

k. Preparing Section D of the clearance Form DD 175 for issue to Base Operations.

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1. Monitoring take off time of all competing aircraft and assisting in tower control of aircraft as necessary during the taxiing and take off periods for each mission.

5. The 1st Radar Bomb Scoring Group is responsible for the scoring of all RBS runs and celestial navigation legs and reporting scores to the competition scoring committee from all target sites. This organization will take action to lease direct telephone communication lines from the RBS sites concerned to Lockbourne Air Force Base.

6. Publicity planning for the competition will be the responsibility of the special assistant to the Commander in Chief, SAC.

7. Logistical and Administrative Support, general:

a. Each wing will be permitted to use two wing assigned aircraft in the competition. No spares will be authorized.

b. (1) Each wing will pre-position at the staging bases the required power packs from base assets regardless of the type of aircraft.

(2) Fifteenth Air Force will pre-position one C-47 aircraft and crew at San Antonio Air Materiel Area to support the B/RB-36's at Loring Air Force Base. Second and Eighth Air Forces will each pre-position one C-47 aircraft and crew at Oklahoma City Air Materiel Area to support the B/RB-47's at Lockbourne and the B-52's at Loring Air Force Base.

(3) Second and Fifteenth Air Forces will provide one each T-33 aircraft with pilots and crew chiefs for courier and support service at Lockbourne. Eighth Air Force will provide two T-33's at Loring and any additional T-33 aircraft required.

c. B/RB-36 and B-52 aircraft will stage from Loring Air Force Base, and B/RB-47 aircraft will stage from Lockbourne Air Force Base.

d. Names of the selected umpires will be forwarded to the Eighth Air Force by the numbered Air Forces to arrive no later than 10 August 1956 with an information copy to the appropriate project officer and the 3908th Strategic Evaluation Group.

e. The following maximum numbers of maintenance personnel are authorized to accompany each participating wing:

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	TYPE WING	AIRMEN	OFFICERS
(1)	B/RB-36	47	3
(2)	B-47	24	2
(3)	RB-47	26	2
(4)	B-52	35	3

NOTE: Included in the above personnel will be a licensed tractor operator and a licensed vehicle driver.

Contract Technical services personnel will not be used to maintain competing aircraft or aircraft systems during the period of the competition.

f. Maintenance personnel accompanying aircraft will carry sufficient hand tools and test equipment to accomplish normal routine flight line maintenance.

g. Maintenance personnel will not be authorized to fly in any aircraft on competition missions.

h. Bomb-Navigation system equipment will be provided as follows:

(1) Eighth Air Force will provide one MA-7A mock up at Lockbourne Air Force Base

(2) Second Air Force will provide one MA-7A mock up at Lockbourne Air Force Base

(3) Lockbourne Air Force Base will provide two K4 Bomb-Navigation system mock ups

(4) Loring Air Force Base will provide one MA-6A Bomb-Navigation system mock up

(5) Loring Air Force Base will provide one K3 Bomb-Navigation system mock up

(6) Fifteenth Air Force will provide one Q-24 mock up at Loring Air Force Base

i. Maintenance equipment to accompany aircraft

(1) B/RB-47 aircraft

(a) Two C-26 and/or MD-3 power units per wing.

(b) Each wing is authorized to bring one K cart if desired. 24 K carts are available at Lockbourne Air Force Base.

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(c) One tow bar per wing

(d) Each wing will provide from their own resources the number of B-4 stands they consider necessary to perform the required maintenance on their aircraft. Lockbourne Air Force Base will provide a total of 20 B-4 stands to be used as a back up pool.

(e) One spare drag and brake chute per aircraft

(f) One flight line LOX servicing unit per air force. Wings will be responsible to service own aircraft.

(g) Minimum 263 equipment and wheel chocks.

(2) B/RB-36 Aircraft

(a) One B-10 per wing (Loring Air Force Base will provide one additional B-10 per wing)

(b) Minimum 263 equipment and wheel chocks

(c) Loring Air Force Base will furnish one maintenance dock per B/RB-36 wing.

(d) One tow bar per wing

(3) B/52 Aircraft

(a) Minimum 263 equipment and wheel chocks

(b) Loring Air Force Base will furnish one maintenance dock per B-52 wing.

(c) Loring Air Force Base will furnish two MD-3 generator sets and two MA-1A pneumatic power carts per B-52 wing.

(d) LOX carts and equipment will be furnished by Loring Air Force Base. Wings will be responsible for their own servicing.

(e) Spare drag chutes will be provided by Loring Air Force Base.

j. Participating wings will carry enroute kits consisting of critical and peculiar aircraft parts for their anticipated requirements.

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k. RB-47 aircraft will be equipped with K-38 cameras with suitable magazines and K-17 or KA-3 cameras with suitable magazines. Vertical cameras will not accompany other than RB-47 aircraft. O-15 cameras and sufficient magazines for three missions will accompany aircraft of all types.

l. Umpires will bring their own oxygen masks and helmets, and all participating crews will carry spare personal equipment to include helmet, "T" type headset and microphone cord extension. B-47 aircraft will also be equipped with safety belt for a fourth position and an oxygen hose of 8-foot minimum length, and the umpire will be thoroughly checked out on the operation of the recharger hose plug-in for the oxygen walk-around bottle at both the co-pilot's and observer's position. The provisions of SAC Regulation 60-10 are waived for the period of this competition.

m. Numbered air forces will advise Eighth Air Force with information to Lockbourne Air Force Base or Loring Air Force Base and 3908th Strategic Evaluation Group of the tentative number of participating crews and aircraft no later than 10 August 1956. Eighth Air Force will notify the numbered air forces no later than 17 August 1956 of scheduled time of arrival at staging bases of each participating unit.

n. All participating wings will submit typewritten rosters to include name, rank, serial number and crew position of all participating crews and maintenance personnel to Eighth Air Force, with information copy to the other numbered air forces, Lockbourne Air Force Base or Loring Air Force Base project officers and 3908th Strategic Evaluation Group. Subject rosters will be sent by airmail in sufficient time for receipt by the addressees no later than 10 August 1956. Competition crews must be duly constituted crews in accordance with SAC Regulation 50-5 as of 1 August 1956. Requests for crew changes required by unusual circumstances subsequent to 1 August 1956 must be submitted to this headquarters, attention DOTR, for approval. Crew changes required during the competition will be subject to approval of the arbitration committee.

o. Staff personnel desiring to attend the competition will be limited to three for each air force and air division and five for each participating wing at any one time. Participating staff personnel will notify the staging air force base to be visited with information to Eighth Air Force headquarters fourteen days prior to arrival of the names, rank and organization of officers attending, plus the number of additional crew members to be housed and messed. ETA's will be forwarded to staging bases a minimum of twenty-four hours in advance of arrival time. Due to limited parking facilities at the staging bases, aircraft other than those required for the competition will not be allowed to stay at that station longer than twenty-four hours. Notams will be sent out prior to the start of the competition missions.

p. Local funds will be used for per diem costs of personnel traveling in connection with the competition.

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q. In order to simplify the security administration procedures all personnel from SAC should arrive at the staging bases with SAC security passes in their possession.

r. Crews will arrive at the staging bases with aircraft access list and accurate crew roster to include name, rank, serial number and crew duty typed in quadruplicate.

s. Each participating crew will carry navigation charts and all necessary forms for all missions to cover entire competition route.

t. Bombing Tables.

Wings will bring their own bombing tables. MK-6 bombing tables in the Shack Format will be used for all RBS bomb runs.

u. Single point refueling will be used at both Lockbourne and Loring Air Force Bases, and each wing will provide its own refueling officers from personnel complement authorized to attend the competition in paragraphs 7 e and 7 0, above.

v. Logistical support, other than that outlined in these rules, will be coordinated between the numbered air forces.

X. TARGET MATERIALS, TARGET STUDY, AND BRIEFING.

1. All competing crews are restricted from flying within a radius of 50 nautical miles of competition RBS target complexes after 16 August 1956 and from making trainer runs on ultrasonic trainer plates of the competition target complexes after 23 August 1956.

2. Target materials will not be made available to participating crews prior to 17 August 1956.

3. Only standard target materials issued by the 3908th Strategic Evaluation Group will be used by participating crews on competition missions.

4. All participating crews will receive identical briefing. B/RB-47 crews will be briefed at Lockbourne Air Force Base by a briefing team selected by 3908th Strategic Evaluation Group. All other crews will be briefed at Loring Air Force Base by a briefing team selected by the 3908th Strategic Evaluation Group.

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ANNEX I ---- AERIAL PHOTOGRAPHY

1. CONDITIONS:

a. The observer may receive assistance from other crew members in order to maintain his position on the flight line.

b. MSL altitude will be entered on the photo log for each run in addition to all standard data.

c. Crews will not operate any cameras other than those required for the competition. Any crew using extra cameras for any run will be disqualified for that run. This is done to insure uniformity of scoring data for all crews.

d. Fixed mount installations will be used for aerial cameras with no correction for crab.

e. The 801st Reconnaissance Technical Squadron evaluation area is a restricted area for all personnel except the following:

(1) Arbitration Committee

(2) Scoring Committee

(3) Evaluation Personnel

(4) Processing Personnel

(5) SAC Project Officer

(6) SEG Project Officer

(7) Lockbourne Project Officer

No other persons will be admitted to the Reconnaissance Technical Squadron building without the express approval of the chairman of the Arbitration Committee.

2. OPERATING PROCEDURES:

a. Large Scale Pin Point Photography.

(1) Each accomplishment will consist of two parts:

(a) A run on the designated IP aiming point

(b) A run on the designated target aiming point

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(2) Photography will be:

(a) Taken with one K-38 camera with a 36-inch cone mounted in the prime vertical position

(b) Started at or before a distance of 5 nautical miles preceding the designated IP or target aiming point (as applicable) and continued at least 5 nautical miles beyond the designated IP or target aiming point.

b. Tri-Camera IP-Target Photography

(1) Photography will be:

(a) Taken with one K-17 or KA-3 camera with a 6-inch cone and magazine suitable to the camera and control system. It will be mounted in the vertical mount of the tri-camera station.

(b) Started at least 5 nautical miles prior to the IP and continued to a point at least 5 nautical miles beyond the target.

3. FILM HANDLING PROCEDURES:

Each reconnaissance wing will unload its own large scale and tri-camera film from the aircraft, remove it from magazines in Armament-Electronic squadron dark rooms, and deliver it to the 801st Reconnaissance Technical Squadron Laboratory. Umpires will remain with the film from the time it is removed from the aircraft until it is delivered to the laboratory.

4. SCORING PROCEDURES:

a. Points accrued for large scale and tri-camera photography will be added to bombing and navigation scores for each crew.

b. A master sectional flight line map will be prepared against which all flight lines will be scored. Photo copies of these maps will be included in target folders.

c. Point Scores:

(1) Large Scale

(a) The crew can obtain a maximum of 200 points per aerial photo large scale target photography accomplishment (100 points for 60 per cent overlap and 100 points for zero flight line deviation).

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(b) Evaluated photography of both IP and target aiming points will be applied to the scoring tables to determine the point values. The sum of point values for both parts will be the score for one comnlete large scale target photography accomplishment.

(c) A minimum score will be given for IP or target photography if less than 5 nautical mile coverage is obtained prior to and beyond the aiming point.

(2) T[redacted]a

(a) The crew can obtain a maximum of 200 points per IP-Target tri-camera accomplishment (100 points for zero overlap error and 100 points for zero flight line deviation).

(b) A minimum score will be given if:

1. Less than 5 nautical mile coverage is obtained before the IP or past the target

2. Flight line deviation in any photograph exceeds 25 per cent of the lateral photo coverage.

(3) A minimum score will be given for any photographic accomplishment rejected under the provisions of SAC Regulation 50-26, June 1955, for any reason except weather.

(4) Tables for converting proficiency values to point scores are listed as appendices to this annex.

c. Cloud Cover.

Should cloud cover obscure a portion of the run credit will be given if:

(1) The required aiming points are visible in any of the photos. (Both IP and target must appear in tri-camera photography)

(2) Sufficient photography is obtained to determine overlap and interpolate for flight line adherence. (Tri-camera photography) (See Basic Rules, Section III 2 c (2) "NOTE" for exception to this provision)

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e. Flight Line Deviation.

Flight line deviation will be scored on the lateral displacement of the photo principal point from the briefed aiming point or flight line.

(1) The photo on which the briefed aiming point is most nearly centered in the direction of flight will be used to score flight line deviation of large scale photography.

(2) Average flight line deviation for tri-camera photography will be determined by averaging deviations of individual photographs for the entire run.

f. Overlap Error.

Overlap error will be scored between successive exposures of the complete run, beginning with the first and second, second and third, etc. All overlap error measurements will be added arithmetically (without regard to direction of error) and divided by the number of measurements to arrive at an average overlap error.

g. Processing of Film.

All exposed film will be developed and scored in the 801st Reconnaissance Technical Squadron Laboratory at Lockbourne Air Force Base. At the completion of the competition film and logs must be claimed by wing representatives.

5. EVALUATION TEAMS:

The 21st, 801st and 825th Air Divisions will each furnish three qualified aerial photographic analysis personnel with necessary equipment and scoring directives. The 544th Reconnaissance Technical Squadron will furnish a qualified officer to act as team supervisor. Personnel will be divided into teams as required to evaluate all photography and convert proficiency values to point scores as determined from the scoring annex.

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HEADQUARTERS 42D BOMBARDMENT WING (H) (SAC)
LORING AIR FORCE BASE, MAINE
12 SEPTEMBER 1956

42D BOMB WING

OPERATIONS FLIMSY 225-56

COMMANDERS COMPETITION

"BENCH WARMER"

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TABLE OF CONTENTS

GENERAL:

ANNEX "A" NAVIGATION

ANNEX "B" RADAR

ANNEX "C" AIR PERFORMANCE ENGINEER

ANNEX "D" GUNNERY

ANNEX "E" COMMUNICATIONS

CONFIDENTIAL

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
12 September 1956

OPERATIONS FLIMSY 225-56 "BENCH WARMER"

1. GENERAL SITUATION: The second Eighth Air Force Commanders Competition will be held from 17 through 21 September 1956 with all Air Force, Division, Tactical Wing and Squadron Commanders participating. The 45th Air Division's commitment is five (5) B-52 aircraft. Unclassified nickname for this mission is "BENCH WARMER". (C)

2. MISSION: To accomplish radar scored simulated bombing attacks against targets listed below: (and crew training upon completion of runs on Montreal)

ALFA - RICHMOND DGZ HOTEL, DIRECT AIMING, MACH .74

BRAVO - SPRINGFIELD DGZ HOTEL, OPTIONAL AIMING, MACH .74

COCA - MONTREAL DGZ ECHO, OPTIONAL AIMING, MACH .74

NOTE: MACH .74 is to be flown from Pulaski, Va VOR through Montreal RBS site. (C)

3. H-HOUR CONTROL TIME: Greensboro, N.C. VOR has been designated as HHCL.

a. 42d Bomb Wing's block of time is from 03:15Z 20 September to 04:30Z, 20 September, with first aircraft arriving over Greensboro VOR at 03:15Z ± 2 minutes and suceeding aircraft at 15 minute intervals ± 2 minutes. (C)

b. A fifteen minute pad has been provided just prior to HHCL. (C)

c. Make up H-Hour control time is 04:30Z, 21 September 1956. (C)

4. ROUTES AND ALTITUDES: The route is common to all aircraft (For route see Annex #1, Navigation).

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a. Altitudes: Cruising and bombing altitudes are alternately 34,000 and 36,000 feet with 15 minutes between aircraft and 30 minutes between aircraft at the same altitude. (For details see Inclosure #1) (C)

b. Refueling: Refueling will be accomplished by all aircraft. The tankers will be stacked at 1,000 feet intervals from 19,000 feet through 15,000 feet. The first B-52 in the bomber stream will rendezvous with the 19,000 foot tanker, the second aircraft with the 18,000 foot tanker, etc.

(1) Tanker Orbit: Mont Louis 49-15N 65-45W

(2) Rendezvous Pt: 48-24N 66-58W

(3) End Refueling - 47-16N 68-35W

(4) Refueling Track - 225 Degrees

(5) On Load: 22,000#

(6) Communications: C/R SAC Manual 100-1, POSTSTRIKE (C) Refueling for NEAC/Canada. Initial contact will be made on 308,8 mcs immediately after leaving Goose Bay. Confirm with the tanker that he is highest tanker in the stack. Then inform him to use ALFA LEFT (1, 2, 3, 4 or 5) frequencies corresponding to the B-52's position in the original bomber stream. (C)

5. CONTROL TIMES:

a. H-Hour Control Time as specified in paragraph #3. In addition, to re-establish 15 minute spacing between aircraft a second control time will be made at Goose Bay. The leader will announce ETA's and ATA for Goose Bay; succeeding aircraft spacing themselves at 15 minute intervals. (C)

Pg #2 9284c

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b. Any time to be lost will be accomplished by turning to the outside of the bomber stream. (C)

6. RECALL WORD: DISFIGURE (C)

7. FLYING SAFETY:

a. Altitude separation between successive aircraft in bomber stream will be 2,000 feet. Time separations between aircraft at same altitude will be 30 minutes.

b. Flying safety will take precedence throughout the entire mission. In event of an emergency, flying safety consideration will take precedence over mission accomplishment.

c. Alternate air bases:

(1) Wright-Patterson, Ohio

(2) Westover, Mass.

(3) Goose Bay, Laborador (C)

8. REPORTS: The following reports will be submitted for the bombardment portion of the mission in accordance with SAC Manual 55-8 and 55-8B. All reports will be submitted distribution B:

a. B-2, B-9, B-10, B-11, B-15, B-17.

b. B-51: Reports will be prepared by PI of 42d Bomb Wing.

c. Reports required in accordance with paragraph 6 a (1) SAC Manual 55-8.

d. JANAP 146(C) will be complied with. (U)

9. ACCOMPLISHMENTS:

a. 1 Night Celestial

b. 3 Radar RBS Runs

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Pg #3

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c. 1 Celestial Grid

d. 1 Refueling Rendezvous

e. 1 Refueling

f. 1 ECM ADC Run

g. 1 ECM Spot Jam

h. 1 Gunnery Mission

i. 1 Jet Penetration

j. 1 Take off and 1 Landing. (U)

10. ABORT PROCEDURE: In case a crew finds it necessary to abort the bomber stream, the following will apply:

a. Turn 90 degrees off course.

b. Hold for 3 minutes.

c. Obtain clearance to home base or emergency base. (U)

x. General Instructions:

(1) General and specialized briefing will be held in Wing Briefing Room, Training and Briefing Building, on 18 September at 1400 hours local time.

(2) Wing operations will arrange route and block clearances. Individual Form 175's will be submitted to Wing Control in the normal manner.

(3) Final weather briefing will be held in 75th Bombardment Squadron Operations, 19 September at 1630 Eastern Daylight Saving Time. (U)

Pg #4

9284 C

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(4) Debriefing will be held in A&E Building immediately after landing. (U)

Incl #1
Chart of T/Off Order etc.

DON W. BAILEY
Colonel, USAF
Director of Operations

OFFICIAL:

Joseph G. Ross Jr.
JOSEPH G. ROSS, JR
1st Lt, USAF
Adjutant

DISTRIBUTION:

Comdr 45AD	1 cy
45DO	2 cys
45DM	1 cy
Comdr 2-7 Weather	2 cys
Comdr 1974 AACS	2 cys
ABG Materiel	1 cy
Base Operations	2 cys
Comdr 42ABG	1 cy
Comdr 42A&E	1 cy
42C	2 cys
42DM	3 cys (1 cy Chief of Maint)
42DO	26 cys (6 cys to be held for history)
Comdr 69BS	6 cys
Comdr 70BS	6 cys
Comdr 75BS	12 cys
Comdr 8AF (DOO1B)	4 cys

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Pg #5 CONFIDENTIAL

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ACFT CALL SIGN & NO	ACFT COMMANDER AND COMMANDER	START ENGINES T/OFF MINUS	TAXI T/OFF MINUS	EST. TIME ZULU	WIND T/OFF	CONTROL TIMES HHCL GREENSBORO VOR	GOOSE BAY	ROUTE & BOMBING ALT.	REFUELING ALTITUDE
UPKEEP 12 3407	SANDACZ GEN MARTIN	- 40	- 20	2400	0315	TO BE ESTABLISHED BY LEADER		34,000	19,000
UPKEEP 44 2666	WRIGHT COL HILLMAN	- 40	- 20	0015	0330			36,000	18,000
UPKEEP 75 2670	MORGAN L/COL. STEWART	- 40	- 20	0030	0345			34,000	17,000
UPKEEP 15 2671	BRUCE L/COL. SCOTT	- 40	- 20	0045	0400			36,000	16,000
UPKEEP 10 3401	BRITTON L/COL. RISHER	- 40	- 20	0100	0415			34,00	15,000
UPKEEP 43 3408	SPARE								

INCL #1 GENERAL TO 42D BOMB WING OPS FLIMSY # 225-56 CONFIDENTIAL

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1# RO[illegible] ANNEX "A", NAVIGATION, 42D BOMB WING FLIMSY 225-56 DATE 13 SEPTEMBER 1956

	DESIG.	T.C.	BASE ALT.	DIST.	TOTAL DIST.	REMARKS
FROM LORING AFB, ME 46-57N 67-53W	BASE		CLIMB	10	10	START CLIMB TO BASE ALT
HOULTON VOR 46-02N 67-49W		178	CLIMB	56	66	
46-16N 69-12W	L/O	282	34M	60	126	L/O AND START N. CELESTIAL
46-42N 71-52W	T.P.	281	34M	111	237	
NORTH BAY, CANADA 46-19N 7928W	T.P.	266	34M	316	553	
PARKERSBURG, W. VA 39-16N 81-31W	T.P.	192	34M	431	984	END NITE CELESTIAL
PULASKI, VOR 37-03N 80-44W	T.P.	163	34M	135	1119	START FLYING MACH .74
TRI-CITY, VOR 36-26N 82-03W	T.P.	240	34M	78	1197	
GREENSBORO, VOR 36 03N 79-58W	T.P.	104	34M	108	1305	H. HOUR CONTROL LINE
DURHAM N.C. 36-00N 78-24W		093	34M	55	1360	PRE I.P.
HENDERSON N.C. 36-20N 78-24W		049	34M	32	1392	I.P.
RICHMOND, TGT "H" 37°20-23"N 77°-24-30W	BOMB RUN	035	34M	88	1480	TGT.
FRONT ROYAL, VOR 39-06N 78-12W	T.P.	334	34M	97	1577	

CONFIDENTIAL Pg #1

9284C

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	DESIG.	T.C.	BASE ALT.	DIST.	TOTAL DIST.	REMARKS
ALLENTOWN PA. 40-41N 75-29W		053	34M	159	1736	PRE I.P.
NEWBURG N.Y. 41-29N 74-03W		053	34M	82	1818	I.P.
SPRING, MASS TGT "H" 42-06-03N 72-35-26W	BOMB RUN	060	34M	76	1894	TGT
BOSTON, MASS 42-21N 71-07W	T.P.	066	34M	68	1962	
SEBAGO LAKE 43-50N 70-31 W	P.I.P.	015	34M	91	2053	PRE I.P.
NEWPORT VT 44-56N 72-12W	I.P.	312	34M	98	2151	I.P.
MONTRAL QUEBEC TGT "E" 45-30-00N 73-34-13W	BOMBRUN	301	34M	65	2216	TGT RESUME MACH .77
46-52N 73-54 W	T.P.	352	34M	76	2292	START GRID
53-24N 74-05N	T.P.	359	34M	392	2684	
GOOSE BAY AFB 53-19N 60-24W	T.P.	091	34M	487	3171	END GRID RESTABLISH 15 MIN. INTERVAL
MONT-LOUIS NEW BRUNSWICK 49-15N 65-45W	T.P.	222	34M	312	3483	TANKER ORBIT
48-46N 66-28W		225	S/D	46	3529	
48-24N 66-58W		225	SEE INCL #1 TO GEN.	24	3553	RENDEZVOUS PT.
47-16N 68-35W		225	19M	92	3645	COMPLETION POINT

CONFIDENTIAL Pg # 2

9384C

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CON.	DESIG.	T.C.	BASE ALT.	DIST.	TOTAL DIST.	REMARKS
ON LOAD FUEL		-	-	-	-	ON LOAD 22,000 # FUEL
ACCELERATION & START CLIMB 47-16N 68-35W	T.P.	189	CLIMB	08	3653	
46-28N 68-47W	L/O	189	CLIMB	40	3693	
FOUNDER ADC SITE 45-05N 69-07W		189	34M	84	3777	ECM RUN & 1 SPOT
ROCKLAND ME. 44-06N 69-08W	T.P.	181	34M	60	3837	
43-20N 68-29W	T.P.	149	34M	54	3891	GUNNERY RANGE START FIRING
43-54N 66-47W	T.P.	064	34M	81	3972	CEASE FIRING
MACHIAS ME. 44-44N 67-27W	T.P.	329	34M	56	4028	
HOULTON VOR 46-02 67-49W	T.P.	348	34M	79	4107	START PENETRATION
LORING AFB	BASE	358	D.S.	56	4163	

TOTAL GROUND DIST 4163 ESTIMATED FLYING TIME TO CUT ENGINES.

NO WIND 10:09

AVG WIND 10:15

Pg #3

CONFIDENTIAL 9284C

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ANNEX A

2. Special instructions are contained in the General portion of this Flimsy. For control times, altitude etc, see Inclosure #1 to General portion of Flimsy.

3. Requirements

a. 1 Night Celestial

b. Make assigned HHCL Time over Greensboro VOR, ± two minutes.

c. 1 Night Celestial Grid Leg.

d. 1 Refueling Rendezvous

e. Navigate route as briefed.

INCL. #1 Navigation Log

INCL. #2 Route Chart

Pg #4

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ENCL 1 ANNEX A — CONFIDENTIAL — PAGE 1

MISSION	FLIGHT PLAN	C.O. AND NICKNAME	UNIT	TYPE ACFT	WAVE	REMARKS
		BENCH WARMER	42E 039	B-52	—	COMMANDER'S COPY

	POUNDS
ACFT BASIC	167037
CREW	2070
OIL	262
ATO	—
RACK	—
EXT TANKS WEIGHT (EMPTY)	2650
MISCELLANEOUS	—
CHAFF	—
OPERATING	172619

		POUNDS
	BOMBS	—
	AMMO	720
	WATER AUG	—
	STATIC	393,339
	START ENGINES AND TAXI FUEL ALLOWANCE	5,000
TOTAL FUEL 220,000	TAKE-OFF GROSS	388,339

ESTIMATED WIND FLIGHT PLAN

NR FULL ATO REQUIRED

NR EMPTY ATO REQUIRED

ATO FIRING SPEED

RUNWAY: PRESSURE ALT; LENGTH 12,200; AIR TEMP; CRITICAL FIELD LENGTH; CRITICAL AIR TEMP; TAKE-OFF DISTANCE; TAKE-OFF SPEED

CRITICAL WIND COMPONENT: 1ST LEG; 2ND LEG; 3D LEG

PRE-FLIGHT PLAN

FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	GROSS WT	
LORING AFB															220000	393,339	
															9500	9 500	
SETTO + ACCEL											10	·03	10		210 500	393,839	
HOULTON VOR			270/35								56	·13			12 300	12300	+4
46-02N 67-49W	CL	178	+5	183	+21		12M		400	400	66	·16					
START NITE CEL 4/0			270/35								60	·10					
46-16N 69-12W	CL	283	-1	282	+21		32M		400	365	126	·26			198200	371 539	
T/P			270/60								111	·17	124		4540	4540	
46-42N 71-52W	CR	283	-2	281	+20		36M	.77	443	385	237	·43	134		193 660	266.999	
NORTH BAY			270/60								316	·49	362		14 550	14 550	
46-19N 79-28W	CR	266	+1	267	+15		36M	.77	443	383	553	1·32	496		179 110	352 449	
PARKERSBURG ENDNITE X			270/55								431	1·00	443		17050	17 050	
39-16N 81-31W	CR	192	+7	199	+6		36M	.77	443	430	984	2·32	939		162060	385 399	
PULASKI VOR			270/55								135	18	133		4940	4 940	
37-03N 80-44W	CR	163	+7	170	+3		36M	.77	443	458	1119	2·50	1072		157120	330 459	
TRI CITY VOR			270/55								78	·13	92		3490	3490	
36-26N 82-03W	CR	240	+4	244	+2		36M	.74	426	379	1197	3·03	1164		153630	326 964	
GREENSBORO VOR			270/55								108	·13	92		3440	3 440	
HHCL 36-03N 79-58W	CR	104	+2	106	+2		36M	.74	426	480	1305	3·16	1266		150190	323 529	
DURHAM PIP			270/55								55	·07	50		1860	1860	
36-00N 78-53W	CR	093	+1	094	+3		36M	.74	426	480	1360	3·23	1306		148 330	321 269	
HENDERSON IP			270/55								32	·04	28		1025	1025	
36-20N 78-24W	CR	049	-5	044	+4		36M	.74	426	468	1392	3·27	1334		147 305	320 044	
RICHMOND TGT "H"			270/55								88	·13	92		3400	3400	+1
37-20-28.7N 77-24-30.7W	BR	035	-6	029	+6		36M	.74	426	452	1480	3·40	1426		143905	317 244	
FRONT ROYAL VOR			270/55								97	·15	107		3790	3790	
39-01N 78-12W	CR	334	-7	327	+6		36M	.74	426	398	1577	3·55	1533		140015	313354	
ALLENTOWN, PA PIP			270/60								159	·20	142		6140	6140	
40-41N 75-29W	CR	053	-5	043	+8		36M	.74	426	472	1736	4·15	1675		134 875	308 214	

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Inc #1 ANNEX A

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PAGE #2

MISSION FLIGHT PLAN – CONTINUATION SHEET

FROM ALLENTOWN, PA ROUTE	FLT COND	T.C.	WIND D/V DRIFT	T.H.	VAR	M.H.	TEMP ALT	IAS MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	GROSS WT	
															134875	208214	
NEWBURG IP 41-29N 74-03W	CR	053	270/60 -5	048	+11		36M	.74	426	472	82 1818	.10 4.25	71 1746		2510 134365	2510 205704	
SPRINGFIELD TGT "H" 42-04-03N 72-35-26W	BR	060	270/60 -4	056	+14		36M	.74	426	478	76 1894	.10 4.35	71 1817		2500 129865	2500 203204	
BOSTON 42-21N 71-07W	CR	066	270/60 -3	063	+14		36M	.74	426	480	68 1962	.08 4.43	57 1874		1990 127875	1990 201214	
SEBAGO LAKE 43-50N 70-31W	CR	015	270/60 -8	007	+16		36M	.74	426	438	91 2053	.13 4.56	92 1966		3200 124675	3200 198014	
NEWPORT VT. IP 44-56N 72-12W	CR	312	270/60 -5	307	+17		36M	.74	426	380	98 2151	.15 5.11	107 2073		3710 120965	3710 194304	
MONTREAL TGT "E" 45-30-00N 73-34-13W	BR	301	270/60 -4	297	+16		36M	.74	426	374	65 2216	.11 5.22	68 2149		2665 118300	2665 +1 291439	
START GRID 46-52N 73-54W	CR	352	270/50 -7	345	+16		36M	.77	443	435	76 2292	.11 5.33	81 2222		2730 115570	2730 288909	
T/P 53-24N 74-05W	CR	359	270/50 -7	352	+21		36M	.77	443	440	392 2684	.54 6.27	399 2621		13220 102350	13220 275689	
GOOSE BAY END GRID 53-19N 60-24W	CR	091	270/50 0	091	+29		36M	.77	443	498	487 3171	1.02 7.29	458 3079		14320 88,030	14320 +3 261369	
MONT LOUIS ORBIT 49-15N 65-45W	CR	222	270/55 +5	227	+28		36M	.77	443	405	312 3483	.45 8.14	332 3411		10030 78,000	10030 251339	
START DESCENT 48-46N 66-28W	CR	225	270/55 +5	230	+25		36M	.77	443	402	46 3529	.07 8.21	52 3463		1560 76440	1560 249779	
RENDEZVOUS 48-24N 66-58W	DS	225	270/35 +4	229	+24				410	384	24 3553	.04 8.25	27 3490		450 75990	450 249329	
COMPLETION PT 47-16N 68-35W	AR	225	270/35 +6	231	+23		18M		250	225	92 3645	.24 8.49	100 3590		6050 69940	6050 243279	
															22000	22000	
ON LOAD															91940	265279	
ACCELERATION START CLIMB	ACC	189	270/35 +6	194	+21						8 3653	.02 8.51	8 3598		750 91190	750 264529	
4/0 46-28N 68-47W	CL	189	270/35 +5	194	+20		30M		400	395	NO 3693	.06 8.57	40 3638		2675 88515	2675 261854	
ECM 45-05N 69-07W	CR	189	270/60 +8	197	+20		36M	.77	443	430	84 3777	.12 9.09	89 3727		2735 85780	2735 259119	
ROCKLAND 44-06N 69-08W	CR	181	270/60 +8	189	+19		36M	.77	443	440	60 3837	.08 9.17	59 3786		1900 83980	1900 257319	
START FIRING 43-20N 68-29W	CR	149	270/60 +7	156	+18		36M	.77	443	470	54 3891	.07 9.24	52 3838		1585 82395	1585 255734	
CEASE FIRING 43-54N 66-47W	CR	064	270/60 -3	061	+19		36M	.77	443	498	81 3972	.09 9.33	81 3919		2445 79950	3165 252569	

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ENC #1 ANNEX A CONFIDENTIAL PAGE #3

MISSION FLIGHT PLAN – CONTINUATION SHEET

FROM 46-54N 66-47W / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: FREE FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
															79 950	[illegible]
MACHIAS 44-44N 67-27W	CR	329	270/60 -6	323	+20		36M	.77	443	410	56 / 4028	.08 / 9.41	59 / 3978		1755 / 78195	[illegible]
HOULTON VOR 46-02N 67-49W	CR	348	270/60 -7	341	+21		36M	.77	443	428	79 / 4107	.11 / 9.52	81 / 4059		2475 / 75720	[illegible]
LORING AFB	DS	358	270/35 -5	353	+21				400	400	56 / 4163	.08 / 10.00	53 / 4112		600 / 75120	[illegible]
LAND AND TAXI												.15 / 10.15			3500 / 71 620	[illegible]

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ENCL 1 ANNEX A CONFIDENTIAL

MISSION FLIGHT PLAN – CONTINUATION SHEET

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PNED FUEL REMAINING	GROSS WT.
				NO REFUELING												
MONT LOUIS							36M	.77	443		3433	8:14			78000	251380
TRPA REFUELING	CR						36M	.77	443	402	162 / 3645	:24 / 8:38	177		5875 / 72625	5875 / 245464
45-05N 69-07W	CR						36M	.77	443	430	132 / 3777	:19 / 8:57	140		4215 / 68410	4215 / 241249
ROCKLAND	CR						36M	.77	443	440	60 / 3837	:08 / 9:05	59		1740 / 66670	1740 / 240034
START FIRING	CR						36M	.77	443	470	54 / 3891	:07 / 9:12	52		1530 / 65140	1530 / 238479
END FIRING	CR						36M	.77	443	498	81 / 3972	:11 / 9:23	81		2315 / 62825	3035 / 235444
MACHIAS	CR						36M	.77	443	410	56 / 4028	:08 / 9:31	59		1720 / 61105	1720 / 233734
HOULTON VOR	CR						36M	.77	443	428	79 / 4107	:11 / 9:42	81		2320 / 58785	2320 / 231404
LORING AFB	D3										56 / 4163	:08 / 9:50	56		600 / 58185	600 / 230804
LAND AND TAXI												:15 / 10:05			3500 / 54685	3500 / 227304

SAC FORM 18 APR 54 1b FC: 2720 CONFIDENTIAL 9284C Air Force - SAC, Offset O-1010(34)

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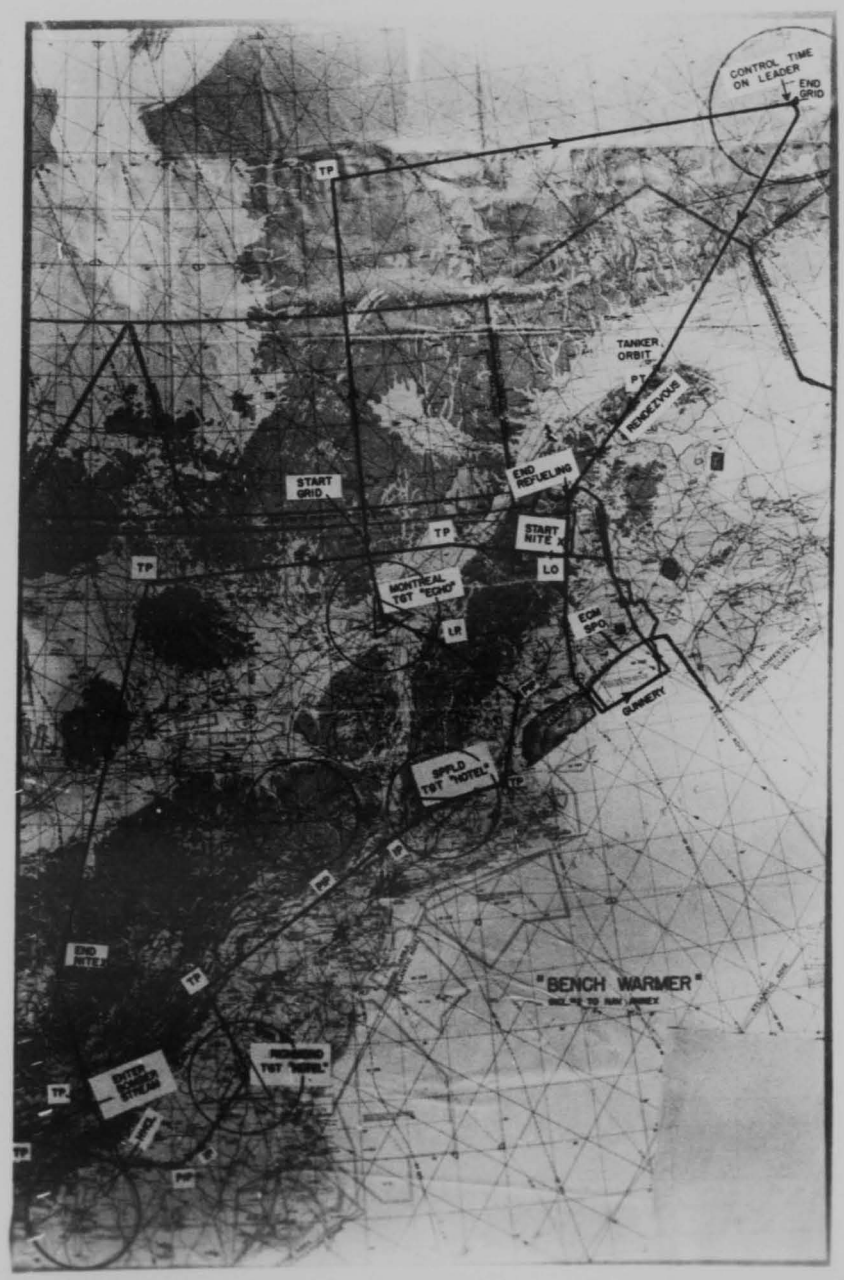

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ANNEX "B", 42BW, RADAR OPERATORS FLIMSY 225-56

1. GENERAL: RBS runs will be accomplished by the scheduled commanders as indicated below. Each commander will assume the duties of the radar bombardier prior to the IP on each run. (U)

2. BOMB LOAD: None (U)

3. BOMB TABLES: T.O. 11N-60-42 (U)

4. CAMERAS: O-15 (U)

5. PHOTO PROCEDURE: In accordance with page 535, T.O. 1B-53B-1 "C Inflight Operation (Strike)". (U)

6. BOMB RUN DATA:

RUN NO	PIP	T.C./DIST.	IP	T.C./DIST	TARGET
1	Durhan, N. C.	049/32	Henderson, N.C.	031/87	Richmond "H"
2	Allentown, Pa.	053/82	Newburgh, N.Y.	059/74	Springfield "H"
3	Sebago Lake, Me.	312/98	Newport, Vt.	303/67	Montreal "E"

(C)

7. TARGET DATA:

Target Class Elevation	Description Coordinates	Offset Aiming Point #1	Offset Aiming Point #2
H	Richmond	Tanks north of target "F".	Center highway bridge west of city
IIA	Virginia Department of Highways equipment depot. Aiming point: Base of SE corner of large U-shaped building.	S 18170	N 19400
41' gd	37°-20'-28.7" N 77°-24'-30.7" W	W 7620	W 39,280
H	Springfield	Center of south highway bridge	NE corner of North Hangar at Westover AFB.
IIB	Campanile tower, Aiming point: Center of ball on top of tower.	S 7090	N 35800
368' Top	42°-06'-03.476" N 72°-35'-25.979" W	E 2060	E 13,860

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Target Class Elevation	Description Coordinates	Offset Aiming Point #1	Offset Aiming Point #2
E	Montreal	West end of south bridge	Center of roundhouse SW of target "F".
IIB	Sun Life Insurance Co. building. Aiming point:	S 4610	S 12160
515' Top	Top of E corner of building. 45°-30'-00.8" N 73°-34'-13.5" W	E 7450	W 26730

(C)

8. METHOD OF AIMING:

a. Richmond - Radar Direct

b. Springfield - Radar offset or direct

c. Montreal - Radar offset or direct (C)

9. REQUIREMENTS: One RBS Run on Richmond, Springfield and Montreal for each participating commander. (C)

10. RBS scores will not be requested, although the RBS site may give them, providing the communication does not interfere with other aircraft. (U)

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HEADQUARTERS 42D BOMBARDMENT WING (H)
LORING AIR FORCE BASE, MAINE
12 SEPTEMBER 1956

ANNEX "C", AIRCRAFT PERFORMANCE, 42D BOMB WING OPERATIONS FLIMSY 225-56

1. Fuel consumption data for that portion of mission which is flown at .77 MACH has been obtained by interpolating between Figure B6-43 (35,000') and Figure B6-45 (40,000') to obtain NM/1000 LB for 36,000'. Fuel consumption data for .74 MACH has been obtained by interpolating between the 35,000' and 40,000' Range lines on a curve especially calculated by the aircraft performance engineers section. (Inclosure #1.) (C)

2. Fuel reserve of 75120 pounds over Houlton VOR is predicted if air refueling is completed. Without air refueling predicted reserve is 58785 pounds over Houlton VOR. Although this reserve is below the minimum specified for Westover as an alternate under IFR conditions (62,700 pounds as per Inclosure #1, 42BW Ops Memo B5-4, 25 July 1956), the latter portion of the mission from Mont-Louis to Houlton VOR is within a short radius of Loring AFB. Adverse local landing conditions may be determined at any time prior to reaching Houlton VOR, in which case a diversion to Westover could be accomplished with adequate fuel reserve aboard. (C)

3. Planning Factors:

a. Ammo load.

b. Static fuel load 220,000 pounds, loaded in accordance

Pg #1

CONFIDENTIAL

9284C

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with Inclosure #1, 42BW Reg 55-4, 25 July 1956.

c. Onload during air refueling, 22,000 pounds.

d. NACA temperature conditions utilized during planning flight portion of mission. Take-off data computed on basis of forecasted surface conditions. (U)

1 Inclosure

Chart - "Range - 35,000 & 40,000 feet altitude NM/1000 Lb Fuel.

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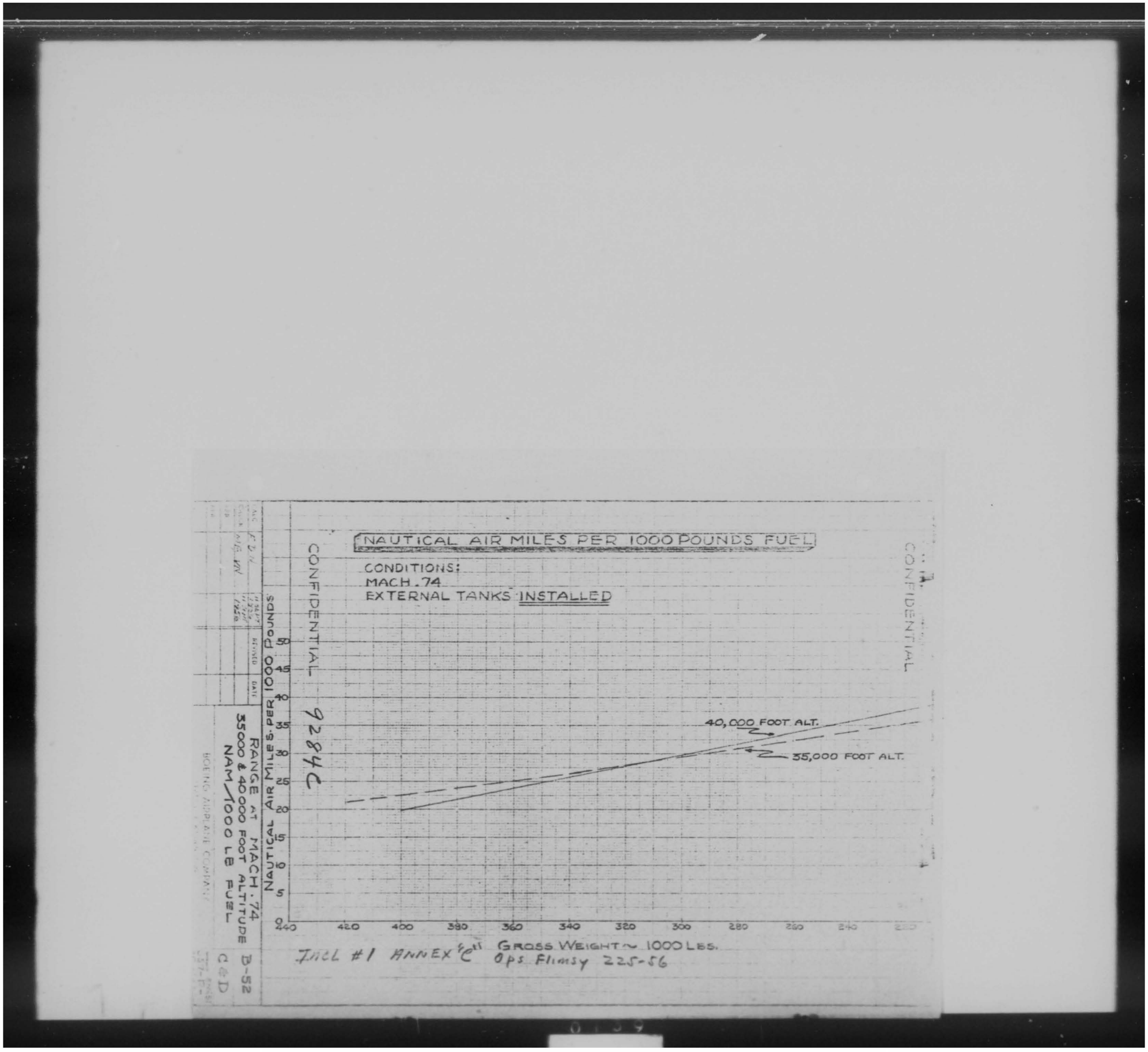

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ANNEX "D", GUNNERY, 42BW OPERATIONS FLIMSY 225-56

1. Gunnery portion of mission will consist of max. gunnery load. Aircraft will be flown at altitude of 34,000 and 36,000 feet. A "cold soak" period of one hour will be required. (U)

2. The SOP's governing the use of the gunnery range to be used will be reviewed during the specialized briefing. The gunnery range to be utilized will be the "B" portion of W-102 Criehaven-Machias-Seal Island Gunnery Range. (U)

3. At the time of entering the flight pattern for firing over the range, a position fix will be accomplished and the coordinates and time of that fix will be entered in the Navigators Log. (U)

4. Radar surveillance will be maintained at all times over the gunnery range in addition to constant visual inspection of the range area. Firing will be accomplished on the outer portion of the "B" gunnery range, which will be 50 miles from the coast. (U)

5. The following information will be noted on the Navigators Log:

a. Position fix upon entering the flight pattern.

b. Time of commence fire.

c. Time of cease fire.

d. Outside air temperature at the time of firing.

e. Pressure altitude at the time of firing. (U)

6. Immediately after firing the gunner will insure that the turret is in its upper elevation limits prior to leaving the gunnery range. (U)

Pg #1 9284C

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7. Immediately after landing, the aircraft will utilize taxiway E and proceed to the designated disarming area. The aircraft will utilize their own parking Aprons. The Armament & Electronics gunnery team will be on hand immediately upon arrival of each aircraft. (U)

8. There will be no gun camera or lock on requirements during this mission. The gunner will act as scanner by assisting the pilot in clearing the aircraft during ground operation and flight. He will report on normal and abnormal operation of engines, control surfaces, tip gear, and drag chute. (U)

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HEADQUARTERS 42D BOMBARDMENT WING (H)
LORING AIR FORCE BASE, MAINE
12 SEPTEMBER 1956

ANNEX E, COMMUNICATIONS - ECM, 42D BOMB WING OPERATIONS FLIMSY 225-56

AIRBORNE COMMUNICATIONS:

1. Identification and recognition will be in accordance with SACCEI 2404.2 and SAC Reg 55-14. (U)

2. IFF will be operated in accordance with SAC Reg 55-23 (SECRET) as changed by SAC Message (SECRET) DOCEN 8942 dated 24 November 1955. (U)

3. Authentication will be accomplished by use of AFSAL 5104. (U)

4. Call Signs: Aircraft tactical call signs will be normal. (U)

5. RBS communications will be accomplished using normal procedures except that the phrase "BENCH WARMER RUN" will be included as the last item of information supplied. RBS communications frequencies are as follows: (C)

SITE	UHF		HF
	PRIMARY	SECONDARY	
Richmond, Va.	356.8		5710.5
Springfield, Mass	258.2	240.6	5710.5
Montreal, Canada	384.6		

6. Interplane communications will be accomplished on channel 11 (311.0 Mcs). While over the ZI number 2 and 3 aircraft will report on the hour to the leader and number 4 aircraft will report at 5 minutes past each hour to number 5 aircraft. While over Canadian territory number 2 and 3 will report on the hour and half hour and number 4 will report at 5 and 35 minutes past each hour. Where the above reports cannot be made on time, due to other communications requirements, they

Pg #1
CONFIDENTAIL 9284c

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will be made as soon as possible after the required time. The inter-plane frequency will be monitored at all times except as otherwise required. HF 5710.5 Kcs is the backup frequency. (C)

7. Aircraft Recalls will be relayed through CAA or DOT facilities to the reporting aircraft of the stream. The message will in turn be relayed to other aircraft of the stream. If the lead aircraft first receives the recall message, the message will be relayed to and by each succeeding aircraft. If the last aircraft receives the message, a reverse procedure will be accomplished. The recall word is "DISFIGURE". (C)

8. Monitoring Procedures:

a. UHF control units will be set on the "TR/G" position at all times except when otherwise required for receipt of messages. (U)

b. Aircraft making position reports will monitor the CAA, DOT or Airways frequency in use except as otherwise required. (U)

c. Number 2 aircraft of the bomber stream will monitor 364.2 Mcs while over Canadian territory in compliance with SACCEI 2101.4a. (C)

d. Aircraft other than those of which position reports are required will monitor 311.0 Mcs., except as otherwise required. (C)

e. ECM operators will coordinate to ascertain USAF HF air ground station frequencies are monitored in accordance with SACCEI 2101.4a. (U)

9. NEAC AREA PINE TREE RADAR:

a. While in this area, lead and last aircraft must initiate and maintain contact with the Pine Tree Radar Net. (U)

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b. Initial contact must be made first prior to entering the correlation boundries as defined by SAC Regulation 55-15. Entry and departure points are listed on the route reporting guide. (U)

c. Position reports may be relayed to the appropriate aeronautical facility through Pine Tree Radar Sites. Radar sites may be querried as to the call sign of the station to be called for a subsequent report. (U)

10. Position Reporting:

a. Position reporting will be accomplished by the first and last aircraft of the bomber stream. (U)

b. Normal position reporting procedures will apply except that the following phrase will be included as the first part of message text: "FIRST (or last, as appropriate) BENCH WARMER AIRCRAFT". (U)

c. UHF communications will be used to the maximum extent. (U)

d. The following reporting guide is provided for pilot's convenience: (U)

COMPULSORY REPORTING POINTS (CAA)

CALL	AT	CHANNELS	
		PRIMARY	SECONDARY
Houlton	Houlton	5 (UHF)	6 (UHF)
Millinocket	46-16N 69-12W	5 (UHF)	6 (UHF)
Quebec	46-42N 71-52W	Trans Receive	3023.5 (HF) 122.1 (VHF)
North Bay	North Bay	Trans Receive	3023.5 (HF) 122.1 (VHF)
Clear Creek	Clear Creek	Trans Receive	3023.5 (HF) 122.1 (VHF)

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Parkersburg	Parkersburg	5 (UHF)	6 (UHF)
Palaski	Pulaski	5 (UHF)	6 (UHF)
Raleigh-Durham	Durham	Trans 5(UHF) Rec 135.0(UHF)	Trans 3023.5(HF) Rec 135.0(VHF)
Front Royal	Front Royal	5(UHF)	Trans 3023.5(HF) Rec 135.0(VHF)
Allentown	Allentown	5(UHF)	Trans 3023.5(HF) Rec 135.0(VHF)
Westfield	Springfield	5(UHF)	6(UHF)
Westover Appr Control	Springfield	15(UHF)	17(UHF) 18(UHF)
Boston Center	Boston	6(UHF)	5(UHF)
Newport	Plattsburg	5(UHF)	6(UHF)
Montreal	Montreal	Trans 3023.5(HF) Receive 122.1(VHF)	
Montreal	46-51N 73-54W	Trans 3023.5(HF) Receive 122.1(VHF)	
Pine Tree Radar (Pass to Moncton & Goose)	53-32N 65-00W	10(UHF)	243.0(UHF)
Goose Appr Control (Pass to Moncton)	Goose Bay	1(UHF)	243.0(UHF)
Mont Jolly	48-40N 66-35W	Trans 3023.5(HF) Receive 135.0(VHF)	
Presque Isle	47-16N 68-35W	5(UHF)	6(UHF)
Presque Isle	46-28N 68-47W	5(UHF)	6(UHF)
Dew Tower (For Clearance to Gunnery Range)	45-00N 69-08W	1(UHF)	243.0
Augusta	Rockland	5(UHF)	6(UHF)
Bangor	44-44N 67-27W	5(UHF)	6(UHF)
Houlton	Houlton	5(UHF)	6(UHF)

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11. Air Refueling and Rendezvous:

a. Initial contact with tanker aircraft will be on 308.8 Mcs UHF immediately after leaving Goose Bay. (C)

b. Bomber stream aircraft will rendezvous with tanker aircraft as follows: (U)

(1) First B-52 will rendezvous with the highest tanker at 19,000 feet.

(2) Second B-52 will rendezvous at 18,000.

(3) Third B-52 will rendezvous at 17,000

(4) Fourth B-52 will rendezvous at 16,000.

(5) Fifth B-52 will rendezvous at 15,000.

c. After communication is established, switch to refueling frequencies IAW SAC Manual 100-1, Peststrike Refueling, NEAC/Canada. The following extract of SAC Manual 100-1 is provided for ready reference: (CONFIDENTIAL)

Rendezvous Point and C/R Plans	Position Number	APN-12 Tanker T	APN-12 Tanker R	APN-76 Receiver T	APN-76 Receiver R	APN-11 or APN-69	Voice UHF	HF Back-up
						INITIAL	308.8	3067
ALFA	1	8	6	6	8	1-2-1	256.0	3067
ALFA	2	7	5	5	7	1-3	266.2	3067
ALFA	3	6	4	4	6	2-1	279.8	3067
ALFA	4	5	7	7	5	1-1-2	291.9	3067
ALFA	5	4	6	6	4	3-1	303.2	3067

NOTE: The above settings will not be transmitted in the clear.

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d. Frequencies and rendezvous settings will be used as follows: (U)

(1) First aircraft: Alfa 1.

(2) Second aircraft: Alfa 2.

(3) Third aircraft: Alfa 3.

(4) Fourth aircraft: Alfa 4.

(5) Fifth aircraft: Alfa 5.

e. If a B-52 aborts prior to refueling operations, the next B-52 will rendezvous with the highest tanker remaining in the orbit stack. When contact is made with highest tanker in the stack inform him to switch to ALFA (1, 2, 3, 4, or 5) frequencies as determined by the original bomber stream position of the B-52. (U)

f. Call signs for tanker aircraft will be MIDNIGHT ALFA. (U)

g. Bombardment aircraft call signs will be the normal tactical call signs. (U)

h. APN-76 equipment will be turned on at Goose Bay with briefed settings. (U)

12. ECM:

a. One (1) ADC Record Run followed by one (1) ADC Spot Run will be accomplished against ADC site FOUNDER. (C)

b. Call in for clearance with be made prior to reaching a point 100 NM on course north of the site. At the time of call in for clearance for the ADC Record Run a request for the ADC Spot Run will be made. Advance coordination with site FOUNDER will be affected to preclude any delays in authentication and clearance. (U)

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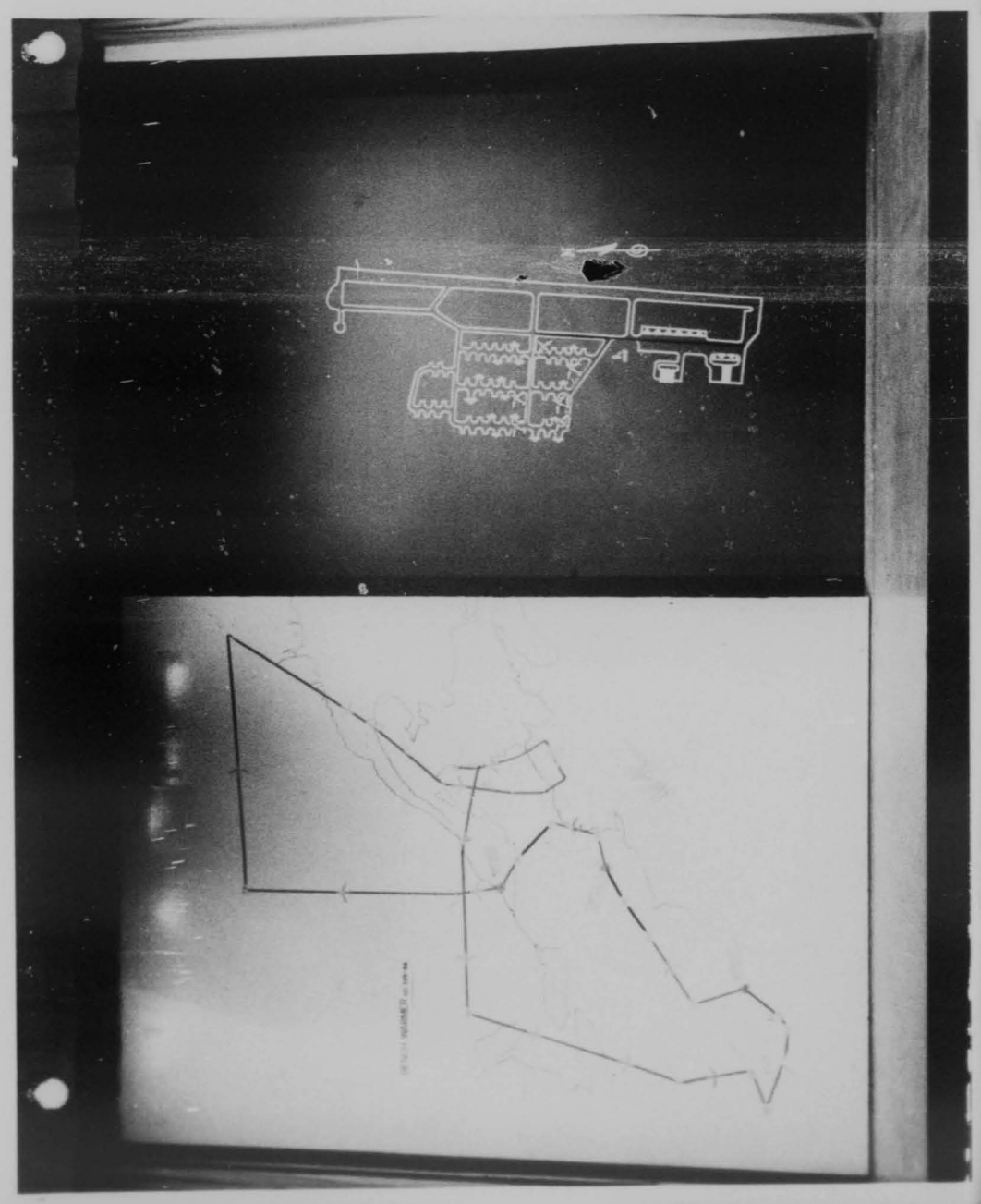

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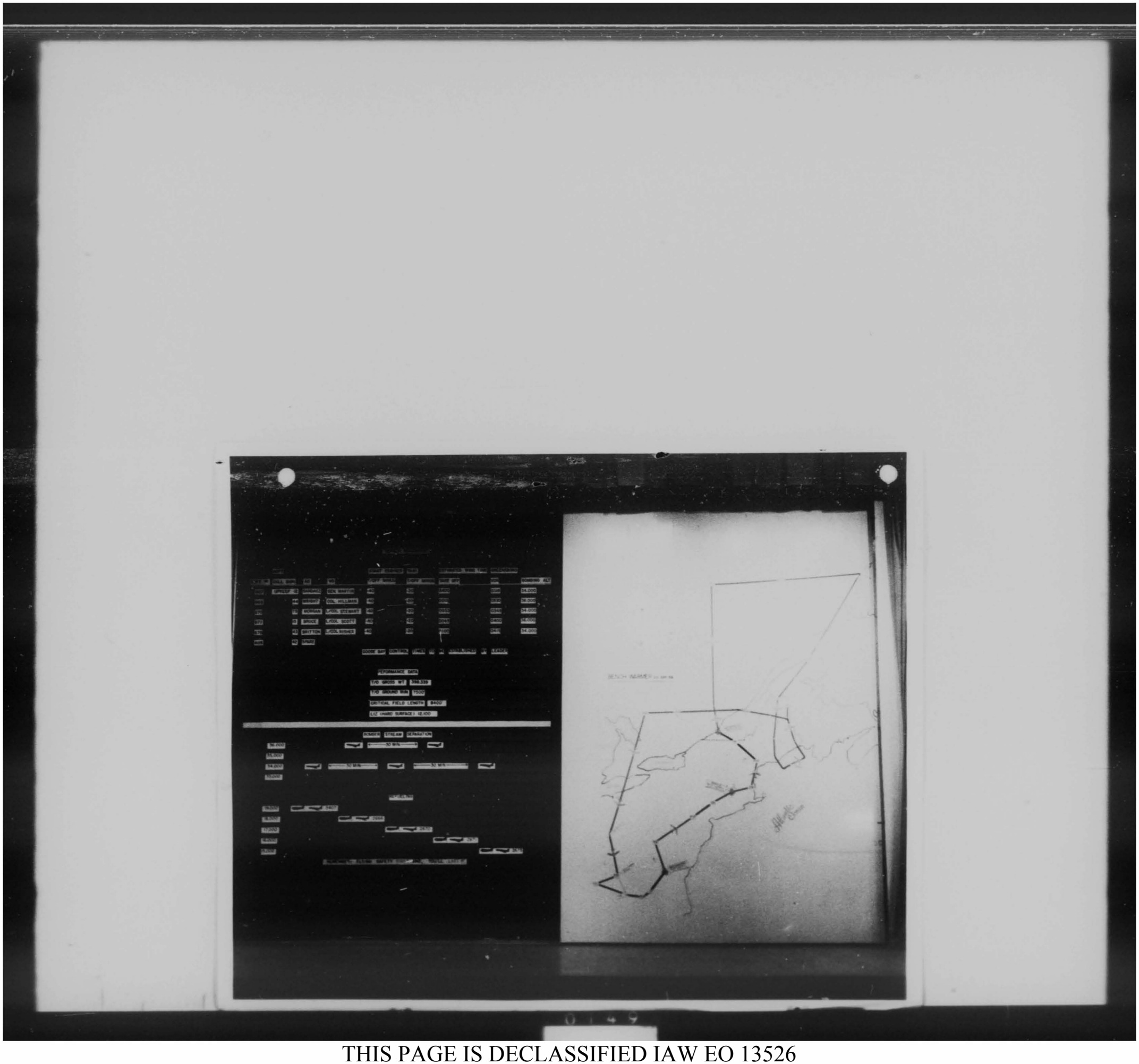

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HEADQUARTERS 42D BOMBARDMENT WING (H) (SAC)
LORING AIR FORCE BASE, MAINE
1 September 1956

MA6A IN FLIGHT MAINTENANCE MANUAL

COMPILED AT 42D BW HDQS LORING AFB BY:

AC Spark Plug Representatives
Mortorola Representative
42D BW Bomb NAV System Officer

CREDITS TO: McConnell AFB Observers training section for use of their MA7A In Flight Maintenance Manual.

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MA6A IN FLIGHT MAINTENANCE MANUAL

THIS MANUAL HAS BEEN COMPILED FOR OBSERVERS AND A&E MECHANICS, CONSEQUENTLY SOME PROCEDURES ARE INCLUDED THAT DEFINITELY ARE NOT TO BE CONSIDERED AS NORMAL OPERATOR IN FLIGHT MAINTENANCE PROCEDURES. (THIS IS BY REASON OF THE HI VOLTAGES PRESENT IN SOME PARTS OF THE SYSTEM.)

THESE PROCEDURES ARE AS FOLLOWS:

Maintenance by the operator will not be performed on the IP-284, RT-324, or MOD-233 unless the operator is completely familiar with these units and knows where the high voltages exist.

NOTE: THE RT-324, MOD-233, WAVE GUIDE AND IP-284 ARE ALL PRESSURIZED

SOME OF THE MAINTENANCE PROCEDURES WILL REQUIRE SPECIAL TEST EQUIPMENT:

1. GROUP_____ HEADSET & JACKS
2. GROUP_____ STOP WATCH
3. GROUP_____ MULTIMETER

DANGER: HI VOLTAGES ARE PRESENT IN THIS SYSTEM. MAKE CERTAIN THE POWER SWITCH IS IN THE CORRECT POSITION BEFORE PERFORMING ANY MAINTENANCE.

Refer to pages 49A & 49B for procedure of "AGING" a magnetron or "COOKING ONE", in event of arcing.

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INITIAL ISOLATION PROCEDURE FOR B-52

When any malfunction occurs:

1. Check the following switches for the correct position:

   a. Power switch to SCAN FAST
   b. Aux PPI-Nav track switch to AUX PPI
   c. Radar altitude switch to OFF
   d. Fungtion switch to NAV
   e. Bombing switch to SYN
   f. Log - lin switch to LIN

2. If the PPI sweep is missing, note the meter readings.

3. Check all APS-64 and MX-5 circuit breakers on the radar observers circuit breaker panel.

   a. If the malfunction was caused by an APS-64 circuit breaker, turn the power switch to STBY before resetting the circuit breaker.
   b. If a circuit breaker cannot be reset, proceed to paragraph 6.

4. Check the IP-284, MA-1 fuse box, SN-135, AWA-2, and J-629 for fuse warning lights.

   a. IP-284: power switch to STANDBY. Replace the fuse in the fuse holder with an appropriate spare from the spare fuse receptacle.

   b. MA-1 fuse box: replace the fuse holder and fuse with an appropriate spare.

      NOTE: If the malfunction is caused by failure of F-8606 or any 8800 series fuse except F-8804, F-8805, and F-8809, recycle the system by turning the function switch to OFF and back to STAB. Then turn the function switch to NAV after 30 seconds.

   c. SN-135, AWA-2 replace the fuse in the fuse holder with an appropriate spare found in the spare fuse receptacle.

   d. J-629: turn the power switch to STBY. Replace the fuse in the fuse holder with an appropriate spare from the spare fuse receptacle.

   e. If fuses continue to blow, refer to the applicable emergency procedure.

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5. Check the meter readings on the copilot's regulated AC power panel and DC voltmeter.

   a. The DC voltmeter should read +26.5 volts DC.
   b. The regulated AC power panel should read 205 volts, 400 cycles.
   c. If any of the above voltages are missing or intermittent, turn the function switch to OFF and the power switch to STBY until the copilot has stabilized the alternator voltage and frequency.

6. Computer fuse warning light failure check.

   a. If the Rg limit light is off, or will go off by reducing Rg with the tracking control, proceed with Column A. Otherwise, use Column B.

A

(1) Observe the sighting angle indicator dial and the AZ dial on the Y-7 periscope while depressing the forward sighting button. If both dials move, use the original symptom to enter the trouble shooting index (page 4)

(2) If either or both dials do not move,
   a. Check movement of the ALTITUDE dial with the altitude correction knob.
   b. With a value other than zero in the polar angle dial, check movement of the HEADING dial when switching to POLAR.

(3) If two or more of the dials in steps (1) and (2) above do not move, enter the Group 1 Index (page 5).

(4) If only one of the four dials is inoperative, use the original symptom to enter the trouble shooting index (page 4).

B

(1) Check movement of the ALTITUDE dial with the altitude correction knob.

(2) With a value other than zero in the polar angle dial, check movement of the heading dial when switching to POLAR.

(3) Combine the information from steps (1) and (2) above and determine which of the following groups apply:
   a. PPI blank, heading and altitude dials inoperative. Use meter readings to determine if malfunction is in Group 1-1, 1-2, or 1-3, on page 6, 7, 8.
   b. PPI normal, altitude and heading dials inoperative. Refer to Group 1-4 on page 9.
   c. PPI normal, altitude dial inoperative. Refer to Group 1-5 on page 10.
   d. PPI normal, altitude and heading dials normal. Refer to Group 6-1 on page 61 .

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GROUP INDEX

GROUP 1 Page 5 Multiple Malfunction due to Fuse or Power Supply Failure

GROUP 2 Page 13 PPI Blank

Improper Meter Readings

Possible Uncontrollable Spot, on 5" Indicator only

GROUP 3 Page 23 PPI Sweep Rotation or PPI Blank

Meter Readings Normal

Possible Controllable Spot on 5" Indicator

GROUP 4 Page 36 Displaced Center and/or Sector Scan

GROUP 5 Page 46 Radar Target Appearance

PPI Sweep Normal

GROUP 6 Page 60 Radar and/or Optical Crosshair Movement with the Tracking Control

GROUP 7 Page 69 Altitude and/or True Airspeed

GROUP 8 Page 73 Radar and/or Optical Synchronization

Altitude and True Air Speed Correct

GROUP 9 Page 80 Crosshairs and/or Fixed Range Mark Appearance

GROUP 10 Page 93 Heading and Navigation

GROUP 11 Page 99 Erection Cut-Off

GROUP 12 Page 106 Bombing -

Time-to-go

Turn Indicator,

Doors,

Release

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GROUP I — MULTIPLE MALFUNCTIONS DUE TO FUSE OR POWER SUPPLY FAILURE

Symptoms will show on both 10" & 5" Indicators

GROUP 1-1
Page 6

PPI BLANK

No radar control unit meter readings.
SIGHTING ANGLE, AZIMUTH, ALTITUDE, and HEADING dials inoperative.
Fix dials will not drive when forward sighting button is depressed.

GROUP 1-2
Page 7

PPI BLANK

No radar control unit meter readings except +26.5.
SIGHTING ANGLE, AZIMUTH, ALTITUDE and HEADING dials inoperative.
Fix dials will not drive when forward sighting button is depressed.

GROUP 1-3
Page 8

PPI BLANK

SIGHTING ANGLE, AZIMUTH, ALTITUDE and HEADING dials inoperative.
Fix dials will not drive when forward sighting button is depressed.

GROUP 1-4
Page 9

PPI SWEEP PRESENT

SIGHTING ANGLE, AZIMUTH, ALTITUDE, and HEADING dials inoperative.
Fix dials will not drive when forward sighting button is depressed.

GROUP 1-5
Page 10

PPI SWEEP PRESENT

SIGHTING ANGLE and ALTITUDE dials inoperative. Fix dials will not drive when forward sighting button is depressed.

GROUP 1-6
Page 11

PPI SWEEP PRESENT

SIGHTING ANGLE and AZIMUTH dials inoperative. Crosshairs azimuth mark does not align with the heading mark when the forward sighting button is depressed. Fix dials do not move when the forward sighting button is depressed.

GROUP 1-7
Page 12

PPI SWEEP PRESENT

AZIMUTH and HEADING dials inoperative.
SIGHTING ANGLE dial may be inoperative.

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GROUP 1-1 PPI BLANK

No radar control unit meter readings.
SIGHTING ANGLE, AZIMUTH, ALTITUDE and HEADING dials inoperative.
Fix dials will not drive when forward sighting button is depressed.

1. Power switch to STBY.

2. Check with the copilot to be sure +26.5 volts DC power is being supplied to the radar power panel.

3. Check the DC circuit breakers labeled AN/APS-64 and computer amplifier on the radar observers circuit breaker panel.

4. Check fuse F-2301 (5 amp, FB) in interconnecting box J-629 (Page 15) and fuse F-8606 (3.2 amp, SB) in the MA-1 fuse box.

SYSTEM LIMITATIONS:

If this malfunction cannot be corrected, the MA-6A system cannot be used.

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GROUP 1-2 PPI BLANK

No radar control unit meter readings except +26.5.
SIGHTING ANGLE, AZIMUTH, ALTITUDE, and HEADING dials inoperative.
Fix dials will not drive when forward sighting button is depressed.

1. Power switch to STBY.

2. Check the AC circuit breakers labeled AN/APS-64 and computer amplifier on the radar observers circuit breaker panel.

SYSTEM LIMITATIONS:

If this malfunction cannot be corrected, the MA-6A system cannot be used.

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GROUP 1-3 PPI BLANK

SIGHTING ANGLE, AZIMUTH, ALTITUDE, and HEADING dials inoperative.
Fix dials will not drive when forward sighting button is depressed.

1. Power switch to STBY.

2. Check the Phase B circuit breakers labeled (Ø) power on the radar observers circuit breaker panel.

SYSTEM LIMITATIONS:

If this malfunction cannot be corrected, the MA-6A system cannot be used.

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GROUP 1-4 PPI SWEEP PRESENT

SIGHTING ANGLE, AZIMUTH, ALTITUDE, and HEADING dials inoperative.
Fix dials will not drive when forward sighting button is depressed.

1. Check the two DC circuit breakers labeled computer amplifier on the radar observers circuit breaker panel.

2. Check the 2 Phase B circuit breakers labeled //(#) power on the radar observers circuit breaker panel.

3. Check the AC circuit breakers labeled computer amplifier on the radar observers circuit breaker panel.

4. Check fuse F-8606 (3.2 amp, SB) in the MA-1 fuse box.

5. Check the security of cable 181 at jack J-8614 on the electronic control amplifier (CAU.)

EMERGENCY PROCEDURE:

If this trouble cannot be corrected, or if one of the above fuses continues to blow, turn the function switch to OFF. The APS-64 may be used, but the PPI will not be north stabilized, and the crosshairs will not be available. Radar fixed angle bombing is possible by using Emergency Procedures in the Emergency Procedure Section.

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GROUP 1-5 PPI SWEEP PRESENT

SIGHTING ANGLE and ALTITUDE dials inoperative. Fix dials will not drive when forward sighting button is depressed.

1. Check the following fuses located on the MA-1 fuse box in the sequence listed below. If a fuse warning light is on, that fuse is defective.

   a. F-8609 (10 amp, FB.) Remove fuse F-8609 and replace the holder. If the fuse warning light comes on, F-8609 is good.

   b. F-8601 (1 amp, FB.) Remove fuse F-8601 and replace the holder. If the fuse warning light comes on, F-8601 is good.

   c. F-8602 (10.125 amp, FB.) Remove fuse F-8602 and replace the holder. If the fuse warning light comes on, F-8602 is good.

   d. F-8603 (15 amp, SB.) Check the movement of the latitude and longitude dials with the latitude setting and longitude setting knobs. If the dials move, change fuse F-8603.

   e. F-8607 and F-8608. Turn the function switch to TRACK and check with the pilot to see if his PDI moves. If the PDI moves, change fuse F-8607 (6 amp, FB.) If the PDI <u>does not</u> move, change fuse F-8608 (8 amp, SB.)

<u>EMERGENCY PROCEDURE</u>:

If this malfunction cannot be corrected or if a fuse continues to blow, refer to Emergency Procedures in the Emergency Procedure Section.

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GROUP 1-6 PPI SWEEP PRESENT

SIGHTING ANGLE and AZIMUTH dials inoperative. Crosshair azimuth mark does not align with the heading mark when the forward sighting button is depressed. Fix dials do not move when the forward sighting button is depressed.

1. Check fuse F-8604 (8 amp, SB) on the MA-1 fuse box. If the fuse warning light is on, F-8604 is defective. If the offset light will come on, F-8604 is good.

EMERGENCY PROCEDURE:

If this trouble cannot be corrected, or if the above fuse continues to blow, the system can be used for limited synchronous bombing or navigation. Except for crosshair control, APS-64 operation will be normal. Bombing is possible using Emergency Procedures in the Emergency Procedure Section.

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GROUP 1-7 PPI SWEEP PRESENT

AZIMUTH and HEADING dials inoperative.
SIGHTING ANGLE dial may be inoperative.

1. Check the following fuses located on the MA-1 fuse box. If a fuse warning light is on, that fuse is defective. After replacing a fuse, recycle the equipment if necessary.

   a. F-8807 (6 amp, FB) Remove fuse F-8807 and replace the fuse holder. If the fuse warning light comes on, F-8807 is good. You may also check F-8807 as follows: if the ECO light is on and remains on, F-8807 is defective.

   b. F-8808 (5 amp, SB) Remove fuse F-8808 and replace the fuse holder. If the fuse warning light comes on, F-8808 is good.

   c. F-8806 (10 amp, FB) Remove fuse F-8806 and replace the fuse holder. If the fuse warning light comes on, F-8806 is good.

   d. F-8801 (1 amp, FB) Remove fuse F-8801 and replace the fuse holder. If the fuse warning light comes on, F-8801 is good.

   e. F-8802 (0.125 amp, FB) Remove the fuse F-8802 and replace the fuse holder. If the fuse warning light comes on, F-8802 is good.

   f. F-8803 (5 amp, SB) Remove fuse F-8803 and replace the fuse holder. If the fuse warning light comes on, F-8803 is good. This fuse may also be checked by switching the bombing switch to LOS and the boresight switch to SA. If the boresight light comes on, F-8803 is good.

EMERGENCY PROCEDURE:

If this malfunction cannot be corrected, or if a fuse continues to blow, refer to Emergency Procedures in the Emergency Procedure Section.

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GROUP 2 SYMPTOMS

PPI BLANK

Improper Meter readings.

Possible uncontrollable spot, ON 5" INDICATOR ONLY.

GROUP 2-1 Page 15 — PPI BLANK.

No meter readings on the Radar Control Unit meter.

GROUP 2-2 Page 16 — PPI BLANK.

No readings on the Radar Control Unit meter except 26.5 volts DC. (MOD HV reading will drop slowly.)

GROUP 2-3 Page 17 — PPI BLANK. (except for possible spot or azimuth sweep).

No meter readings on the Radar Control Unit meter except 26.5 volts DC and 115 volts AC.

GROUP 2-4 Page 18 — PPI BLANK.

RAI blank, except for possible spot or azimuth sweep.

No IND HV, MOD HV, and MAG readings.

All other Radar Control Unit meter readings are normal except the +600 DC reading which may be high.

XTAL #1 & XTAL #2 fluctuates in Radar AFC.

GROUP 2-5 Page 19 — PPI BLANK (except for FIXED UNCONTROLLABLE SPOT on 5" Indicator.)

No -300 volt DC, -105 volt DC, +150 volt DC, +300 volt DC, or +600 volt DC readings.

NOTE: +600 volt DC may have some reading for a short time. +26.5 volt DC, 115 volt AC, IND HV and MOD HV readings are present. (Mag and XTAL #1 and XTAL #2 may be zero).

INDEX CONTINUED ON NEXT PAGE

THIS PAGE IS DECLASSIFIED IAW EO 13526

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GROUP 2 SYMPTOMS (Con't)

GROUP 2-6 Page 20

PPI BLANK. 5 inch indicator.

No IND HV. All other Radar Control Unit meter readings are normal.

GROUP 2-7 Page 21

ROTATING SPOT ON PPI. 5 inch indicator.

No -300, -105, XTAL, or MAG.

+150, +300 reads low.

All other Radar Control Unit meter readings within limits.

GROUP 2-8 Page 22

PPI BLANK. 10" & 5" indicator.

No +300, MAG or XTAL.

+600 high or low, all other Radar Control Unit meter readings normal.

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GROUP 2-1 PPI BLANK 10" & 5" Indicators

No readings on the Radar Control Unit meter.

1. Function switch to NAV - Power switch to STANDBY.
2. Check the 26.5 volt DC circuit breaker marked AN/APS-64 on Radar Power Panel.
3. Check F-2301 (4 AG, 5 amp) fuse in Main Junction Box J-629.
4. Check the security of cable 1A at J-2301 on Interconnecting Box J-629.

SYSTEM LIMITATIONS:

If the trouble cannot be found, or the above fuse or circuit breaker continues to blow, the radar cannot be used.

All other system functions are normal.

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GROUP 2-2 PPI BLANK.

10" & 5" Indicators

No readings on the Radar Control Unit meter except 26.5 volts DC. (MOD HV will drop slowly)

1. Function Switch to NAV - Power switch to STANDBY.

2. Check the 115 volt AC circuit breaker on the Radar Observers Circuit Breaker Panel marked AN/APS-64.

3. Check F-2304 (4 AG, 10 amp) in the Main Junction Box J 629. This fuse is good if the dials are illuminated on the Radar Control Unit C-1442.

SYSTEM LIMITATIONS:

If the trouble cannot be found or the above fuse or circuit breaker continues to blow, the radar cannot be used.

All other system functions are normal.

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GROUP 2-3 PPI BLANK. 10" & 5" Indicators

No meter readings on the Radar Control Unit meter except 26.5 volts DC and 115 volts AC.

1. Power switch to STANDBY - Range Nautical Miles Control to 40.

   a. If the altitude light on the Primary Control Unit will not light with the Altitude Switch ON, check fuse F-2302 (4 AG, 5 amp) in the Main junction box J-629.

   NOTE: After replacing F-2302, radar will require 5 minutes to recycle. To "jump" this warm-up period, remove the cover on the Main Junction Box J-629 amp. Temporarily short out across the 4th and 5th terminals from the upper right hand corner of the strip. If you ground the case to either 4th or 5th you may blow F-2302. CAUTION: Use only an insulated screw driver and literally keep one hand in your pocket!

   b. If the altitude light comes ON check fuses F-2305 (4 AG, 5 amp) and fuse F-2306 (4 AG, 10 amp) in the main junction box J-629.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, or the above fuse or fuses continue to blow, the radar cannot be used, but all other system functions are normal.

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GROUP 2-4 PPI BLANK. 10" & 5" Indicators

No IND HV, MOD HV, and MAG readings.

All other Radar Control Unit meter readings are normal except the +600 DC reading which may be high.

XTAL fluctuates in radar AFC.

1. Power Switch to STANDBY - Range Nautical Miles Control under 50 miles. Sweep Delay Control - Depressed and CCW.

2. Check fuse F-2305 (4 AG, 5 amp) in the Main Junction Box J-629.

SYSTEM LIMITATIONS:

If the trouble cannot be corrected or the above fuse continues to blew, the radar cannot be used.

All other system functions are normal.

EMERGENCY PROCEDURES:

It may be possible to use the radar for short-range work if the fuse holds below 50 mile range. In this case, do not increase the range knob above 50 miles.

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GROUP 2-5 PPI BLANK except for FIXED UNCONTROLLABLE SPOT on 5" Indicator.

10" Indicator Blank

No -300 volt DC, -105 volt DC, +150 volt DC, +300 volt DC, or +600 volt DC readings.

NOTE: +600 volt DC may have some reading for a short time. +26.5 volt DC, 115 volt AC, IND HV and MOD HV readings are present. (MAG and XTAL may be zero).

1. Power Switch to STANDBY.

2. Check fuse F-2306 (4 AG, 10 amp) in the Main Junction Box J-629.

3. If fuse F-2306 continues to blow, proceed as follows to determine if a shorted rectifier tube is the cause of the malfunction:

   a. Be sure to turn the Power Switch to STANDBY as high voltages are present in Rectifier Power Unit PP-2598 when the Power Switch is on SCAN OFF, SCAN SLOW, or SCAN FAST.

   b. Remove the following tubes from the Rectifier Power Unit PP-2598, V-1001, V-1002, V-1003, V-1004 and V-1005.

   c. Replace fuse F-2306 in Interconnecting Box J-629.

   d. Power Switch to SCAN OFF.

   e. If fuse F-2306 blows again, the trouble is not due to a shorted rectifier power supply tube and the radar cannot be used.

   f. If fuse F-2306 does not blow, return the Power Switch to STANDBY.

   g. Reinstall one of the original tubes and turn the Power Switch to SCAN OFF.

   h. Continue steps f and g, until reinstallation of one of the original tubes blows fuse F-2306. Replace the defective tube with an appropriate type tube.

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GROUP 2-5 (Con't)

SYSTEM LIMITATIONS:

If the trouble cannot be found or the above fuse continues to blow, the radar cannot be used.

All other system functions are normal.

19 Continued

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GROUP 2-6 PPI BLANK, 5" Indicator.

10" indicator normal.

No IND HV. All other Radar Control Unit meter readings are normal.

1. Check fuse F-2309 (4 AG, 1 amp) in the Main Junction Box J-422

SYSTEM LIMITATIONS:

If F-2309 continues to blow, you cannot use the PPI; however, you can leave the Power Switch in SCAN FAST and the Function Switch on TRACK or BOMB and use the RAI for tracking and bombing.

All other system functions are normal.

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GROUP 2-7 ROTATING SPOT ON PPI. 5 inch indicator.

10" indicator blank.

No -300, -105, XTAL.

+150 and +300 reads low.

All other Radar Control Unit meter readings are within limits.

1. Be sure the Power Switch is in STANDBY as high voltages are present in the Rectifier Power Unit PP-259B when the Power Switch is in SCAN OFF, SCAN SLOW or SCAN FAST.

2. Change the following tubes in the Rectifier Power Unit PP-259B; Reinstall the original tube in each case when its replacement causes no change in the symptom:

   a. V-1005 with a 5R4WGYA

   b. V-1014 with a 6098 or a 6AR6.

   NOTE: V-1014 can be replaced with any one of the following tubes: V-1009, V-1010, V-1011, V-1012, or a V-1020.
   CAUTION: Never remove more than three of this series at any one time.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, radar cannot be used.

All other system functions are normal.

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GROUP 2-8 PPI BLANK. 5" indicator.

10" indicator - SWEEP ONLY.

No +300, MAG or XTAL.

+600 high or low, all other Radar Control Unit meter readings normal.

1. Be sure the Power Switch is in STANDBY as high voltages are present in the Rectifier Power Unit PP-259B when the Power Switch is in SCAN OFF, SCAN SLOW, or SCAN FAST.

2. Replace V-1002 in the Rectifier Power Unit PP-259B with a 1641 if +600 high.

3. Replace V-1001 in the Rectifier Power Unit with a 1641 if +600 low.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, radar cannot be used.

All other system functions are normal.

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GROUP 3 SYMPTOMS

PPI SWEEP ROTATION, OR PPI BLANK

METER READINGS NORMAL

Possible Controllable Spot on 5" indicator.

GROUP 3-1 Page 24 — PPI BLANK. 10" & 5" indicators.

GROUP 3-2 Page 25 — PPI BLANK (except for spot). On 5" indicator only.

Spot will move from center of PPI when Function Switch is in TRACK or BOMB.

Spot controllable with BIAS.

GROUP 3-2A Page 26 — PPI BLANK. 10" indicator only.

GROUP 3-3 Page 27 — PPI SWEEP VERY SHORT.

Range Nautical Mile control and Sweep Amplitude control effect length of sweep.

GROUP 3-4 Page 28 — PPI SWEEP VERY SHORT.

Range Nautical mile control has no effect on sweep length.

Sweep Amplitude control effects length of sweep.

GROUP 3-5A Page 29 — PPI SWEEP ON 5" INDICATOR DOES NOT ROTATE OR ROTATES IMPROPERLY. (TILT MAY BE INOPERATIVE)

GROUP 3-5B PAGE 31 — PPI SWEEP ON 10" INDICATOR DOES NOT ROTATE OR ROTATES IMPROPERLY.

Tilt may be inoperative.

GROUP 3-6A&B Page 32-34 — SPOKING ON THE PPI. 5" & 10" INDICATORS.

GROUP 3-7 Page 35 — PPI SWEEP ROTATES BACKWARD AND SUNBEAMS.

No radar targets

{GROUP 3 CON'T NEXT PAGE.}

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GROUP 3 SYMPTONS (CON'T)

GROUP 3-8 Page 35	SWEEP DOES NOT START AT CENTER OF 10" INDICATOR.
GROUP 3-9 Page 35	PPI BLANK IN BOMB ONLY.

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GROUP 3-1 PPI BLANK

10" & 5" INDICATORS

1. Power switch to standby.

2. Check 115 volts AC circuit breakers on radar observers circuit breaker panel marked "APS 64".

3. Check fuse F-2307 (3AG, SB, 6¼ Amp) in the main junction box J-629. F-2307 is good if any of the following functions operate on the IP-135.

   a. Azimuth scale illumination

   b. Range lites

   c. Blower motor

NOTE: If malfunction still exists proceed with the following steps:

1. Function switch to NAV.

2. Power switch to Scan Fast.

3. Remove all altitude delay by turning Sweep Delay Knob out of DETENT. (Do not pull out) If this corrects the malfunction, proceed to Par. 8. If this does not correct the malfunction, proceed as outlined.

4. Check the CO-AX connector on SN-158 labeled TRIG-IN and SWEEP OUT. Check the CO-AX connector labeled SWEEP IN and SWEEP OUTPUT on the Line Balancing Network CU-365.

5. Replace the following tube within the delay trigger unit in the Synchronizer SN-158.

   (Reinstall the original tube if the replacement causes no change in the symptoms.)

   a. V-807 with a 6101 or a 6J6

6. Replace the following tubes within the sweep generator of the SN-158.

   (Reinstall the original tube if the replacement causes no change in the symptoms.)

   a V-401 with a 6099

   b. V-406 with a 6096

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GROUP 3-1 (CON'T)

7. Replace the Delay Trigger Unit in the Synchronizer SN-158. If this unit is not available, proceed as follows:

   a. Replace the following tubes in the Delay Trigger Unit in the Synchronizer SN-158, in the following order:

      (Reinstall the original tube in each case if its replacement causes no change in the symptom.)

      (1) V-801 with a 6099 or a 6J6.

      (2) V-802 with a 6101 or a 6J6.

      (3) V-803 with a 6101 or a 6J6.

      (4) V-805 with a 6096 or a 6AK5.

      (5) V-806 with a 6097 or a 6AL5.

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GROUP 3-2 PPI BLANK EXCEPT FOR SPOT

5" INDICATOR ONLY

Spot will move from center of PPI when Function Switch is in TRACK or BOMB.
SPOT CONTROLLABLE WITH BIAS.

1. Function Switch to NAV.

   NOTE: THE FOLLOWING STEPS 2 THRU 6 AND STEP 8 ARE NOT NECESSARY IF A SWEEP IS PRESENT ON THE 10" INDICATOR.

2. Remove all altitude delay by turning Sweep Delay Knob out of DETENT. (Do not pull out) If this corrects the malfunction, proceed to Par.8. If this does not correct the malfunction, proceed as outlined.

3. Check the CO-AX connector on SN-158 labeled TRIG IN and SWEEP OUT. Check the CO-AX connector labeled SWP-IN and SWEEP OUTPUT on the line balancing network CU-365.

4. Remove CO-AX connector on SN-158 labeled SWEEP OUT and make a tone check. If you hear the "noise", proceed with step 7. If you do not hear the "noise", proceed as listed in the following steps.

5. Replace the following tube within the delay trigger unit in the Synchronizer SN-158.
   (Reinstall the original tube if the replacement causes no change in the symptoms).

   a. V-807 with a 6101 or a 6J6.

6. Replace the following tubes within the sweep generator of the SN-158. (Reinstall the original tube if the replacement causes no change in the symptoms).

   a. V-401 with a 6099.

   b. V-406 with a 6096.

7. Replace the following tubes in the auxiliary indicator IP-135 in the following order:
   (Reinstall the original tube in each case if its replacement causes no change in the symptom.) When replacing the following tubes, the Power Switch should be in the STANDBY position. However, it will be necessary to return to normal operating condition to determine if the replacement does cause any change in the symptom).

   a. V-2202 with a 6096.

   b. V-2201 with a 6096.

   c. V-2203 with a 6096.

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GRCUP 3-2 (CON'T)

8. Replace the Delay Trigger Unit in the Synchronizer SN-158. If this unit is not available, proceed as follows:

   a. Replace the following tubes in the Delay Trigger Unit in the Synchronizer SN-158, in the following order:
   (Reinstall the original tube in each case if its replacement causes no change in the symptom.)

      (1) V-801 with a 6099 or a 6J6.

      (2) V-802 with a 6101 or a 6J6.

      (3) V-803 with a 6101 or a 6J6.

      (4) V-805 with a 6096 or a 6AK5.

      (5) V-806 with a 6097 or a 6AL5.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of the PPI will be limited but all other system functions are normal.

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GROUP 3-2A PPI BLANK

10" INDICATOR ONLY

1. Check fuses F-7001 and F-7002.

2. Remove CO-AX connector on IP-284 labled SWP IN (located on backside of Periscope Assembly, in line with F-7002) and make a Tone Check. If you hear a "noise" proceed with the following steps. If no "noise" is heard, subsititute the two outside CO-AX Cables on the CU-365. (If this is the solution to the malfunction you will sacrifice the 5" Indicator to keep the 10" Indicator operational).

3. Replace the following tubes in the indicator IP-284 in the following order:
(Reinstall the original tube in each case if its replacement causes no change in the symptom. When replacing the following tubes, the Power Switch should be in the STANDBY position. However, it will be necessary to return to the normal operating condition to determine if the replacement does cause any change in the symptom).

   a. V-7150 with a 6186.

   b. V-7151 with a 6186.

   c. V-7152 with a 12AT7.

   d. V-7153 with a 6098.

   e. V-7154 with a 6098.

   f. V-7155 with a 6098.

   g. V-7156 with a 6098.

4. Replace the following tubes in the IP-284. (IF THE ABOVE FAILS TO CLEAR THE MALFUNCTION).

   a. V-7050 with a 12AT7.

   b. V-7051 with a 6AH6.

   c. V-7052 with a 6097.

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GROUP 3-3 'PPI SWEEP VERY SHORT.

Range Nautical Mile Control and Sweep Amplitude Control effect length of sweep.

1. Function Switch to NAV. Power Switch to SCAN FAST.

2. Momentarily rotate Sweep Delay Knob out of DETENT, if sweep becomes normal refer to Group 3-2 Par.__, page 25

3. Check CO-AX connecter marked "SWP NET" on front panel of Synchromiser SN158.

4. Replace Sweep Generator inside Synchromiser SN-158. If this unit is not available, proceed as follows:

   a. Replace the following tubes in the Sweep Generator in the SN-158: (Reinstall the original tube in each case if the replacement causes no change in the symptom).

      (1) V-403 with a 6096 or a 6AK5.
      (2) V-407 with a 6096 or a 6AK5.

5. Replace the following tubes in the indicator IP-284 in the following order:

   Reinstall the original tube in each case if its replacement causes no change in the symptom. (When replacing the following tubes, the Power Switch should be in the OFF position. However, it will be necessary to return to the normal operating condition to determine if the replacement causes any change in the symptom).

   a. For IP-284 Replace:

      (1) V7153 with a 6098
      (2) V7154 with a 6098
      (3) V7155 with a 6098
      (4) V7156 with a 6098

   b. For IP-135 Replace:

      (1) V2204 with a 6098
      (2) V2205 with a 6098

SYSTEM LIMITATIONS.

If this trouble cannot be found, the use of the PPI will be limited, but all other functions will be normal.

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GROUP 3-4 PPI SWEEP VERY SHORT.

Range Nautical Mile Control has no effect on sweep length.

Sweep Amplitude Control affects length of sweep.

1. Function Switch to NAV. Power Switch to SCAN FAST.
2. Momentarily rotate Sweep Delay Knob out of DETENT, if sweep becomes normal refer to Group 3-2, page 25. If there is no change, proceed as outlined below.
3. Check CO-AX connector marked "SWP NET" on front panel of Synchronizer SN-158.
4. Replace Sweep Generator inside Synchronizer SN-158. If this unit is not available, proceed as follows:
5. Replace the following tubes in the Sweep Generator in the SN-158: (Reinstall the original tube in each case if the replacement causes no change in the symptoms).
   a. V-405 with a 6101 or a 6J6.
   b. V-408 with a 6101 or a 6J6.
   c. V-409 with a 6101 or a 6J6.
   d. V-404 with a 6101 or a 6J6.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of the PPI will be limited.

All other system functions are normal.

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GROUP 3-5A PPI SWEEP ON 5" INDICATOR DOES NOT ROTATE OR ROTATES IMPROPERLY.

TILT MAY BE INOPERATIVE.

1. Power Switch to SCAN FAST.

2. Check for proper rotation of sweep in STAB, NAV AND TRACK positions of the Function Switch.

   a. If the sweep does not rotate properly in STAB and NAV and the antenna reversal cannot be felt or heard in TRACK, check F-2303 (4 AG, 15 amp) fuse in J-629

   b. If the sweep does not rotate properly in STAB, but rotates properly in NAV and TRACK, check antenna tilt. If the antenna tilt does not operate properly, check F-2308 (4 AG, 3 amp) fuse in J-629

3. If PPI sweep does not rotate properly in STAB, NAV OR TRACK,

   a. Indicator Servo Gain (Partial Adjustment)

      (1) Function Switch to NAV.
      (2) BACKLASH 1/8 turn off of CCW Stop.
      (3) Indicator Servo Gain No.2 on Synchronizer SN-158 full CCW, then CW for proper sweep rotation. If sweep rotation is not corrected, proceed to 3b.
      (4) Function Switch to TRACK. Adjust BACKLASH if necessary for single PPI Azimuth Mark.

   b. Indicator Servo Gain Adjustment

      (1) Function Switch to NAV.
      (2) Radar Power Switch to SCAN SLOW.
      (3) BACKLASH 1/8 turn off of CCW STOP.
      (4) Indicator Servo Gain No.2 on Synchronizer SN-158 full CCW.
      (5) If sweep is moving, adjust Indicator Servo Balance No.2 inside Synchronizer SN-158 until sweep steps.

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GROUP 3-5A (Con't)

(6) Increase Indicator Servo Gain No.2 CW until sweep rotates smoothly.

(7) Power Switch to SCAN FAST and advance Servo Gain No.2 for single Azimuth Mark. Adjust Backlash if necessary for single PPI Azimuth Mark.

NOTE: The Indicator Servo Amplifier has two channels. Channel one is not used in the B-52 because only the Auxiliary Scope is dependent upon the Servo Unit.* Therefore, tubes from channel one can be used for replacements in channel two, except for V-503 and V-514 as they are common to both channels.

* (The 10" Indicator contains its own Servo Amplifier)

a. If Indicator Servo Gain No.2 has no effect upon the sweep rotation, replace tubes:

(1) V-508 with a 6101 or V-501 out of channel No.1
(2) V-509 with a 6097 or V-502 out of channel No.1

b. If Indicator Servo Gain No.2 has an effect on the sweep rotation, replace tubes:

(1) V-514 with a 6X5
(2) V-512 with a 6100 or V-506 out of channel No.1
(3) V-513 with a 6100 or V-507 out of channell No.1
(4) V-510 with a 6099 or V-505 out of channel No.1
(5) V-511 with a 6099 or V-504 out of channel No.1
(6) V-503 with a 6101 or a 6J6

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of radar will be limited but all other system functions are normal.

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GROUP 3-5B PPI SWEEP ON 10" INDICATOR DOES NOT ROTATE OR ROTATES IMPROPERLY.

1. Power Switch to SCAN FAST.

2. Check for proper rotation of Sweep in STAB, NAV, TRACK positions of the Function Switch.

   a. If Antenna Reversal cannot be felt or heard in TRACK, check F-2303, in J-629.

3. If Sweep on 10" Indicator does not rotate properly, but 5" Indicator is normal, adjust Backlash control on front of IP-284.

   a. Servo Gain adjustment

      (1) Power Switch in SCAN SLOW and Function Switch in NAV.

      (2) Rotate Backlash control 1/8 turn CW from the CCW Mechanical stop.

      (3) Turn Indicator Servo Gain controls CCW (inside IP-284)

      (4) Turn Indicator Servo Balance (inside IP-284) to center of position at which sweep does not move.

      (5) Turn Function Switch to TRACK.

      (6) Increase Servo Gain (inside IP-284) until there is no Backlash on the PPI.

   b. If the above does not correct the malfunction replace the tubes in the IP-284 servo amplifier as follows:

      Replace Tube V-7200 with a 5751
      V-7201 with a 5814
      V-7202 with a 12AT7WA
      V-7203 with a 6186
      V-7204 with a 6186
      V-7205 with a 5814

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GROUP 3-6A SPOKING ON THE 5" PPI-10" INDICATOR NORMAL

1. Adjust Indicator Servo Gain and Balance as follows:

   a. Indicator Servo Gain (Partial Adjustment)

      (1) Function Switch to NAV
      (2) BACKLASH 1/8 Turn from CCW stop
      (3) Indicator Servo Gain #2 on Synchronizer SN-158 full CCW, then CW to point just below where spoking occurs. If spoking cannot be eliminated, refer to 1 b.
      (4) Function Switch to TRACK . Adjust Backlash if necessary for single PPI Azimuth Mark.

   b. Indicator Servo Gain Adjustment

      (1) Function Switch to NAV
      (2) Radar Power Switch to SCAN OFF
      (3) BACKLASH 1/8 turn from CCW stop
      (4) Indicator Servo Gain #2 on Synchronizer SN 158 full CCW
      (5) If sweep is moving, adjust Indicator Servo Balance #2 inside Synchronizer SN-158 until sweep stops
      (6) Radar Power Switch to SCAN SLOW
      (7) Increase Indicator Servo Gain #2 CW until the sweep rotates smoothly
      (8) Power Switch to SCAN FAST. Adjust Backlash if necessary for single PPI Azimuth Mark.

2. Replace the Indicator Servo Amplifier in Synchronizer SN-158 If a spare is not available, replace tubes in the Indicator Servo Amplifier in the following order: Reinstall the original tube in each case if the replacement does not change the symptom.

   If Indicator Servo Gain #2 has an effect on the sweep rotation, replace tubes:

   a. V-514 with a 6X5.

   b. V-512 with a 6100 or V-506 out of channel #1.

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GROUP 3-6A (Con't)

c. V-513 with a 6100 or V-507 out of channel #1.

d. V-510 with a 6099 or V-505 out of channel #1.

e. V-511 with a 6099 or V-504 out of channel #1.
f. V-503 WITH A G101 OR WITH A 6J6.

3. If Indicator Servo Gain #2 has no effect on the sweep rotation replace tubes:

a. V-508 with a 6101 or V-501 out of channel #1.

b. V-509 with a 6097 or V-502 out of channel #1.

SYSTEM LIMITATIONS

If this trouble cannot be corrected, use of the PPI will be limited but all other system functions are normal.

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GROUP 3-6B SPOKING ON 10" INDICATOR

ADJUST BACKLASH CONTROL

If backlash adjust cannot cure trouble, see paragraph 3. a. & b. on page 31.

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GROUP 3-7 PPI SWEEP ROTATES BACKWARD AND SUNBEAMS.
NO RADAR TARGETS

1. Be sure the Power Switch is in STANDBY as high voltages are present in the Rectifier Power Unit PP-259B when the Power Switch is in SCAN OFF, SCAN SLOW, or in SCAN FAST.

2. Change the following tubes in the Rectifier Power Unit PP-259B. Reinstall the original tube in each case when its replacement causes no change in the symptom:

   a. V-1003 with a 5R4WGA

   b. V-1004 with a 5R4WGA

   c. V-1013 with a 6096

SYSTEM LIMITATIONS:

If the trouble cannot be corrected, the radar cannot be used

All other system functions are normal

GROUP 3-8

SWEEP DOES NOT START AT CENTER OF 10" Indicator.

1. REPLACE V-7152 ON SWEEP GENERATOR IN IP-284

GROUP 3-9

PPI BLANK IN BOMB ONLY

1. CHECK FUSES ON PMG SWITCH BOX

   a. F-6861 (115V AC, 1AMP, MDM-1)

   b. F-6862 (115V AC, 1AMP, MDM-1)

2. CONTROL SWITCH TO EMERGENCY OFF

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GROUP 4 SYMPTOMS

DISPLACED CENTER and/or SECTOR SCAN

GROUP 4-1 Page 37 — NO PPI SECTOR SCAN

No PPI crosshairs

GROUP 4-2 Page 38 — SECTOR SCAN IS SCANNING IN AN IMPROPER DIRECTION

Displaced center is normal

GROUP 4-3 Page 41 — DISPLACED CENTER IS INCORRECT

All other system functions are normal

GROUP 4-4 Page 43 — SECTOR SCAN IS SCANNING IN AN IMPROPER DIRECTION

Displaced center is off edge of PPI

GROUP 4-5 Page 44 — NO PPI SECTOR SCAN IN TRACK OR BOMB

Two PPI azimuth marks may appear 180° apart when the Function Switch is in NAV

GROUP 4-6 Page 45 — NO PPI SECTOR SCAN

Aximuth mark missing on PPI

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GROUP 4-1 NO PPI SECTOR SCAN.

Displaced center may or may not be correct.

NO PPI crosshairs.

1. Power Swithch to SCAN FAST or SCAN SLOW -- Range Mark Crosshairs Switch to CROSSHAIRS.

2. Check F-3702 (8 AG, 5 amp) and F-3704 (8 AG, 3 amp) fuses on the front panel of radar synchronizer SN-135.

SYSTEM LIMITATIONS:

If one of the above fuses continues to blow or the trouble cannot be corrected, the radar cannot be used for synchronous bombing or wind runs.

All other system functions are normal.

EMERGENCY PROCEDURES:

Possible to bomb and navigate using fixed range marks. Refer to___in Appendix B for bombing procedures.

Use optics for normal navigation and bombing.

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GROUP 4-2 SECTOR SCAN IS SCANNING IN AN IMPROPER DIRECTION.

Displaced center is normal.

1. Bombing Switch to SYNCHRONOUS, Navigation Method Switch to POLAR.

2. Check that the True Heading Transmitter & Y-7 AZ Dial changes with a change of Polar Angle. Press the Forward Sighting Button noting that the azimuth dial of the Y-7 indicator rotates to zero.

3. If the heading did not change but the azimuth drove to zero, replace the AERO HEADING Amplifier on the ECASU. If this does not correct the malfunction, refer to Emergency Procedure 1. (See Note below).

4. If the heading changed but the azimuth dial did not drive to zero, replace the STAB AZIM Amplifier on the ECASU. If this does not correct the malfunction, refer to Emergency Procedure 2.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, optical and radar synchronous bombing is not possible.

NOTE: If after changing the AERO HEADING Amplifier, a large heading error is present, it may save time to recycle the Stabilization System, and in an emergency, manually push the Hayden Timer through.

EMERGENCY PROCEDURES:

1. If heading will not change, it is impossible to bomb by using fixed range marks. Navigation may be accomplished by using fixed range marks or by the following method which maintains North stabilization and uses the computer:

   a. Pull the AERO HEADING Amplifier.

   b. Using the screwdriver adjust, put the proper heading in the True Heading Transmitter.

(GROUP 4-2 CON'T ON PG 39)

THIS PAGE IS DECLASSIFIED IAW EO 13526

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c. Polar Nav Switch to POLAR. Function Switch to TRACK.

d. While observing the PPI, change the polar angle until the azimuth mark intersects azimuth scale at a point 180° from the apex of the sector.

e. Perform normal navigational procedures.

NOTE:

(1) The accuracy will be dependent upon maintaining the heading with the screwdriver adjust.
(2) The polar angle must be changed periodically to keep the azimuth mark in its proper position on the PPI.

2. If the azimuth cannot be changed, it is possible to navigate using fixed range marks. Bombing may be accomplished by fixed range mark procedures (B-1 in Appendix B) or by the following method which maintains North stabilization:

a. Function Switch to Nav.

b. Compute actual range of bomb in nautical miles with this formula:

Actual Range (ft) = GS (ft/sec) x ATF - Trail in feet.
Actual Range (ft) = Actual Range (NM).
GS (Knots x 1.69) = GS (ft/sec).

c. Convert Actual Range to Slant Range by use of slant range tables.

d. Find dropping angle in bombing tables using GS in knots and altitude in feet.

e. Set computed dropping angle into Line of Sight Control.

f. Altitude in the K-System must be correct. Using tracking handle and observing optical crosshairs, adjust crosshair control until there is no jump of the optic crosshair when switching from the line-of-sight to synchronous.

g. Do not touch tracking control for remainder of run.

h. On Line-of-Sight control, set in proper drift left or right.

i. Compute proper track for bomb run heading.

(GROUP 4-2 CON'T ON PG 40)

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j. After IP or PIP turn, expend scope so that the target is coincident with azimuth scale on edge of PPI. The difference between heading mark and reading on azimuth scale when target is coincident with azimuth scale should be equal to the drift angle. If this is not true, have the pilot correct aircraft by the number of degrees difference.

k. If the target tends to drift, then a multiple drift run should be accomplished between the 40 and 30 mile range marks as follows:

(1) Note the bearing when the target is coincident with the 40 mile range mark. (This can be done by expanding the scope and read bearing off of the azimuth scale).

(2) Note the bearing when the target is coincident with the 30 mile range mark.

(3) Multiply the number of degrees bearing change by 5. This is the number of degrees to turn in the direction of drift.

3. The new drift angle will now be the difference as shown between the heading mark and the target. Continue to expand the scope keeping a constant check on movement of the target. As the target intersects the VRM, release the bomb manually.

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GROUP 4-3 DISPLACED CENTER IS INCORRECT.

10" & 5" INDICATORS

All other system functions are normal.

1. Function switch to NAV - Power Switch to SCAN FAST.

2. Before adjusting the DISP CTR AMP, check that the Altitude Switch on the Primary Control is OFF. If the Altitude Switch is OFF and the Sighting Angle Dial reads ZERO DEGREES, depress the Forward Sighting Button. If the SA dial remains on zero degrees, replace the R amplifier Type on the CAU.

3. Center sweep properly on the PPI, using fixed range marks and the centering controls on the IP 284 and IP 135.

4. Use the Tracking Control to set in a large North fix.

   a. X_N ON NAVIGATION CONTROL 15-20 miles.

   b. X_E ON NAVIGATION CONTROL 0 miles.

5. Function Switch to TRACK.

   a. Adjust DISP CTR AMP IN - VERT Control on the front panel of Synchronizer SN-158 to bring apex of sector to edge of scope. If this can be done, proceed to paragraph 7.

6. If this adjustment has no effect, replace the Displaced Center Amplifier in the Synchronizer SN-158. If a spare Displaced Center Amplifier is not available, replace the following tubes within this amplifier: (Reinstall the original tube in each case if there is no change in the symptom).

   a. V-701 with a 6097 or a 6AL5.

   b. V-705 with a 6098 or a 6AR6.

7. Use the Tracking Control to set in a large East fix.

   a. X_E on Navigation Control 15-20 miles.

   b. X_N on Navigation Control 0 miles.

8. Adjust the DISP CTR AMP IN - HORIZ Control on the front panel of Synchronizer SN-158 to bring apex of the sector to the edge of the scope.

9. If this adjustment has no effect, replace the Displaced Center Amplifier in the Synchronizer SN-158. If no spare Displaced Center Amplifier is available, replace the following tubes within the amplifier: (Reinstall the original tube in each case if its replacement causes no change in the symptoms).

(GROUP 4-3 CONT ON PG 42)

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GROUP 4-3 (Cont'd)

a. V-703 with 6097 or a 6AL5.

b. V-706 with a 6098 or a 6AR6.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of the PPI may be difficult. It may be necessary to adjust sweep amplitude to place crosshairs on scope.

All other system functions are normal.

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GROUP 4-4 SECTOR SCAN IS SCANNING IN AN IMPROPER DIRECTION.

DISPLACED CENTER IS OFF EDGE OF PPI. 10" & 5" INDICATORS

1. Function Switch to TRACK.
2. Adjust the DISP CTR AMP IN - VERT and HORIZ Control on the front panel of Synchronizer SN-158 to bring apex of sector to the edge of the scope. See procedure outlined in Group 4-3, page 41.
3. If this adjustment has no effect, replace the Displaced Center amplifier inside Synchronizer SN- 158.
4. If no spare Displaced Center Amplifier is available, replace the following tubes within the Displaced Center Amplifier inside the Synchronizer SN-158 (Reinstall the original tube in each case if its replacement has no effect in the symptom).
   a. V-704 with a 6101 or a 6J6.
   b. V-702 with a 6101 or a 6J6.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of the PPI in TRACK or in BOMB will be limited.

All other system functions will be normal.

EMERGENCY PROCEDURES:

1. Refer to B-1 in Appendix B for Radar Bombing procedures.
2. Optics are normal for navigation and bombing.
3. Use of fixed range marks and bearing method for radar navigation.

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GROUP 4-5 NO PPI SECTOR SCAN IN TRACK OR BOMB.

10" & 5" INDICATORS

Two PPI azimuth marks may appear 180° apart when the Function Switch is in NAV.

1. Power Switch to SCAN FAST. Range Marks - Crosshair switch to CROSSHAIRS.

2. Replace the Azimuth Marker Generator in the radar synchronizer SN-135.

3. If a spare Azimuth Marker Generator is not available, replace V-5707 with a 6099 or a 6J6 and V-5708 with a 6099 or a 6J6 on the Azimuth Marker Generator in the radar synchronizer SN-135. Reinstall the original tube in each case if its replacement causes no change in the symptom.

SYSTEM LIMITATIONS:

When the Function Switch is in NAV, presence of 2 azimuth marks may be confusing. In acquiring a target on NAV, check that X_N and X_E coordinates displayed on the NAV Control are consistent with the georgraphical location of the target on the PPI.

When the Function Switch is in TRACK or BOMB, sector scan will not be available. However, PPI offset will operate, pulling the sweep origin to the edge of the display. This will put part of the sweep off the scope during each full scan but will leave the proper azimuth mark on the scope. Tracking and bombing with this azimuth mark will be accurate.

All other system functions are normal.

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GROUP 4-6

NO PPI SECTOR SCAN

10" & 5" INDICATORS

Azimuth mark missing on PPI

Displaced center is normal

1. Adjust the Sector Width Control (R-3703) on the front panel of radar synchronizer SN-135 as follows:

   a. Use the Tracking Control to set in a large north fix.

      (1) XN on Navigation Control 15-20 miles
      (2) XE on Navigation Control 0 miles

   b. Primary Control Altitude Switch - ON

   c. Function Switch - TRACK

   d. Adjust Sector Width (R-3703) until the sector is scanning 30° on either side of the azimuth mark.

   e. Primary Control Altitude Switch - OFF

2. Adjust R-3508 in the deck of the Stabilization Unit

3. Replace azimuth mark generator if none of above clear the malfunction; however if a spare azimuth mark generator is not available, replace tubes in azimuth mark generator in following order:

   a. V-5703 with 12 AU7
      V-5706 with 6099 or 6J6
      V-5707 with " "
      V-5708 with " "

SYSTEM LIMITATIONS:

If this trouble cannot be corrected use of the PPI in TRACK or in BOMB will be limited but all other system functions will be normal.

EMERGENCY PROCEDURES:

1. Refer to B-1 in Appendix B for radar bombing procedures

2. Optics are normal for navigation and bombing

3. Use of fixed range marks and bearing method for radar navigation.

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GROUP 5 SYMPTOMS

RADAR TARGET APPEARANCE.

PPI sweep normal.

Meter readings may be improper.

GROUP 5-1 Page 48 — INTERMITTENT OR NO TARGETS ON THE PPI. 10" & 5" INDICATORS.

All Radar Control Unit meter readings are normal, except XTAL which may be low or fluctuating.

GROUP 5-2 Page 49 — INTERMITTENT OR NO TARGETS ON THE PPI. 10" & 5" INDICATORS.

Mag current low or fluctuating.

All other Radar Control Unit meter readings are normal.

GROUP 5-3 Page 50 — PPI TARGETS ARE MISSING OR WEAK ON PART OF PPI. 10" & 5" INDICATORS.

All Radar Control Unit meter readings are normal.

Area of weak return shifts with changes in aircraft attitude.

GROUP 5-4 Page 51 — WEAK TARGETS ON THE PPI. 10" & 5" INDICATORS.

All Radar Control Unit meter readings are normal.

GROUP 5-5 Page 52 — NO TARGETS ON PPI. 10" & 5" INDICATORS.

Receiver Gain Control has no effect on the picture.

All Radar Control Unit meter readings are normal.

GROUP 5-6 Page 53 — NO TARGETS, CROSSHAIRS, OR FIXED RANGE MARKS ON PPI. 10" & 5" INDICATORS.

All Radar Control Unit meter readings are normal.

INDEX CONTINUED ON NEXT PAGE

THIS PAGE IS DECLASSIFIED IAW EO 13526

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GROUP 5-7 Page 55	WEAK TARGETS OR NO TARGETS ON PPI. CROSSHAIRS AND RANGE MARKS WEAK ON PPI. 10" & 5" INDICATORS Video Gain and Brill Mark Control affects the intensity of the crosshairs or range marks. All Radar Control Unit meter readings are normal.
GROUP 5-8 Page 57	WEAK TARGETS AND NO CROSSHAIRS OR RANGE MARKS ON PPI. 10" & 5" INDICATORS Brill Mark Controls intensity of entire sweep. All Radar Control Unit meter readings are normal.
GROUP 5-9 Page 58	PPI TARGETS FLOODED. 10" & 5" INDICATORS +300 reads high. All other meter readings are normal. Receiver Gain, and Video Gain have no effect on the PPI.
GROUP 5-10 Page 59	PPI VIDEO VERY WEAK. 10" & 5" INDICATORS. +150 low. All other Radar Control Unit meter readings are normal.

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GROUP 5-1 INTERMITTENT OR NO TARGETS ON THE PPI

10" & 5" INDICATORS

All Radar Control Unit meter readings normal, except XTAL which may be low or fluctuating.

1. Tune the APS-64 frequency wise (By use of Increase-Decrease Switch) for best target reception.

LIN-LOG SWITCH TO LIN POSITION.

SISTEM LIMITATIONS:

If this trouble cannot be corrected, use of radar will be limited.

All other system functions are normal.

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GROUP 5-2 INTERMITTENT OR NO TARGETS ON THE PPI

10" & 5" INDICATORS

Mag Current low or fluctuating.

All other Radar Control Unit meter readings normal.

1. Sweep Delay Control: Depressed and CCW.

2. Check the pressure on Radar Pressure Gauge for 30 ± 2 in. Hg.

3. If Mag Current is steady on the 5-50 mile range, has only occasional minor fluctuations on the 50-80 mile range, and is fluctuating consistently on the 80-200 mile range, use the following procedure:

   NOTE: Before proceeding, check that arcing is not due to low pressure. The following procedure is for ageing magnetron:

   SEE PAGES 49A & 49B USING APPLICABLE PROCEDURE FOR YOUR RANGE OPERATION.

   CAUTION: DO NOT CONTINUE THE PROCESS IF ANY FUSE CONTINUES TO BLOW OR IF FAILURE IS APPARENT AFTER 10 MINUTES.

4. If the ageing procedure is successful (Mag Current steady at 10 ma. above 80 mi.), resume normal operation, otherwise operate at lower ranges where there is no fluctuation of Mag Current needle.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of radar will be limited.

All other system functions are normal.

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Tech Talk

2J51A MAGNETRON
AGING PROCEDURE

I. **Preliminary**

Before installing the tube in the system check for open heater or any mechanical damage check operation of tuning assembly by rotating tuner dial through the range of markings (F1 to F5) stamped on the tube. Check for anods to cathode short.

II. **Warm Up**

Warm the cathode by operation in standby for five minutes. This should bring the cathode to operating temperature unless, as sometimes happends, a defective heater opens up after current is applied.

III. **3/8 Usec Pulse Operation** RADAR Hi RES 5-50 Mi. OPERATION

a. Control Settings - Set Mag Current (TF106C/U) control to stop at 73 volts, Range to less than 20 miles and Operation to HI RES.

b. Switch from STANDBY to SCAN OFF. Watch mag current for roughness of operation. If the current comes up gradually with few or no kicks of the meter, proceed to step C, but if otherwise, see note (a) for special symptoms.

c. Begin advancing the current control toward the position which produces 4.7 ma (15.5 amps peak current) of magnetron current. If the meter flicks before this current level is reached, continue the advance to the point at which approximately 20 flicks per minute occur. If the roughness is excessive, quickly reduce the current to a level at which the 20 flicks per minute occur. Maintain this level until the severity of roughness diminishes. Continue to increase the current in this manner until the 4.7 ma valve is reached. All increases of current should be gradual while the tube ages in. Reductions should be made quickly when necessary.

d. When 4.7 ma magnetron current has been reached, monitor the meter current until the meter flicks have stopped. Reduce the level of operation to 4.2 ma (14 amps peak) magnetron current, which is the normal operating level for this tube. Check operation over the entire frequency for possible tuner sherts.

e. Return POWER to STANDBY position.

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IV. 1.0 Usec Pulse Operation RADAR HI GAIN 5-50 Mi; & 50-80 Mi Rg.

a. Control Settings - Set MAG CURRENT control to approx. 73, RANGE to less than 20 miles and OPERATION to HI GAIN.

b. Operation - Switch from STANDBY to SCAN OFF. Watch mag current meters for roughness of operation. If the current meter shows few or no kicks, proceed to step C, otherwise see note (b) for special symptoms.

c. Gradually increase the current level to 12.4 ma (15.5 amp peak) using the cautious procedure outlined in section II - C.

d. When 12.4 ma of magnetron current is reached monitor the meter current until the meter flicks have stopped. Reduce the current to 11.2 ma, the normal operating level for this tube.

e. Return to STANDBY position.

V. 2.4 Usec Operation BEACON

a. Control Settings - Set MAG CURRENT Control to approx. 73 and OPERATION to BEACON.

b. Operation - Repeat operating technique of section IV - B and IV - C including the precautionary measures of note (b) if necessary. The level of operation should be advanced gradually to 11.2 ma (15.5 amps peak current) until stabilized operation is maintained. Reduction to normal operating level of 10.1 ma should follow.

c. Place POWER to STANDBY

VI. 3.2 Usec Operation 80-200 Mi. OPERATION

a. Control Settings - Set MAG CURRENT Control to approx 73, RANGE switch to above 80, OPERATION to HIGH GAIN.

b. Operation - Repeat operation techniques of IV - B, C and D with the levels of magnetron current of 14.9 ma maximum current and 13.8 ma normal operating point.

c. Return POWER to STANDBY.

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GROUP 5-3 PPI TARGETS ARE MISSING OR WEAK ON PART OF PPI

10" & 5" INDICATORS

All Radar Control Unit meter readings are normal.

Area of weak return shifts with changes in aircraft attitude.

1. Check ECO circuit by observing ECO light while in a turn and during straight and level flight.

   a. If ECO light comes on and remains on and use of reset switch has no effect, refer to Group 12-1.

   b. If ECO light fails to come on during turn, refer to Group 12-2.

   c. If ECO is normal and manual tilt WASN'T EFFECT, replace F-2308 (4 AG, 3 amp) fuse in the Main Junction Box J-629.

   d. If ECO is normal and manual tilt is operating, replace P-IMP CHANGE Amplifier with a type PG Amplifier, and R-IMP CHANGE Amplifier with a type PH Amplifier on the SAU. (ECASM)

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, radar operation may be limited.

All other system functions are normal.

EMERGENCY PROCEDURES:

Remove ROLL and PITCH IMPEDANCE Amplifier on SAU. (ECASM) This will eleminate false signals from being sent to antenna for tilt stabilization.

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GROUP 5-4 WEAK TARGETS ON THE IPI

10" & 5" INDICATORS

All Radar Control Unit meter readings are normal.

1. Check the RCVR GAIN, TILT, CONTRAST and VIDEO GAIN Controls for best returns.

   a. If there is no apparent change when Tilt Control is rotated, check F-2308 (4 AG, 3 amp) fuse on front panel of J-629 by observing proper sweep rotation in STAB.

2. Sweep Delay Control: Depressed and CCW.

3. F T C: OFF.

4. Check the pressure on Radar Pressure Gauge for 30 ± 2 in. Hg.

5. Tune the APS-64 with INC-DEC Switch.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of the radar will be limited.

All other system functions are normal.

NOTE:

If possible, Replace IP-284 VIDEO AMPLIFIER Tubes

V-7051 with a 6AU6
V-7050 with a 12AT7
V-7052 with a 6097

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GROUP 5-5 NO TARGETS ON PPI

10" & 5" INDICATORS

Receiver Gain Control has no effect on the picture.

All radar control unit meter readings are normal.

1. Power Switch to SCAN FAST.
2. Check the CO-AX connector marked VID IN on the front panel of the Synchronizer SN-158.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, radar cannot be used.

All other system functions are normal.

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GROUP 5-6 NO TARGETS, CROSSHAIRS, or FIXED RANGE MARKS ON PPI.

10" & 5" INDICATORS

All Radar Control Unit meter readings are normal.

1. Check for the best settings of Video Gain, Bias and Brill Mark controls.

2. Check the CO-AX connector marked VID OUT on the front panel of the Synchronizer SN-158.

3. Check CO-AX connector labeled VID IN on Periscope Housing of IP-284.

4. Remove CO-AX connector labeled VID IN on front panel of Synchronizer SN-158 and connect it to the TEST VID OUT jack. If targets appear on the scope, proceed as follows: (If not, proceed to step 6).

5. Replace the Video Amplifier within the Synchronizer SN-158. If no spare Video Amplifier is available, replace tubes within Video Amplifier inside the Synchronizer SN-158. Reinstall the original tube in each case if there is no change in the symptom.

   a. V-602 with a 6101 or a 6J6.
   b. V-603 with a 6096 or a 6AK5.
   c. V-607 with a 6096 or a 6AK5.
   d. V-604 with a 6096 or a 6AK5.

6. Replace tubes in the Indicator IP-284 in the following order:

   NOTE: When replacing tubes, the Power Switch should be in the STANDBY position. However, it will be necessary to return to the original operating condition to determine if the replacement causes any change in the symtom. Reinstall the original tube in each case if there is no change in the symptom.

   a. V-7051 with a 6AU6.

GROUP 5-6 CON'T. ON PG. 54

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GROUP 5-6 (Con't)

SYSTEM LIMITATIONS: May not be able to use PPI unless you revert to Emergency Procedures.

All other system functions are normal. Optics can be used for navigation and bombing.

EMERGENCY PROCEDURES:

1. If the Video Amplifier in Synchronizer SN-158 is the cause of the malfunction and it cannot be corrected in flight, or if time does not permit attempting to correct the malfunction in flight, a near normal presentation may be obtained in the following manner: (All other system functions are normal).

   a. Remove the VID IN and MARK IN cables from the fromt panel of Synchronizer SN-158.
   b. Connect the VID IN cable to the TEST VIDEO OUT jack on the front panel of Synchronizer SN-158.
   c. Connect the MARK IN cable to the VIDEO OUT jack on the front panel of Synchronizer SN-158.
   d. Tune for the best presentation on the PPI. The Ped Amp Control will have no effect on the presentation but it may be necessary to use the Brill Marks Control to tune the picture. (The Brill Marks Control regulates the output of the marker mixer circuit in the Video Amplifier). If The Brill Mark Control affects the picture and it is difficult to tune, remove the VIDEO amplifier sub-chassis from Synchronizer SN-158 and tune for the best presentation using Video Gain, and Receiver Gain.
   e. If the crosshair range mark appears oversized or the target presentation is weak, it will be necessary to attenuate the marks by connecting the attenuator P-902 to the VID OUT jack and the MARK IN cable to attenuator P-902.

NOTE: OBSERVER SHOULD USE DISCRETION BETWEEN THE 5" & 10" INDICATORS IN TROUBLE SHOOTING. DETERMINE IF TROUBLE IS ON BOTH SCOPES.

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GROUP 5-7 WEAK TARGETS OR NO TARGETS ON PPI.
CROSSHAIRS AND RANGE MARKS WEAK ON PPI.

10" & 5" INDICATORS

Video Gain and Brill Mark Control affects the intensity of the crosshairs or range marks.

All Radar Control Unit meter readings are normal.

1. Check for best setting of Video Gain, Bias and Brill Mark controls.

2. Replace the VIDEO amplifier inside the Synchronizer SN-158. If no spare amplifier is available, replace the tubes within the amplifier in the following order: (Reinstall the original tube in each case if there is no change in the symptom).

   a. V-607 with a 6096 or a 6AK5.
   b. V-604 with a 6096 or a 6AK5.
   c. V-605 with a 6101 or a 6J6.
   d. V-606 with a 6101 or a 6J6.

SYSTEM LIMITATIONS:

Use of radar may be limited.

All other system functions are normal.

EMERGENCY PROCEDURES:

1. If the VIDEO Amplifier in Synchronizer SN-158 is the cause of the malfunction and it cannot be corrected in flight, or if time does not permit attempting to correct the malfunction in flight, a near normal presentation may be obtained in the following manner: (All other system functions will be normal).

   a. Remove the VID IN and MARK IN cables from the front panel of Synchronizer SN-158.

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GROUP 5-7 (Con't)

b. Connect the VID IN cable to the TEST VIDEO OUT jack on the front panel of Synchronizer SN-158.
c. Connect the MARK IN cable to the VIDEO OUT jack on the front panel of Synchronizer SN-158.
d. Tune for the best presentation on the PPI. The Ped Amp Control will have no effect on the presentation but it may be necessary to use the Brill Marks Control to tune the Picture. (The Brill Marks Control regulates the output of the marker mixer circuit in the VIDEO amplifier). If the Brill Marks Control affects the picture and it is difficult to tune, remove the VIDEO amplifier sub-chassis from Synchronizer SN-158 and tune for the best presentation using Video Gain, and Receiver Gain.
e. If the crosshairs range mark appears oversized or the target presentation is weak, it will be necessary to attenuate the marks by connecting the attenuator P-902 to the VID OUT jack and the MARK IN cable to attenuator P-902.

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GROUP 5-8 WEAK TARGETS AND NO CROSSHAIRS OR RANGE MARKS ON PPI.

10" & 5" INDICATORS

Brill Mark Controls intensity of entire sweep.

All Radar Control Unit meter readings are normal.

1. Replace tube V-601 in VIDEO Amplifier of Synchronizer SN-158 with a 6101 or 6J6. Reinstall the original tube if there is no change in the symptom.

SYSTEM LIMITATIONS:

Use of PPI may be limited.

All other system functions are normal.

EMERGENCY PROCEDURES:

1. If the VIDEO Amplifier in Synchronizer SN-158 is the cause of the malfunction and it cannot be corrected in flight, or if time does not permit attempting to correct the malfunction in flight, a near normal presentation may be obtained in the following manner: (All other system functions are normal).

   a. Remove the VID IN and MARK IN cables from the front panel of Synchronizer SN-158.
   b. Connect the VID IN cable to the TEST VIDEO OUT jack on the front panel of Synchronizer SN-158.
   c. Connect the MARK IN cable to the VIDEO OUT jack on the front panel of Synchronizer SN-158.
   d. Tune for best presentation on the PPI. The Ped Amp Control will have no effect on the presentation, but it may be necessary to use the Brill Mark Control to tune the picture. (The Brill Mark Control regulates the output of the marker mixer circuit in the VIDEO amplifier). If the Brill Marks Control affects the picture and it is difficult to tune, remove the VIDEO Amplifier sub-chassis from Synchronizer SN-158 and tune for the best presentation using Video Gain, and Receiver Gain.
   e. If the crosshair range marks appear oversized or the target presentation is weak, it will be necessary to attenuate the marks by connecting the attenuator P-902 to the VID OUT jack and the MARK IN cable to the attenuator P-902.

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GROUP 5-9 PPI TARGETS FLOODED

10" AND 5" INDICATORS

+300 READS HIGH

All other meter readings normal.

Receiver Gain, and Video Gain have no effect on PPI.

1. Be sure the Power Switch is in STANDBY as high voltages are present in the rectifier Power Unit PP-259 when Power Switch is in SCAN OFF, SCAN SLOW, or SCAN FAST.

2. Replace V-1008 with a 6096 or a 6AK5 in Rectifier Power Unit PP-259.

SYETEM LIMITATIONS:

If this trouble cannot be corrected, use of the PPI will be limited.

All other system functions are normal. Optics can be used for Navigation and Bombing.

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GROUP 5-10 PPI VIDEO VERY WEAK.

10" AND 5" INDICATORS.

+150 low.

All other Radar Control Unit meter readings are normal.

1. Be sure the Power Switch is in STANDBY as high voltages are present in the Rectifier Power Unit PP-259B when the Power Switch is in SCAN OFF, SCAN SLOW, or in SCAN FAST.

2. Change the following tubes in the PP-259B. Only two of the following tubes in this series have to be good in order for the circuit to operate properly. In order to find the bad tube, remove the tubes one at a time, reinstalling the tube when it causes NO apparent change in the symptom.

   a. V-1003 with a 5R4WG.
   b. V-1004 with a 5R4WGY.
   c. V-1013 with a 5R4WGY.
   d. V-1012 with a 6098 or a 6AR6.
   e. V-1020 with a 6098 or a 6AR6.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of the PPI will be limited.

All other system functions are normal. Optics can be used for navigation and bombing.

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GROUP 6 SYMPTOMS

RADAR and/or OPTICAL CROSSHAIR MOVEMENT WITH THE TRACKING CONTROL

GROUP 6-1 Page 61 — RADAR AND OPTICAL CROSSHAIRS DO NOT RESPOND PROPERLY TO TRACKING CONTROL.

R_G Limit light is ON.

GROUP 6-2A Page 62 — RADAR AND OPTICAL CROSSHAIRS DO NOT RESPOND PROPERLY TO TRACKING CONTROL.

R_G Limit light OFF.

GROUP 6-2B Page 64 — RADAR CROSSHAIRS DO NOT RESPOND PROPERLY TO TRACKING CONTROL.

OPTICS NOT USABLE DUE TO WEATHER.

R_G Limit light OFF.

GROUP 6-3 Page 66 — RADAR AND OPTICAL CROSSHAIRS CANNOT BE MOVED PROPERLY IN AZIMUTH DURING POLAR OPERATION

Grid Heading is correct.

GROUP 6-4 Page 67 — OPTICAL RETICLE CANNOT BE MOVED PROPERLY WITH THE TRACKING CONTROL.

Optical reticle may not be stabilized in pitch.

Radar crosshairs respond normally.

GROUP 6-5 Page 68 — RADAR AND OPTICAL CROSSHAIRS ARE ROTATING IN AZIMUTH

Y-7 Azimuth Dial and Stabilizer Yoke are Rotating.

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GROUP 6-1 RADAR AND OPTICAL CROSSHAIRS DO NOT RESPOND PROPERLY TO TRACKING CONTROL

RG Limit Light is ON

1. PPI-OB switch OB

2. Attempt to reduce RG with the Tracking Control. If RG Limit Light goes out, to Group 6-2A PAGE 62

3. Navigation Method Switch to POLAR. Turn Polar Angle Setting Knob until Heading Mark aligns with Azimuth Mark.

4. Function Switch to TRACK.

5. Depress Froward Sighting Switch momentarily. Close Tracking Control Enabling Switch (Deadman Switch). If RG Limit Light goes out, refer to Group 6-2B PAGE 64

6. Check movement of the Sighting Angle Indicator Dial to zero with Altitude Switch ON. If the Sighting Angle Dial does not drive to zero, replace RG amplifier (NAH) on the computer Amplifier Unit. (ECAU)

7. If the Sighting Angle Dial drives to zero replace the GRAC Amplifier (WH) on the Computer Amplifier Unit. (ECAU)

SYSTEM LIMITATIONS:

Navigation Counters may be used if winds can be changed in the Navigation Control.

Bombing may be accomplished by fixed angle optical or slant range RADAR methods only.

EMERGENCY PROCEDURES:

1. Refer to B-1 in Appendix B for emergency procedures.

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GROUP 6-2A RADAR AND OPTICAL CROSSHAIRS DO NOT RESPOND PROPERLY TO TRACKING CONTROL

RG Limit Light OFF

1. Function Switch to NAV, Range Mark-Crosshair Switch to CROSSHAIRS.

2. If Y-7 Azimuth Dia. is off zero, proceed to step 3. If approximately equal to zero, move it to another value with the Tracking Control and proceed to step 3.

   a. If Y-7 Azimuth DIAL will not move with Tracking Control, set in Polar Angle of 030° in Polar NAV.UNIT. Navigation Method Switch to POLAR.

   b. If Y-7 Azimuth Dial will not move, replace STAB Azimuth amplifier (MAH) on stabilization Amplifier Unit. (ECASU)

3. While observing the fix dials on the Navigation Control, depress Forward Sighting Switch and HOLD.

   a. If Y-7 Azimuth Dial does not move to 00, replace the STAB AZIMUTH amplifier (MAH) on the stabilization Amplifier Unit. (ECASU)

   b. Altitude switch ON. If the sighting Angle Dial DOES NOT move to 0°, replace the R amplifier (MAH) on the Computer Amplifier Unit. (ECAU). Altitude Switch OFF.

   c. If either Navigation Control Fix Dial does not move, replace the respective Track amplifier (MAH) on the Computer Amplifier Unit. (ECAU)

4. Release Forward Sighting Switch. If Y-7 Azimuth Dial returns immediately to its original position and stops replace the Ø amplifier (MAH) on the Computer Amplifier Unit. (ECAU)

5. If Y-7 Azimuth and the Sighting Angle INDICATOR Dials will not move properly for slewing or Tracking Control, replace GRAC (WH) on the Computer Amplifier Unit. (ECAU)

62

(GROUP 6-2A CON'T ON PAGE 63)

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GROUP 6-2A (Con't)

SYSTEM LIMITATIONS:

Navigation Counters may be used if winds can be changed in Navigation Control Dials.

Limited bombing, fixing, and wind synchronization may be possible.

Optical fixed angle bombing is possible if the Y-7 Azimuth Dial will follow drift knob of Line-of-Sight Control.

EMERGENCY PROCEDURES:

1. Refer to B-1 in Appendix B for emergency bombing procedures.

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GROUP 6-2B RADAR CROSSHAIRS DO NOT RESPOND PROPERLY TO TRACKING CONTROL

Optics unusable Due to Weather

RG Limit Light Off

1. Function Switch to NAV, Range Mark-Crosshair Switch to CROSSHAIRS

2. Check position of PPI Azimuth Mark. If Azimuth Mark is not equal to Heading Mark, proceed to Step 3.

   a. If Azimuth Mark is equal or approximately equal to heading, move it to another value with Tracking Control and proceed to step 3.

   b. If Azimuth Mark cannot be moved with Tracking Control, set Polar Angle to 030°. Check for movement of Stabilizer Unit Yoke and PPI Azimuth Mark as Navigation Method Switch is placed to POLAR

   c. If yoke does not move and PPI Azimuth Mark does move replace Stab Azimuth Amplifier (MAH) on the ECASU.

3. While observing the Navigation Control Fix Dials, press forward Sighting Switch and hold.

   a. If PPI Azimuth Mark is not aligned with Heading Mark replace Stab Azimuth Amplifier (MAH) on the ECASU.

   b. If either Navigation Control Fix Dials did not move replace the respective TRACK AMPL (MCH) on the ECAU.

4. Release Forward Sighting Switch. Function Switch to TRACK if PPI sector is not through center of indicator, replace the PHI (Ø) AMPL on the ECAU.

5. Altitude Switch - On. If sighting Angle Indicator does not drive to Zero replace R AMPL (MAH) on the ECAU.

6. Replace GRAC AMPL (WH) on the ECAU if malfunction is still present.

GROUP 6-2B CON'T ON PAGE 65

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GROUP 6-2B (Con't)

SYSTEM LIMITATIONS:

Navigation Counters may be used if winds can be changed in the Navigation Control.

Limited fixing, bombing and wind synchronization may be possible.

EMERGENCY PROCEDURES:

1. Radar slant range bombing is possible. Refer to B-1 in Appendix B.

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GROUP 6-3 RADAR and OPTICAL CROSSHAIRS CANNOT BE MOVED PROPERLY IN AZIMUTH DURING POLAR OPERATION.

Grid heading is correct.

1. Function Switch to NAV, PPI-OB, Range Mark-Crosshair Switch to CROSSHAIR.

2. Polar Navigation Method Switch on Normal. Check movement of Y-7 azimuth Dial. If azimuth did not change properly, refer to Group 6-2A PAGE 62

3. If the azimuth now changes properly, replace Polar Amplifier (V) on the Polar Navigation Control. If Type V amplifier and replace V-9202 with a 6096, 5654 or a 6AK5. V IS NOT AVAILABLE, REMOVE THE AMPLIFIER

SYSTEM LIMITATIONS:

All other system functions are normal.

The system cannot be used for Polar operation.

- EMERGENCY PROCEDURES:

1. Refer to B-1 and B-4 in Appendix B for Emergency procedures.

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GROUP 6-4 OPTICAL RETICLE CANNOT BE MOVED PROPERLY WITH THE TRACKING CONTROL

Optical Reticle may not be stabilized in pitch.

Radar crosshairs respond normally.

1. If reticle DOES NOT move in all directions when slewing with tracking control, proceed to step 3.

2. Function Switch to NAV, Bombing Switch to LOS, Boresight Switch to Normal.

3. Rotate drift knob on Line-of-Sight Control. If Y-7 Azimuth Dial does not follow, replace the periscope Azimuth amplifier (MAH) on the Electronic Control Amplifier Stabilization (ECASU)

   ADJUST PERISCOPE SENSITIVITY POT R-8817

4. Line-of-Sight Control Drift Dial to 0°.

5. Vary Sighting Angle Knob between 0° and 90° while observing Optical Reticle. If the Reticle Does Not move, degree for degree with Sighting Angle Knob in range, replace the pitch Amplifier (type JM) in the ECASU.

6. Have pilot roll A/C about a constant heading. If reticle is not stabilized to the roll of the A/C, change roll amp. (type JM) in the electronic Control Amplifier Stabilization Unit (ECASU)

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GROUP 6-5 RADAR AND OPTICAL CROSSHAIRS ARE ROTATING IN AZIMUTH

Y-7 Azimuth Dial and Stabilizer Yoke are rotating.

1. Function Switch to NAV. Bombing Switch to LOS.
2. If rotation continues, replace Stab Azimuth Amplifier (MAH) on the ECASU.
3. Adjust Φ su SENSITIVITY (R-8809) inside door of ECASU.
4. If S-A Dial is on zero in TRACK, replace R_t-AMPL (MAH) on ECAU.
5. Bombing Switch to SYN. Observe Navigation Control Fix Dials, depress Forward Sighting Switch and hold.
   a. If Fix dials are oscillating, replace PHI (ϕ) Amplifier (MAH) on the ECAU.
   b. If Fix dials move properly and stop, replace GRAC Amplifier (WH) on the ECAU.

SYSTEM LIMITATIONS:

Navigation counters may be used if winds can be changed in Navigation Control Dials.

Synchronous bombing, fixing, and wind synchronization will be possible.

Optical fixed angle bombing is possible if the Y-7 Azimuth Dial will follow drift knob of Line-of Sight Control.

EMERGENCY PROCEDURES:

Refer to B-1, B-3 or B-4 in Appendix B for emergency bombing procedures.

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GROUP 7 SYMPTONS

ALTITUDE and/or TRUE AIRSPEED

GROUP 7-1 Page 70-71	ALTITUDE DIALS ON THE BALLISTICS CONTROL CANNOT BE MOVED WITH ALTITUDE CORRECTION KNOB OR DO NOT FOLLOW AIRCRAFT ALTITUDE CHANGES.
GROUP 7-2 Page 72	TRUE AIRSPEED INDICATOR DOES NOT AGREE WITH KNOWN TRUE AIRSPEED

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GROUP 7-1 ALTITUDE DIALS ON THE BALLISTICS CONTROL CANNOT BE MOVED WITH ALTITUDE CORRECTION KNOB OR DO NOT FOLLOW AIRCRAFT ALTITUDE CHANGES.

1. Radar Altitude switch ON, Function Switch to NAV or TRACK.

2. Attempt to move the variable range mark on the PPI with the ALTITUDE CORRECTION knob on the primary control.

3. If the VRM on the PPI cannot be moved, replace the H amplifier with a Type MAH amplifier on the ECAU.

4. If the VRM still cannot be moved, refer to Emergency Procedure.

5. If the VRM can be moved, perform a radar altitude check.

6. If an altitude check can be performed but the Altitude Dial still reads incorrectly, disregard the Altitude Dial. The altitude in the system will be correct. Altitude must be computed. (See Emergency Procedure I).

7. If coincidence is obtained and altitude dial now reads correctly, have the pilot change aircraft altitude.

8. If altitude Dial does not follow changes in aircraft altitude, the Altitude Variation Transmitter is not following changes in altitude. Keep altitude correct by frequent radar altitude checks.

EMERGENCY PROCEDURES NO. 1:

IF ALTITUDE CAN BE MEASURED BUT DIAL READS INCORRECTLY, THE FOLLOWING PROCEDURE CAN BE USED TO DETERMINE SYSTEM ALTITUDE:

1. Make sure ECO light is OUT. Offset Switch to OFFSET OUT.

2. Function switch to NAV, PPI-OB switch to PPI, Zero fix dials using tracking handle.

3. Bombing switch to LOS, Drift Dial on LOS control to 0°, and Sighting Angle Dial on LOS control to 0°.

4. Navigation method switch to POLAR. Adjust Polar Angle until true heading reads 360°.

GROUP 7-1 CON'T ON PAGE 71

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GROUP 7-1 (CON'T)

5. Adjust N-S fix to give minimum jump of the optic cross-hairs when switching Boresight switch between AZ and NORMAL. (Keep E-W dial at 0.).

6. Sighting Angle Dial to 45°.

7. Offset switch to OFFSET IN, set North offset value to approximate altitude, and set E-W offset value to 0.

8. Adjust North offset value until the optic crosshair does not move when switching Boresight Switch between AZ and NORMAL.

9. The North offset dial now reads altitude.

EMERGENCY PROCEDURE NO. II:

1. If the VRM cannot be moved with the ALTITUDE CORRECTION knob but the system altitude remains at a usable value, accurate tracking and bombing can be performed by flying at that altitude.

2. To put aircraft at the correct absolute altitude, proceed as follows:

   a. Radar Altitude Switch to ON, Function switch to TRACK.

   b. Fly the aircraft up or down until ground return line matches range mark on PPI -- 10" INDICATOR.

3. If it is not practical to fly at system altitude, optical synchronization is possible. Winds will be erroneous. Bombing errors will be proportional to the altitude error.

4. If it is not practical to fly at system altitude, radar synchronization will be difficult or impossible. Fairly accurate wind runs and synchronization can be accomplished using targets near maximum range.

5. Navigation is possible if the actual wind is put on the wind dials by means of MEMORY POINT operation.

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GROUP 7-2 TRUE AIRSPEED INDICATOR DOES NOT AGREE WITH KNOWN TRUE AIRSPEED.

1. Observe the True Airspeed Indicator while switching the Function Switch to STAB and back to NAV. If the True Airspeed Indicator responds (fluctuates), proceed to step 4.

2. If the True Airspeed Indicator does not respond, zero the wind dials by use of MEM POINT. Switch the Navigation Method Switch to POLAR. Adjust Polar Angle until true heading is 360°. Observe the drive of the Latitude Dial.

3. If the Latitude Dial drives 7 NM per minute (or a rate consistent with known true airspeed, the True Airspeed Indicator is inoperative. K-System true airspeed is correct. True airspeed will have to be computed.

4. Replace the V_A amplifier with a Type XH amplifier on the ECAU.

5. If replacing the V_A amplifier has no effect on the true airspeed and a more accurate true airspeed is desired, the following procedure can be used:

   a. Remove the V_A amplifier from the ECAU.
   b. Turn the Function Switch to STAB and then back to NAV.
   c. This drives the V_A servo toward the midpoint of the True Airspeed meter. However, inertia of the servo carries the V_A pointer past its midpoint.
   d. Successive operations of the Function Switch will cause the V_A servo to bracket the midpoint.
   e. Continue this procedure until a usable true airspeed is indicated on the True Airspeed Meter.

6. In many cases a MAH type amplifier can be used to replace the XH amplifier to a usable true airspeed. However, the MAH amplifier should not be left in the circuit longer than necessary.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, but synchronization can be accomplished, navigation and bombing will be accurate, providing re-synchronization is accomplished with each heading change. CAUTION: Never use the wind indicated on the Navigation Control for changes in heading. However, it can be used for accurate ETAs if the true airspeed as shown on the True Airspeed meter is used in conjunction with the wind as shown on the Navigation Control. Ballistics data must be computed using the accurate true airspeed.

All other system functions are normal.

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RADAR and/or OPTICAL SYNCHRONIZATION.

Altitude and True Airspeed correct.

GROUP 8-1 RADAR AND OPTICAL CROSSHAIRS WILL
Page 74-75-76 NOT REMAIN ON THE TARGET.

Reaction to the Tracking CONTROL is NORMAL.

GROUP 8-2 CANNOT SYNCHRONIZE WITH THE RADAR CROSSHAIRS
PAGE 77-78 DURING TURNS and/or STRAIGHT AND LEVEL FLIGHT.

Tracking Control reaction and optical synchronization is normal.

GROUP 8-3 OPTICAL CROSSHAIRS OSCILLATE LATERALLY ABOUT
PAGE 79 THE TARGET WHEN THE AIRCRAFT ATTITUDE CHANGES.

Tracking Control reaction and radar synchronization is normal.

ECO function is normal.

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GROUP 8-1 RADAR AND OPTICAL CROSSHAIRS WILL NOT REMAIN ON THE TARGET.

Reaction to the Tracking Control is normal.

1. Function Switch to TRACK.

2. Determine if the constant speed motor is operating. This can be done by observing the Latitude and Longitude dials. If there is no motion, the constant speed motor is inoperative.

NOTE: This trouble may be caused by a slow, fast, or erratic constant speed motor. To check the constant speed motor, place the Function Switch to TRACK and the Displacement Memory Point Switch to MEMORY POINT. The switch should automatically pop out of Memory Point at the end of 5 minutes $\pm$ 0.5 seconds. If the constant speed motor is operating at an improper speed:

a. Limited crosshair drive may be available.

b. Memory Point winds will be inaccurate.

c. Latitude and Longitude dials will be accurate if synchronization is possible after every change in heading.

d. Bombing accuracy will be improved if actual winds are entered into the computer.

e. The crosshairs must then be kept on the target by continuous use of Tracking Control.

f. If this procedure for bombing is undesirable, refer to the following procedure:

(1) Using a stop watch, accurately check the 15 second timing period of Memory Point operation. Re-run check a minimum of 3 times to determine that Memory Point operation is repeating and consistant. Re-checks should repeat within .5 seconds.

(2) If above procedure is within tolerance, time the 4.5 minute Memory Point warning light period using stop watch. If time permits re-run check to determine that first time check was correct. The results will be labeled "Actual Time".

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GROUP 8-1 (Con't)

(3) To determine the new ATF Value to be set in the ballistics control use the following formula:

$$\frac{\text{"TAGGED TIME"} \times \text{COMPUTED ATF}}{\text{"ACTUAL TIME"}} = \text{NEW ADJUSTED ATF}$$

"TAGGED TIME" = TIME IN SECONDS LISTED ON TAG ATTACHED TO PRIMARY CONTROL BOX.

"COMPUTED ATF" = ATF COMPUTED FROM BALLISTICS TABLE WHICH WOULD BE USED IF CONSTANT SPEED MOTOR WERE ACCURATE.

"ADJUSTED ATF" = ATF NEEDED TO COMPENSATE FOR CONSTANT SPEED MOTOR ERRORS.

3. Set in Polar Angle of 180° in the Polar Navigation Unit.

4. While observing the Latitude and Longitude dials on the Navigation Control, switch the Navigation Method Switch to POLAR. If the dials do not reverse their drive, replace the A_T (TC) amplifier with a type BH amplifier on the ECAU.

SYSTEM LIMITATIONS:

Wind readings will be erroneous. Optical and radar fixed angle bombing is possible on all headings.

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GROUP 8-1 (Cont'd)

EMERGENCY PROCEDURES:

With the A_T TC uncorrected, synchronous bombing is possible provided synchronization is performed as follows:

1. There is a heading, limited to a sector around the A_T in the Tracking Computer where it will be possible to synchronize. To determine this heading, proceed as follows:

   a. Zero the Wind Dials by means of Memory Point.

   b. Set the airplane's Latitude and Longitude Counters to approximately correct value.

   c. Plot this position on a chart.

   d. At least 5 minutes later, read the Latitude and Longitude Counters and plot this new position on the chart.

   e. The true direction from the first to the second position is the heading in the center of the usable sector. This sector will be approximately 30° wide.

2. After determining the proper sector, proceed as follows:

   a. Maneuver the aircraft to provide the briefed release heading. With the Nav Method Switch in POLAR, crank in Polar Angle until the true heading indicator reads the heading determined in 1 e.

   b. Fly the aircraft for a straight-in (non-evasive) bomb run on this release heading.

   c. Perform a complete Memory Point wind run on this release heading.

3. Navigation is impractical due to limitations imposed by the narrow sector mentioned above. The PPI will be properly oriented for fixing.

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GROUP 8-2 CANNOT SYNCHRONIZE WITH THE RADAR CROSSHAIRS DURING TURNS and/or STRAIGHT AND LEVEL FLIGHT.

Tracking Control reaction and optical synchronization normal.

1. Function Switch to TRACK.

2. Replace the ROLL and B-p amplifiers with type MDH amplifiers on the Azimuth Computer.

   NOTE: These amplifiers can be checked in the following manner:

   a. Remove the MAG VAR amplifier, type MDH, from the EGASU and insert one of the amplifiers from the Azimuth Computer.

   b. Rotate the MAG VAR Correction knob on the Navigation Control while observing the MAG VAR motor in the True Heading Transmitter.

   c. If the motor drives, the amplifier is good. Replace the good amplifier in its original position, and check the other amplifier by the same method.

   d. If no spare MDH amplifier is available, set MAG VAR to target variation and use MAG VAR amplifier as a spare until bomb run is completed. After bomb run, zero Azimuth Computer and replace MAG VAR amplifier.

   e. If both Azimuth Computer amplifiers prove to be good, refer to Emergency Procedures for zeroing Azimuth Computer.

EMERGENCY PROCEDURE: (Zeroing procedure for the Azimuth Computer).

1. Zeroing procedure for the B-52.

   a. Bombing switch to LOS, Boresight Switch to NORMAL, Azimuth Dial to 0°, Sighting Angle to 90°.

   b. Have the pilot fly straight and level, make sure that the ECO light is OFF.

   c. Remove both type MDH amplifiers from the Azimuth Computer. If only one good type MDH amplifier is available, place it alternately in the R side and the B-p side of the Azimuth Computer. In each case allow one minute for warmup. Then remove the amplifier.

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2. Manual Zeroing: B-52)

   a. Remove both amplifiers from the Azimuth Computer. Remove Azimuth Computer cover.

   b. Zero the B-p and ROLL gimbals by turning the gearing by hand. When the gimbals are zeroed, the shaft of the center synchro will be vertical.

3. With the Azimuth Computer zeroed, radar synchronization is possible. However, no roll correction is available. Cross-hair displacement should be made only when aircraft is straight and level.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, radar synchronization should be kept to a minimum, and only optical synchronization used where accuracy is needed.

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GROUP 8-3 OPTICAL CROSSHAIRS OSCILLATE LATERALLY ABOUT THE TARGET WHEN THE AIRCRAFT ATTITUDE CHANGES.

Tracking Control reaction and radar synchronization normal.

ECO function is normal.

1. Replace the ROLL amplifier with a type JH — — amplifier on the electronic control stabilization AMPLIFIER RACK (ECASH)

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of the optics may be limited.

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GROUP 9 SYMPTOMS

PPI CROSSHAIRS AND OR FIXED RANGE MARK APPEARANCE.

GROUP 9-1 Page 81	TWO AZIMUTH MARKS IN TRACK OR BOMB ON PPI.
GROUP 9-2 Page 82	AZIMUTH MARK IS MISSING, TOO DIM OR TOO BRIGHT. (5" & 10" INDICATORS)
GROUP 9-3 Page 83	TWO AZIMUTH MARKS 180° APART ON PPI. No sector scan in TRACK or BOMB.
GROUP 9-4 Page 84-85	RANGE MARK MISSING TOO DIM OR TOO BRIGHT ON THE PPI.
GROUP 9-5 Page 86	NO CROSSHAIRS. No PPI sector scan in TRACK or BOMB.
GROUP 9-6 Page 87	CROSSHAIRS MISSING ON PPI. Fixed range marks and heading mark normal.
GROUP 9-7 Page 88	NO AZIMUTH MARK ON THE PPI. No sector scan in TRACK or BOMB.
GROUP 9-8 Page 89	NO AZIMUTH MARK, MULTIPLE OR JUMPY AZIMUTH MARK ON THE PPI. Sector scan is normal in TRACK or BOMB.
GROUP 9-9 Page 90	PPI CROSSHAIR RANGE MARK JUMPS IN STEPS OF ABOUT 2,000 yds AS THE RANGE IS CHANGED.
GROUP 9-10 Page 91	NO CROSSHAIRS OR FIXED RANGE MARKS ON PPI. All other system functions are normal. Brill Mark control affects PPI targets
GROUP 9-11 Page 92	NO FIXED RANGE MARKS. Heading mark, targets and crosshairs are normal.

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GROUP 9-1 TWO AZIMUTH MARKS IN TRACK OR BOMB ON PPI.

1. Adjust the Backlash Control on indicator IP-284.

2. Adjust Indicator Servo Gain Control #1 on Synchronizer SN-158.

   a. IND SERVO GAIN (PARTIAL ADJUSTMENT) FOR 5" INDICATOR

      (1) Adjust backlash full CCW.
      (2) Adjust Ind Servo Gain #2 until backlash disappears. If Indicator Servo Gain #2 does not correct malfunction, refer to procedure on page ___
      (3) If time permits, Function Switch to NAV, RGMk Crosshair Switch to RGMK.
      (4) Adjust Ind Servo Gain until heading marks agrees with the True Heading Transmitter.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of the PPI for bombing and wind runs will be limited. Reasonable bombing accuracy may be expected if aimpoint is bracketed by PPI multiple azimuth marks.

All other system functions are normal. Optics can be used for tracking and bombing.

EMERGENCY PROCEDURES:

1. If it is impossible to use the azimuth mark in TRACK or BOMB, bombing can be accomplished with the PPI using procedure B-1 or B-2 in Appendix B.

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GROUP 9-2 AZIMUTH MARK IS TOO DIM OR TOO BRIGHT.

5" & 10" INDICATORS

1. Adjust the AZ MARK SIZE Control (R-3701) on the front panel of radar Synchronizer SN-135.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, the use of the PPI may be limited.

All other system functions are normal.

EMERGENCY PROCEDURES:

1. If this trouble cannot be corrected, it is possible to navigate using fixed range marks and optics. Bombing and wind may be accomplished by using optics, and fixed range mark procedures (Group B-1 in Appendix B).

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GROUP 9-3 TWO AZIMUTH MARKS 180° APART ON PPI.

No sector scan in TRACK or BOMB.

1. Replace the azimuth mark generator sub-chassis of radar synchronizer SN-135.

2. If a spare sub-chassis is not available, replace V-5707 and V-5708 on the azimuth mark generator with a 6099 or 6J6. Reinstall the original tube in each case if its replacement causes no change in the symptom.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of the APS-64 will be limited.

In the NAV position, presence of 2 azimuth marks may be confusing. In acquiring a target on NAV, check the X_N and X_E coordinates displayed on navigation control are consistent with the geographical location of the crosshairs as displayed on the PPI.

In the TRACK and BOMB positions, sector scan will not be available. However, PPI offset will operate, pulling the sweep origin to the edge of the display. This will position part of the sweep off the scope during each full scan but will leave the proper azimuth mark on the scope. Tracking and bombing with proper azimuth mark will be accurate.

All other system functions are normal.

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GROUP 9-4 VARIABLE RANGE MARK MISSING, TOO DIM OR TOO BRIGHT ON PPI

1. Range Marks - Crosshair Switch is placed on CROSSHAIRS.

2. Check F-3701 (27 Volts DC, 3 amps) fuse on front panel of radar synchronizer SN-135.

3. Adjust the RGE MK SIZE Control (R-3702) on the front panel of radar synchronizer SN-135.

4. If SA is 0° and cannot be changed, change R_G amplifier in the CAU.

5. Check the CO-AX connector, J-3706 (TRIGGER IN Cable No. 125) on front panel of radar synchronizer SN-135.

6. Replace the following sub-chassis of radar synchronizer SN-135: (Reinstall the original sub-chassis in each case if the replacement causes no change in the symptom: Note sub-chassis must have been previously calibrated with the installed SN-135 to insure accuracy).

   a. Range Mark Generator
   b. Sine Wave Generator
   c. Pedestal Generator.

7. If any of the above sub-chassis are not available, replace the tubes on that sub-chassis in the sequence indicated: (Reinstall the original tube in each case when its replacement causes no change in the symptom).

   a. Range Mark Generator:

      (1) V-5903 with a 6101 or a 6J6
      (2) V-5904 with a 6101 or a 6J6
      (3) V-5905 with a 6101 or a 6J6
      (4) V-5907 with a 6101 or a 6J6
      (5) V-5901 with a 6096 or a 6AK5
      (6) V-5902 with a 6096 or a 6AK5
      (7) V-5906 with a 6AS6
      (8) V-5908 with a 6101

   b. Sine Wave Generator:

      (1) V-6104 with a 5670
      (2) V-6101 with a ~~5670~~
      (3) V-6102 with a 6096 or a 6AK5
      (4) V-6103 with a 6101

{GROUP 9-4 CON'T ON NEXT PG.}

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GROUP 9-4 CON'T.

c. Phase Shift Unit: - - - - IN - - - - Polar Converter Top Deck.

(1) V-6001 with a 6101 or a 6J6
(2) V-6002 with a 6096 or a 6AK5

d. Pedestal Generator:

(1) V-5802 with a 5814
(2) V-5804 with a 5670
(3) V-5806 with a 12AU7
(4) V-5808 with a 6097
(5) V-5809 with a 6097
(6) V-5801 with a 12AU7
(7) V-5803 with a 6097
(8) V-5805 with a 6097 or a 6AL5
(9) V-5807 with a 12AT7
(10) V-5810 with a 5814

8. Adjust the PED WIDTH (R-5827) Control on the Pedestal Generator CW until the sympton is cleared. If this does not clear the malfunction, return the control to its original position. When adjustment of this control is attempted in the air, you should be sure to make note of this action in your Radar Operator's Report.

9. Adjust the AMP EQUAL Control (R-6004) on the Phase Shift In Polar Converter Unit one quarter turn CW while watching for the symptom to clear. If this does not clear the symptom, readjust R-6004 to its original position and then adjust it one quarter turn CCW while watching for the symptom to clear. If this adjustment does not clear the malfunction, return the control to its original position and make note of this action in your Radar Operator's Report.

SYSTEM LIMITATIONS:

If the trouble cannot be corrected, use of APS-64 will be limited.

All other system functions are normal.

EMERGENCY PROCEDURES:

1. If the trouble cannot be corrected, it is possible to navigate using fixed range marks and optics. Bombing and wind runs may be accomplished by using optics and fixed range mark procedures (Group B-1 in Appendix B).

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GROUP 9-5 NO CROSSHAIRS

No PPI sector scan in TRACK or BOMB.

1. Power Switch to SCAN FAST or SCAN SLOW, Range Marks-Crosshair Switch to CROSSHAIRS.

2. Check F-3702 (8 AG,5 amp)and F-3704 (8 AG,3 amp) on the front panel of radar synchronizer SN-135.

3. If F-3702 & F-3704 continue to blow, an attempt should be made to isolate the problem to a plug in unit in SN-135 or the PP-352 power supply. Remove all plug in units in the SN-135 (Function Switch in STAB) replace blown fuse (or fuses). Function Switch to NAV, if fuse blows, attempt to isolate problem by changing tubes in PP-352. Function Switch should be in STAB before tube is removed and replaced. If fuse DOES NOT blow isolate problem by replacing plug in Unit SN-135 one at a time until fuse (or fuses) blow. Then isolate problem to tubes in particular plug in unit which caused fuse to blow.

SYSTEM LIMITATIONS:

If one of the above fuses continues to blow or the trouble cannot be corrected, the APS-64 cannot be used for synchronous bombing or wind runs.

All other system functions are normal.

Note: F-3702 and F-3704 will not affect displaced center.

EMERGENCY PROCEDURES:

1. Bombing with the PPI can be accomplished using fixed range mark procedures B-1, Appendix B.

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GROUP 9-6 CROSSHAIRS MISSING ON PPI.

Fixed range marks and heading mark normal.

1. Check the CO-AX connector at J-3708 (MRK OUT Cable # 126) on front panel of radar synchronizer SN-135 and the CO-AX connector labeled "MRK IN" on front panel of synchronizer SN-158 (Cable # 126).

2. Replace V-5908 in the Range Marker Generator of radar synchronizer SN-135. with a 6101 or a 6J6.

3. Replace the Range Marker Generator sub-chassis of radar synchronizer SN-135.

SYSTEM LIMITATIONS:

If the trouble cannot be corrected or found, use of the PPI will be limited.

All other system functions are normal.

EMERGENCY PROCEDURES:

1. Bombing with the PPI can be accomplished using fixed range mark procedure B-1 in Appendix B.

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GROUP 9-7 NO AZIMUTH MARK ON THE PPI

No Sector Scan in Track or Bomb.

1. Adjust SECTOR WIDTH (R-3703) on front panel of Radar Synchronizer SN-135 as follows:

   a. Set large North Fix with Tracking Control.

   b. Function Switch - TRACK.

   c. Altitude Switch - ON.

   d. Adjust SECTOR WIDTH for 30° scan on either side of Azimuth Mark on PPI (330° - 030° on PPI scale). (R-3703 in SN-135)

   e. Altitude Switch - OFF

2. Carefully adjust R-3508 in deck of Stabilization Unit until sector and Azimuth Mark return to PPI.

3. Reaccomplish paragraph 1 if necessary.

   If none of the above procedures clears malfunction proceed as follows:

4. Replace the Azimuth Mark Generator of Radar Synchronizer SN-135

5. If a spare Azimuth Mark Generator is not available, replace tubes in the Azimuth Mark Generator in Radar Synchronizer SN-135 in the following order. Reinstall the original tube if its replacement causes no change in the symptom.

   a. V-5703 with a 12AU7.

   b. V-5706 with a 6099 or a 6J6.

   c. V-5707 with a 6099 or a 6J6.

   d. V-5708 with a 6099 or a 6J6

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of radar will be limited but all other system functions are normal.

EMERGENCY PROCEDURES:

1. Bombing can be accomplished using procedure B-1, B-3 orB-4 in Appendix B.

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GROUP 9-8 NO AZIMUTH MARK, MULTIPLE OR JUMPY AZIMUTH MARK ON THE PPI.

Sector scan is normal in TRACK or BOMB.

1. Replace the azimuth mark generator sub-chassis of radar synchronizer SN-135. If a spare sub-chassis is not abailable, proceed as follows:

2. Replace tubes in the azimuth mark generator in the following order. Reinstall the original tube in each case if the replacement causes no change in the sympton:

   a. V-5706 with a 6099 or a 6J6.
   b. V-5703 with a 12AU7.
   c. V-5702 with a 6096 or a 6AK5.
   d. V-5701 with a 6096 or a 6AK5.
   e. V-5704 with a 6099 or a 6J6.
   f. V-5705 with a 6099 or a 6J6.

SYSTEM LIMITATIONS:

If azimuth mark is missing, use of radar for bombing and wind runs will be limited.

If multiple azimuth marks cannot be corrected, reasonable bombing accuracy may be expected if the aimpoint is brackedted by the multiple azimuth marks.

All other system functions are normal.

EMERGENCY PROCEDURES:

1. Bombing with the PPI can be accomplished using fixed range mark procedure B-1 in Appendix B.

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GROUP 9-9 PPI CROSSHAIR RANGE MARK JUMPS IN STEPS OF ABOUT 2,000 YARDS AS THE RANGE IS CHANGED

1. Replace tubes on the Phase Shift Unit in the following order. Reinstall the original tube in each case if its replacement causes no change in the symptom.

   a. V-6001 with a 6101 or a 6J6.

   b. V-6002 with a 6096 or a 6AK5.

SYSTEM LIMITATIONS:

If the trouble cannot be corrected, the variable range mark cannot be used accurately for bombing or wind runs.

All other system functions are normal.

EMERGENCY PROCEDURES:

1. Bombing with the PPI can be accomplished using fixed range mark procedure B-1 in Appendix B.

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GROUP 9-10 NO CROSSHAIRS OR FIXED RANGE MARKS ON PPI.

All other system functions are normal.

BRILL MARK Control effects PPI targets.

1. Turn BRILL MARK Control full CCW.
2. Check for the best settings of the VIDEO GAIN Control.
3. Replace tube V-601 in Video Amplifier of Synchronizer SN-158. Reinstall original tube if there is no change in the symptom.
4. Refer to Group 9-4, 9-6, 9-7 & 9-12 for possible solution.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, use of the PPI will be limited.

All other system functions are normal.

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GROUP 9-11 NO FIXED RANGE MARKS

Heading mark, targets and crosshairs are normal.

1. PPI-OB Switch to PPI.

2. Replace the Range Mark Generator within the Synchronizer SN-158. If no spare Range Mark Generator is available, replace the following tubes within the Range Mark Generator inside the SN-158. Reinstall the original tube if its replacement causes no change in the symptom.

   a. V-302 with a 6099 or a 6J6.
   b. V-303 with a 6096 or a 6AK5.
   c. V-304 with a 6096 or a 6AK5.
   d. V-305 with a 6101 or a 6J6.
   e. V-306 with a 6101 or a 6J6.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected range and bearing fixes beyond the range of the crosshairs can be accomplished by use of the Range Nautical Mile Dial and azimuth scale on PPI.

All other system functions are normal.

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GROUP 10 SYMPTOMS

HEADING AND NAVIGATION (LAT. & LONG. COUNTERS)

GROUP 10-1
Page 94

TRUE HEADING DIALS CHANGING FAST and/or ERRATICALLY.

ECO light may be on.

GROUP 10-2
Page 95-A-B

TRUE HEADING TRANSMITTER DOES NOT AGREE WITH KNOWN TRUE HEADING.

True Heading Transmitter follows aircraft turns.

GROUP 10-3
Page 96

TRUE HEADING WILL NOT CHANGE WITH CHANGE OF AIRCRAFT HEADING.

GROUP 10-4
Page 97

LATITUDE and/or LONGITUDE COUNTERS DO NOT DRIVE PROPERLY.

Crosshairs can be moved and synchronized.

GROUP 10-5
Page 98

HEADING DOES NOT DRIVE TO PROPER VALUE IN POLAR OR POST POLAR OPERATION.

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GROUP 10-1 TRUE HEADING DIALS CHANGING FAST AND/OR ERRATICALLY.

ECO light may be on.

1. While observing the True Heading Dial, turn the Function Switch to OFF and return to STAB.

2. If the True Heading Dial settles out on the proper heading replace the DG IEVFL Amplifier (Type IH) on the ECASU. Proceed to step 4.

3. If the True Heading Dial continues to rotate fast and/or erratically, turn the function Switch to OFF and replace the AERO HEADING Amplifier (Type MAH) on the ECASU. Return Function Switch to STAB then prodeed to step 4.

4. Push Hayden through and continue Normal Operation .

SYSTEM LIMITATIONS:

If this malfunction cannot be corrected by the above procedure, the Latitude and Longitude Counters will not be accurate. Synchronization will be impossible due to a rotating radar and optical presentation.

EMERGENCY PROCEDURES:

1. Turn Function Switch to OFF. The orientation of the PPI will be relative to the longitudinal axis of the aircraft. Use the heading mark and the fixed range marks to perform radar fixed angle bombing.

   a. NAVIGATION: Navigation can be performed by the range and bearing method. The bearings obtained from the PPI will be relative bearings. Add AT to the RB's to plot true bearings.

      USE Formula: TB=RB+TH.

      Winds, GS's and ETA's can be determined by the track and ground speed between the plotted fixes.

   b. BOMBING : Refer to B-1 in Appendix B.

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GROUP 10-2 TRUE HEADING TRANSMITTER DOES NOT AGREE WITH KNOWN TRUE HEADING

True Heading Transmitter follows aircraft turns

1. Function Switch to NAV.

2. Check for proper MAG VAR setting on Mar Var Dial. Planes position counters must be correct for proper MAG Var.

3. Rotate the Mag Var Correction Knob noting movement of the Mag Var Motor in the True Heading Transmitter.

   a. If the Mag Var does not rotate, replace the MAG VAR Amplifier (Type MDH) on the ECASU.

4. Change Mag Var Correction 10°. Observe the True Heading Dial (fine) on the True Heading Transmitter. If the True Heading Dial (fine) does not change at the rate of 2 1/2° per minute replace the GYROSYN Amplifier (Type MH) on the ECASU.

5. Under certain conditions the DG LEVEL amplifier can cause the True Heading Transmitter to disagree with a known true heading. To check the DG LEVEL Amplifier, switch the Bombing Switch to the LOS position and rotate the Drift Control Knob on the Line of Sight Control through 360° while observing the True Heading Indicator. If True Heading Dial starts to rotate, replace the DG LEVEL AMPLIFIER (Type IH) on the ECASU.

SYSTEM LIMITATIONS:

Bombing can be performed if EOC function is normal and the AERO HDG Amplifier is good.

Perform a normal direct bomb run. Do not use offset. If AERO HDG Amplifier is inoperative use only the fixed angle bombing procedures.

EMERGENCY PROCEDURES:

1. Bombing and Navigation.

   a. Attempt to correct heading error with Mag Var Correction Knob. If no effect is noted continue.

   b. Navigation Method Switch to POLAR.

   c. Change the Polar Angle until the True Heading Transmitter Dial reads the correct true heading.

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GROUP 10-2 CON'T

d. Continue with normal navigation and bombing procedures.

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GROUP 10-2 Con't

NOTE: Periodic checks of true heading will be necessary. Whenever a heading error is detected change the POLAR ANGLE setting until the heading is correct.

STUDENTS NOTES and DIAGRAMS

QUESTIONS:

1. Why does ECO usually occur when the IG LEVEL Amplifier fails to function properly?

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GROUP 10-3 TRUE HEADING WILL NOT CHANGE WITH CHANGE OF AIRCRAFT HEADING.

1. Function Switch to NAV.

2. Set in a 20° Polar Angle with the Polar Angle Setting Knob. Check that heading dials on the True Heading Transmitter change as Navigation Method Switch is placed into the POLAR position.

   a. If heading does not change replace the AERO HEADING Amplifier (Type MAH)on the ECASU.

SYSTEM LIMITATIONS:

If this malfunction cannot be corrected navigation winds will be inaccurate. Planes position counters will not be reliable, direct or offset synchronous bombing should not be performed.

EMERGENCY PROCEDURES:

1. BOMBING: Refer to B-1 in Appendix B.

2. NAVIGATION:

   a. Remove the AERO HEADING Amplifier.

   b. Using the screw driver adjustment, place the proper heading in the True Heading Transmitter.

   c. Navigation Method Switch to POLAR.

   d. Function Switch to TRACK.

   e. While observing the PPI, change the Polar Angle until the Azimuth Mark intersects the azimuth scale at a point 180 degrees from the apex of the sector.

   f. Perform normal navigation procedures.

   NOTE: The accuraxy will be dependent upon the operators ability to maintain the correct heading with the screw driver adjust. The Polar Angle must be changed periodically to keep the Azimuth mark correctly positioned on the PPI.

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GROUP 10-4 LATITUDE AND/OR LONGITUDE COUNTERS DO NOT DRIVE PROPERLY.

Crosshairs can be moved and synchronized.

1. With the Latitude and Longitude Setting Knobs move the Latitude and Longitude Dials in BOTH directions. Reset Latitude and Longitude for plane's approximate position.

2. If only the Latitude Dial does not move properly change the X_N NAV Amplifier (Type UH) on the ECAU.

3. If only the Longitude Dial does not move properly change the X_E NAV Amplifier (Type UH) on the ECAU.

4. If both dials do not move or move improperly, place the Reference Point Switch to REFERENCE POINT checking the Reference Point Light. If the light does not come on check F-3610 (115 volts AC, 8 amp) on the ECAU.

5. If both dials move properly, refer to Group 11-2.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, the navigation counters cannot be used. In order to maintain a proper heading refer to Emergency Procedure below.

All other system functions are normal.

EMERGENCY PROCEDURE:

1. The navigation counter drive can be stopped by removing the X_E NAV and the X_N NAV Amplifiers from the ECAU. This enables the operator to keep the system magnetic variation correct by frequent manual adjustments of the VARIATION DIAL on the Navigation Control Unit.

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GROUP 10-5 HEADING DOES NOT DRIVE TO PROPER VALUE IN POLAR OR POST POLAR OPERATION.

1. Navigation Method Switch to NORMAL.
2. Check that the Pole Switch is set for proper hemisphere and that the correct Polar Angle is set in the Polar Angle Dial
3. Place the Navigation Method Switch to NORMAL.
4. Replace the Type V Amplifier on the Polar Nav Unit with another Type V Amplifier.
5. If no spare Type V Amplifier is available, remove the amplifier from the Polar Nav Unit and change V-9204 with any of the following tubes: 6096, 5654 or 6AK5.
6. Return the Navigation Method Switch to POLAR.

SYSTEM LIMITATIONS:

If this trouble cannot be corrected, K-System polar navigation is not possible.

All other system functions are normal.

EMERGENCY PROCEDURE:

1. Follow normal grid procedures using the established rate, if available, of the unslaved N-1 Compass. Use celestial periodically to check rate of N-1 Compass.

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GROUP II SYMPTOMS

ERECTION CUT-OFF

GROUP 11-1 PAGE 100-1-2-3-4	ERECTION CUT-OFF REMAINS ON CONTINUOUSLY DURING STRAIGHT AND LEVEL FLIGHT. Use of reset switch has no effect.
GROUP 11-2 Page 105	ECO LIGHT FAILS TO COME ON IN TURNS.

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GROUP 11-1 ERECTION CUT-OFF REMAINS ON CONTINUOUSLY DURING STRAIGHT AND LEVEL FLIGHT.

Use of the Reset Switch has no effect.

NOTE: Determine that the pilot has not been allowed to maintain the attitude of the aircraft in a continuous turn for an extended period of time. A continuous turn pattern would create an improper vertical.

1. Check the Three Phase Voltage by whatever means available.

   a. If the three phase voltages are low, recycle the system. If this does not cause the Three Phase Voltage to appear within proper limits, the computers will be inefficient. However, the computers can be used as long as a useable directional reference is maintained.

   b. If any voltage is missing, check the 3Ø Gyro Transformer circuit Breakers on the Radar Observer Circuit Breaker Panel.

2. Observe the Radar Presentation on the PPI.

   a. If no blanking is apparent, proceed with normal operation until either blanking occurs or the ECC light goes out.

      NOTE: Blanking implies that part of the scope appears bright while another part is dim.

   b. If blanking on the scope is apparent, revert the system to the First Timing Period by turning the Function Switch to OFF and back to NAV position.

3. Again observe the Radar Presentation.

   a. If the blanking stops and the presentation now appears normal, push the Hayden Timer through and continue normal operation.

   b. If the blanking is still evident, replace the Roll and/or PITCH TM Amplifiers (Type IH)on the ECASU. Push the Hayden Timer through into the Second Timing Period.

      NOTE: Good PITCH and ROLL TM Amplifiers would erect the picture in the First Timing Period. It may be possible to differentiate between ROLL and PITCH TM Amplifiers by observing the position of the gimbals in the Stab Unit. If not possible, change both amplifiers.

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GROUP 12-1 (CON'T).

4. If the blanking symptom returns, change both A and B Level Amplifiers (Type LH) on the ECASU recycle the system and push the Hayden Timer into the Second Timing Period.

5. If the blanking symptom recurs, replace the ECO Amplifier (Type SH) in the deck of the Stab Unit. NOTE: Turn the Function Switch OFF when replacing the SH amplifier.

6. Check Emergency Procedures I, II and III. I and II for bombing and navigation. Number III if navigation only is possible due to improper heading in the system.

EMERGENCY PROCEDURE I. (Electrical zeroing of Azimuth Computer)

1. Synchronous Radar Bombing is possible if the heading is correct,

   a. Keep the reset switch ON.

   b. Zero the Azimuth Computer.

      (1) Zeroing procedure for B-52

         (a) Function Switch to STAB - Range Mark, Crosshair Switch to RANGE MARK. If heading mark on the PPI is off zero degrees, adjust backlash and/or Indicator Servo Gain until heading mark is on zero degrees.

         (b) Function Switch to NAV.

         (c) Bombing Switch to LOS - Boresight Switch to NORMAL - Sighting Angle Dial to 5 Degrees. Drift Dial to Zero Degrees.

         (d) Pull the ROLL amplifier on the Azimuth Computer. (NOTE: Left Hand amplifier).

         (e) With the screw driver adjust under the ROLL amplifier, adjust the heading mark on the PPI until it is identical to the heading in the True Heading Transmitter.

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GROUP II-A (CON'T)

(f) Set the Sighting Angle to 90°.

(g) Pull the B-p amplifier on the Azimuth computer. (NOTE: Right Hand amplifier).

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c. Remove the PITCH IMPEDENCE CHANGE and Roll IMPEDENCE CHANGE Amplifier (Type PH) on the ECASU

d. Do not replace any amplifiers.

e. Perform a normal Radar Bomb Run. (the radar presentation will not be Stabilized for antenna tilt or roll of t aircraft. (Optics should not be used.)

EMERGENCY PROCEDURE II. (Manual zeroing of the Azimuth Computer)

1. Remove BOTH amplifiers from the front panel of the Azimuth Computer.

2. Remove Azimuth Computer cover.

3. Zero the PITCH and ROLL GIMBALS by turning the gearing by hand. When the gimbals are zeroed, the shaft, of the cente synchro, will be vertical.

STUDENT NOTES and DIAGRAMS

QUESTIONS:

1. How is it possible to differentiate between the Pitch Torque Motor Amplifier and the "A" Level Amplifier for a malfunction occuring in vertical stabilization?

2. When is it practical to operate the Reset Switch?

3. Why isn't it possible to use the optics for bombing if an error is present in the vertical platform?

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GROUP 11-1 Con't.

4. Remove the PITCH IMPEDENCE CHANGE and ROLL IMPEDENCE CHANGE Amplifier (Type PH) from the ECASU.

5. Do not replace any amplifiers.

6. Perform a normal Radar Bomb Run. (The radar presentation will not be stabilized for antenna tilt or roll of the aircraft. Optics should not be used.)

EMERGENCY PROCEDURE III. (Navigation is possible.)

1. Remove the DC power from the Stab System by placing Switch S-8803, located on the ECASU, to OFF (cycle I) ; or remove cable 188 from the (pre-cycle I.)

2. Remove the ROLL Amplifier from the Azimuth Computer. (NOTE: Left hand amplifier.)

3. With the screw driver adjust, located under the ROLL Amplifier, on the front panel of the Azimuth Computer, adjust the heading mark on the PPI until it is identical to the heading in the True Heading Transmitter.

4. Set the correct winds into the wind dials by memory point operation.

5. Maintain the proper heading in the system with the screw driver adjust on the True Heading Transmitter.

6. The navigation counters will drive properly. Fixes may be taken with the azimuth scale and fixed range marks. The PPI will be north stabilized.

SYSTEM LIMITATIONS:

Should the stab system become completely inoperative, navigation according to Emergency Procedure III may be accomplished. However, Radar Fixed Angle Bombing is possible, using APS-64 only.

QUESTIONS:

1. With F-8804 out, will the system operate as in the second timing period?

2. Why would it not be wise to use the optics, with F-8804 out, when it will not be affect the radar?

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GROUP 11-2 ECO LIGHT FAILS TO COME ON IN TURNS.

1. Observe the PPI presentation for blanking and check F-8804 (4 AG, SB, 3.2 amp) on the ECASU (F-8804 is good if the light on the Polar Nav Unit comes on when the Navigation Method Switch is placed in the POLAR position).

   NOTE: If F-8804 is bad, replacing this fuse will cause the system to revert to the First Timing Period. Push the Hayden Timer through to the Second Timing Period.

2. If F-8804 is good and blanking appears on the PPI, recycle the system.

3. If F-8804 is good and the PPI presentation appears normal, check the ECO light for a burned out bulb.

   NOTE: Light bulbs on the front of the Primary Control Unit are interchangeable.

4. Check the Hayden Timer for being stuck in the Second Timing Period. Push the Hayden Timer through if possible.

5. Change the ECO amplifier (Type SH) in the deck of the stab Unit.

   NOTE: Turn the Function Switch to OFF when replacing the Type SH amplifier.

SYSTEM LIMITATIONS:

Normal radar operation is possible if aircraft manuevers are held to a minimum. (The system may operate as in the Second Timing Period).

Optics should not be used. (The stability of the optics cannot be properly maintained unless the system is operating in the Third Timing Period).

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BOMBING - TIME TO GO, TURN INDICATOR, DOORS, and RELEASE

GROUP 12-1 Page 107 PDI TURN INDICATOR DOES NOT RESPOND PROPERLY TO TRACKING CONTROL CORRECTIONS AND HEADING CHANGES

T_G may be erratic or inoperative.

GROUP 12-2 Page 108 PDI TURN INDICATOR DOES NOT RESPOND PROPERLY TO HEADING CHANGE

PDI Turn Indicator responds to Tracking Control.

GROUP 12-3 Page 109 PDI TURN INDICATOR DOES NOT RESPOND TO TRACKING CONTROL

PDI Turn Indicator responds properly to heading change.

GROUP 12-4 Page 110 PDI OSCILLATES OR ROTATES IN TRACK AND BOMB

Time-To-Go may be erratic or inoperative.

GROUP 12-5 Page 111 TIME-TO-GO DOES NOT RESPOND TO TIME-OF-FALL CHANGE

All other System functions are normal.

GROUP 12-6 Page 112 FUNCTION SWITCH WILL NOT LATCH IN BOMB

Time-To-Go- not on zero.

GROUP 12-7 Page 113 FUNCTION SWITCH WILL NOT LATCH IN BOMB

Time-To-Go- will not move off zero.

GROUP 12-8 Page 114 TIME-TO-GO METER IS ERRATIC OR UNRESPONSIVE TO RANGE CHANGES

PDI Turn Indicator may be erratic or unresponsive to Tracking Control.

GROUP 12-9 Page 115 BOMB BAY DOORS WILL NOT OPEN AUTOMATICALLY

Primary Control Bomb Release light comes on.

GROUP 12-10 Page 116 PRIMARY CONTROL BOMB RELEASE LIGHT DOES NOT LIGHT

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GROUP 12-1 PDI TURN INDICATOR DOES NOT RESPOND PROPERLY TO TRACKING CONTROL CORRECTIONS AND HEADING CHANGES.

T_G may be erratic or inoperative.

1. Check security of Cable 146 at J-4801 on rear of PDI.
2. Function Switch to TRACK. Polar Angle - 180°.
3. Have pilot check action of PDI Turn Indicator as Navigation Method Switch is moved alternately from NORMAL to POLAR.
4. If no movement on PDI Turn Indicator is noted, replace AT(BC) amplifier (BH) on the ECAU. (Movement may be very small)
5. If PDI Turn Indicator moves with Navigation Method Switch, replace A_R Amplifier (MAH) on the ECAU. (Movement may be very small)

EMERGENCY PROCEDURES:

It may be possible to do synchronous bombing by use of the auto-pilot. proceed as follows;

1. Bomb Panel-Bomb Door and Release Control Switch - MANUAL.
2. Function Switch - TRACK, Zero Navigation Control Wind Dials, PPI-OB Switch to OB.
3. Use Tracking Control to set y-7 Azimuth Dial to 0° and Sighting Angle Indicator to 70° - 80°.
4. Function Switch - BOMB. Request Autopilot Turn Control Transfer Switch be placed to BOMBARDIER.
5. ALERT CREW FOR POSSIBLE STEEP BANK. Attempt to place Observer Turn Controller Switch to AUTOMATIC.
6. If switch will not go into AUTOMATIC or if aircraft starts into steep bank, synchronous bombing is not possible. Pilot should regain control of aircraft.
7. If switch goes into AUTOMATIC with little or no reaction, attempt slight turn right and left with Tracking Control.
8. If aircraft response is normal, synchronous bombing is possible using the Autopilot.

SYSTEM LIMITATIONS:

Radar slant range or optical fixed angle bombing is possible.

PDI Turn Indicator will not be usable for steering.

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GROUP 12-2 PDI TURN INDICATOR DOES NOT RESPOND PROPERLY TO HEADING CHANGE.

PDI Turn Indicator responds to Forward Sighting Switch and Tracking Control.

1. If Heading Dials change with change of Polar Angle in POLAR Mode, replace A_T (BC) amplifier (BH) on the ECAU.

2. Adjust A_T (BC) sensitivity (R-8642) on inside of ECAU door.

SYSTEM LIMITATIONS:

Radar slant range or optical fixed angle bombing is possible.

PDI Turn Indicator will not be usable for steering.

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GROUP 12-3 PDI TURN INDICATOR DOES NOT RESPOND TO TRACKING CONTROL OR FORWARD SIGHTING SWITCH.

PDI Turn Indicator responds properly to heading change.

1. Function Switch - TRACK.
2. Replace BRAC amplifier (WH) on the ECAU.
3. If malfunction is not corrected, replace A_R amplifier (MAH) on the ECAU.

SYSTEM LIMITATIONS:

Radar slant range or optical fixed angle bombing is possible.

PDI Turn Indicator will not be usable for steering.

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GROUP 12-4 PDI OSCILLATES OR ROTATES IN TRACK AND BOMB.

Time-To-Go may be erratic or inoperative.

1. Function Switch - BOMB. If Function Switch will not latch or T_G is low and will not change, replace $T_I V_A$ -L amplifier (MAH) on the ECAU.

2. If T_G is normal, replace A_T(BC) amplifier (BH) on the ECAU. Adjust AT(BC) sensitivity (R-8642) on inside of ECAU door.

3. If T_G will not change with Tracking Control but is oscillating in phase with PDI, replace A_R amplifier (MAH) on the ECAU. Adjust A_R Balance (R-8603) beneath X_E NAV amplifier on the ECAU.

4. For any of the above symptoms that are not now corrected, replace BRAC amplifier (WH) on the ECAU.

SYSTEM LIMITATIONS:

Optical fixed angle or radar slant range bombing is possible.

PDI Turn Indicator may be inoperative or unusable.

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GROUP 12-5 TIME-TO-GO DOES NOT RESPOND TO TIME-OF FALL CHANGE.

All other system functions are normal.

1. Function Switch - NAV, TRACK and BOMB.
2. If T_G does not increase with decrease of T_F, replace the T_F amplifier (BH) on the ECAU.

SYSTEM LIMITATIONS:

Synchronous bombing would be impossible.

Radar slant range or optical fixed angle bombing is possible.

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GROUP 12-6 FUNCTION SWITCH WILL NOT LATCH IN BOMB

Time-To-Go not on zero

1. Depress Forward Sighting Switch for 10 seconds. If Time-To-Go moves and/or PDI light comes on as Function Switch is placed to BOMB, make bomb run with switch held in BOMB

SYSTEM LIMITATIONS:

If bombing system does not operate with Function Switch held to BOMB, synchronous bombing cannot be performed.

EMERGENCY PROCEDURES:

1. Refer to Emergency Bombing Procedures B-2 or B-4, Appendix B, page

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GROUP 12-7 FUNCTION SWITCH WILL NOT LATCH IN BOMB.

Time-To-Go will not move off zero.

1. Bomb Door and Release Control Switch - MANUAL.

2. If T_G moves off zero as Time-Of-Fall is set to minimum, refer to Group 12-8, step 2.

3. Set Trail to maximum. Set Ground Range to zero with Tracking Control. ($X_N = 0$, $X_E = 0$).

4. If Function Switch will not latch in BOMB, replace the T_I amplifier (MAH) on the ECAU.

SYSTEM LIMITATIONS:

Optical fixed angle or radar slant range bombing is possible

PDI Turn Indicator may be inoperative or unusable.

EMERGENCY PROCEDURES:

1. Refer to Emergency Bombing Procedures B-2 or B-4, Appendix B, page ___.

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QUESTIONNAIR FOR KC-97 OBSERVERS

1. Did the set ground check well? ~~xxx~~ _____

2. Was the " Transmitter On" lamp illuminated? _____

3. Was the white light on the face of the RT unit glowing steadily?_____

4. Was the red light on the face of the RT unit illuminated? _____

5. Was the set turned on for the rendez-vous? _____

6. Did the receiver aircraft report pick-up of the beacon signal at any time? _____

7. If the receiver did pick up the signal, what was his range from the tanker? _____miles.

8. Was this his initial attempt at picking up the signal? _____

9. Did the receiver follow the beacon signal all the way in to the hook-up? _____

10. What was your beacon code setting? _____

B-52 RENDEZ-VOUS CHECK LIST

ACTUAL RENDEZVOUS

Tanker indentification, tail number? _____

APS-64 BEACON OPERATION

1. Maximum range attempted? _____miles.
2. Maximum range useable. _____miles.
3. Maximum code readability? _____miles.
4. Minimum range attempted? _____miles.
5. Minimum useable range? _____miles.
6. Objectical Azimuth smearing _____Range?_____
7. Any difficulty reading accurate range? _____Range?_____

MALFUNCTIONS

1. No returns from any ground or air beacon._____
Beacon X-tal current._____

2. Returns from ground Beacon but not from Tanker. _____

BEACON TECHNIQUE (Circle one)

1. Lin or L.g. 2. FTC "ON" or "OFF"? 3. Tilt_____degrees.

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IAS MACH AND ALT CHART

MACH	ALTITUDE (HP) 35M	36M	37M	38M	39M	40M	41M	42M	43M	44M	45M	46M	47M	48M	49M	50M
.81	277	270	263	257	251	245	240	235	230	225	220	214	210	206	200	196
.82	281	274	266	260	254	248	243	238	233	228	223	217	214	209	203	199
.83	285	278	269	263	257	251	246	241	236	231	226	220	217	212	206	202
.84	288	281	273	267	261	255	250	245	240	234	229	223	220	215	209	204
.85	291	284	277	271	265	259	254	249	243	237	232	226	222	217	212	206
.86	295	288	280	274	268	262	257	252	246	240	235	229	225	220	215	209
.87	299	293	285	278	271	265	260	255	249	243	238	232	228	223	218	212
.88	303	297	290	283	276	269	264	259	253	247	241	236	231	226	220	215
.89	307	300	293	286	279	273	268	262	256	250	245	239	234	229	223	217
.90	310	304	297	290	283	276	271	266	260	254	248	242	236	231	226	220

REFERENCE T.O. 1B-52B-1A, APPENDIX II

IAS MACH AND ALT CHART

MACH	ALTITUDE (HP) 35M	36M	37M	38M	39M	40M	41M	42M	43M	44M	45M	46M	47M	48M	49M	50M
.70	235	230	225	219	214	210	205	201	196	192	187	182	177	174	170	166
.71	239	234	229	223	218	213	208	204	199	195	190	185	181	177	173	168
.72	243	237	232	226	222	217	212	207	203	198	193	188	184	180	175	171
.73	246	241	235	230	225	220	214	210	205	200	196	191	186	182	178	174
.74	250	245	239	233	228	223	218	213	208	203	199	194	189	185	181	177
.75	254	248	243	237	231	227	221	216	211	206	201	197	192	188	184	179
.76	257	252	246	240	235	230	225	220	215	210	205	200	195	191	186	182
.77	260	255	251	245	239	233	228	223	218	213	208	202	199	194	188	184
.78	264	258	254	248	242	236	231	226	221	216	211	205	202	197	191	187
.79	269	262	257	251	245	239	234	229	224	219	214	208	205	200	194	190
.80	273	266	260	254	248	242	237	232	227	222	217	212	207	203	197	193

REFERENCE T.O. 1B-52B-1A, APPENDIX III

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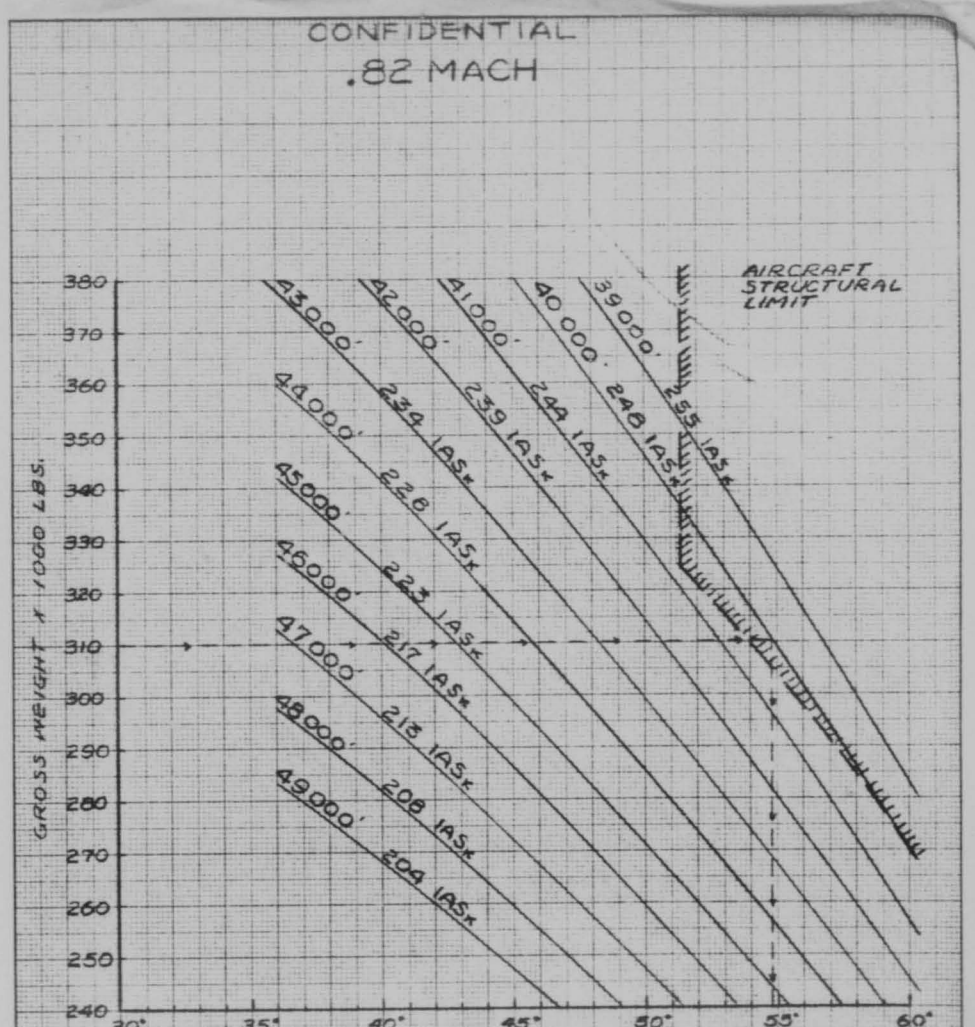
CONFIDENTIAL

.82 MACH



NOTE: DURING "HI-JINKS" TURNS:
1. TO OBTAIN BANK ANGLE, DEDUCT 10° FROM CHARTED VALUE.
EXAMPLE: 310,000 LBS, 40000'
FIND: IAS$_K$ = 248 BANK ANGLE = 54.8°
SOLUTION: BANK ANGLE FOR HI-JINKS TURN,
54.8° - 10° = 44.8°
2. DO NOT EXCEED ACTUAL MAX. BANK ANGLE OF 50° UNDER ANY CONDITION.

CONFIDENTIAL

CALC	FDN	8-25-56	REVISED	DATE	BANK ANGLE FOR MAXIMUM RECOMMENDED BUFFET AT .82 MACH (INDICATED)	B-52 C&D
CHECK	M.F. VN	8-25-56				
APP					BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON	
APP						

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HEADQUARTERS 42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base, Maine

OPERATIONS MEMO)

NUMBER B35-2) 7 September 1956

1525 OBSERVERS

Grid Navigation Procedures

1. PURPOSE: To establish a standard procedure for Navigation while flying Grid Navigation.

2. SCOPE: The provisions of this memorandum will be adhered to by all B-52 Observers of this Wing.

3. GENERAL: This memo outlines procedures to be followed, while flying both simulated and actual polar navigation missions, and further outlines procedures for Emergency Steering by ENS.

4. PROCEDURES:

a. Navigator will use USAF Grid System at all times when flying in areas where magnetic compass indications become unreliable, course angles change rapidly because of meridian convergence and where large and rapidly changing magnetic variations exist.

b. Employ the unslaved N-1 compass as the primary steering instrument.

c. Rate the Co-Pilot's gyro compass as a standby steering instrument.

d. Determine grid heading celestially at twenty minute intervals.

e. Maintain a standby gyro precession graph or log on the Co-Pilot's gyro compass.

f. Maintain a primary gyro precession graph or log on the unslaved N-1 compass.

g. Radar Observer will:

(1) Operate the K-system in Polar Configuration when Grid Navigation is being conducted by the Navigator.

(2) Conform to the following techniques when using the K-system for Polar Navigation:

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(a) Map construction:

1 Construct 60 mile grids oriented to Grid North.

2 Mid-way between beginning and terminal point draw a perpendicular to Grid Meridian and label this line 0 degrees or Grid Equator.

3 Starting at Equator, label lines parralled to the Equator in ascending order both toward GN and GS.

4 Label grid meridian nearest entry point with geographical longitude nearest the entry point.

b. Beginning Polar Navigation Leg.

(1) Polar Angle Dial - SET.

(a) When using a chart on which the convergence factor is one.

1 If the starting point is in West geographical longitude, set in the value of west longitude of the point.

2 If the starting point is in East geographical longitude, set in the value od 360° minus east longitude.

(b) When using a chart on which the convergence factor is less than one.

1 If the starting point is in West geographical longitude, set in the value of the convergence angle for that longitude.

2 If the starting point is in East geographical longitude, set in the value of 360° minus the convergence angle for that longitude.

(2) Pole Switch - SET.
Turn the pole switch to "North Pole" and or south pole as required.

(3) Navigation - POLAR.
When approximately 50 miles from the entry point, switch to "Polar". The scope orientation will shift by the amount of the polar angle setting.

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(4) Wind Dials and Lat-Long Counters - SET to GRID.

(a) If the entry point is a recognizable radar return, place the cross-hairs on the point, switch to TRACK, take a wind run on the point, and reset the "LAT" and "LONG" counters to the exact grid coordinates of the point, with the switch in REFERENCE POINT.

(b) If the entry point is a DR position, convert the best known wind to grid components and set these components in the wind DIALS; at the exact time of the DR position, set the grid coordinates of the position on the "LAT" and "LONG" counters, with the switch in PLANES POSITION.

(5) Grid Heading - CHECKED
As soon as possible after departure, check grid heading by means of periscope sextant.

(6) N-1 Compass - UNSLAVED and SET TO GRID HEADING
Immediately unslave N-1 compass by settint geographic latitude of the starting point in the compass. Set the compass neddle of the starting point in the compass. Set the compass needle to above grid heading using the synchronizer control. The annunciator needle may be displaced, however, this will not affect compass operation.

(7) Aircraft Heading - CORRECTED
Correct the aircraft hesding until the N-1 compass reads the initial N-1 heading. Unless an N-1 precession rate has been predetermined, this will also be the desired grid heading.

(8) BNS Heading - CORRECTED
For low latitude grid navigation adjust the polar angle until the BNS heading is less than the N-1 heading by ½ the precession for the period. At latitude of 65° or higher, set the desired grid heading.

i INFLIGHT GRID - NAVIGATION PROCEDURES

(1) Heading Check - ACCOMPLISHED
At appropriate intervals, check grid heading by periscopic sextant and record grid heading and BNS heading in gyro log or graph.

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NOTE: If N-1 reads within plus or minus 1° of grid heading check, the heading check will be recorded but may be disregarded

NOTE: The lat-Long counters will indicate the aircraft position in grid coordinates, for celestial work, grid coordinates will have to be converted to geographical coordinates by reference to the chart for use in computations.

(2) N-1 Compass - RESET
Reset N-1 compass to grid heading determined in preceding step.

(3) N-1 precession Rate - DETERMINED
Calculate N-1 heading change due to precession, average grid flown, new desired grid heading (if applicable) and new initial N-1 heading.

(4) Aircraft Heading - CORRECTED (if required) Turn the aircraft to new initial N-1 heading.

(5) BNS Initial Heading - DETERMINED
Calculate total change in BNS Heading (initial BNS heading minus BNS heading at time of check). To determine new initial BNS heading, apply $\frac{1}{2}$ of total BNS heading change, with proper algebraic sign, to new desired grid heading determined above.

NOTE: This procedure compensates for both "C" gyro precession and N-1 gyro precession.

(6) BNS Heading - CORRECTED
By means of polar angle control, adjust BNS heading to the new initial heading determined above.

(7) "C" Gyro Precession - DETERMINED
Calculate "C" Gyro precession rate by substracting aircraft heading change due to N-1 precession from total BNS heading change. Record on gyro log or graph.

(8) Wind Run - ACCOMPLISHED
An accurate wind run will be taken between heading checks to insure accurate DR positions. Normal wind run procedures will be used, but wind dials will read in grid components.

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(9) Latitude Control - RESET, if applicable The latitiude dial on the N-1 compass must be reset periodically to conform to the actual geographical latitude of the aircraft. Ordinarily, resetting every two degrees of latitude will give acceptable accuracy.

(10) DR Position - RECORDED
The DR position indicated by the Navigation Unit should be recorded between checks for use in the event of BNS failure, or for computing DR positions at the time of celestial fixes/LOPs

j. ENDING POLAR NAVIGATION LEG

(1) Exit Point - DETERMINED
If the polar leg is to be ended at a point other than the planned exit point, it will be necessary to choose a new exit point and note its geographic coordinates and convergence value.

(2) Lat-Long Counters - RESET
Set the approximate geographic coordinates of the aircraft position in the lat-long counters and check the MAG VAR dial for correct reading.

(3) Polar Angle - RESET
In west longitude decrease current polar angle by convergence angle at point of exit. In east longitude increase current polar angle by convergence angle at point of exit.

(4) Navigation - POST POLAR

(5) Wind Dials and Lat-Long Counters - RESET

(a) Take a wind run on the exit point and reset the lat-long counters to geographical coordinates, with the switch in REFERENCE POINT.

(b) If the exit point does not give a radar return, convert the grid wind to a true wind and set in the BNS. Set the geographic coordinates of the exit point in the navigation counters with the switch in PLANES POSITION, at the exact time for the exit point.

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(6) N-1 Compass - RESET TO MAG HEADING AND RESLAVE

Reset N-1 to approximate magnetic heading and reslave the N-1 compass by turning the latitude dial to the Off Position. Center the annunciator needle with the synchronizer knob. The N-1 Compass now reads magnetic heading. (Check B-16 for 180° ambiguity.)

(7) True Heading - CHECKED

As soon as possible, check the true heading of the aircraft. If the true heading in the BNS does not agree, check the MAG VAR setting. If the MAG VAR setting is correct, turn the polar angle crank until the true heading appears on the True Heading Indicator.

NOTE: Small errors in heading will be automatically corrected at the rate of 2½ degrees per minute in POST POLAR. Leave the navigation method switch in the POST POLAR position until completion of the flight or until reentry into a polar navigation leg.

k. RE-ENTRY INTO POLAR NAVIGATION

(1) In the event it is desired to begin a new polar navigation leg after going to POST POLAR operation, the procedures are the same as for the original polar leg except that some value other than 0° is present in the polar angle window before the leg is started. This value is increased by the amount of west longitude (Convergence angle) of the new starting point or decreased by the amount of east longitude (convergence angle).

l. EMERGENCY STEERING BY USE OF BNS.

The following is an emergency steering method to be used to steer B-52 type aircraft by the BNS system.

2. This system is to be used only when N-1 compass and pilots directional gyro are unreliable.

(a) Place aircraft on initial heading using At dial as reference.

(b) Set desired heading in BNS by changing polar angle.

(c) Press forward sighting switch.

(d) Turn function switch to Bomb and make Tg read at least 90 seconds.

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(e) Zero PDI with tracking handle.

(f) Remove the Ar and Ti Va - L amplifiers from the CAU.

(g) Switch to 2nd station automatic or have pilot follow the PDI.

(h) Keep BNS in Bomb mode.

(i) Aircraft will follow the random precession of the "C" gyro making it necessary to correct course at intervals. Even though the aircraft follows the precession rate, the "AT" repeater will not indicate any change.

(j) Aircraft can be turned by turning the polar angle. At will read the same after turn as before the turn since Ar is a constant value and cannot be changed with the Ar and Ti Va - L amplifiers pulled. To make At read a new desired heading replace Ar and Ti Va - L amplifiers, adjust polar angle until At reads correct value and then remove Ar and Ti Va - L amplifiers.

(k) Since At is erroneous after turn it must be accounted for in using the gyro leg.

(l) To turn left increase polar angle. To turn right decrease polar angle.

(m) Continue heading checks at normal intervals.

BY ORDER OF THE COMMANDER:

DON W. BAILEY
Colonel, USAF
Director of Operations

OFFICIAL:

Joseph H. Ross Jr.

JOSEPH G. ROSS, JR.
1st Lt., USAF
Adjutant

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOT4 18 September 1956

SUBJECT: Fuel Management After Take-off

TO: B-52 Aircraft Commanders and Pilots

1. Present Flight Handbook and aircraft placard fuel management sequences now stipulate using "8% MAINS" as the first step. However, through an oversight, instructions now contained under the title "LEVEL OFF AND CRUISE", page 467, T.O. 1B-52B-1, 30 June 1956 and page 430, T.O. 1B-52D-1, 25 May 1956, directs the pilot to begin fuel transfer after climb to cruise altitude and level off.

2. As the main tanks approach the 92% level, the center of gravity approaches the aft limit. If fuel transfer could begin immediately after the main tanks reach the 92% level, no CG problem would exist. In complying with the above referenced instructions, as much as 22,000 pounds of fuel may be used from the main tanks on a 450,000 pound aircraft. This would place the CG aft and may exceed the 32% MAC limit by a substantial margin.

3. To alleviate the aft C.G. problem which has been introduced, a Flight Handbook change has been proposed which will direct initiation of fuel transfer after reaching best climb speed as part of the "AFTER TAKE-OFF" check list.

4. In view of the above, Aircraft Commanders and Pilots will revise "AFTER TAKE-OFF" check list page 192, T.O. 1B-52B-1, 30 June 1956 and page 189, T.O. 1B-52D-1, 25 May 1956 to include, " Attain best climb speed — start fuel transfer". Eliminate item referring to start fuel transfer under paragraph heading "LEVEL OFF AND CRUISE" on page 467, and page 430 of the above Flight Handbook.

5. A copy of this letter will become a part of B-52 Aircraft Commanders and Pilots book of SOP's until T.O. 1B-52B-1 and 1B-52D-1 are revised to contain the above instructions.

BY ORDER OF THE COMMANDER:

Joseph G. Ross Jr.

JOSEPH G. ROSS JR.
1st Lt., USAF
Asst. Adj.

DISTRIBUTION:

300 cys, 42nd BW Stand Board
(1 cy each B-52 AC & P)

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69TH SQUADRON 50-43 FLYING TRAINING

CREW	PILOT PROFICIENCY (INSTR FLY, GCA or ILS, JET PENET, PILOT PROF, T.O. & LAND, RAD L/D)	AIR REF	GUN.	BOMB.	NAVIGATION	E... (SIMULATED, ADC, RECON, CHAFF)
Hoastman 14	2.00 4.00 6 3 1 2.00 2.00 4 2 1		1 1	3	1 1 1 4	6 2 2 2 2
Mailander 15	2.00 2.00 2 3 2 3.00 4	1	1 1	4	1 1 3 2	2 2
Orth 16	2.50 6 2 2.00 4		1		3 3	2 6 2 1
Smith 17	6.50 5 2 4.00 4 1	5	2	2 6 1	2 1 3 2 1	1 1 2 2
Maloney 18						
Howard 19						
Bruce 20	8.00 8.00 6 3 3 4.00 4.00 3	1 2	1 3	4 6 1	2 2 5 6 4	6 2 3 3 6.00
Southwick 21						
Tucci 22	7.55 1.00 5 2 3 7.00 1.00 4 2 1	3 4		5 1	2 1 5 4 3 1	6 2 2 2 2 3 1.00
Landers 23						
Myers 24						
Williams 25						
Riordan 26						
Martin 27						
Hirsh 28						
Anastasia 29	8.00 8.00 6 2 1 1 7.00 5.00 4 2 1	1 1	2	1 1	1 3 4 4 1	4 2 2 3 .50 [illegible]
EDEE 30						

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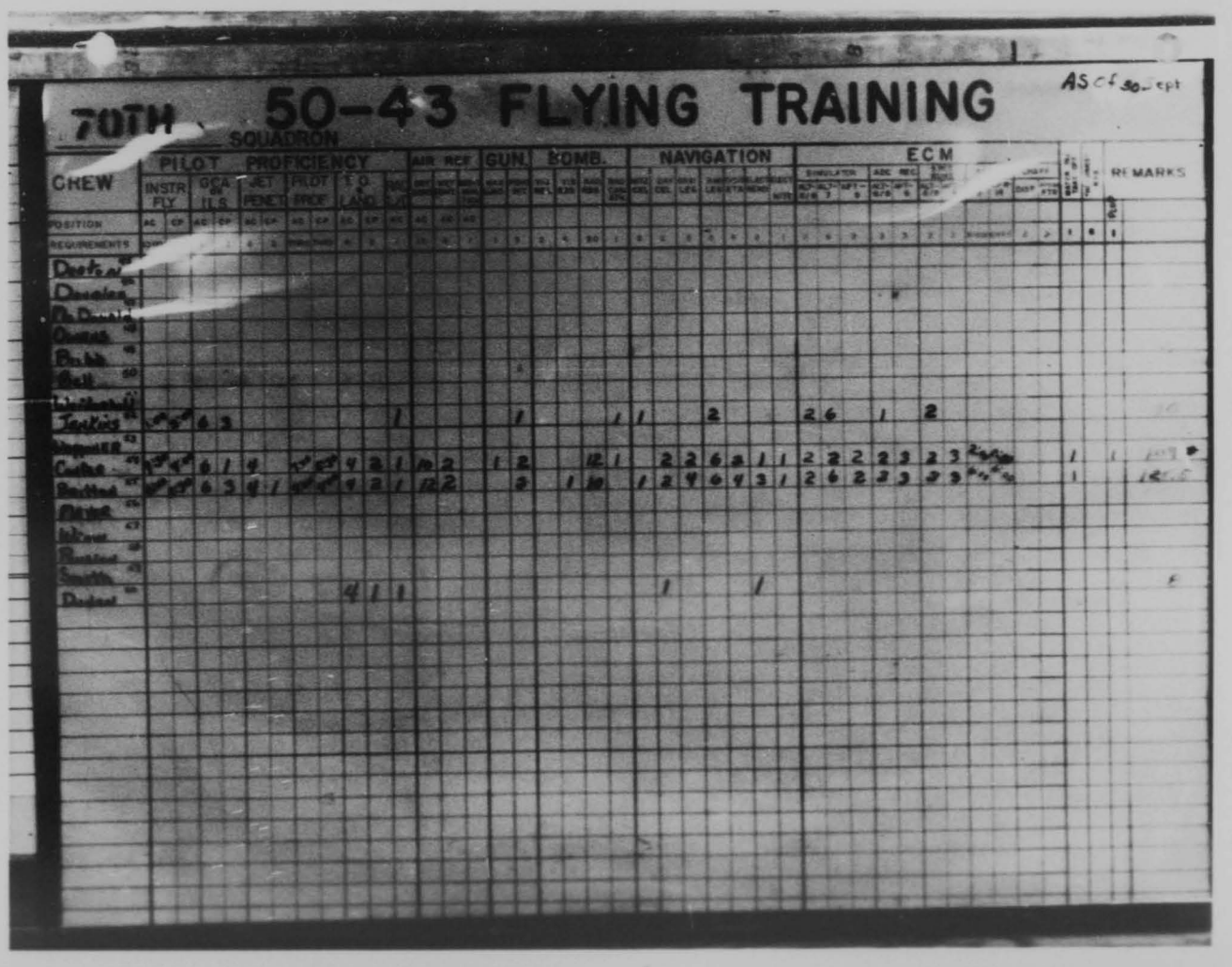

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75TH SQUADRON 50-43 FLYING TRAINING

CREW	PILOT PROFICIENCY										AIR REF			GUN.		BOMB.			NAVIGATION								ECM									
	INSTR FLY		GCA OR ILS		JET PENET		PILOT PROF		T.O. & LAND		FAC L/D	DRY CONTROL	WET CONTROL	WIN TOW	MAN LOAD	FIGHT INT	V.B. REL	V.B. RBS	M.B. RBS	M.B. GUN ATK	PILOT CEL	NAV CEL	NAV LES											
POSITION	AC	CP	AC	CP	AC	CP	AC	CP	AC	CP	AC	AC	AC	AC																					
REQUIREMENTS			4	3	8	2			4	2	1	15	4	1		1		2	1																
Meaney			6	3	6	2			4	2	1	15	4	1		1		2	1	1	2	5	6	4	3	1	6	2							
Supernaut			3	3	4	2			4	2	1	15	4	1		3			4	1		2	3	6	3	3	1	6	1						
Scanny			6	3	3				4	2	1	15	4			2		6	16	1		1	3	6	4	3	1	6							
Davidson			6	3	6	2			4	2	1	15	4	1	1	1		6	18	1	1	2	5	6	4	3	1	6	2						
Wright			6	2	6	2			4	2		15	4			3			20	1	2	2	2	6	3	3	1	2	6	2					
Curtis			4	3	3				4	2	1	15	4	1		3		1	12	1		2	4	6	4	2	1	6	2						
Hudley			6	3	6	2			4	2	1	15	4	1	1	3		6	20	1	2	2	5	6	4	5	1	2	6	2					
Roberts			3		1				4	2	1	8	2			3			2	1		2	1	6	4	3	1	6	1						
C Hibbs			6	2	1				2			5	2		1	3			4	1	1	1	2	6		1		6							
Stalker			1		6	2			1						1	1			2	1		1	2	4				4		2					
Olive																																			
Roberts			1																																
Sanders			6	3	6	1			4	2	1	12	4	1	1	3		3	20	1	2	2	5	6	4	3	1	2	6	2					
Barney			6	3	6	1			4	2	1	15	4	1	1	3		2	20	1	2	2	5	6	4	3	1	2	5	2					
Riedy			2	3	3				4	2	1	1				1			4	1	2	2	2	5	4	3	1		5	2					
Evans																																			
Hunt man																																			

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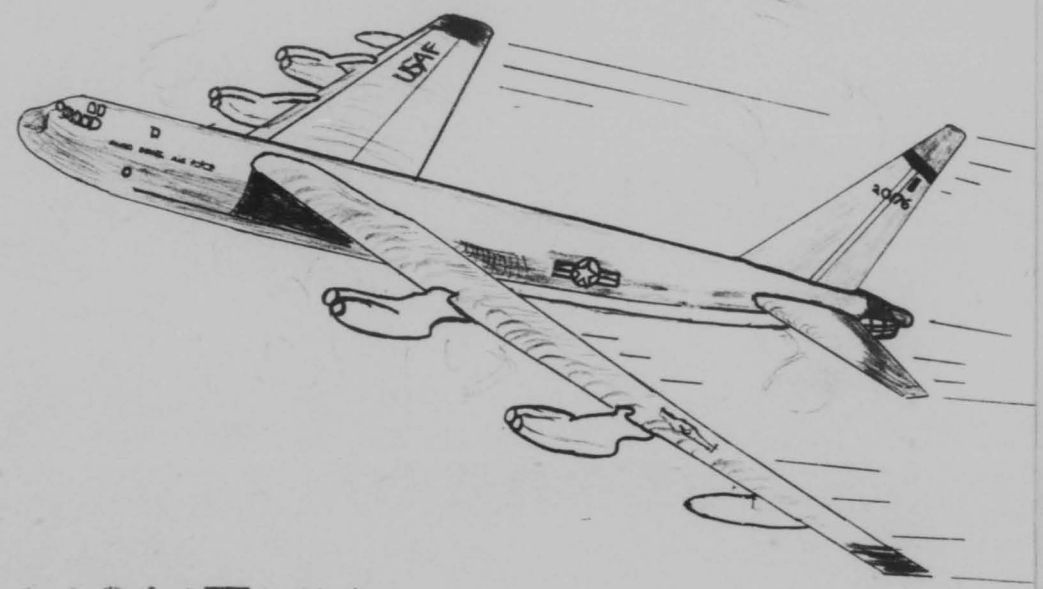
42ND BOMBARDMENT WING



MONTHLY OPERATIONS PLAN

SEPTEMBER 1956

HQ 42 BW (H)

LORING AFB, MAINE

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TABLE OF CONTENTS

BASIC

ANNEX A - FLYING TRAINING

ANNEX B - GROUND TRAINING

ANNEX C - MAINTENANCE ORDER

ANNEX D - WING MEETINGS AND
DUTY SCHEDULES

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
27 August 1956

42D BOMB WING OPERATION PLAN (SEPTEMBER)

MAPS AND CHARTS: As Required

TASK ORGANIZATIONS:

69th BS	Lt Col Robert E. Scott
70th BS	Lt Col John R. Risher
75th BS	Lt Col Walter C. Stewart
42d AREFS	Major Willie H. Sonntag
42d A&E	Lt Col Tom B. Stewart
42d PMS	Lt Col George A. Linko
42d FMS	Major Lorenzo Caliendo

1. GENERAL SITUATION: A requirement exists to publish a monthly operations plan to include all known missions, higher headquarters commitments, ground training and maintenance activities for all Squadrons of the Wing.

a. Intelligence: Omitted

b. Friendly Forces:

(1) The 42ABG and tenant organizations of Loring AFB will furnish normal base support and facilities as required by this operations plan.

2. MISSION: To train B-52 and KC-97 flight crews.

a. B-52 crews will train to further progress to Combat Ready status.

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b. KC-97 crews will train to further present combat potential.

3. TASKS FOR SUBORDINATE UNITS:

a. 69, 75 Bomb Squadron and 42d ARFS will furnish required B-52/ KC-97 flight crews and ground crews to support this operations plan.

b. 70th Bomb Squadron will furnish required B-36 crews and ground personnel to ferry required B-36 aircraft.

c. Maintenance organizations and tactical squadron flight line maintenance organizations will furnish support outlined in Annex "C".

x. General Instructions:

(1) Operational team and 60-9 planning team meetings guided the publication of this plan. Planning was based on following factors.

(a) The 69th Bombardment Squadron will have eight non-combat ready crews available for duty in September, and nine non combat ready crews that will report to Loring from Castle the latter part of September.

(b) The 70th Bombardment Squadron will not receive any B-52 crews during September.

(c) The 75th Bombardment Squadron will have 15 B-52 flight crews available during September.

(d) B-52 aircraft imput is not known however, the flying schedules are predicted upon aircraft presently possessed; i.e., 69BS, 4 aircraft and 75BS, 10 aircraft.

(2) The normal work schedule for the 42d Bombardment Wing will be 0800 - 1700 hours, Monday through Friday. Normal flying training will not be scheduled on the 28th day of September.

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(3) Missions of a classified nature will be published by separate operations orders. Other classified information will be omitted, to afford maximum dissemination of this plan.

(4) Normally flight schedules will be planned as follows:

(a) Flights will not be scheduled for take off prior to noon Monday nor land beyond midnight on Friday.

(b) Waivers of this policy will be cleared through the Wing Director of Operations.

4. ADMINISTRATION AND LOGISTICAL MATTERS: Normal

5. COMMAND AND COMMUNICATION: Normal

ANNEXES:
A - Flying Training
B - Ground Training
C - Maintenance Order
D - Maintenance and Operations Meetings, Wing Duty Schedules

DONALD E. HILLMAN
Colonel, USAF
Commander

OFFICIAL:

Don W Bailey

DON W. BAILEY
Colonel, USAF
Director of Operations

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42BM	5 cys
42BO	3 cys
42APS	2 cys
42MWS	2 cys
42FS	2 cys
42BSO	5 cys
42POL	5 cys
Wing Historian	6 cys
3080th ADGP	5 cys
42C	1 cy
42DC	1 cy
69BS	5 cys
70BS	5 cys
75BS	10 cys
42AREFS	10 cys
Comdr, 42PMS	5 cys
Comdr, 42A&E	18 cys
Comdr, 42FMS	18 cys
42DO	10 cys
42DM	2 cys
42d Chief of Maint	10 cys

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
27 August 1956

ANNEX A - FLYING TRAINING (SEPTEMBER)

1. GENERAL: This annex will include all flying training for the 69th, 70th, 75th, and 42d AREF Squadrons. Each squadron is divided into separate appendicies showing flying training priorities and individual crew schedules.

2. OPERATIONAL CONCEPT:

a. All tactical squadrons, except the 70th BS and 42d AREFS, are training under SAC Reg 50-43 upgrading programs. The 70th Bombardment Squadron is transferring the remaining B-36 aircraft from Loring during September. The 42d AREFS is in the first month of the 50-8 training quarter, September, October, and November.

3. FLYING PRIORITIES (SEPTEMBER):

a. B-52 Tactical Squadrons:

(1) Accomplish requirements of AFR 60-2.

(2) Non Combat Ready crew training, SAC Reg 50-43 crew upgrading program.

(3) Support "Bench Warmer".

b. 42d AREFS:

(1) Accomplish requirements of AFR 60-2.

(2) Support "Devil Fish".

(3) Provide crews and aircraft to ferry to Oklahoma City for prop modification program.

(4) Non Combat Ready crew training.

(5) Combat Ready crew training.

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
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27 August 1956

ANNEX A, APPENDIX 1 - 69TH BOMBARDMENT SQUADRON (SEPTEMBER)

1. GENERAL: The 69th Bombardment Squadron will conduct a flying schedule as shown on Inclosure 1 to this Appendix. Additional flight crews will be required to conduct B-52 ferry flights as required.

2. "BENCH WARMER": The 69th Bombardment Squadron will furnish one (1) B-52 flight crew, and two (2) B-52 aircraft. One (1) B-52 aircraft will be ground spare. The 69th Bombardment Squadron Commander will participate as required by separate operations flimsy.

1 Incl
69BS Flying Schedule

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
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MAINE
27 August 1956

ANNEX A, APPENDIX 2 - 70TH BOMBARDMENT SQUADRON (SEPTEMBER)

1. GENERAL: During September the 70th Bombardment Squadron will ferry the remaining B-36 aircraft from Loring AFB. After all B-36 aircraft are transferred, the B-36 flight crews will be dissolved for further assignment to the B-52 program or other assignments as required.

2. SQUADRON STAFF ACTION: The 70th Bombardment Squadron Commander will direct detailed preparations for the reception of B-52 flight crews during the month of October, to include Squadron Operations and Maintenance organization, personal equipment readiness, combat crew personal equipment lockers, and preparation of required 50-43, 60-9 flying schedule, and ground training charts.

3. "BENCH WARMER": The 70th Bombardment Squadron Commander will participate in "Bench Warmer" mission as outlined in separate operations flimsy.

1 Incl
70BS Flying Schedule.

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27 August 1956

ANNEX A, APPENDIX 3 - 75TH BOMBARDMENT SQUADRON (SEPTEMBER)

1. GENERAL: The 75th Bombardment Squadron will participate in flying schedule as outlined in Inclosure 1. Additional B-52 ferry crews will be furnished as required by the B-52 input.

2. "BENCH WARMER": The 75th Bombardment Squadron will furnish 4 B-52 flight crews and aircraft for this mission. The following Commanders are scheduled to fly with the 75th Bombardment Squadron crews: General Martin, Colonel Hillman, Lt Col W. C. Stewart, and Lt Col J. R. Risher.

1 Incl
75BS Flying Schedule

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
27 August 1956

ANNEX A, APPENDIX 4 - 42D AIR REFUELING SQUADRON (SEPTEMBER)

1. GENERAL: The 42AREFS will conduct flying training in accordance with priorities established in Annex A, paragraph 3b, and schedule as outlined in Inclosure 1, this Appendix.

2. UPGRADING PROGRAM: Crew IM-25 will upgrade to Combat Ready during September.

3. STANDBOARD PROGRAM: The following crews will receive standboard rides:

a. T-08
b. T-09
c. T-17
d. T-20
e. T-14
f. M-25

4. AIR REFUELING MISSIONS: The 42AREFS will furnish B-52 air refueling missions for those aircraft presently possessed and scheduled (14), plus additional sorties resulting from input of additional B-52 aircraft in September (20 expected).

DATE	69BS	75BS	TOTAL
4 Sep	0	3	3
5 Sep	0	0	0
6 Sep	2	1	3
7 Sep	0	1	1

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DATE	69BS	75BS	TOTAL
10 Sep	1	3	4
11 Sep	0	2	2
12 Sep	2	3	5
13 Sep	1	1	2
14 Sep	0	3	3
17 - 21 Sep	Reserved for "Devil Fish"		
24 Sep	0	2	2
25 Sep	2	2	4 (Cell)
26 Sep	1	3	4
27 Sep	0	1	1
TOTAL	9	25	34

One refueling sortie will be furnished the 380th Bomb Wing the first and second weeks of September for a total of nine (9) sorties.

5. A Wing Regulation is forthcoming concerning air refueling coordination between the tactical squadrons. Essentially, the Regulation will read as follows:

a. Not later than Tuesday noon of each week all Bombardment Squadrons will contact the Wing Control Room (Major Brittian), outlining by day, for the following week, the number of air refueling missions needed.

b. Not later than Tuesday noon of each week the 42AREFS will notify the 42d Bomb Wing Control Room and give the total training sorties scheduled for each day of the following week.

c. Air Refueling coordination will be effected for all squadrons by the Wing Control Room by 1700 hours each Wednesday for final coordination

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at the Pre 60-9 Meeting each Thursday.

6. PROP REWORK PROGRAM: Special instructions will be distributed regarding ferry flights to Oklahoma City beginning 24 September 1956 and completing 20 October 1956.

1 Incl
42ARRFS Flying Schedule

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
27 August 1956

ANNEX B - WING GROUND TRAINING (SEPTEMBER)

1. GENERAL: This annex includes all known ground training requirements for the month of September.

2. The following directives apply:

a. SAC Reg 50-24.

(1) Aircrew members.

(2) Non aircrew personnel.

b. SAC Reg 50-43.

c. EWP Study requirements.

d. Off base schools as directed by Eighth Air Force.

e. Special B-52 MTD Training Courses.

f. Base Instrument School for Pilots: This school will be held at Base Operations on 17 and 18 September.

g. A Special Weapons ground training exercise will be held on 6 September. Four (4) B-52 aircraft will be utilized commencing at 0600 and continuing for 24 hours. The 42d Bombardment Wing will provide flight crews to perform the necessary weapon check. An operations flimsy will be published containing the loading, crew schedules, and crew requirements.

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27 August 1956

ANNEX B, APPENDIX 1 - 69TH BOMBARDMENT SQUADRON GROUND TRAINING (SEPTEMBER)

1. AIRCREW GROUND TRAINING:

a. Continue SAC Regulation 50-43 block training for newly arrived crews assigned to the 69th Bombardment Squadron.

b. Continue all other ground training required under SAC Regulation 50-43.

c. Provide aircrew personnel for Judo training spaces alloted to the 69th Bombardment Squadron.

d. Provide aircrew personnel for all synthetic trainers for individual crew members proficiency requirements.

e. Available crew observer teams will fly one grid navigation leg on the T-2 Ultrasonic Trainer.

f. Provide eight (8) aircrew members for Survival Training, Stead Air Force Base.

g. Provide thirteen (13) crew members for Altitude Indoctrination Training, Westover Air Force Base.

2. NON-AIRCREW GROUND TRAINING:

a. Commence Phase III ground training requirements, Annex I, SAC Regulation 50-24 for 33% of assigned non-aircrew strength.

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MAINE
27 August 1956

ANNEX B, APPENDIX 2 - 70TH BOMBARDMENT SQUADRON GROUND TRAINING (SEPTEMBER)

1. AIRCREW GROUND TRAINING:

a. 70th Bombardment Squadron is presently exempt from 50-24 aircrew training and will have no 50-43 responsibility during the month of September.

2. NON-AIRCREW GROUND TRAINING:

a. Commence Phase III ground training requirements, Annex I, SAC Regulation 50-24 for 33% of assigned non-aircrew strength.

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
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MAINE
27 August 1956

ANNEX B, APPENDIX 3 - 75TH BOMBARDMENT SQUADRON GROUND TRAINING (SEPTEMBER)

1. AIRCREW GROUND TRAINING:

a. Continue SAC Reg 50-43 Block Training for 75th Aircrew personnel still lacking required training.

b. Provide aircrew personnel for all other ground training required under SAC Regulation 50-43.

c. Provide aircrew personnel for Judo training spaces alloted the 75th Bombardment Squadron.

d. Provide Aircrew personnel for all synthetic trainers for individual crew member proficiency requirements.

e. Aircrew observers teams will fly one (1) grid navigation leg on the T-2 Ultrasonic Trainer.

f. Four (4) hours of EWP study per crew assigned this responsibility.

g. Provide 22 personnel for Altitude Indoctrination Training at Westover Air Force Base.

h. Provide 5 Aircrew members for Survival Indoctrination spaces at Stead Air Force Base.

i. Provide 3 Combat Crew Observers for the Radar Equipment Air Maintenance Upgrading Course.

2. NON-AIRCREW GROUND TRAINING:

a. Commence Phase III ground training requirements, Annex I, SAC Regulation 50-24 for 33% of assigned non-aircrew strength.

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
27 August 1956

ANNEX B, APPENDIX 4 - 42D AIR REFUELING SQUADRON GROUND TRAINING (SEPTEMBER)

1. AIRCREW GROUND TRAINING:

a. Commence Phase III ground training requirements, Annex I, and IV, SAC Regulation 50-24.

b. Provide 4 personnel for Altitude Indoctrination Training at Westover Air Force Base.

c. Support ten (10) MTD Training spaces at Westover Air Force Base.

d. Two (2) hours EWP study for each combat ready crew.

2. NON-AIRCREW GROUND TRAINING:

a. Commence Phase III ground training requirements, Annex I, SAC Regulation 50-24 for 33% of assigned non-aircrew strength.

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
27 August 1956

ANNEX B, APPENDIX 5 - 42D PMS, 42D FMS, 42D A&E, AND 42D WHS SQUADRONS GROUND TRAINING REQUIREMENTS (SEPTEMBER)

1. NON-AIRCREW GROUND TRAINING:

a. Commence Phase III ground training requirements, Annex I, SAC Regulation 50-24 for 33% of assigned non-aircrew strength.

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HEADQUARTERS 42D BOMBARDMENT WING (H)(SAC)
LORING AIR FORCE BASE, MAINE
27 AUGUST 1956

ANNEX C TO OPERATIONAL PLAN - MAINTENANCE PLAN (SEPTEMBER)

GENERAL:

1. This annex presents the flying and maintenance schedule for September 1956 and reflects all the requirements known to the wing at this time.

2. The sortie schedule contained in the appendixes implement the flying requirements approved by the flight scheduling committee, convened 24 August 1956, as directed by SAC Regulation 60-9, SAC Manual 66-3 and Eighth Air Force Regulation 66-9.

3. The following B-36 aircraft will be transferred direct to the 95th Bomb Wing at Biggs Air Force Base, Texas on the dates indicated:

1090 - 5 September
1096 - 6 September
1097 - 7 September

This will complete the phase out of B-36 aircraft at this station.

4. The following aircraft will be made available for special weapon training for a 24 hours period commencing at 0600 on the dates indicated:

3400 - 6 September
3407 - 6 September
3405 - 6 September
2665 - 6 September
2666 - 10 and 11 September
2667 - 12 and 13 September
2671 - 14 September
2665 - 24, 25 and 26 September
3406 - 27 and 28 September

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5. The following aircraft will be given weight and balance checks on the dates indicated:

3185 - 14 and 17 September

3178 - 21 and 24 September

6. One KC-97 aircraft per day, six days a week, will be flown to OCAMA for propeller modification during the period of 24 September through 19 October 1956. The schedule for September is shown in Appendix IV to this Annex.

7. In compliance with SAC Regulation 67-7, all aircraft and crew chiefs will check the back-order file maintained in the aircraft service unit each month against the aircraft Form 781-3. Quality Control inspectors will conduct a spot check on the part 3's of all assigned aircraft and compliance or non-compliance will be reported to the Chief of Maintenance.

8. All maintenance supervisors and inspectors will inspect at frequent intervals all torque wrenches in use to determine that they are properly color-coded for the month of September. The color code for September is black, reference T.O. 34-E14-3-101-1.

9. A maintenance meeting will be conducted at 1000 hours on each work day of the month in the Maintenance Control conference room. It is preferred that the maintenance officer of each tactical squadron and support squadron attend, but the line chief may attend in his absence.

10. The normal work schedule for the 42d Bombardment Wing will be 0800 - 1700 hours Monday through Friday. No week-end maintenance

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will be scheduled without prior approval 24 hours in advance by the Wing Commander.

11. The 42d Bombardment Wing will observe a Sunday schedule on Labor Day, 3 September 1956.

12. The following specialized training will be accomplished by maintenannce personnel during the month of September:

a. MTB

(1) Mechnical 7340 hours

(2) Electronic 2500 hours

b. OJT

(1) The OJT program will be monitored by the MSB and the squadron training NCO.

c. Special Schools

(1) On base:

(a) Specialized aircraft maintenance organization classes for supervisors will be conducted during the month of September. Class starting dates: 4 September and 17 September.

(2) Off base:

Ten men to go to the General Electric Plant at East Lynn, Massachusetts.

(a) 5 men - 11 September

(b) 5 men - 22 September

(3) Normal Training Requirement:

(a) Phase III 50-24 school. Training required for all personnel in phase III (September, October, November and December)

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is eight (8) hours CBR. This 8 hour lecture will be given each Monday, 0800 - 1200, 1300 - 1700 in the Training and Briefing building auditorium. Lectures will continue until the end of December or until all personnel have attended. Starting date will be 17 September 1956.

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HEADQUARTERS 42D BOMBARDMENT WING (H)(SAC)
LORING AIR FORCE BASE, MAINE
27 August 1956

ANNEX C, APPENDIX I - 69TH BOMBARDMENT SQUADRON (SEPTEMBER)

1. The 69th Bombardment Squadron will provide 14 (B-52) sorties for a total of 121 flying hours. The schedule is included in Inclosure I.

2. This schedule leads to the requirement for 14 pre-flight, 3 (15 hour) and 1 (50 hour) post-flight inspection.

3. Take-off times will be indicated on the SAC Form 364 and submitted by 1330 hours Thursday of each week to the 60-9 scheduling committee.

4. The following aircraft will be lost to periodic inspection on the dates indicated:

3401 - 1 - 6 September

3404 - 18 - 28 September

5. The pre-dock meeting for the following aircraft will be held at 1400 hours in the Maintenance Control conference room on the dates indicated:

3404 - 14 September

6. Specialized Maintenance Training:

a. MTD

(1) J-57 Engine Specialists

4 men - 4 September

4 men - 24 September

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(2) B-52 Familiarization

3 men - 11 September

3 men - 25 September

(3) SAMO

2 men - 4 September

2 men - 17 September

b. OJT Monitored by Squadron Training NCO.

c. Off Base:

(1) 11 September - 2 men to East Lynn Massachusetts.

(2) 22 September - 2 men to East Lynn Massachusetts.

d. 50-24 School all Personnel must go 1 Day

CBR lectures 0800 - 1700 in the Training and Briefing building auditorium. 17 September - 24 September.

APP I, ANN C
42BW OPLAN
24 AUG 56

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		4	5	6	7	10	11	12	13	14	17	18	19	20	21	24
3401	1	DOCK			SD			7				SD	7		SD	
3404	2		7			7			10							
	3											PERIODIC INSPECTION				
	4															
	5															
2671	6		SD	10		4	SD	10		SW			10		4	
	7															
	8															
	9															
	10															
	11															
	12															
	13															
	14															
	15															
	16															
	17															
	18															
	19															
2666	20			12		SW	SD SW		4		7			7		
Sorties/Hours Daily		0/0	1/7	2/22	0/0	1/7	0/0	2/12	1/10	0/0	1/7	0/0	2/17	1/7	0/0	0/0
Sorties/Hours Total		0/0	1/7	3/29	3/29	4/36	4/36	6/53	7/63	7/63	8/70	8/70	10/87	11/94	11/94	11/94

Inclosure I to appendix I

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		25	26	27	28
3401	1		10		
3404	2		PERIODIC	INS	
	3				
	4				
	5				
2671	6	7			SD
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19				
2666	20	10		14	
Sorties/Hours Da[illegible]		2/17	7/[illegible]	0/0	0/0
Sorties/Hours Total		13/111	14/121	14/121	14/121

Inclosure I to appendix I

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HEADQUARTERS 42D BOMBARDMENT WING (H)(SAC)
LORING AIR FORCE BASE, MAINE
27 AUGUST 1956

ANNEX C, APPENDIX II - 70TH BOMBARDMENT SQUADRON (SEPTEMBER)

1. The 70th Bombardment Squadron will provide 3 (B-36) transfer flights for a total of 45 flying hours. This will require three pre-flights be performed.

2. The last three B-36 aircraft will be transferred direct to 95th Bomb Wing on the dates indicated. These are arrival dates:

1090 - 5 September

1096 - 6 September

1097 - 7 September

Take-off times will be as indicated on SAC Form 364.

3. The remainder of the month, the squadron will concentrate on preparing their maintenance facilities for receipt of the B-52.

4. Specialized Maintenance Training:

a. MTD

(1) J-57 Engine Specialists

3 men - 4 September

3 men - 24 September

(2) B-52 Familiarization

4 men - 11 September

4 men - 25 September

(3) SAMO

2 men - 4 September

2 men - 17 September

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d. 50-24 school all personnel must go 1 day

CBR lectures 0800 - 1700 in the Training and Briefing building auditorium. 17 September - 24 September.

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HEADQUARTERS 42D BOMBARDMENT WING (H)(SAC)
LORING AIR FORCE BASE, MAINE
27 AUGUST 1956

ANNEX C, APPENDIX III - 75TH BOMBARDMENT SQUADRON (SEPTEMBER)

1. The 75th Bombardment Squadron will provide 40 (B-52) sorties for a total of 350 flying hours. The schedule is presented in Inclosure I.

2. This schedule leads to the requirement for 40 pre-flight, 7 (15 hour) and 7 (50 hour) post-flight inspections.

3. Take-off times will be as indicated on the SAC Form 364 and submitted by 1330 hours Thursday of each week to the 60-9 scheduling committee.

4. The following aircraft will be lost to periodic inspection on the dates indicated:

3402 - 6 September thru 18 September

3403 - 13 September thru 25 September

3405 - 26 September thru 30 September

3407 - 28 September thru 30 September

5. The pre-dock meeting for the following aircraft will be held at 1400 hours in the Maintenance Control conference room on the dates indicated:

3402 - 4 September

3403 - 11 September

3405 - 24 September

3407 - 26 September

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6. Specialized Maintenance Training:

a. MTD

(1) J-57 Engine Specialists

3 men - 4 September

3 men - 24 September

(2) B-52 Familiarization

4 men - 11 September

4 men - 25 September

(3) SAMO

2 men - 4 September

2 men - 17 September

(4) Pneumatic

2 men - 4 September

2 men - 24 September

(5) Hydraulic

3 men - 4 September

(6) Electricians

4 men - 4 September

3 men - 10 September

2 men 14 September

b. OJT monitored by squadron training NCO.

c. Off Base

(1) 11 September - 1 man to East Lynn, Massachusetts.

(2) 17 September - 1 man to Mitchell Field, New York.

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d. 50-24 school all personnel must go 1 day.

CBR lectures 0800 - 1700 in the Training and Briefing building auditorium. 17 September - 24 September.

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Flying and Maintenance Schedule 754th Bomb Sqdn — September 1956

DATES		4	5	6	7	10	11	12	13	14	17	18	19	20	21	24
3400	1	12		SD SW	SD			12		*		7			7	
3403	2		10			10										TH
3406	3			7			7			10		*		7		
2664	4		*		7			7			10		*		7	
2667	5	10		*		12		SW	SD SW			12		*		7
	6															
	7															
	8															
	9															
	10															
	11															
	12															
3407	13	*		SD SW			10			10		*		10		
2665	14		*	SW	SD			7			10		*		12	SW
	15															
	16															
3402	17			PERIODIC INSPECTION						TH			SD			
3405	18	10		SD SW			*		7			7			10	
3408	19		7			10		*		7			7			10
	20															
Sorties/Hours Daily		4/42	2/17	1/7	1/7	3/32	2/17	3/26	1/7	3/27	2/20	3/26	1/7	2/17	4/36	2/17
Sorties/Hours Total		4/42	6/59	7/63	8/70	11/102	13/119	16/145	17/152	20/179	22/199	25/225	26/232	28/249	32/285	34/302

Inclosure I to appendix III

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DATES		25	26	27	28
3400	1		10		
3403	2			SD	
3406	3	7		SW	SD SW
2664	4		7		
26667	5			7	
	6				
	7				
	8				
	9				
	10				
	11				
	12				
3407	13	10			
2665	14	SW	SD SW		
	15				
	16				
3402	17		7		
3405	18				
3408	19				
	20				
Sorties/Hours Daily		2/17	3/24	1/7	0/0
Sorties/Hours Total		36/319	39/343	40/350	40/350

Inclosure I to appendix III

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HEADQUARTERS 42D BOMBARDMENT WING (H)(SAC)
LORING AIR FORCE BASE, MAINE
27 AUGUST 1956

ANNEX C, APPENDIX IV - AIR REFUELING SQUADRON (SEPTEMBER)

1. The 42d Air Refueling Squadron will provide 119 (KC-97) sorties for a total of 686 flying hours. The schedule is presented in Inclosure I.

2. This leads to the requirement for 119 pre-flight and 24 (15 hour) and 3 (100 hour) post-flight inspections.

3. Take-off times will be as indicated on the weekly SAC Form 364 and submitted by 1330 hours Thursday of each week to the 60-9 scheduling committee.

4. The following aircraft will be lost to periodic inspection on the dates indicated:

3194 - 7 - 13 September

3177 - 18 - 24 September

3185 - 25 September - 1 October

5. The pre-dock meetings will be held in the Maintenance Control conference room, at 1400 hours on the dates indicated:

3194 - 5 September

3177 - 14 September

3185 - 21 September

6. The following aircraft will be given weight and balance checks on the dates indicated:

3185 - 14 and 17 September

3178 - 21 and 24 September

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7. One KC-97 per day will be flown to OCAMA for propeller modification during the period 24 September through 19 October. The September schedule is as indicated in Inclosure I.

8. Beginning 1 September 1956 the 42d Air Refueling Squadron will follow the 12 day maintenance and flying cycle.

9. Specialized maintenance training for September:

a. MTD

(1) SAMO

2 men - 4 September

2 men - 17 September

b. OJT montored by squadron training NCO.

c. Off base - none.

d. 50-24 School: All personnel must go 1 day. CBR lectures 0800 - 1700 hours in the Training and Briefing building auditorium. 17 September - 24 September.

APP IV, ANN C
42BW OPLAN
24 AUG 56

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Flying and Maintenance Schedule 42D AREFS — September 1956

DATES		4	5	6	7	10	11	12	13	14	17	18	19	20	21	24
3165	1		4			4			6			SD			SD	
3175	2			4			4			6			4			4
3176	3	SD			4			4			6			6		
3177	4		8			6			10							
3178	5			10			4			6			12			SD
3179	6	6			10			4			SD			GS		
3180	7		4			10			4			SD			SD	
3181	8			6			8			4			4			6
3182	9	4			4			8			SD			SD		
3183	10		4			6			8			SD			GS	
3184	11			4			4			8			4			9
3185	12	4			4			6			SD			SD		
3186	13		4			4			6			6			6	
3187	14			4			4			6			4			4
3188	15	SD			4			4			GS			6		
3189	16		8			6			6			SD			SD	
3190	17			4			4			4			4			SD
3191	18	6			8			4			SD			SD		
3192	19		6			8			4			SD			SD	
3193	20			6			8			4			4			6
3194	21	6									SD			SD		
3195	22		4			6			SD			SD			SD	
Sorties/Hours Daily		5/26	8/42	7/38	6/34	9/50	7/36	6/30	7/44	7/38	1/6	1/6	19/84	2/12	1/6	5/29
Sorties/Hours Total		5/26	13/68	20/106	26/140	34/190	41/226	47/256	54/300	61/338	62/344	63/350	82/434	84/446	85/452	90/481

PERIODIC INSPECTION

Inclosure I to appendix IV

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Flying and Maintenance Schedule 42D AREFS September 1956 Cont'd.

3165	1		4		
3175	2			9 X-C-OCA/MA	10
3176	3	4			9C 10
3177	4		50		
3178	5			4	
3179	6	10			4
3180	7		10		
3181	8			10	
3182	9	9 X-C-OCA/MA		10	50
3183	10		4		
3184	11	-OCA/MA	10	50	
3185	12	DOCK→			
3186	13		4		
3187	14			4	
3188	15	4			9 X-C OCA/MA
3189	16		4		
3190	17			4	
3191	18	8			4
3192	19		8		
3193	20			8	
3194	21	4			8
3195	22		9 X-C-OCA/MA		10
Sorties/Hours Daily		6/34	5/53	7/44	8/69
Sorties/Hours Total		96 570	101 573	111	99

Inclosure I to appendix IV

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HEADQUARTERS 42D BOMBARDMENT WING (H)(SAC)
LORING AIR FORCE BASE, MAINE
27 AUGUST 1956

APPENDIX V TO ANNEX C TO OPS PLAN - MAINTENANCE PLAN (SEPTEMBER)

42D PERIODIC MAINTENANCE SQUADRON

1. The 42d Periodic Maintenance Squadron will provide manning, tools and equipment to process B-52 aircraft and KC-97 aircraft thru periodic inspection docks as indicated in Inclosure 1 to this appendix.

2. Only those T.O's requiring mandatory accomplishment during periodic inspections will be accomplished. These TOC's will be scheduled during the inspection planning meetings in compliance with SAC Manual 66-15.

3. The 42d Periodic Maintenance Squadron will operate one KC-97 dock processing three KC-97 during this period. Two B-52 docks will be operated, four B-52's will be processed during this month.

4. Specialized Maintenance Training:

a. MTD

(1) J-57 Engine Specialists

2 men - 4 September

3 men - 24 September

(2) B-52 PAM

4 men - 4 September

4 men - 24 September

(3) Electricians

2 men - 4 September

3 men - 10 September

APP V, ANX C
42BW OPLAN
24 AUG 56

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2 men - 14 September

2 men - 20 September

2 men - 24 September

(4) Hydraulic Specialists

1 man - 4 September

2 men - 24 September

(5) SAMO

2 men - 4 September

2 men - 17 September

b. OJT monitored by squadron training NCO.

c. Off base: None

d. 50-24 school all personnel must attend 1 day. CBR lectures 0800 - 1700 in the Training and Briefing building auditorium. 17 September - 24 September.

APP V, ANN C
42BW OPLAN
24 AUG 56

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PERIODIC MAINTENANCE DOCK SCHEDULE (SEPTEMBER)

DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
PRE-DOCK (#1)						3404												3404										3407		
B-52 DOCK #1							3402			3402									3404					3404						
BACK-LINE DOCK #1				3401 TH										3402				3402 TH								3404 TH				
PRE-DOCK (#2)													3403												3405					
B-52 DOCK #2														3403				3403									3405			
BACK-LINE DOCK #2																					3403			3403 TH						
PRE-DOCK (KC)							3194											3177							3185					
KC97 DOCK #1										3194									3177											
BACK-LINE KC97													3194											3177			3185			

Inclosure 1 to appendix V

NOTE: Blank spaces indicate weekends and/or holidays.

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HEADQUARTERS 42D BOMBARDMENT (H)(SAC)
LORING AIR FORCE BASE, MAINE
27 AUGUST 1956

APPENDIX VI TO ANNEX C TO OPERATION PLAN - MAINTENANCE PLAN (SEPTEMBER)

42D ARMAMENT AND ELECTRONIC

1. The 42d Armament and Electronic maintenance squadron will provide necessary personnel, tools and equipment to accomplish 10 (15 hour) and 8 (50 hour) post-flight inspections on B-52 aircraft and 24 (15 hour) and 3 (100 hour) post-flight inspections on KC-97 aircraft.

2. In addition, the squadron will provide personnel, tools and equipment to support the periodic inspections as indicated below:

B-52	3401	4 - 6 September
B-52	3402	6 - 18 September
B-52	3403	13 - 25 September
B-52	3404	18 - 28 September
B-52	3405	26 - 28 September
B-52	3407	28 September
KC-97	3194	7 - 13 September
KC-97	3177	18 - 24 September
KC-97	3185	25 - 28 September

3. Installed equipment requirements for each flight, and take-off times will be as indicated on weekly SAC Form 364. Job Control will confirm installed equipment requirements at least 24 hours prior to scheduled take-off.

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4. Work load and maintenance capability for each shop is as follows:

SHOP	MANHOURS SCHEDULED	PRODUCTIVE M/H AVAL
Bomb-Nav	1507	1520
Comm-Nav	2404	3344
Fire Control	989	[redacted]
ECM	471	456*
Camera	141	152
Release System	962	760*
Auto Pilot	721	456*
Test Equipment	120	152

5. Specialized maintenance training for September:

a. Electronic MTD

(1) Fire Control

8 men - 4 September

(2) ECM

7 men - 4 September

(3) Bomb Nav (MA-6)

10 men - 4 September

(4) APN-69

8 men - 4 September

(5) ARC-34

8 men - 4 September

(6) A-14 Auto Pilot

6 men - 4 September

APP VI, [redacted] C
42BW OPLAN
24 AUG 56

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(7) Bomb Release

8 men - 4 September

b. OJT monitored by squadron training NCO.

c. Off base: None

d. 50-24 school all personnel must attend 1 day. CBR lectures 0800 - 1700 in the Training and Briefing building [redacted]rium.

17 September - 24 September.

APP VI, ANX C
42BW, CPLAN
24 AUG 56

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HEADQUARTERS 42D BOMBARDMENT WING (H)(SAC)
LORING AIR FORCE BASE, MAINE
27 August 1956

APPENDIX VII TO ANNEX C TO OPERATION PLAN - MAINTENANCE PLAN (SEPTEMBER)

42D FIELD MAINTENANCE

1. The 42d Field Maintenance Squadron will provide necessary personnel, tools and equipment to support 3 preflights on B-36 aircraft, 54 preflights, 10 (15 hr) and 8 (50 hr) postflight B-52 inspections, and 119 preflights, 24 (15 hr) and 3 (100 hr) postflight inspections on KC-97 aircraft.

2. The squadron will provide the periodic inspection support as indicated in Inclosure 1 to Appendix V.

3. Stand by support will be made available to support the flying schedule as indicated in the weekly SAC Form 364.

4. It is predicted that the following engine requirements will exist during the month of September:

Engine and Model	Projected Changes
R4360-59B	2
J57-29	4

5. Work load and maintenance capability for each shop is as follows:

Shop	Manhour of Maint Sked	Productive M/H Avail
Engine B/U (Recip)	1111	1368
Engine B/U (Jet)	774	1672
Unit Change (Recip)	618	760
Engine Cond (Recip)	601	456
Acft Wheel & Tire	110	456

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Acft Welding	120	608
Acft Machine	481	608
Acft Woodworking	361	456
Fuel Cell	361	152
Acft Structual Repair	1683	1216
Paint, Dope & Fabric	2524	3192
Aero Repair	721	608
In-Flight Refueling	240	304
Propeller	1803	760
Electrical	2524	2584
Hydraulic	481	608
Instrument	961	304

NOTE: *The shops should have no difficulty in meeting their commitments if the high percentage of indirect manhours is diverted to direct labor.

6. Specialized Maintenance Training:

a. MTD

(1) J-57 Engine Specialists

5 men - 4 September

5 men - 24 September

(2) B-52 Familiarization

3 men - September

3 men - 24 September

(3) Electrician

1 man - 4 September

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2 men - 10 September

4 men - 14 September

3 men - 20 September

3 men - 26 September

(4) Hydraulic Specialists

4 men - 4 September

8 men - 24 September

(5) Pneumatic Specialists

6 men - 4 September

4 men - 24 September

(6) SAMO

3 men - 4 September

3 men - 17 September

b. OJT monitor by squadron training NCO.

c. Off base

3 men to Mitchell Air Force Base, New York, 17 September.

d. 50-24 school all personnel must attend 1 day. CHR lectures 0800 - 1700 in the Training and Briefing building auditorium. 17 September - 24 September.

APP VII, ANN C
42BW OPLAN
24 AUG 56

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HEADQUARTERS 42D BOMBARDMENT WING (H)(SAC)
LORING AIR FORCE BASE, MAINE
27 AUGUST 1956

APPENDIX VIII TO ANNEX C TO OPERATION PLAN - MAINTENANCE PLAN (SEPTEMBER)

42D AIR BASE GROUP

1. The flying schedule for the 42d Bombardment Wing for September 1956 includes 3 B-36 sorties, 54 B-52 sorties and 119 KC-97 sorties.

2. B-36 aircraft 1090, 1096 and 1097 will be transferred to 95th Bomb Wing, Biggs Air Force Base on 5 September, 6 September and 7 September 1956 respectively.

3. All take-off times and duration of sorties will be as indicated on the weekly SAC Form 364.

4. Specific Air Base Group support requirements are as follows:

a. 42d Motor Vehicle Squadron.

(1) Provide daily dispatch of maintenance vehicles as outlined in SAC Reg 66-24.

(2) Provide maintenance of daily dispatch vehicles according to the schedule coordinated between Wing Maintenance Control Officer and the Commander, 42d Motor Vehicle Squadron. This schedule will provide for the maintenance performed during non-normal duty hours when ever possible, thus providing maximum vehicle utilization to the wing aircraft maintenance activity.

b. 42d Supply Squadron:

(1) POL will maintain at all times the following equipment in commission:

4 - R-6 trucks - JP-4

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9 - Hydrants - 115/145

1 - Defueling truck - JP-4

1 - W/A Jet truck

6 - Hydrants - JP-4

2 - F6 trucks 115/145

1 - Defueling truck - 115/145

1 - ADI truck (60/40) mix

1 - Demineralized water truck

(2) Provide 4300 gals of demineralized water suitable for B-52 use. This is to support 14 sorties during the period that will utilize water injection on take-off.

(3) Provide full supply support for 24 hour period 19 September in support of 42d ARES Operation "Devil Fish."

(4) Provide 30 minute delivery on all aircraft spares during normal duty hours.

c. 42d Air Police Squadron:

(1) Provide 24 hour access to flight line thru gate 9, 19 September 1956 in support of 42d ARES Operation "Devil Fish."

(2) Provide normal security guards at all times, and such additional security measures as may be directed by the Wing Commander.

4. [illegible] Service Squadron:

(a) [illegible] will [illegible] midnight meal.

(b) [illegible] will provide the [illegible] meal for Job Control [illegible] of [illegible]. This meal will [illegible] for delivery to Job Control.

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d. 42d Food Service Squadron.

(1) Normal support at all times with the following exceptions:

(a) Mess #1 will feed the midnight meal.

(b) Mess #1 will provide the midnight meal for Job Control Charge of Quarters. This meal will be packaged for delivery to Job Control.

(c) Be prepared to deliver hot meals to the flight line, 19 September 1956 in support of Operation Devil Fish. The exact number and time of delivery will be determined by the Chief of Maintenance at a later date, but 24 hours prior to the mission.

(2) An above normal supply of flight lunches will be required during the 24 hour period of 19 September 1956 in support of Operation Devil Fish.

APP VIII, ANN C
42BW OPLAN
24 AUG 56

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HEADQUARTERS 42D BOMBARDMENT WING (H)(SAC)
LORING AIR FORCE BASE, MAINE
27 August 1956

APPENDIX IX TO ANNEX C TO OPERATION PLAN - MAINTENANCE PLAN (SEPTEMBER)

HQ SQ 42D BOMBARDMENT WING

1. Specialized Maintenance Training:

a. MTD

(1) SAMO

1 man - 4 September

1 man - 17 September

b. OJT monitored by squadron training NCO.

c. Off base: None

d. 50-24 school all personnel must attend 1 day. CBR lectures 0800 - 1700 in the Training and Briefing building auditorium. 17 September - 24 September.

APP IX, ANN C
42BW OPLAN
24 AUG 56

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
27 August 1956

ANNEX D - MEETINGS AND DUTY SCHEDULES (SEPTEMBER)

1. An Operational Meeting will be held in the Wing Control Room each day at 0830, Monday through Friday.

2. The Wing Commander's Staff Meeting will be held each Tuesday at 1330 hours.

3. The Monthly Flying Safety Meeting will be held at the TRNG & BRIEFING BLDG. on 10 September at 0800 hours.

4. The Weekly Pre 60-9 Meeting will be held on 6, 13, 20, and 27 September at 1330 hours. The Monthly 60-9 Committee will meet at 0900 hours the day following the Pre 60-9 Meetings. The Monthly Pre 60-9 and regular 60-9 Committee will meet on 20, 21 September respectively.

5. Special Briefings:

a. "Bench Warmer". General and specialized briefing - Wing BRIEFING Room on 17 September at 1330 hours.

b. "Devil Fish". General and Specialized briefing for single sorties - 42AREFS, 14 September, for main mission 17 September, 42AREFS.

6. Wing Debriefing Team: The following Officers will be required to conduct crew debriefings at the 42A&E building:

Lt McKaig	Lt Marrs
Lt Gallup	Lt Mikulski

7. The Wing Control Room Officer will be assigned by the OIC Wing Control (Major Magrill, Phone 2155).

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REPORT OF AIRCRAFT STATUS AND PURPOSE OF FLIGHT

REPORTS CONTROL SYMB: 1-AF-A1

MAJOR AIR COMMAND	SUBCOMMAND	WING	GROUP
SAC	8th AF	42d Bomb Wing (H(	None
SQUADRON	**DETACHMENT**	**INSTALLATION**	**DATE OF REPORT**
None	None	Loring AFB, Maine	1 THRU 31 AUG 1956

PART I

LINE NO.	TYPE, MODEL, AND SERIES	ASSIGNMENT OR STATUS CODE	TOTAL NUMBER ACFT ON HAND	TOTAL HOURS: ON HAND	TOTAL HOURS: OPERATIONALLY READY	NOT OPERATIONALLY READY: SUPPLY	NOT OPERATIONALLY READY: TECHNICAL ORDER COMPLIANCE	NOT OPERATIONALLY READY: PERIODIC MAINT INSP	NOT OPERATIONALLY READY: MAL-FUNCTION MECH DEFECTS, OPR DAM	NOT OPERATIONALLY READY: OTHER REASONS	NOT OPERATIONALLY READY FLYABLE	NUMBER OF LANDINGS, LAUNCHINGS, OR FLIGHTS	HQ USAF/CMD HQ USE	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	B-36H	CC	3	2326	1969	141		48	168			9		
2														
3	KC-97G	CC	22	16368	15305	354	27	324	358			373		
4														
5	B-52C	CC	14	7357	6415			563	379			153		
6														
7	C-119C	CP	4	2976	731	132	654		1459			52		
8														
9														
10														

PART II

LINE NO.	TYPE, MODEL, AND SERIES	ASSIGNMENT OR STATUS CODE	HOURS FLOWN: SPECIAL FERRIED BY MATS FERRY PILOTS	TRAINING: COMBAT CREW AND OPERATIONAL	TRAINING: STUDENT	ADMINISTRATIVE	COMBAT READINESS TNG: TRAINING	COMBAT READINESS TNG: DUAL PURPOSE	COMBAT READINESS TNG: SPECIAL MISSIONS	OTHER	TOTAL	HQ USAF/CMD HQ USE	
	A	B	C	D	E	F	G	H	I	J	K	L	M (Cumul)	N
1	B-36H	CC		118:45							110:45		118:45	
2														
3	KC-97G	CC		752:15						2:55	755:15		755:15	
4														
5	B52C	CC		422:30						11:55	434:25		434:25	
6														
7	C-119C	CP		14:50				32:50			47:40			
8														
9														
10														

TYPED NAME, GRADE AND TITLE OF COMMANDING OFFICER

SIGNATURE OF COMMANDING OFFICER

Robert A. [illegible]

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REPORT OF AIRCRAFT STATUS AND PURPOSE OF FLIGHT

REPORTS CONTROL SYMBOL: 1-AF-A1

MAJOR AIR COMMAND	SUBCOMMAND	WING	GROUP
STRATEGIC AIR COMMAND	EIGHTH AIR FORCE	42D HEAVY BOMB WING	N/A
SQUADRON	**DETACHMENT**	**INSTALLATION**	**DATE OF REPORT**
N/A	N/A	LORING AFB, MAINE	30 SEPTEMBER , 1956

PART I

LINE NO.	TYPE, MODEL, AND SERIES	ASSIGNMENT OR STATUS CODE	TOTAL NUMBER ACFT ON HAND	TOTAL HOURS: ON HAND	TOTAL HOURS: OPERATIONALLY READY	NOT OPERATIONALLY READY: SUPPLY	NOT OPERATIONALLY READY: TECHNICAL ORDER COMPLIANCE	NOT OPERATIONALLY READY: PERIODIC MAINT INSP	NOT OPERATIONALLY READY: MAL-FUNCTION MECH DEFECTS, OPR DAM	NOT OPERATIONALLY READY: OTHER REASONS	NOT OPERATIONALLY READY FLYABLE	NUMBER OF LANDINGS, LAUNCHINGS, OR FLIGHTS	HQ USAF/CMD HQ USE	HQ USAF/CMD HQ USE
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	B-36H	CC		345	345									
2														
3	KC-97G	CC	19	15840	13533									
4														
5	B-52C	CC	20	13266	7161	4	3300	1898	903		639	61		
6														
7	C-119C	CP	4	2966	1346	136		106	328		686	71		
8														
9														
10														

PART II

LINE NO.	TYPE, MODEL, AND SERIES	ASSIGNMENT OR STATUS CODE	HOURS FLOWN: SPECIAL FERRIED BY MATS FERRY PILOTS	TRAINING: COMBAT CREW AND OPERATIONAL	TRAINING: STUDENT	ADMINISTRATIVE	COMBAT READINESS TNG: TRAINING	COMBAT READINESS TNG: DUAL PURPOSE	COMBAT READINESS TNG: SPECIAL MISSIONS	OTHER	TOTAL	HQ USAF/CMD HQ USE	HQ USAF/CMD HQ USE	HQ USAF/CMD HQ USE
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	B-36H	CC		33							33			
2														
3	KC-97G	CC		742						13	755			
4														
5	B-52C	CC		351						9	360			
6														
7	C-119C	CP					20	122		1	143			
8														
9														
10														

TYPED NAME, GRADE AND TITLE OF COMMANDING OFFICER: Floyd P. PARK, CWO, USAF — OIC, ANALYSIS, RECORDS and REPORTS BRANCH

SIGNATURE OF COMMANDING OFFICER:

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7

HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base
Maine

42DOT 8 October 1956

SUBJECT: (Unclassified) Refueling Air Training Report for September 1956, RCS: 9-SAC-T12.

TO: Commander
Eighth Air Force
Westover Air Force Base
Massachusetts

1. Submitted herewith in accordance with Annex IX, SAC Regulation 50-23, dated 1 May 1956, is Air Refueling Training Report, RCS: 9-SAC-T12.

2. If inclosures are withdrawn or not attached, the classification of CONFIDENTIAL on this correspondence may be cancelled in accordance with Air Force Regulation 205-1.

FOR THE COMMANDER:

JOSEPH H. JACOBY
Major, USAF
Adjutant

3 Incls
1. SAC Form 36 (3 pgs)
2. SAC Form 36a (3 pgs)
3. Comdrs Remarks (7 pgs)

cc: CINCSAC
ATTN: DOTRS (T12) (1 cy Incl 1, Incl 2, and Incl 3)
COA (T12) (1 cy Incl 1, Incl 2, and Incl 3)
D/Pers (1 cy Incl 3 only)
D/Mat (1 cy Incl 3 only)

COMDR 8AF
ATTN: ODT4 (1 cy Incl 1, Incl 2, 10 cys Incl 3)
COM (1 cy Incl 1, Incl 2, 5 cys Incl 3)

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PART III - SQUADRON COMMANDER'S REMARKS:

1. Hours flown performing missions ordered by:

a. Higher headquarters:

COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1) "Devil Fish" 8AF Ops Ord 38-56	106:00	80:00
(2) Propeller Modification (OCAMA)	200:00	170:20
(3) Flyover (Toronto Exposition)	00:00	29:20
TOTAL	306:00	279:40

b. Eighth Air Force Training Priorities:

PRIORITY COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1) AF Reg 60-2	00:00	00:00
(2) "Devil Fish" 8AF Ops Ord 38-56	106:00	80:00
(3) Propeller Modification (OCAMA)	200:00	170:20
(4) Non Ready Training	20:00	41:55
(5) Non Ready Training (Individuals)	130:00	123:45
(6) Combat Ready Crew Training	287:00	323:55
TOTAL	743:00	739:55
TEST	14:00	15:05
TOTAL	757:00	755:00

(a) Reference priority 1: A proportionate share of AF Reg 60-2 was accomplished during the completion of other priorities.

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(b) Reference priority 2: Hours accomplished fell short of programmed time because of refueling in a different area as directed by higher headquarters.

(c) Reference priority 3: Hours accomplished fell short of programmed time because of change in schedule by headquarters 8th AF.

(d) Reference priority 5: The hours accomplished fell short of programmed time because the time was diverted to priority 4.

(2) Flying time programmed for the following month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED
(1)	AFR 60-2	00:00
(2)	"Devil Fish"	94:00
(3)	Hell Fire	174:00
(4)	Prop Modification	152:00
(5)	Non Ready Training (Individuals)	120:00
(6)	Crew Non Ready Training	20:00
(7)	CR Crew Training	147:00
	TOTAL	707:00

2. Weather or local conditions:

a. Not applicable for this reporting period.

3. Air Traffic control delay information:

a. Not applicable for this reporting period.

4. Restrictive Directives:

a. SAC TWX DO 1842, restricting all KC-97 aircraft to 155,000 lbs. gross weight, at take-off, ten (10) personnel.

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5. Combat Crew Member gains and losses:

a. Crew member gains:

(1) One navigator from 3610th AOB Trng Wg., Harlingen AFB.

(2) One engineer from 6523rd Tes Trom (SUPP ARDC)

b. Crew member losses:

(1) One pilot re-assigned Detachment #1, 2225th Per Pron, Ft. Hamilton, N.Y.

(2) One radio operator re-assigned to the 380th Bomb Wing Plattsburg AFB.

(3) One radio operator re-assigned to the 801st AD, Portsmouth AFB.

6. Crew Member changes:

a. Two aircraft commander; one re-assigned overseas; one to the squadron officers course.

7. New Crews:

a. Not applicable during this training period.

8. Crew Status changes:

a. IM 24 upgraded to T-24, 8 September.

CREW NUMBER	UPGRADING DATE
IM-25	October 1956

(1) IM-25 not upgraded in September as scheduled due to late date flight engineer completed MTD.

9. Standardization Crews:

a. T-02 assigned January 1955.

b. T-08 assigned April 1956.

c. T-18 assigned July 1956.

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10. Additional material and personnel problems:

a. Material:

(1) A total of 140 line items (aircraft parts) were back ordered during September 1956.

b. Personnel:

(1) The following crews will regress on the dates indicated because of discharge and subsequent re-enlistment of flight engineers at base of their choice.

(a) T-15 - October 56 from Combat Ready to Non-Combat Ready

(b) T-12 - December 56 no replacement

(c) T-04 - February 56 no replacement

11. Refueling data:

a. Number of refueling sorties scheduled and confirmed:

(1) Scheduled: 84

(2) Confirmed: 76

b. Number of sorties:

(1) Airborne: 62

(2) Effecting complete electronic rendezvous: 22

(3) Aircraft not attempting rendezvous in cell formation: 10

(4) Rendezvous not successful due to equipment malfunction: 2

(5) Transferring required fuel: 47

c. Number of aborts due to:

(1) Adverse weather: 1

(2) Aircraft malfunction: 8

(3) Electronic rendezvous equipment malfunction: 0

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(4) Refueling equipment malfunction: 0

(5) Other causes:

(a) Receiver cancellation: 20

d. Mass night cell refueling:

(1) Confirmed sorties: 12

(2) Airborne sorties: 12

(3) Sorties effecting complete rendezvous: 12

(4) Sorties transferring required fuel: 12

e. Fuel transferred:

(1) Gallons: 209,000

(2) Pounds: 1,356,190

12. Comments or recommendations of the Squadron Commander:

a. Reference paragraph 11 C (2): Eight (8) tankers malfunctions causing aborts were due to the following:

(1)	10 & 13 September 56	Hydraulic
(2)	12 September 56	Engine failure
(3)	13 September 56	Wing Heaters and Nesa Window
(4)	14 September 56	Boom
(5)	18 September 56	Props
(6)	19 September 56	Low Torque
(7)	24 September 56	Engine fuel system

(a) No trend in malfunctions was established.

b. Reference paragraph 11 C (5) (a): Twenty (20) receiver cancellations were attributed to the following:

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(1) 11 - B-52's grounded

(2) 5 - Hq. 8th AF (Devil Fish), 5 Sept. 56

(3) 3 - Plattsburg - reasons unknown

(4) 1 - Hq. 8th AF, 20 Sept. 56

c. It was indicated in last months T-12 report that difficulty was being experimented in completing KC-97/B-52 rendezvous using the APN/69. This problem is still being pursued, grounding of the B-52's retarded the program to determine the causes and therefore no conclusive data is available at this time.

d. The 12 day maintenance cycle with a 15 hour post flight is not considered to be compatable with tanker operations. It affords a minimum of flexibility in mission planning from the standpoint of accomplishing additional 50-8 training on the large number of four (4) hour sorties that are required. Additionally, our unusual requirement to support a considerable number of refueling sorties in the northeast area generates a number of additional 4 hour sorties. The above results in under-flying 6 and 10 hour sorties under the 4-4-6-10 sortie distribution within a 15 hour post flight. In all probabilities, some areas of 50-8 training will not be accomplished entirely. It is recommended that 25 hour post flights be authorized as soon as possible to alleviate the above.

13. Ground Training:

a. Combat ready crews attending SAC Reg 50-24 requirement: 7

b. Combat ready crews completing SAC Reg 50-24 requirements: 7

c. Combat ready crews scheduled to attend block training in accordance with SAC Reg 50-24 during October: 6

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d. Factors precluding crews from completing ground training requirements during September: All crews completed as scheduled.

Willie H. Sonntag
WILLIE H. SONNTAG
Major, USAF
Commander

PART IV WING COMMANDER'S REMARKS, 42D BOMBARDMENT WING (H) (SAC)

I concur with the remarks of the Commander of the 42d Air Refueling Squadron.

D E Hillman
DONALD E. HILLMAN
Colonel, USAF
Commander

PART V DIVISION COMMANDER'S REMARKS, 45TH AIR DIVISION (SAC)

I concur with the remarks and recommendations of the Wing Commander.

W K Martin
W. K. MARTIN
Brigadier General, USAF
Commander

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42D AREF COMBAT CREWS

AS OF 30 Sept 56

CREW NO.	AIRCRAFT COMMANDER	CO-PILOT	NAVIGATOR	ENGINEER	BOOM OPERATOR	REMARKS
T-01	HARTMAN	COCKRUM	MARTIN	WHITT	WELLS	
T-02	McCARTY	CULBRETH	TAYLOR	MILLER	HOLCOMB	
T-03	NIXON	ROWE	LARKIN	SMITH	HICKS	
T-04	MORRIS	BLUM	BAECHLE	KOLBERT	PATTERSON	
T-05	WOODWARD	VAINWRIGHT	PARKES	SCOTT	HANRAHAN	
T-06	RENEAU	KUETHE	REESE	DICKSION	GOLDSBERRY	
T-07	McDONOUGH	LENZ	McCARTY	MARTIN	FERGUSON	
T-08	MUNSON	MEYER	ENGELKE	YATES	SCHLUSSLER	
T-09	GRAHAM	EICHENBERGER	SEPPALA	BUSH	JOYNER	
T-10	WALTER	MILLER	CRAFT	BAXTER	BLACKBURN	
T-11	TATUM	WRIGHT	HEYER	FERRAioli	WHITFIELD	
T-12	BELLAMY	Rowe	BETHKE	HARRISON	BEARD	
T-13	MADISON	BENSON	STAI	DEMAREE	BELCHER	
T-14	CARD	BELLAMY	CARTER	Williams	WILTSHIRE	
T-15	BANGERTER	TURNER	SAGE	HAMBALEK	JOHNSON	
T-16	Robertson	KENYON	WARREN	STERN	BOYER	
T-17	SOUTHWORTH	KAISER	SMITH	THIEBAUD	SMITH	
T-18	SLAUGHTER	BROYLES	BEEBE	BEMIS	LOPEZ	
T-19	WELLS	GORDON	CASE	SEXTON	HOUGHBTY	
T-20	NEWELL	SMITH	DONALDSON	CUMMINGS	BUTTS	
T-21	WEBSTER	DOOLEY	KIMBALL	YERSAVICH	YOUNG	
T-22	FURR	WATSON	SULLIVAN	BENDOR	WEBB	
T-23	PARKHILL	BERRY	O'KEEFE	EAST	CALLAHAN	
T-24	Davis	Frye	Fisher	Pushnik	Scappella	[illegible]
IM-25	HOKNE	VOORHEES	AMEND	FERRUCCI	CHURCHILL	

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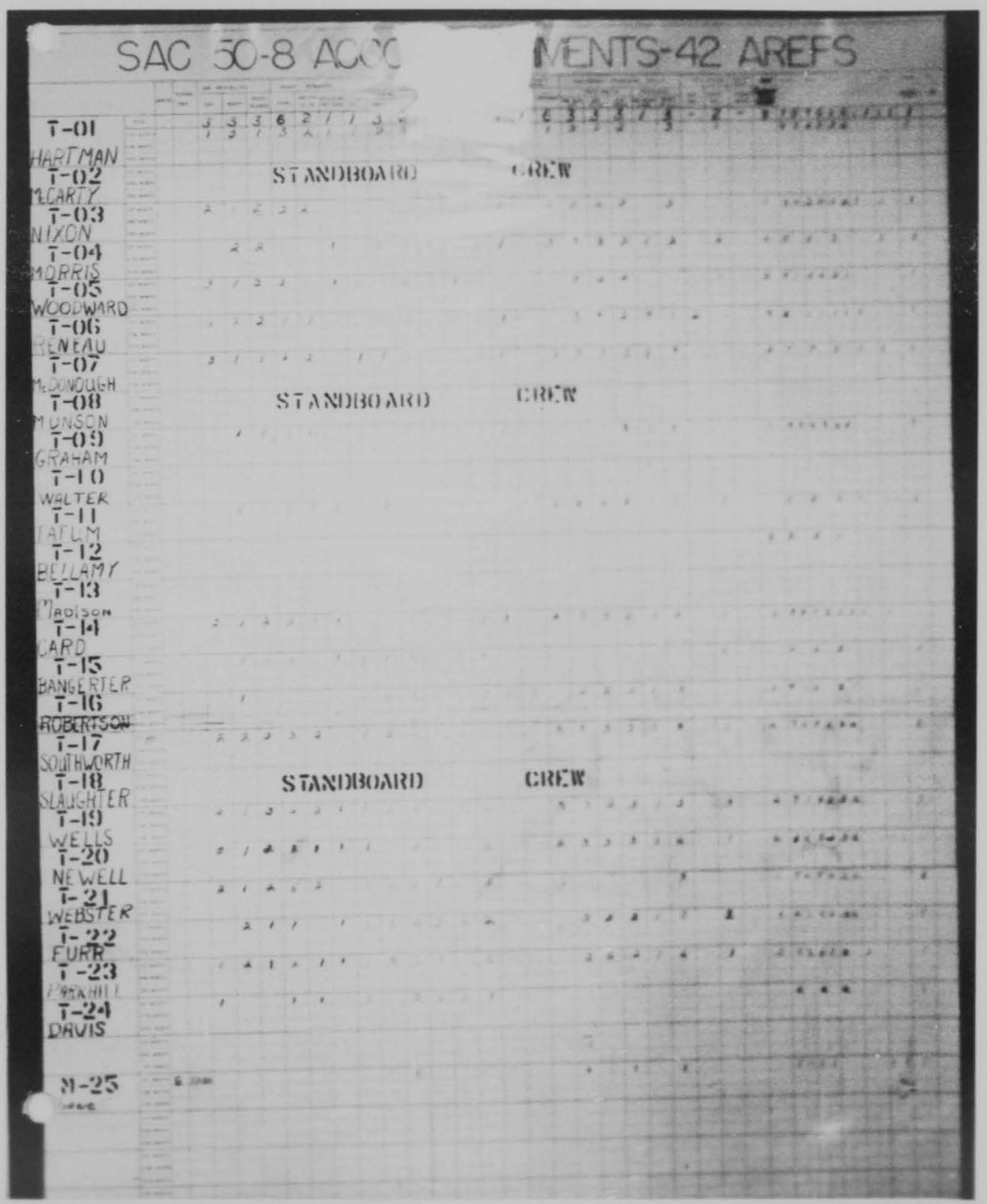

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base
Maine

42DOT 8 October 1956

SUBJECT: (Unclassified) B-36 Air Training Report for September 1956, RCS: 1-SAC-T12.

TO: Commander
Eighth Air Force
Westover Air Force Base
Massachusetts

1. Submitted herewith in accordance with Annex I, SAC Regulation 50-23, dated 1 May 1956, is the B-36 Air Training Report, RCS: 1-SAC-T12.

2. If inclosures are withdrawn or not attached, the classification of CONFIDENTIAL on this correspondence may be cancelled in accordance with Air Force Regulation 205-1.

FOR THE COMMANDER:

Raymond L. Haggard Vlo
For JOSEPH H. JACOBY
Major, USAF
Adjutant

7 Incls
1. SAC Form 57 (1 pg)
2. SAC Form 57a (1 pg)
3. SAC Form 57b (1 pg)
4. SAC Form 57c (1 pg)
5. SAC Form 57d (1 pg)
6. SAC Form 57e (1 pg)
7. Comdrs Remarks (2 pgs)

cc: CINCSAC
ATTN: DOTRS (T12) (1 cy Incl 1 thru 7)
COA (T12) (1 cy Incl 1 thru 7)
D/Pers (1 cy Incl 7 only)
D/ Mat (1 cy Incl 7 only)

COMDR 8AF
ATTN: ODT4 (1 cy Incl 1 thru 6. 10 cys Incl 7)
COM (1 cy Incl 1 thru 6, 5 cys Incl 7)

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PART VII - WING COMMANDER'S REMARKS FOR SEPTEMBER 1956:

1. Hours flown performing missions ordered by:

a. Higher headquarters:

COMMITMENTS	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1) Ferrying of Aircraft	30:00	32:40
TOTAL	30:00	32:40

b. Eighth Air Force Training Priorities:

(1) The ferry time accomplished in 1. a. above concluded the B-36 flying for this Wing; therefore, no programming was done other than above.

2. Weather or Local Conditions:

a. Not applicable for this reporting period.

3. Air Traffic Control Delay Information:

a. Not applicable for this reporting period.

4. Restrictive Directives:

a. Not applicable for this reporting period.

5. Combat Crew Member Gains and Losses:

a. Crew members gained:

(1) Not applicable for this reporting period.

b. Crew members lost:

(1) One observer to 19th ADIV Carswell AFB.

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6. Crew Member Changes:

a. Not applicable for this reporting period.

7. New Crews:

a. Not applicable for this reporting period.

8. Crew Status Changes:

a. R-07 disbanded 9 September 1956.

b. R-67 disbanded 9 September 1956.

c. L-44 disbanded 9 September 1956.

9. Standardization Crews:

a. Not applicable for this reporting period.

10. Additional Material and Personnel Problems:

a. Not applicable for this reporting period.

11. Comments or Recommendations of the Wing Commander:

a. All B-36 aircraft have been transferred from this station. There will be no T-12 submitted in future months concerning B-36 activity.

D E Hillman

DONALD E. HILLMAN
Colonel, USAF
Commander

PART VIII DIVISION COMMANDER'S REMARKS, 45TH AIR DIVISION (SAC)

I concur with the remarks and recommendations of the Wing Commander.

W K Martin

W. K. MARTIN
Brigadier General, USAF
Commander

9601C

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MONTH SEPTEMBER — CREW SCHEDULING — SQUADRON 69TH

NR.	AIRCRAFT COMDR.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	HRS
N 14	HORSTMAN			CREW COORD. T-2		AC-VO-TG ALT CHAMBER								50-43				666/7									401/10							2/17
N 15	MAILANDER					404/7					CREW COORD. T-2								← S W →					PILOT-ECM-TG ALT CHAMBER									1/7
N 16	ORTH				←	S W	→						671/10	50-43						401/7				A/C ALT. CHAM.									2/17
N 17	JENKINS	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	← NAV-ALT. CHAM									CREW COORD.							0/0
N 18	STICKLER					671/10							401/7							A/C-VO-ECM TG ALT. CHAM.													2/17
N 19	CHILDS					50-43								404/10							A/C ALT. CHAM.					671/7							2/17
N 20	BRUCE					666/12						←	S W	→						BW 671/10						666/10							3/32
N 29	ANASTASIA										404/7										666/7						CREW COORD.						2/14

14 SORTIES
121 TIME

420 ABG FORM 24 JULY 56 412 FC: 2710

INCL. 1. ANNEX A. APPENDIX 1.
Page 1.

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MONTH SEPTEMBER 1956 — CREW SCHEDULING — SQUADRON 70 TH

NR.	AIRCRAFT & MDR.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	SCHED MAINT
R67	BOSTON				1090/10					X	C	R	E	W		D	I	S	B	A	N	D	E	D									1/10
R07	HEDIN					1096/10				X	C	R	E	W		D	I	S	B	A	N	D	E	D									1/10
L44	SMITH						1099/10			X	C	R	E	W		D	I	S	B	A	N	D	E	D									1/10

3 SORTIES
30 TIME

42D ABG 24 FORM JULY 56 412 PC: 2710

Incl. 1. Annex A. Appendix 2.
Page 1.

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MONTH: SEPTEMBER 1956 — CREW SCHEDULING — SQUADRON: 75TH

NR.	AIRCRAFT COMDR.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	ACCUM HRS
N 72	MORGAN					408/7						406/7							BW 405/7						408/10									4/3
N 73	SUPERNANT							664/7													407/7					← SW →							2/
N 74	SCANNELL				400/10	A/C-Pilot-VO ECM-TG ALT CHAM.									406/10							405/10												3/30
N 75	DAVIDSON					403/12							400/10							BW 408/7							400/10						4/37
N 76	WRIGHT																NAV-ALT CHAM.					400/7				407/10							2/17
N 77	CURTIS													405/7				665/10	← SW →								664/10						3/27
N 78	HUDLOW														407/10						406/7				NAV-PILOT ALT CHAM.								2/17
N 79	ROBERTS				← VO+NAV. TO MATHER MAINT. School FOR 6 WEEKS						408/10				408/7			PILOT ALT. CHAM.											667/7				3/24 →
N 80	TUCCI				←SW→						667/7							664/10			50-43					406/7							3/24
					← NAV. TO MATHER MAINT. SCHOOL - 6 WEEKS →																													
N 81	SMITH				664/7																				667/7								2/14

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Incl. 1. Annex A. Appendix 3
Page 1.

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SEPTEMBER 1956 — CREW SCHEDULING — 75TH

NR.	AIRCRAFT CMDR.	1	2	3	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	-	SORTIES HRS	
N 82	CONFER					50-43				403/12	←	S	W	→			PILOT-TG	ECM-ALT CHAM.								402/7						2/19	
N 83	BRITTON					406/7					407/7							BW 400/7														3/21	
N 84	SANDACZ				667/12							665/7						BW 667/10		A/C-VO-ECM ALT CHAM.												3/29	
N 85	BARNEY				402/7	50-43														665/7												2/14	
N 86	REIDY				405/12	PILOT 50-43						664/7								664/7		P.LOT ALT CHAM										3/26	

40 SORTIES
350 TIME

42D ABG FORM 2A JULY 56 412 FC: 2710

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Page 2.

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MONTH: SEPTEMBER 1956 — CREW SCHEDULING — SQUADRON: 42d ARS-F 5

NR.	AIRCRAFT COMDR.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	SCHEDULED HRS.
T 02	Mc CARTY				SB CREW T-08			-				SB-CREW T-09			EWP										LEAVE								0/0
T 17	SOUTHWORTH				185/4		193/6	SB-check			192/8			192/4						185/4 — 50 — 24							192/8		A					6/34
T 03	NIXON				EWP	186/4		A			186/4			186/6					186/6	182/4		186/6				50-24							6/30
T 04	MORRIS				EWP		187/4	A				187/4			193/4					187/4					187/4			187/4	A				6/24
T 16	ROBINSON				EWP	183/4		179/10				175/4	188/4					188/GS		188/4	188/6					188/4	186/4	190/4			188/9 *			10/53
T 18	SLAUGHTER						SB CREW T-17						SB CREW T-20					EWP		189/4						50-24								1/4
T 23	PARKHILL	A					190/4	EWP				190/4			190/4				190/GS	190/4		A				182/9 *		182/10						6/35
T 01	HARTMAN					192/6		EWP A			189/6		191/4							191/4 — 50 — 24						191/8			191/4					6/32
T 08	MUNSON	A			191/6	SB-check		191/8				SB-CREW T-14						EWP		192/4		A			SB-CREW M-25								3/18
T 20	NEWELL					189/8	EWP	185/4 A					185/6 SB-check		187/6					193/4							183/4							6/32

42D ABG FORM 412 FC: 2710

Incl. 1. Annex A. Appendix 4.
Page 1.

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MONTH: SEPTEMBER 1956 — CREW SCHEDULING — SQUADRON: [redacted]

NR.	AIRCRAFT COMDR.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	MONTH HRS
T 10	TATUM				EWP	165/4					165/4			165/6	A					165/4								165/4		A				5/22
T 14	CARD				EWP	175/4						181/8 SB-CHECK			175/6						175/4				175/4			175/9 *		175/10				7/25
T 21	WEBESTER					EWP	176/4						176/4		A		176/6				176/6					176/4			176/9 *		176/10			7/43
T 07	Mc DONOUGH	A				180/4					177/6	EWP		177/10						183/4		A				189/4								5/28
T 06	RENEAU										EWP	178/4			178/6 A					178/12							178/4						4/26
T 19	WELLS	A			179/6			188/4			EWP		179/4							179/4	179/GS	A			179/10			179/4					6/32
T 10	WALTER				EWP	←									LEAVE					→													0/0
T 09	GRAHAM				EWP		181/6				183/6		182/8 SB CHECK		181/4 A					181/4					181/6			181/10					7/44
T 12	BELLAMY	←													LEAVE					→													0/0
T 13	MADISON	←													LEAVE					→													0/0

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MONTH SEPTEMBER — CREW SCHEDULING — SQUADRON 42 ARFS

R.	AIRCRAFT COMDR.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
T 15	SANGERTER				194/6	EWP	184/4					184/4			184/8A					194/4						194/4			194/8				1
T 05	WOODWARD					195/4	EWP				195/6			183/8						195/4		A					195/5*		195/10				
T 22	FURR	A				177/8		182/4			180/10	EWP		188/6						184/4		A			184/9*		184/10					
T 24	DAVIS				182/4	EWP	178/10					193/8		180/4						180/4		183/G.S					180/10					5/4
M 25	HORNE																								193/6 S.B. check			A3/4				2/19

119 SORTIES
686 HOURS

420 ABG FORM 412 FC 2710

Incl. 1. Annex A. Appendix 4.
Page 3.

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AIR REFUELING AIR TRAINING REPORT – PART I	UNIT: 42d Air Refueling Squadron	MONTH: Sept. 1956	PAGE NR: 1	NR PAGES: 3	REPORTS CONTROL SYMBOL: 9-SAC-712

A. GENERAL					B. AIR REFUELING										C. RADAR RENDEZVOUS						D. NAVIGATION							
1	2	3	4	5	6		7		8		9		10		11		12		13		14	15				16	17	18
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	TOTAL REFUELINGS		DAY REFUELINGS		NIGHT REFUELINGS		IN RADIO SILENCE		KC-97 FIGHTER REFUELINGS 20,000 LBS		TOTAL RENDEZVOUS		MULTIPLE RENDEZVOUS PATTERN		AN/APN-12-76		NR OF DAY CELESTIAL NAVIGATION LEGS	NIGHT CELESTIAL				NUMBER OF RADAR NAVIGATION LEGS	NR OF PRESS. PATTERN LEGS (SCR-718)	NUMBER OF LORAN NAVIGATION LEGS
																						TOTAL LEGS	CIRCULAR ERROR					
					ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.			1	2	3			
6-10	11-15	17-19	21-23	26-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-52	52-54	56-58	60-62	63-65
T18	KC-97G	002	012	–	001	001	–	–	001	001	001	001			001	001	001	001	–	–	–	–	–	–	–	–	–	–
T02	KC-97G	–	–	–	–	–	–	–	–	–	–	–			–	–	–	–	–	–	–	–	–	–	–	–	–	–
T08	KC-97G	004	026	–	002	002	001	001	001	001	–	–			003	003	001	001	002	002	–	–	–	–	–	002	–	–
Stndb Total	–	006	038	–	003	003	001	001	002	002	001	001			004	004	003	002	002	002	–	–	–	–	–	002	–	–
T01	KC-97G	004	030	–	004	004	001	001	003	003	001	001	Not Applicable	Not Applicable	003	003	001	001	002	002	001	002	008	017	–	003	002	002
T03	KC-97G	006	037	–	003	003	002	002	001	001	002	002			003	003	–	–	002	002	–	–	–	–	–	–	–	–
T04	KC-97G	005	028	–	002	002	–	–	002	002	002	002			001	001	001	001	–	–	–	002	001	009	–	001	001	001
T05	KC-97G	006	043	–	004	004	003	003	001	001	003	003			003	003	001	001	001	001	003	001	020	–	–	002	001	003
T06	KC-97G	004	026	–	002	002	–	–	002	002	002	002			001	001	–	–	001	001	–	001	008	–	–	001	–	002
T07	KC-97G	008	042	–	004	004	003	003	001	001	001	001			003	003	–	–	003	003	001	001	010	–	–	003	–	001
T09	KC-97G	004	024	–	001	001	–	–	001	001	001	001			001	001	–	–	001	001	002	–	–	–	–	001	001	001
T10	KC-97G	–	–	–	–	–	–	–	–	–	–	–			–	–	–	–	–	–	–	–	–	–	–	–	–	–
T11	KC-97G	005	042	–	001	001	–	–	001	001	001	001			001	001	001	001	001	001	001	003	006	007	008	004	001	–
																						001	012	–	–			
T12	KC-97G	002	006	–	–	–	–	–	–	–	–	–			–	–	–	–	–	–	–	–	–	–	–	–	–	001
T13	KC-97G	–	–	–	–	–	–	–	–	–	–	–			–	–	–	–	–	–	–	–	–	–	–	–	–	–

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AIR ..EFUELING AIR TRAINING REPORT - PART I | UNIT: 42d Air Refueling Squadron | MONTH: Sept. 1956 | PAGE NR: 2 | N... PAGES: 3 | REPORTS CONTROL SYMBOL: 9-SAC-...

A. GENERAL					B. AIR REFUELING										C. RADAR RENDEZVOUS						D. NAVIGATION							
1.	2	3	4	5	6		7		8		9		10		11		12		13		14	15				16	17	18
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	TOTAL REFUELINGS		DAY REFUELINGS		NIGHT REFUELINGS		IN RADIO SILENCE		KC-97 FIGHTER REFUELINGS 20,000 LBS		TOTAL RENDEZVOUS		MULTIPLE RENDEZVOUS PATTERN		AN/APN-12-76		NR OF DAY CELESTIAL NAVIGATION LEGS	NIGHT CELESTIAL				NUMBER OF RADAR NAVIGATION LEGS	NR OF PRESS. PATTERN LEGS (SCR-718)	NUMBER OF LORAN NAVIGATION LEGS
					ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		TOTAL LEGS	CIRCULAR ERROR 1	CIRCULAR ERROR 2	CIRCULAR ERROR 3			
6-10	11-15	17-19	21-23	26-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-52	52-54	56-58	60-62	63-65
T14	KC-97G	009	046	-	003	003	002	002	001	001	002	002			002	002	001	001	001	001	-	-	-	-	-	002	-	-
T15	KC-97G	004	029	-	001	001	-	-	001	001	001	001			001	001	001	001	-	-	001	001	022	-	-	001	-	002
T16	KC-97G	005	024	-	001	001	-	-	001	001	-	-			-	-	-	-	-	-	002	001	007	-	-	001	-	-
T17	KC-97G	006	043	-	004	004	002	002	002	002	003	003			003	003	-	-	002	002	001	002	002	006	-	001	001	002
T19	KC-97G	009	043	-	004	004	002	002	002	002	004	004			002	002	001	001	002	002	001	001	009	-	-	007	-	001
T20	KC-97G	007	040	-	004	004	003	003	001	001	002	002	Not Applicable	Not Applicable	002	002	001	001	001	001	-	-	-	-	-	002	-	-
T21	KC-97G	007	052	-	003	003	002	002	001	001	002	002			005	005	-	-	005	005	001	001	001	-	-	003	001	-
T22	KC-97G	007	044	-	002	002	-	-	002	002	001	001			001	001	001	001	-	-	002	002	010	012	-	003	002	002
T23	KC-97G	007	043	-	003	003	001	001	002	002	001	001			002	002	001	001	001	001	003	002	002	008	-	004	001	-
T24	KC-97G	001	012	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	001	-	-	-	-	-	001	001
CR Totals	-	106	654	-	046	046	021	021	025	025	029	029			034	034	010	010	023	023	021	021	117	059	008	039	012	018
M24	KC-97G	001	004	-	001	001	001	001	-	-	-	-			001	001	-	-	001	001	-	-	-	-	-	001	-	-
M25	KC-97G	005	038	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-	-	002	-	-
NCR Totals	-	006	042	-	001	001	001	001	-	-	-	-			001	001	-	-	001	001	-	-	-	-	-	003	-	-
Wing Totals	-	118	734	-	050	050	023	023	027	027	030	030			049	049	012	012	026	026	021	021	117	059	008	044	012	018

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AIR ( )UELING AIR TRAINING REPORT – PART I

UNIT: 42d Air Refueling Squadron | MONTH: Sept. 1956 | PAGE NR: 3 | NR OF PAGES: | REPORTS CONTROL SYMBOL: 9-SAC-[illegible]2

A. GENERAL					B. AIR REFUELING										C. RADAR RENDEZVOUS						D. NAVIGATION							
1	2	3	4	5	6		7		8		9		10		11		12		13		14	15				16	17	18
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	TOTAL REFUELINGS		DAY REFUELINGS		NIGHT REFUELINGS		IN RADIO SILENCE		KC-97 FIGHTER REFUELINGS 20,000 LBS		TOTAL RENDEZVOUS		MULTIPLE RENDEZVOUS PATTERN		AN/APN-12-76		NR OF DAY CELESTIAL NAVIGATION LEGS	NIGHT CELESTIAL				NUMBER OF RADAR NAVIGATION LEGS	NR OF PRESS. PATTERN LEGS (SCR-718)	NUMBER OF LORAN NAVIGATION
					ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		TOTAL LEGS	CIRCULAR ERROR 1	CIRCULAR ERROR 2	CIRCULAR ERROR 3			
6-10	11-15	17-19	21-23	26-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-52	52-54	56-58	60-62	63-65
5X Trng	KC-97G	001	006	–	–	–	–	–	–	–	–	–	Not Applicable	Not Applicable	–	–	–	–	–	–	001	002	–	–	–	002	002	002
Pract Trng	–	–	–	–	–	–	–	–	–	–	–	–			–	–	–	–	–	–	–	004	–	–	–	–	–	–

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REFUELING AIR TRAINING REPORT - PART II	UNIT: 42d Air Refueling Squadron	MONTH: Sept. 56	PAGE NR: 1	NR OF PAGES: 3	REPORTS CONTROL SYMBOL: 9-S[illegible]-T12

E. GEN	F. CEL GRID NAV.			G.P.P.	H. LOADING		I. EMERGENCY PROCEDURE DRILLS					J. CELL MISSIONS			K. STD. RD	MISCELLANEOUS										
19	20			21	22	23	24	25	26	27	28	29			30		32	33	34	35	36		38	39	40	41
CREW NUMBER	TOTAL LEGS	CIRCULAR ERROR 1	CIRCULAR ERROR 2	NUMBER OF COMPLETE PILOT PROF. MISSIONS	KC-97 LOAD. & UNLOAD. EWP PASS. OR CARGO	KC-97 PRECOMPUTATION OF MAX LOAD	NUMBER OF SIMULATED BAIL-OUTS	NUMBER OF SIMULATED DITCHINGS	NR OF SIMULATED CRASH LANDINGS (AIRCREW)	NR OF SIMULATED CRASH LANDINGS (MAX PASS.)	PASSENGER EMERGENCY PROCEDURE BRIEFING	TOTAL CELL MISSIONS	DAY CELL MISSIONS	NIGHT CELL MISSIONS	DATE OF LAST STANDARDIZATION CHECK	No Long Range Cruise Control Missions	Performance Index	Performance Index	No Dry Contacts Accomp.	Airborne Radar App.	A/C Take-Offs & Lndg	CP Take-Offs & Lndg.	A/C ILS or GCA	CP ILS or GCA	PPI	Gyro Out
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65												
T18	-	-	-	-	-	-	001	001	001	001	002	001	-	001	Jul	-	-	-	-	-	008	-	003	-	-	-
T02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Jun	-	-	-	-	-	-	-	-	-	-	-
T08	001	012	-	-	-	-	001	001	001	-	-	001	-	001	Sep	-	-	-	005	001	016	008	005	004	-	-
Stdbd Total	001	012	-	-	-	-	002	002	002	001	002	002	-	002		-	-	-	005	001	024	008	008	004	-	-
T01	002	005	007	-	-	001	004	002	003	-	004	001	-	001	Aug	002	092	096	061	002	010	007	004	003	-	-
	002	014	015																							
T03	-	-	-	001	-	002	002	002	003	-	003	-	-	-	May	002	092	098	014	001	006	004	004	002	1-	1-
T04	002	000	001	001	-	003	005	005	005	001	005	002	-	002	May	-	-	-	-	002	010	-	005	-	-	1-
T05	002	001	007	-	-	-	003	003	003	-	-	001	-	001	Aug	001	099	-	053	003	009	003	002	001	-	-
T06	001	015	-	001	-	003	003	003	003	002	002	-	-	-	Jun	001	091	-	012	003	003	001	001	001	1-	-
T07	001	004	-	001	-	003	008	008	008	006	008	-	-	-	Jul	001	094	-	018	005	016	-	008	-	2-	1-
T09	001	001	-	001	-	-	001	001	003	001	001	-	-	-	Apr	002	096	098	-	001	008	006	002	002	-	-
																001	099	-								
T10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	May	-	-	-	-	-	-	-	-	-	-	-
T11	002	006	013	-	-	002	004	002	003	001	001	001	-	001	Jun	-	-	-	-	-	009	-	003	-	1-	-

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REFUELING AIR TRAINING REPORT – PART II	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42d Air Refueling Squadron	Sept 56	3	3	9-SA[illegible]12

E. GEN	F. CEL GRID NAV.		G. P.P.	H. LOADING		I. EMERGENCY PROCEDURE DRILLS					J. CELL MISSIONS			K. STD. BD	MISCELLANEOUS									
19	20		21	22	23	24	25	26	27	28	29			30	31	32	33	34	35	36	37	38	39	40	41
CREW NUMBER	TOTAL LEGS	CIRCULAR ERROR 1	CIRCULAR ERROR 2	NUMBER OF COMPLETE PILOT PROF. MISSIONS	KC-97 LOAD. & UNLOAD. EMP PASS. OR CARGO	KC-97 PRECOMPUTATION OF MAX LOAD	NUMBER OF SIMULATED BAIL-OUTS	NUMBER OF SIMULATED DITCHINGS	NR OF SIMULATED CRASH LANDINGS (AIRCREW)	NR OF SIMULATED CRASH LANDINGS (MAX PASS.)	PASSENGER EMERGENCY PROCEDURE BRIEFING	TOTAL CELL MISSIONS	DAY CELL MISSIONS	NIGHT CELL MISSIONS	DATE OF LAST STANDARDIZATION CHECK	No Long Range Cruise Control Missions	Performance Index	Performance Index	No Dry Contacts Accomp.	Airborne Radar App.	A/C Take-Offs & Lndg.	CP Take-Offs & Lndg	A/C ILS or GCA	CP ILS or GCA	PPI	Gyro Out
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65											
M24	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	002	–	001	–	–	–
M25 NGR Trng	–	–	–	–	–	–	001	–	001	–	001	–	–	–		–	–	–	–	002	002	002	–	–	–	1-2
	–	–	–	–	–	–	001	–	001	–	001	–	–	–		–	–	–	–	002	004	002	001	–	–	1-2
Wing Total	038	174	190	007	001	027	056	054	061	026	048	015	–	015	–	023	1518	677	328	035	216	061	085	027	8-	8-5
SX Trng	002	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	018	025	006	011	-2	-2
Pract Trng	003	–	–	–	–	–	–	–	–	–	–	–	–	–		002	–	–	–	–	–	–	–	–	–	–

A. Average number of CR and higher catagory crews assigned: 23.8

B. Average number of CR and higher catagory crews available: 20.3

C. Average number of NCR crews assigned: 1.3

D. Average number of NCR crews available: 1.3

SAC Form [illegible] 36 [illegible] PREVIOUS EDITIONS ARE OBSOLETE. PO 370

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A[illegible] REFUELING AIR TRAINING REPORT – PART II	UNIT: 42d Air Refueling Squadron	MONTH: Sept. 56	PAGE NR: 2	[illegible] PAGES: 3	REPORTS [illegible]ROL SYMBOL: 9-SAC-T12

E. GEN	F. CEL GRID NAV.			G.P.P.	H. LOADING		I. EMERGENCY PROCEDURE DRILLS					J. CELL MISSIONS			K. STD. BD.	MISCELLANEOUS										
19	20			21	22	23	24	25	26	27	28	29			30	31	32	33	34	35	36	37	38	39	40	41
CREW NUMBER	TOTAL LEGS	CIRCULAR ERROR 1	CIRCULAR ERROR 2	NUMBER OF COMPLETE PILOT PROF. MISSIONS	KC-97 LOAD, & UNLOAD, EWP PASS, OR CARGO	KC-97 PRECOMPUTATION OF MAX LOAD	NUMBER OF SIMULATED BAIL-OUTS	NUMBER OF SIMULATED DITCHINGS	NR OF SIMULATED CRASH LANDINGS (AIRCREW)	NR OF SIMULATED CRASH LANDINGS (MAX PASS.)	PASSENGER EMERGENCY PROCEDURE BRIEFING	TOTAL CELL MISSIONS	DAY CELL MISSIONS	NIGHT CELL MISSIONS	DATE OF LAST STANDARDIZATION CHECK	No Lon Range Cruise Control Missions	Performance Index	Performance Index	No Dry Contact Accomp.	Airborne Radar App.	A/C Take-Off & Lndg.	CP Take-Off & Lndg	A/C ILS or GCA	CP ILS or GCA	PPI	Gyro Out
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65												
T12	002	004	012	–	–	–	–	–	–	–	–	–	–	–	Jul	–	–	–	–	002	004	–	001	–	–	–
T13	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Jun	–	–	–	–	–	–	–	–	–	–	–
T14	001	015	–	001	–	003	005	005	005	002	001	001	–	001	Sep	001	092	–	–	002	020	008	009	003	1-	1-
T15	002	008	012	–	–	–	–	–	–	–	–	001	–	001	Jul	002	092	096	–	–	006	–	004	–	–	–
T16	001	007	–	001	001	–	002	002	002	001	001	–	–	–	Aug	001	100	–	010	001	009	001	005	001	–	–
T17	002	005	014	–	–	003	003	003	002	001	003	001	–	001	Sep	001	099	–	008	002	014	004	005	002	–	–
T19	002	008	009	–	–	003	006	006	006	004	006	001	–	001	Jun	002	095	095	027	002	015	003	004	002	–	–
T20	002	007	017	–	–	003	003	003	004	003	002	001	–	001	Sep.	–	–	–	043	002	011	004	006	002	–	2-1
T21	002	005	009	–	–	–	–	–	–	–	003	–	–	–	May	001	094	–	065	001	014	004	004	003	1-	–
	002	010	035																							
T22	002	010	011	–	–	–	005	005	005	002	003	002	–	002	Jul	002	097	099	012	001	011	003	004	002	–	–
	001	018	–																							
T23	002	005	008	–	–	–	002	002	002	001	002	001	–	001	Jul	002	095	095	–	002	011	003	004	–	1-	–
	001	010	–																							
T24	002	003	020	–	–	–	–	–	–	–	–	–	–	–	Sep	001	091	–	–	–	002	–	001	–	–	–
[illegible] Totals	037	162	190	007	001	026	053	052	057	025	045	013	–	013	–	023	1518	677	323	032	188	051	076	024	8-	6-1

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B-36 AIR TRAINING REPORT - PART I	UNIT: 42d Bombardment Wing (H)	MONTH: September 1956	PAGE NR: 1	NR OF PAGES: 1	REPORTS CONTROL SYMBOL: 1-SAC-T12

A. GENERAL						B. RADAR ATTACKS - CAMERA SCORED					C. VISUAL ATTACKS - CAMERA SCORED				D. VISUAL RELEASES				E. M-19		F. NAVIGATION											G. MAXIMUM LOAD GUNNERY		
1	2	3	4	5	6	7			8	9	10	11	12	13	14	15	16	17	18	19	20					21	22			23	24	25		26
						RADAR OBSERVER			CO-OBSR	P.N.											NIGHT CELESTIAL						CELESTIAL GRID							
																						CIRCULAR ERROR						CIRCULAR ERROR						
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	TOTAL	IBDA	FIXED ANGLE	NUMBER	NUMBER	TOTAL NUMBER	RADAR OBSERVER	CO-OBSERVER	PHOTO-NAVIGATOR	TOTAL NUMBER	RADAR OBSERVER	CO-OBSERVER	PHOTO-NAVIGATOR	TOTAL RELEASES	CIRCULAR ERROR	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAVIGATION LEGS	TOTAL LEGS	1	2	NR OF RADAR GRID NAVIGATION LEGS	NR OF PRESS PATTERN NAVIGATION LEGS	NUMBER OF MAXIMUM LOAD GUNNERY MISSIONS	PER CENT FIRE-OUT	STRAT EVAL MAX LOAD GUN
6-10	11-15	17-19	21-23	26-27	30-31	34-35	38-39	42-43	46-47	50-51	14-15	18-19	22-23	26-27	30-31	34-35	38-39	42-43	46-47	48-51	14-15	17-19	21-23	25-27	29-31	34-35	38-39	41-43	45-47	50-51	53-54	57-58	60-62	64-65
L44	B36H	001	011	Crew disbanded and reformed as IN B-52 Crew-- 11 September 1956																		-	-	-	-	-	-	-	-	-	-	-	-	-
S -L Totals	-	001	011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R07	B36H	001	011	Crew disbanded and crew members utilized on B-52 Crews - 11 September 1956																					-	-	-	-	-	-	-	-	-	-
R67	B36H	001	011	Crew disbanded and crew menbers utilized on B-52 Crews - 11 September 1956																					-	-	-	-	-	-	-	-	-	-
CR Totals	-	002	022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wing Total	-	003	033	-	-	-	-	-	-		-	-	-		-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5X Trng	-	-	-	-	-	-	-	-	-	Not Applicable	-	-	-	Not Applicable	-	-	Not Applicable	-	-	-	03	-	-	-	-	-	-	-	-	-	-	-	-	-
Pract Trng	-	-	-	-	-	-	-	-	-		-	-	-		-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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B-36 AIR TRAINING REPORT - PART II

UNIT: 42d Bombardment Wing (H) | MONTH: September 1956 | PAGE NR: 1 | NR OF PAGES: 1 | REPORTS CONTROL SYMBOL: 1-SAC-T12

H. GENERAL | I. CAMERA GUNNERY | J. ECM (1st Radio Operator) | K. ECM (2d Radio Operator)

27 Crew Number	28 Total Missions	28 Number of Scored Attacks UFL	UFR	ULA	LLA	LRA	URA	29 Big Photo Record AN/ALT-6,8 or AN/APT-10 Runs	Points	AN/APT-6 or AN/APT-9 Runs	Points	30 Big Photo Spot AN/ALT-6,8 or AN/APT-10 Runs	Points	AN/APT-6 or AN/APT-9 Runs	Points	31 Big Snow Record Runs Runs	Points	32 Little Snow Record Runs Runs	Points	33 ECM Record Simulator Runs T-466/ALT-7 or ARQ-8 Runs	Points	34 T-466/ALT-7 or AN/APT-1 Runs	Points	35 AN/APT-10 AN/ALT-6 or 8 Runs	Points	36 AN/APT-9 Runs	Points	37 Big Photo or Chatter Runs Compl	38 Big Photo Record AN/ALT-6,8 or AN/APT-9,10 Runs	Points	39 Big Photo Spot AN/ALT-6,8 or AN/APT-9,10 Runs	Points	40 ECM Record Simulator Runs T-466/ALT-7 or ARQ-8 Runs	Points	41 T-466/ALT-7 or AN/APT-1 Runs	Points	42 AN/APT-9 Runs	Points
6-10	14-15	18-19	22-23	26-27	30-31	34-35	38-39	42-43	46-47	50-51	53-54	57-58	61-62	64-65	67-68	14-15	18-19	22-23	26-27	30-31	34-35	38-39	42-43	46-47	50-51	53-54	57-58	61-62	14-15	18-19	22-23	26-27	30-31	34-35	38-39	42-43	46-47	50-51
L44		See Part I																																				
S-L Totals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R07	See Part I																																					
R67		See Part I																																				
CR Totals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wing Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5X Trng	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pract Trng	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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B-36 AIR TRAINING REPORT - PART III	UNIT: 42d Bombardment Wing (H)	MONTH: September 1956	PAGE NR: 1	NR OF PAGES: 1	REPORT CONTROL SYMBOL: 1-SAC-T12

L. GENERAL	M. TAIL GUNNER		N. INTERCEPTS																O. DIRECTION FINDING							
43	44	45	46								47								48				49			
			PULSED SIGNALS								NON-PULSED SIGNALS								PULSED SIGNALS				NON-PULSED SIGNALS			
			NUMBER 1 OBSERVER		NUMBER 2 OBSERVER		NUMBER 3 OBSERVER		NUMBER 4 OBSERVER		NUMBER 1 OBSERVER		NUMBER 2 OBSERVER		NUMBER 3 OBSERVER		NUMBER 4 OBSERVER		NR 1 OBSR	NR 2 OBSR	NR 3 OBSR	NR 4 OBSR	NR 1 OBSR	NR 2 OBSR	NR 3 OBSR	NR 4 OBSR
			POINTS		POINTS		POINTS		POINTS		POINTS		POINTS		POINTS		POINTS									
CREW NUMBER	NUMBER OF LITTLE RIVER RUNS	NR OF MAX CHAFF "DISPENSE DUTY" MISSIONS	ATTEMPTED	ACCOMP	ATTEMPTED	ACCOMP	ATTEMPTED	ACCOMP	ATTEMPTED	ACCOMP	ATTEMPTED	ACCOMP	ATTEMPTED	ACCOMP	ATTEMPTED	ACCOMP	ATTEMPTED	ACCOMP	ACCOMP	ACCOMP	ACCOMP	ACCOMP	ACCOMP	ACCOMP	ACCOMP	ACCOMP
6-10	13-15	17-19	20-23	24-27	28-31	32-35	36-39	40-43	44-47	48-51	12-15	16-19	20-23	24-27	28-31	32-35	36-39	40-43	45-47	49-51	52-54	56-58	61-62	64-65	67-68	70-71
L44	See	Part	I																							
S-L Totals	-	-																								
R07	See	Part	I																							
R67	See	Part	I																							
CR Totals	-	-																								
Wing Total	-	-																								
5X Trng	-	-	Not Applicable							Not Applicable	Not Applicable							Not Applicable	Not Applicable			Not Applicable	Not Applicable			Not Applicable
Pract Trng	-	-																								

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B-36 AIR TRAINING REPORT - PART V

UNIT: 42d Bombardment Wing (H) | MONTH: September 1956 | PAGE NR: 1 | PAGES: 1 | REPORT SYMBOL: 1-SAC-T12

5. GENERAL	5a. ABN INTCP	5b. FORMATION			5c. PILOT PROFICIENCY												5d. CREW REQUIREMENTS						5e. CRUISE CONTROL					5f. AIR WPN	5g. RADAR SCOPE PHOTO		
56	57	58			59	60			61			62		63		64								71			72	73	74	75		76
						TAKE-OFFS			ILS OR GCA			PAR APPROACHES		GYRO-OUT		LANDINGS								PERFORMANCE INDEX						M-TGT RUNS		
CREW NUMBER	NUMBER OF ABNORMAL INTERCEPTS (All/ADC Fm)	TOTAL HOURS	HOURS ABOVE 30,000	HOURS BELOW 10,000	NUMBER OF PROFICIENCY MISSIONS	ACFT COMDR	PILOT	CO-PILOT	ACFT COMDR	PILOT	CO-PILOT	ACFT COMDR	PILOT	ACFT COMDR	PILOT	ACFT COMDR	PILOT	CO-PILOT	NUMBER OF AIRBORNE DIRECTED APPROACHES	UNPRESSURIZED FLIGHT ABOVE 14,000	MONTH OF LAST CREW STANDARDIZATION (RATING) BOARD EVALUATION	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	HOURS OF NIGHT CELL	NUMBER OF MISSIONS	1	2	LONG RANGE UNSUPERVISED	LONG RANGE SUPERVISED	NUMBER OF AIR WPN MISSIONS	ATTEMPTED	ACCOMP	NUMBER OF RADAR ROUTE MISSIONS
6-10	13-15	17-19	21-23	25-27	13-15	16-19	22-23	26-27	30-31	34-35	38-39	42-43	46-47	50-51	53-54	57-58	61-62	64-65	13-15	17-19		23-25	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65
L44	-	-	-	-	-	01	-	-	01	-	-	-	-	-	-	01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-L Totals	-	-	-	-	-	01	-	-	01	-	-	-	-	-	-	01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R07	-	-	-	-	-	01	-	-	-	-	-	-	-	-	-	01	-	-	001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R67	-	-	-	-	-	01	-	-	-	02	-	01	-	01	-	01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR Totals	-	-	-	-	-	02	-	-	-	02	-	01	-	01	-	02	-	-	001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wing Totals	-	-	-	-	-	03	-	-	01	02	-	01	-	01	-	03	-	-	001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5X Trng	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pract Trng	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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B-36 AIR TRAINING REPORT - PART IV

UNIT: 42d Bombardment Wing (H)

MONTH: September 1956

PAGE NR: 7

NR OF PAGES: 7

REPORTS CONTROL SYMBOL: SAC-T12

P. GENERAL | Q. ELECTRONIC RECONNAISSANCE RECORD RUNS AGAINST PULSED TYPE SIGNALS | R. WIRE RECORDING

P. GENERAL	Q. ELECTRONIC RECONNAISSANCE RECORD RUNS AGAINST PULSED TYPE SIGNALS																								R. WIRE RECORDING			
50	51 NUMBER 1 OBSERVER							52 NUMBER 2 OBSERVER							53 NUMBER 3 OBSERVER							54 NUMBER 4 OBSERVER							55 TOTAL LIVE WIRE RECORDING TIME OBSERVER			
CREW NUMBER	NR OF RUNS	INTERCEPT PROFICIENCY 1	2	3	D/F ACE 1	2	3	NR OF RUNS	INTERCEPT PROFICIENCY 1	2	3	D/F ACE 1	2	3	NR OF RUNS	INTERCEPT PROFICIENCY 1	2	3	D/F ACE 1	2	3	NR OF RUNS	INTERCEPT PROFICIENCY 1	2	3	D/F ACE 1	2	3	NR 1	NR 2	NR 3	NR 4
6-10	13-15	17-19	21-23	25-27	30-31	34-35	38-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	13-15	17-19	21-23	25-27	30-31	34-35	38-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	13-15	17-19	21-23	25-27
L44																																
3-2 Total s																																
RC7																																
R67																																
CT Total s																																
Wing Total																																
5X Trng	Not Applicable							Not Applicable							Not Applicable							Not Applicable							Not Applicable			
Fract Trng																																

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B-36 AIR TRAINING REPORT - PART VI	UNIT: 42d Bombardment Wing (H)	MONTH: September 1956	PAGE NR: 1	OF PAGES: 1	REPORTS CONTROL SYMBOL: 1-SAC-T12

AA. GENERAL	BB. WEATHER OBSERVATIONS										CC. MISCELLANEOUS														
77	78		79		80		81		82		83	84	85	86	87		89	90	91	92	93	94	95	96	97
	CONFIGURATION II CREWS						CONFIGURATION III CREWS																		
CREW NUMBER	FLIGHT LEVEL OBSERVATION POINTS		ACFT SOUNDING OBSERVATION POINTS		DROPSONDE OBSERVATION POINTS		FLIGHT LEVEL OBSERVATION POINTS		DROPSONDE OBSERVATION POINTS		RADAR RBS-CO-OBSERVER	RADAR RBS-PHOTO-NAVIGATOR	RBS VISUAL ATTACK-RADAR OBSERVER	RBS VISUAL ATTACK-PHOTO-NAVIGATOR	RBS VISUAL ATTACK-CO-OBSERVER	Sp. Weapons Simulator Missions	%FO Nose	%FO UFL	%FO URF	%FO RLA	%FO LLA	%FO LRA	%FO URA	%FO Tail	
	ATTEMPT.	ACCOMP	ATTEMPT.	ACCOMP	ATTEMPT.	ACCOMP	ATTEMPT.	ACCOMP	ATTEMPT.	ACCOMP															
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	57-58	61-62	64-65	67-68										
L44													See Part I												
S-L Totals											-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R07													See Part I												
R67													See Part I												
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70 III SQUADRON SEPT. SCHEDULE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9

1090 10 TRANSFER TO BIGGS
1096 10
1097 10 TRANSFER TO BIGGS
10 TRANSFER TO BIGGS

R-07
Hollin L-49
Smith R-67
Boston

Sched Fly Hrs
Accum Fly Hrs
Rem Total Fly Hrs
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Accum Sorties
Rem Total Sorties

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Attn: Archives Institute
Maxwell AFB, Alabama Branch

K-WG-42-Hi
Oct. 1956

HISTORY OF THE 42D BOMB WING (H)

1 THRU 31 OCTOBER 1956

(unclassified title)

at Loring AFB, Maine

Incl #3'

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HISTORY OF THE 42D HEAVY BOMBARDMENT WING

1 - 31 OCTOBER 1956

(unclassified title)

Loring AFB, Maine

Prepared for the Historical Section of the Information Services Office, 42d Air Base Group, by S/Sgt John J. Houlihan, under the supervision of Major Peter O. E. Bekker, Historical Officer.

(45th Air Division, Eighth Air Force, Strategic Air Command)

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F R O N T I S P I E C E

PHOTO OF:

COLONEL DONALD E. HILLMAN

COMMANDER

42D HEAVY BOMBARDMENT WING (SAC)

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TABLE OF CONTENTS

	PAGE
FRONTISPIECE	
FOREWORD	
ORGANIZATION, ADMINISTRATION AND PERSONNEL	1
THE MISSION AND ITS IMPLEMENTATION	6
Over-All Mission	6
Operations and Training	6
Mission Accomplishments	7
Projects and Developments	9
Flying Training	13
Ground Training	12
Status of Wing Air Craft	15
Maintenance And Materiel	16
Facilities	16
Personnel	17
Officer Manning	17
Airmen Manning	17
Civilian Personnel Status	18
ROSTER OF KEY PERSONNEL	19
LIST OF EXHIBITS	20

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FOREWORD

This report contains the History of the 42d Heavy Bombardment Wing for the period 1 through 31 October 1956. The origin and organization of this bomb wing are recounted along with important activities--mission and mission implementation, operations and training, maintenance and materiel, and personnel--being emphasized for the reporting period.

The information contained herein, relative to the History of the 42d Heavy Bombardment Wing at Loring Air Force Base, Maine, a unit of the 45th Air Division (SAC) covers activities of the wing and assigned organizations. It is related to previous monthly histories of the wing since its activation.

The present report was supervised by Major Peter O. E. Bekker, USAF, Historical Officer (Information Services Staff Officer), and written by Airman First Class John J. Houlihan, Historian.

Like other month's reports, this history is subject to change, and additional information or suggested corrections will be welcomed.

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ORGANIZATION, ADMINISTRATION AND PERSONNEL

Brief Unit History

The 42d Heavy Bombardment Wing was activated at Limestone Air Force Base, Maine, on 25 February 1953 and was assigned to the Eighth Air Force.[1] Actually, the 42d was "re-activated". The parent unit to the 42d Bomb Wing was the 42d Bombardment Group, Medium, Army Air Forces, which had served in the South Pacific during World War II.[2]

The three primary squadrons of the World War II bomb group--the 69th 70th and 75th[3] --were again "re-activated" with the 42d Wing.[4] During the war these bomb squadrons flew the B-25 "Billy Mitchell" bombers and were designated "Medium".[5] When activated again in 1953, the squadrons were re-designated "Heavy"[6] and the B-36 "Peacemaker" bomber became the primary aircraft.

During the fighting in the Pacific, the 42d Medium Bomb Group ditinguished themselves by winning many battle credits and a Distinuished Unit Citation.[7]

---

1. SAC GO 10, 25 Feb 1953/ per DAF Ltr 322 (AFOMO 410h), 24 Mar 1953
2. USAF Hist Div Study, Sep 1955: "Hist Data per 42d Bomb Group (M) 1941-1946".
3. Ibid., also "Hist Data per 69th, 70th and 75th Bomb Sqdns (H).
4. SAC GO 10.
5. WD Ltr, AG 320.2 (10-17-40), M (Ret) M-C, 20 Nov 1940.
6. DAF Ltr, 322 (AFOMO 410h), 24 Mar 1953.
7. Battle credits awarded group for China Defensive and Offensive (Cir 1, Hq 13th AF, 10 Jun 1946), and for action in the Bismarck Archipelago, Luzon, New Guinea, Northern Solomons (WD GO 12, 12 Feb 1946) and Southern Philippines (DA GO 29, 21 Apr 1948). For a mission near Balikpapan on the Isle of Borneo, Netherlands East Indies from 23-30 Jun 1945, the group received a Distinguished Unit Citation (WD GO 44, 13 May 1946).

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In 1946, while stationed in Japan, the 42d Bomb Group was de-activated.[8]

In this same year, 1946, a seemingly unrelated event was taking place back in the United States; the construction of a small airstrip in the northern part of Maine. Seven years later, at "Limestone Air Force Base"[9], the 42d was re-activated.

Original construction of the base itself was begun in the Winter of 1946-47. During the initial construction period, up to the winter of 1952-53, Limestone AFB was garrisoned by a small group of AF personnel.[10] The base did not come under the jurisdiction of Strategic Air Command until February 1953.[11]

When the 42d Bomb Wing was activated, the construction program went into high gear, hangars, docks, an extension to the runway, barracks--- many important facilities were initiated.

The first B-36 aircraft arrived during the latter part of March, 1953, just a few weeks after the wing had been activated. in April 1953 the wing launched its first training missions. By October 1953 not quite nine months after the wing was activated, the B-36 crews were flying more than 1,000 hours a month.[12]

---

8. GO # 60, Hq 5th AF, 20 Apr 1946, pursuant to instructions in WD Ltr AG 322 (26 Mar 1946), OB-I-E-M, 26 Mar 1946.
9. Named after Limestone Village, 7 miles from the base.
10. When first assigned, jun 1950, this group was designated a base detachment. Later re-designated 4215th Base Svc Sqdn, then 4215th Air Base Sqdn (the latter discontinued per SAC GO 10 when the 42d Wing was activated).
11. SAC GO 18, 21 Apr 1953.
12. Inscribed on plaque awarded WCO by Convair, 5 Dec 1955.

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At the time of activation, Brigadier General (then Colonel) Bertram C. Harrison, United States Air Force, was named commander. When the 45th Air Division was activated on 8 October 1954,[13] General Harrison became the new division commander and Colonel Jerome Tarter, USAF, took over as the wing commander.[14]

The 45th Air Division became the highest base echelon on activation in Oct 1954.[15] Another important change occured in Oct 1954 when the base was officially dedicated and re-named "Loring" on the first day of that month in honor of Major Charles J. Loring, Jr., a Maine jet hero, who was awarded the Congressional Medal of Honor, posthumously, for action in Korea.[16]

Before the air division came into being, the 42d Bomb Wing Headquarters had been the highest base echelon. The supporting units to the wing, the 42d Air Base Group, had been activated with the wing in 1953.[17] Under the division setup, the wing and air base group received equal status, ie. lateral communication with each other.[18]

The primary squadrons previously mentioned, were augmented in Feb of 1955, with the activation of the 42d Heavy Air Refueling Squadron.[19] The KC-97 tanker aircraft took its place on the flight line along with the bomb squadron's B-36s.

---

13. SAC GO 69, 8 Oct 1954 (Sec I).
14. Officers Roster, 45th AD, 1-31 Oct 1954 (RCS: 8 AF-PI). Brig. Gen, W. K. Martin, USAF, became div comdr 18 Jun 1955 and Brig. Gen Harrison was reasgd Ramey AFB, P. R.
15. See 45th AD Organ. Chart, Exhibit # 1.
16. DAF GO 34, 15 Sep 1954 (Par 6).
17. SAC GO 10, actually "re-activated", WW II parent was 42d Svc Gp., AAF, disbanded in Belgium 1945 [Ltr, Hq IX AF Svc Cmd, 22 May 45 (pursuant to WD Ltr, AG 322 OB-1-AFRPG-M, 4 Apr 1945]
18. SAC GO 10, Also see Exhibit # 1.
19. SAC GO 79, 8 Dec 54

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Activated with the wing to render maintenance support were the 42d Armaments & Electronics Maintenance Squadron, 42d Periodic Maintenance Squadron and 42d Field Maintenance Squadron.[20] A medical group was also activated (see below).[21] Necessary base support was made possible by the activation of the air base group squadrons,[22] and special attached units to group headquarters.[23]

Organizationally, the 42d Wing Headquarters was set up in two sections--the coordinating staff and the personal-specialist staff--which are directly responsible to the wing commander.[24] The wing coordinating staff--the directorates of personnel, materiel and operations--work on equal status with personnel, materiel and operations directorates of 42d Air Base Group Headquarters, and both staffs are responsible to the higher division directorates.[25] The wing personal/specialist staff includes[26] the comptroller, adjutant, air inspector, office of safety[27] and headquarters squadron.

The 42d Medical Group, activated as a wing unit in February 1953,[28] had been operating the base hospital function since activation. In Feb 1954, after being activated one year, the 42d Medical Group was re-designated the 42d Tactical Hospital.[29]

---

20. SAC GO 10.
21. Ibid.
22. See Exhibit # 1.
23. Ibid., listed, they are: 548th AAA Bn. (U.S. Army), 2-7 Weather Det (MATS), 3080th Aviation Depot Gp. (AMC), OSI Det., 524th AF Band, Resident Auditors, 1947th AACS (MATS) and 1292d AACS (MATS). The latter two organizations were combined 15 Jul 1956 (designated 1292d AACS).
24. See Exhibit # 1. Hq Agencies function IAW SAC Man 20-1, Dec 1954.
25. Ibid.
26. See Exhibit # 1.
27. Est. 1 Apr 1955 [per SAC Directive (8th AF Msg, CS 186, 8 Mar 1955]
28. SAC GO 10.
29. SAC GO 3, 27 Jan 1954.

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A month later, in March 1954, the base hospital which had been functioning since February 1953, was designated the 4034th USAF Hospital.[30] Lieutenant Colonel James G. Langford, USAF, who had been named commander of the base hospital, commanded the 42d Tactical Hospital -- the "flying" medical facility of the wing.[31]

Wing conversion to the B-52 "Stratofort" intercontinental bomber, was to occur in 1956.[32] The first assigned B-52 aircraft arrived in may 1956.[33]

Key personnel changes were also made in mid-1956. Col. Donald E. Hillman USAF, became the new wing commander 1 June.[34] The 42d Tactical Hospital changed command 24 August when Col. Vance H. Marchbanks, Jr., USAF, took over.[35]

The base construction program had been speeded up in 1955 to prepare for the all-jet B-52. Over one-thousand feet of concrete extensions were accomplished on both ends of the runway--plus taxiway shoulder stabilization. A huge double-cantilever maintenance hangar was finished and eleven new luria docks were begun. Other projects included fuel pipe lines, runway and taxiway lighting systems, and communications facilities.[36]

---

30. SAC GO 17, 15 Mar 1954.
31. Officers Roster, 45AD, 1-31 Mar 1954.
32. 8th AF Programming Plan 27-55, 26 Oct 1955.
33. Ibid., Incl. 2. Actually , 1st B-52 to land at Loring occurred 9 Jan 1956 (acft was conducting cold weather tests for Air Proving Grnds in flight from Eglin AFB, Fla. to Alaska).
34. Officers Roster, 45AD, 1-30 Jun 1956. See Frontispiece, photo of Col. Hillman, Col. Tarter, previous Comdr, was reasgd Hq USAF.
35. Officers Roster, 45AD, 1-31 Aug 1956. Previous comdr, Lt. Col. Langford, was reasgd Lockbourne AFB, Ohio.
36. AIO Program Status Report, MCP FY 56-57 (31 Dec 55).

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THE MISSION AND ITS IMPLEMENTATION

Over-All Mission

The 42d Heavy Bomb Wing was activated primarily, to administer a force capable of flying strategic bombardment operations to any part of the globe.[1] In performing this task the latest technical knowledge and advanced weapons are utilized.[2]

In addition to long-range bombardment, air-to-air refueling is a part of the wing mission.[3] Other tasks of the wing, secondary in nature, are the training of assigned United States Air Reserve personnel and/or units, and the participation by the wing in civilian emergencies, such as the assistance which might be rendered during a time of disaster.[4]

Aircrews and ground support units are constantly being tested in their work in order to maintain the highest possible degree of efficiency.[5]

Operations and Training

During the month of October the wing dealt with the plans for training missions in November and concentrated on the problems which are inherent in a wing striving to achieve combat-readiness. This is all part of the major goal of attaining a fully ready B-52 wing early in the calendar year 1957. The present operational status of the wing is depicted in a photographic display (see below).[6]

Continuing to be of major importance is the progress of the conversion to B-52s. At present this progress is being critically affected by the delays in aircraft delivery and the resultant shortage of available flying hours.[7]

---

1. 8th AF Reg 23-9, 1 Apr 1954, as amended.
2. Ibid.
3. 8th AF Reg 23-9A, 2 Feb 1955.
4. As outlined in AF Reg 23-9.
5. IAW B-52 Tng commitments and as dir by ops orders fr higher hq.
6. See Exhibit # 2.
7. See Exhibit # 3 (B-52 Conversion Progress Report # 12 for 45th AD (SAC).

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The Boeing Aircraft Company has stated that only 24 additional aircraft will be delivered by 31 January 1957. This schedule will result in only 44 aircraft at Loring as of that date provided no aircraft are transferred or diverted to other units. In order for the wing to be operationally ready, a minimum of 39 aircraft must be possessed and an average of 25 aircraft operationally ready. With only 39 aircarft possesed an in-commission rate of 64% must be maintained in order to meet the aircraft operationally ready requirements. Experience during September and October indicates that a 64% in-commission rate will be difficult to maintain considering the requirements of the "failure to fix" and TOC requirements. A more realistic estimate of maintenance capability would indicate an in-commission rate of 60% which would require a possessed aircraft strength of 42 in order to meet the requirements of 25 aircraft operationally ready. A further slippage in aircraft delivery, or the transfer or diversion of aircraft from Loring would result in less than 42 aircraft possessed as of 1 February 1957, and would jeopardize meeting the programmed operational readiness date.[8]

Mission Accomplishments

An evaluation of a 42d Bombardment Wing bomber stream mission was prepared to obtain an estimate of the quality of the crew and aircraft performance on the mission. In addition to a crew rating system, a comparison with the Eighth Air Force bomber stream mission, Pace Setter IV was made. Charts, an explanation of which follows, were used in making this comparison.[9]

---

8. Section II, B-52 Conversion Progress Report # 12 for 45th AD (SAC), Exhibit # 3.

9. See Exhibit # 4 (Monthly Analysis Hq 45th AD: RCS: SAC U-54 (8AF A-1).

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Chart Number 1 (Navigation Reliability): The number of navigation legs with a CE of less than 32 miles against the number of scored legs flown was used to obtain the present reliable. The relatively low reliability was caused by one unreliable run attributed to crew error. with the exception of this leg, the observer of this crew has a CEA of 8.9 miles.[10]

Chart Number 2 (Bombing Reliability-Richmond): The 42d Bomb Wing reliability on this target on this target was 90.9 percent with one run over 3500 feet attributable to equipment malfunction. The wing CEP and CEA were below 8th Air Force and the CEP was below that of the 310th Bomb Wing which had the best CEP.[11]

Chart Number 3 (Bombing Reliability-Springfield): The wing reliability on this target was slightly better than 8th Air Force. The wing CEA was also lower than the 8th Air Force CEA. The one unreliable run was attributed to poor choice of aiming point.[12]

Chart Number 4 (Bombing Reliability-Montreal): The wing reliability on Monteal was 100 percent with only one unit in 8th Air Force obtaining a better CEA or CEP.[13]

Chart Number 5 (Bombing Reliability-All Targets): The wing reliability on bombing was 94.1 percent against the 8th Air Force 90.9 percent. The wing was second on average circular error and had a better CEP than any other unit. It should also be noted that the wing had no gross errors on this mission.[14]

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10. See Exhibit # 4 [Monthly Analysis Hq 45AD RCS: SAC U-54 (8AF-A-1)].
11. Ibid.
12. Ibid.
13. Ibid.
14. Ibid.

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Chart Number 6 (Outstanding Crews): Four crews met the requirement of making three bombing runs with both CEA and CEP below 1500 feet. The wing percentage was 30.8 of the participating crews designated outstanding.[15] The best crew had a CEA of 907 feet.

Chart Number 7 (Abort Rate): The wing abort rate was the weakest item in the comparison. One abort was attributed to bomb site error and one to equipment malfunction. Four aborts resulted from crew in-flight maintenance error which occured when the observer installed a tube improperly in its socket resulting in power loss to the bomb nav system, which prevented camera verification of the navigation leg in addition to accomplishing the bombing runs. One other navigation leg was lost because of camera malfunction.[16]

Two ther missions were conducted during the month of October. The first "Devil Fish" on the 3rd of October,[17] and "Fur Collar I" on Oct. 10th.[18] Further information on the results of these missions will be included in the November history of the 42d Bomb Wing.

Projects and Developments:

The wing drafted and reproduced a revision of the 42d Bomb Wing "Flip Card" for pilots, Subject: NRT-EPR-IN CLIMB.[19] The climb power setting information on this one card was previously presented on two separate cards. Improvement in layout permits presentation of the same information in this more simple and direct format.

15. See Exhibit # 4. (Monthly Analysis Hq 45AD RCS: SAC U-54 (8AF-A-1)).
16. Ibid.
17. See Exhibit # 5. (Photos of Opn "Devil Fish").
18. See Exhibit # 6. (Photos & Opns plans "Fur Collar II" Hq 42BW, 31 Oct 56).
19. See Exhibit # 7. (42d BW "Flip Card" for pilots, Subj: NRT-EPR IN CLIMB).

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Wing Regulation 66-9,"MA6A Systems Malfunction Analysis" has been re-written. The purpose of this regulation is to set up a definite procedure to follow in providing the Malfunction Data Collection Analysis Unit with all the facts necessary for the 252 (Radar Operator Report on K-System) and 190 (Flight Line Aircraft Malfunction and/or Abort Record) reports.[20]

The present Observer Flip Card Check List does not accurately provide for a complete MA6A Ground Acceptance Check of the Bomb-Nav System. In Order to correct this situation a "MA6A Ground Acceptance Check" has been written and distributed to the B-52 Observers, Quality Control, PMS, and A&E Squadron Technicians. The Check is undergoing tests by the mentioned sections and corrections and additions are being made thereto. It is anticipated that a final check will be resolved and published for the use of all concerned. Also it is understood that SAC or WADC is in the process of writing a similar check sheet.[21]

The wing revised and published 42d Bomb Wing Operations Memo B10-6,[22] Subject: B-52 Climb Power Setting, dated 22 Oct 1956. Previous climb procedure required a 20% totalizer reduction at best speed so as to approximate normal rated thrust. Actual flying experience didtated a decrease in the reduction of fuel flow to 15% of the fuel totalizer reading, as being more indicative of normal rated thrust.

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20. See Exhibit # 8. (42BW Reg 66-9 "MA6A Systems Malfunction Analysis")
21. See Exhibit # 9. (42BW "MA6A Ground Acceptance Check")
22. See Exhibit # 10.(Opns Memo B10-6 Hq 42BW "B-52 Climb Power Setting dtd 22 Oct 1956)

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Also, mandatory checks of indicated MR valves versus charted valves is now required at 10,000, 20,000 and 30,000 feet pressure altitude. Previously a check was additionally required at 5,000 feet, which has since been found to be impracticable because it conflicts with other cockpit duties being performed at the initial portion of the climb.

A proposed supplement to 42d Bomb Wing Regulation 66-1 dated 25 Oct 1956 was written. The supplement outlines, in detail, the loading and flight sequencing of the 135,000 flight test fuel load.[23]

A change was also issued in B-52 standard Fuel Loading Requirements in the form of a 42d Bomb Wing letter, Subject: Fuel Loading, B-52 Aircraft dated 23 Oct 1956. The information contained in this letter is an interim revision of 42d Bomb Wing Regulation 55-4, dated 25 July 1956. Publication of this letter was necessitated by the immediate requirements to: (1) Change the test flight fuel load from 120,000 pounds to 135,000 in order to provide increased fuel reserve during winter test flight operations. (2) Decrease loading of external tanks from 19,500 pounds to prevent overflow when the aircraft is moved from cold outside temperatures to warm maintenance hangars.[24]

The wing reproduced and disseminated to the tactical bomb squadrons Boeing Aircraft Company dipstick data, published under the title "Use of B-52 Dipsticks". This data is advance copy of a revision to Tech Order 1B-52B-2 and is mandatory in converting B-52 fuel tank quantity levels (measured by a dipstick in inches) to gallons.[25]

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23. See Exhibit # 11 (Supp 2 to 42BW Reg 66-1 dtd 25 Oct 1956)
24. See Exhibit # 12 (Ltr Hq 42BW, Subj: "Fuel Loading B-52 Acft")
25. See Exhibit # 13 (Boeing Acft Co. dipstick data, Subj: Use of Dipsticks")

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To better process and analyze gross errors, 42d Bomb Wing Regulation 50-28 " Bombing Gross Error" has been published.[26] Also, 42BW Form 8,"Gross Error Bombing Report" has been rewritten to more completely cover the causes and recommendations pertaining to each Gross Error.[27]

A 42d Bomb Wing pamphlet was also published covering the subject "B-52 Take-Off Data for Briefing Officers", in accordance with SAC Regulation 55-37.[28]

A new Survival Display panel was prepared.[29] The wing crew of the month panel was posted for the month of September.[30] Loring Air Force Base placed third on Flying Safety within SAC for the month of August 1956.[31]

Ground Training:

The tempo of operational activities increased during October to such an extent that ground training accomplishments fell far below the level required by regulation and desired by this command.[32] A bomber stream mission, a USCM for the refueling squadron and an alert, caused poor attendance at most scheduled ground training activities, and the complete cancellation of others.[33]

Of particular concern was the poor support of the SACR 50-24 Phase III Ground Training requirement for non-aircrew personnel, consisting of eight hours of training in CBR subjects.[34]

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26. See Exhibit # 14 (42BW Reg 50-28 "Bombing Gross Error" 1 Oct 1956)
27. See Exhibit # 15 (42BW Form 8 "Gross Error Bombing Report")
28. See Exhibit # 16 (42Bw Pamphlet "B-52 Take-Off Data for Briefing Off)
29. See Exhbit # 17 (Photo of Survival Display Panels)
30. See Exhibit # 18 (Photo of 42BW Crew of the Month for Oct 1956)
31. See Exhibit # 19 (Photo of Flying Safety Panel)
32. From Dir of Opns Hist Rep 1-31 Oct 1956, Hq 42BW, on file BISO-H.
33. Ibid.
34. Ibid.

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October being the second month of the training phase, two-thirds of assigned non-aircrew personnel should have had this information by the end of the month. Actually, for the seven wing units, percentages ranged from 6 to 65% complete, with the average falling at about 35%, far short of the goal. This matter has been brought to the attention of the commanders and has been made a special subject within the ground training apparatus.[35]

Participation in the SAC 50-43 program was much more satisfactroy, with eighthy-three crew members accomplishing all or part of their block and special training requirements. A reevaluation of these requirements will probably be necessary , however, due to the receipt late in the month of a revised SACR 50-43. This revised directive apparently leaves the ground training curricula largely to the discretion of the local commander for training items not required by SACR 51-19. The probable result will be a rduction of the training now required through the elimination of training items not considered to be of vital importance.[36]

Flying Training:

During October there were twelve gunnery missions flown and a fire out of 54% was attained. Low fire out was due for the most part to lack of replacement parts for the A-3A system. Another problem in the gunnery program has been the lack of a suitable trainer for gunners. A report of the problem areas in the training of B-52 gunners has been prepared and is being reviewed by this station.[37]

The new B-52 gunners A-3A Amplified Checklist has been completed and is now in use.[38]

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35. Ibid.
36. Ibid.
37. See Exhibit # 20 (Report of Problem Areas in Training of B-52 Gunners)
38. See Exhibit # 21. (B-52 Gunners 2 A-3A Amplified Checklist)

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Gunnery training was also being adversely affected by a lack of ANFE items, particularly potentiometers. An estimated sixty-five percent of gunnery training has been lost due to the shortage of fire control spares. A low fire-out rate, (wing average sixty-three percent) has resulted from numerous malfunctions of old type gun chargee which are not equipped with heaters and frequently freeze at altitude. A new gun charger incorporating heaters is under development, but is not expected to be available for several months. Some ANFE items have been procured. However, the quantity obtained is so little that fire-out rate has not improved significantly.[39]

Another problem area in gunnery training involves the T-1A Gunnery Radar Trainer with A 41B modification. This particular trainer has been found to be unsatisfactory since it is suitable for training only for the MD-5 radar system. Pending receipt of an A-3A trainer, due to arrive in March 1957, assigned gunners are receiving specialized training on a maintenance mock-up.[40]

Data has been received from Eighth Air Force and from the Boeing Aircraft Company to the effect that 500 pound and 750 pound practice bombs may be dropped from the center cluster rack. Boeing states that 250 pound bombs have never been dropped from a B-52; the wing therefore is making no further plans to use 250 pound bombs until and unless higher authority so directs.[41]

Delivery of the B-52 Simulator is not expected until March 1957. The building for this trainer is ready except for minor work which cannot be accomplished until the trainer arrives.[42]

The conversion program for accomplishing altitude indoctrination for crew members has been accomplished.[43]

---

39. See Exhibit # 3 (P. 12 B-52 Conversion Rep't # 12 For 45AD)
40. Ibid (p. 15)
41. Ibid (p. 14)
42. Ibid (
43. Ibid (p. 14)

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Altitude indoctrination scheduling will be continued for personnel wh-
currency is soon to expire.[44]

The wing now possesses a T-2A and a T-3 trainer, neither of which is converted to the B-52 configuration. The T-3 has been physically modified to approximate an MA6A trainer, but has been found to be unsatisfactory. The modification kit for the T-3 trainer is not expected until May or June 1957. A modification kit for the T-2A was to be shipped in October but has not yet been received. These inadequacies steadily become more critical as additional crew members report for duty.[45]

Status of Wing Aircraft:

As of 31 October 1956, the wing had on hand a total of twenty B-52 aircraft[46] and of these the in-commission rate for October was 62.5 percent.[47] Of the total number (twenty-one) of KC-97 aircraft within the wing during October the in-commission rate was 82.4 percent.[48][49]

Total time flown in the wings' B-52s during October was 744 hours.[50] This was against a programmed 942 hours for the month. The loss of flying time was attributed to T. O. C.s performed under project "Push Up" B-52s had to be stood down in order for the Boeing contractor team to perform the necessary work on the aircraft..[51]

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44. Ibid.
45. Ibid.
46. See Exhibit # 22 (Rept of Acft status 1-31 Oct 1956 Hq 42BW, RCS:1-AF-A1.
47. From 42BW Dir of Mat Rept for Oct 1956, on file at Hq 42ABG BISO-H.
48. See Exhibit # 22
49. From 42 BW Dir of Mat Rept for Oct 1956, on file at Hq 42ABG BISO-H.
50. See Exhibit # 22.
51. From 42BW Dir of Mat Rept for Oct 1956, on file at Hq 42ABG BISO-H.

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MAINTENANCE AND MATERIEL

Supply:

Improvement in the status of "Z" and "NONZ" account items has been slow and continues to restrict maintenance activities. Four "Z" account items are listed as critical, in addition to shortages of armament and electronic test equipment which are not listed in the "Z" account.[1] Although there has been some improvement in personal equipment, many items are still considered critical.[2]

The number of AOCP and anticipated AOCP items is increasing due to the lack of adequate stock levels. Supply effectiveness is only fifty-five percent. New stock level requirements are being reported as consumption experience is determined; however, additional requirements develop daily.[3]

AOCP (Aircraft Out of Commission For Parts) percent for the B-52 aircraft assigned the wing during the month of October was 0.00. The AOCP for the wings' KC-97 aircraft during the same period was 2.70 percent.[4] In connection with this the AFSD (to support the minor repair of J-57 engines has not been received and the expected publication date is apparently indefinite. The availability of an adequate stock level of engine parts has become critical.[5]

Facilities:

As yet only one Liquid Oxygen Storage Tank has been received and installed. The delivery of the additional tank required is expected in November.[6]

The approval for the modification of the D. C. Hangar doors has been received and the project is awaiting funding action and contract. This project will probably not be completed until after the first of the year. A contract has been awarded for B-52 inserts for the present doors with scheduled delivery early in January 1957.[7]

---

1. See Exhibit # 3 (par 1a Sec II B-52 Conv Rept for 8AD , # 12.)
2. Ibid (par 2b Sec II)
3. Ibid (par 2b Sec II)
4. Rept of Dir of Mat Hq 42BW for Oct 1956, on file Hq 42 ABG BISO-H.
5. See Exhibit # 3 (par 2c Sec II)
6. Ibid (par 3a sec II)
7. Ibid (par 3b sec II)

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PERSONNEL

The personnel picture of the 42d Bomb Wing remained substantially the same in October as it had in September. One major exception to this was noted in the improvement in the number of airmen MIRS (Manned in Required Specialties). For October the total number of airmen assigned to the wing who were not MIRS was 636,[1] as opposed to 772 not MIRS in September.[2]

Officer Manning:

During the month of October the wing was authorized an officer strength of 405 but had an assigned strength of 512. Of this total 446 officers were MIRS. The major reason for the gap between the number of authorized officers and the number assigned was primarily due to a group of former B-36 pilots who could not be effectively assigned to any authorized vacancies due to their status which included, awaiting DOS (Date of Separation), pend-EDCSA (Effective Date of Change of Strength Accountability).[3] The "% Quarterly Change" for the wing in October increased to ± 5.8 from ± 5.0 percent in September,[4] while the SAC Rating Score remained at 100.

Airmen Manning:

The total number of airmen assigned the wing in October increased to 2629 from the September total of 2540, while the number of airmen MIRS increased to 1993 from the September total of 1768.[5]

---

1. See Exhibit # 23 (Mgmt Cont Analysis for Oct 1956 Hq 42BW)
2. Refer. History 42BW for month of Sept 1956 on file Hq 42ABG BISO-H).
3. See Exhibit # 23.
4. Ibid.
5. Ibid.

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The losses of airmen for a projected 120 period on a skill level basis are expected to be particularly heavy among the 5 level airmen. A total loss of 104 is expected in this category. The loss expected among those airmen with a 7 level skill is eighth. In the 3 level category a projected 120 day gain of 34 is reflected.[6]

Civilian Personnel Status:

During the October period the 42d Bomb Wing and its assigned units were authorized a total of 35 civilian personnel. Three of these were assigned to 42d Bomb Wing Headquarters, while thirty-two are assigned to the 42d Field Maintenance Squadron. The number of personnel assigned equals the number authorized.[7]

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6. See Exhibit # 23 (Mgmt Cont Analysis for Oct 1956 Hq 42BW).

7. Information rec'd via telephone from Miss Dyer Off of Civ Pers LAFB).

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ROSTER OF KEY PERSONNEL
AS OF 31 OCTOBER 1956

COMMANDER	DONALD E. HILLMAN	COLONEL
DEPUTY COMMANDER	WOODROW P. SWANCUTT	COLONEL
DIR OF OPERATIONS	DON W. BAILEY	COLONEL
DIR OF MATERIEL	GERARD G. WOLKE	COLONEL
DIR OF PERSONNEL	HARVEY H. SMITH	LT. COL.
COMDR, 42d TAC HOSP	VANCE H. MARCHBANKS	COLONEL
ADJUTANT	FRANK WRIGGLESWORTH	MAJOR
COMDR, 69th BOMB SQ	ROBERT H. SCOTT	LT COL
COMDR, 70th BOMB SQ	JOHN R. RISHER	LT COL
COMDR, 75th BOMB SQ	WALTER C. STEWART, JR.	LT COL
COMDR, 42d AIR REF SQ	WILLIE H. SONNTAG	MAJOR
COMDR, 42d A & E Sq	TOM P. STEWART	LT COL
COMDR, 42D FM SQ	GEORGE A. LINKO	LT COL
COMDR, 42D FM SQ	LORENZO CALIENDO	MAJOR

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LIST OF EXHIBITS

1. Organization Chart 45th Air Division.
2. Operational Photos.
3. B-52 Conversion Progress Report # 12 For 45th Air Division (SAC) .
4. Monthly Analysis (RCS: SAC U-54 (8AF-1) Hq 45th Air Division (SAC).
5. Photos Operation " Devil Fish".
6. Photos and Operations Plans for "Fur Collar II" Hq 42BW 31 Oct 1956.
7. 42BW "Flip Card" for pilots, Subject: NRT-MPR SETTING-IN CLIMB.
8. 42BW Reg 66-9 "MA6A SYSTEMS MALFUNCTION ANALYSIS".
9. 42BW "MA6A GROUND ACCEPTANCE CHECK".
10. Operations Memo B10-6 Hq 42BW "B-52 Climb Power Setting" 22 Oct 1956.
11. Supp 2 to 42BW Reg 66-1 "Test Flight, B-52 Aircraft" 25 Oct 1956.
12. 42BW Ltr Subject: Fuel Loading, B-52 Aircraft 23 Oct 1956.
13. Boeing Aircraft Co. dipstick date, Subject: "USE OF DIPSTICKS".
14. 42BW Reg 50-28 Subject: Bombing Gross Error 1 Oct 1956.
15. 42BW Form 8, Subject: Gross Error Bombing Report.
16. 42BW Pamphlet , Subject: B-52 Take-Off Data For Briefing Officers.
17. Photo of 42BW " S U R V I V A L " panel.
18. Photo of 42BW " Crew of The Month" panel.
19. Photo of 42BW "Flying Safety" panel.
20. Report of Problem Area in The Training of B-52 Gunners.
21. 42D ABG Form 409, Subject: B-52 Gunners A-3A Amplified Checklist.
22. AF Form 110A "Report of Aircraft Status And Purpose of Flight" for 42BW 1 thru 31 Oct 1956.
23. Part I Management Control Statement Hq 42BW October 1956.

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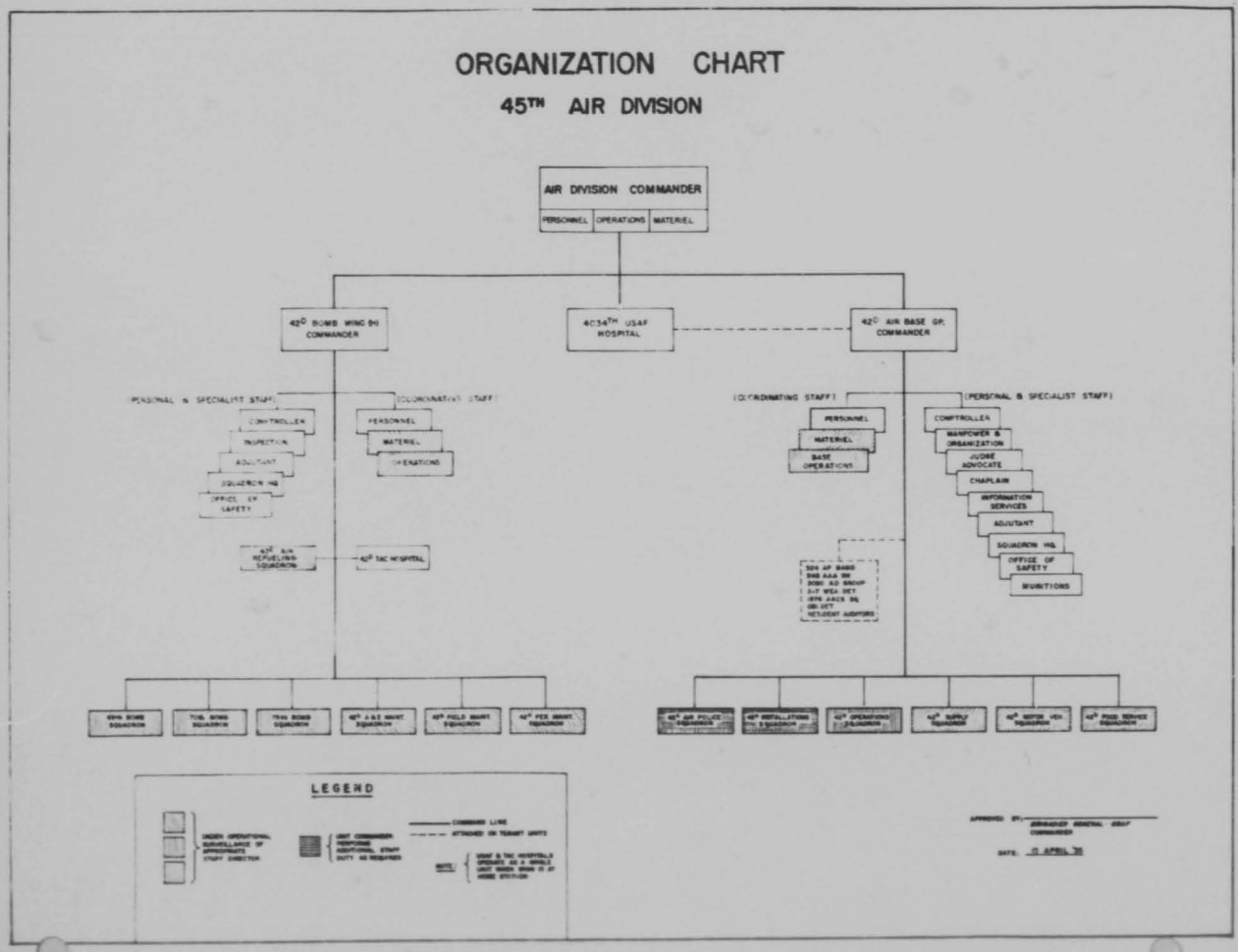
ORGANIZATION CHART

45TH AIR DIVISION



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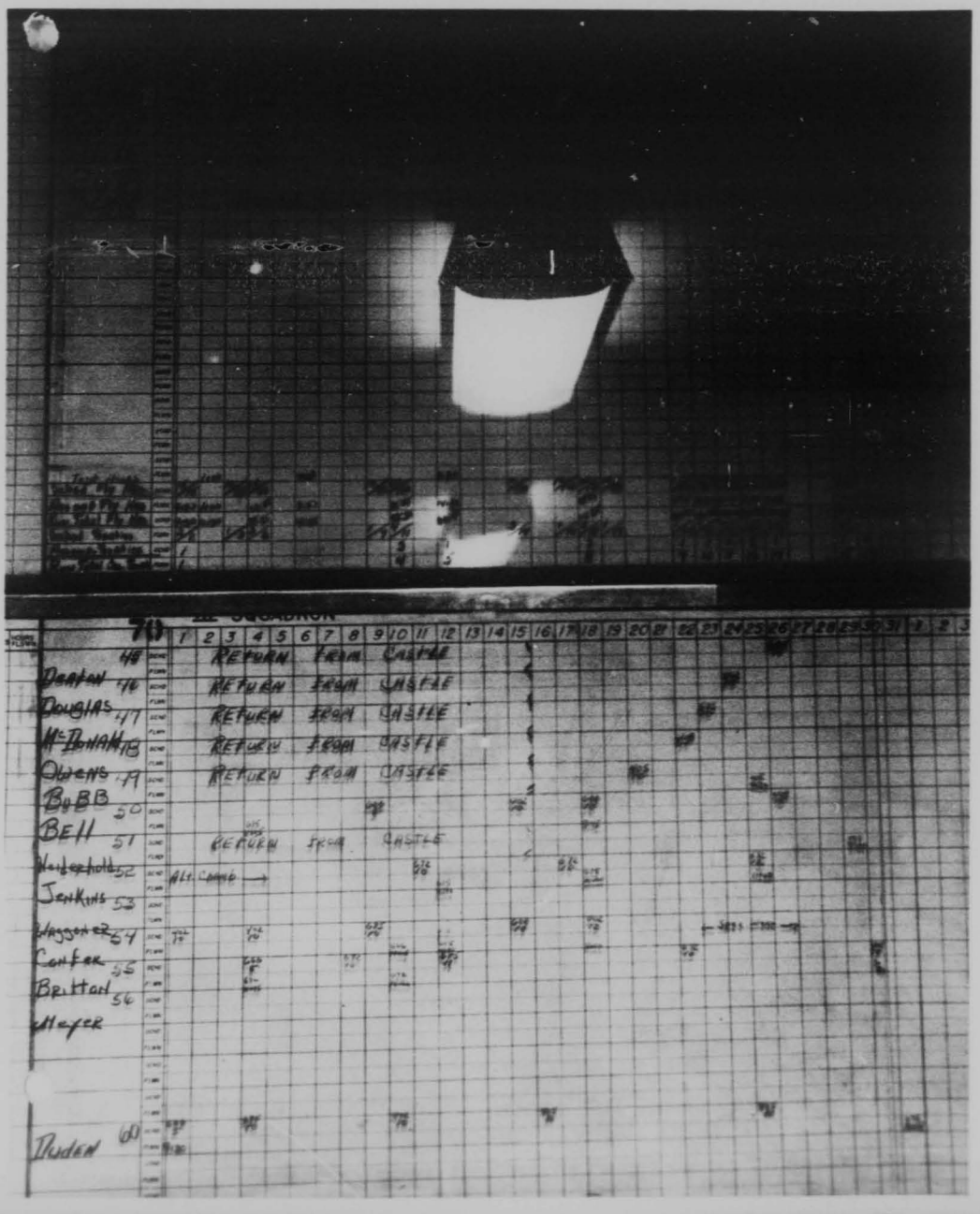

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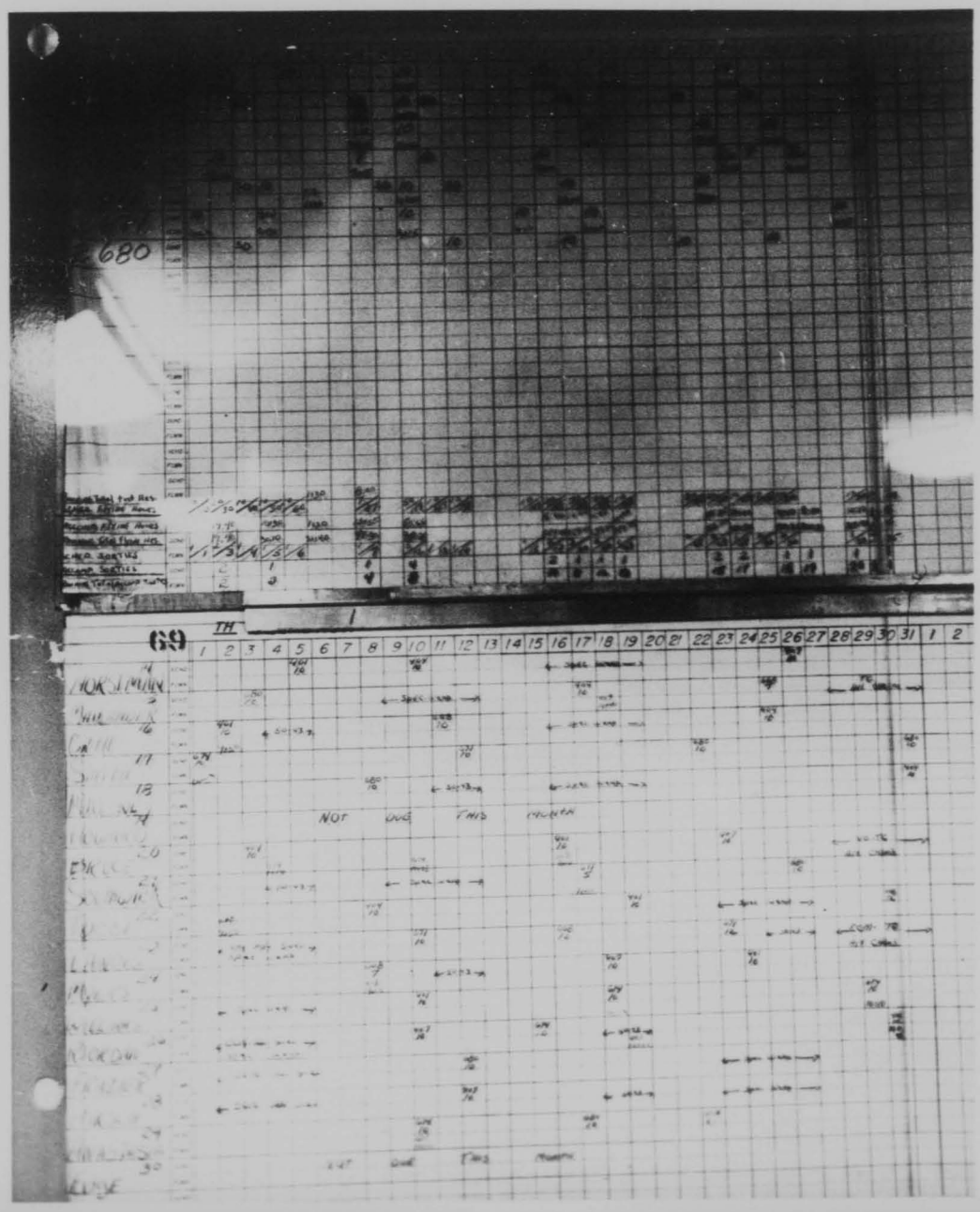

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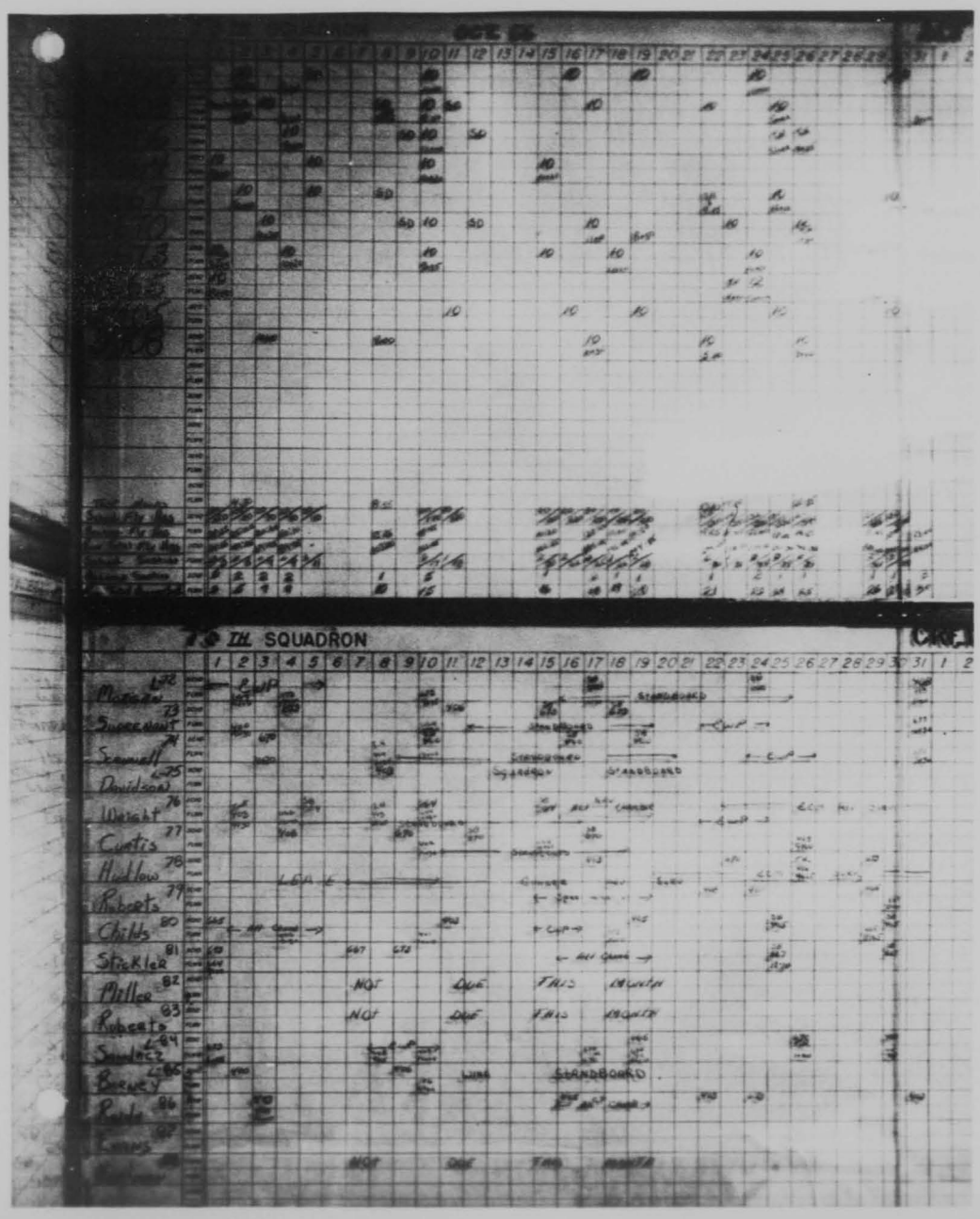

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69TH SQUADRON 50-43 FLYING TRAINING

AS OF 31 [illegible] 56

CREW	PROFICIENCY: INSTR FLY	GCA	JET PENET	PILOT PROC	T.O. & LAND	AIR REF	GUN	BOMB	NAVIGATION	ECM	WATER TAKE-OFF	REMARKS
Horstman 14	2:00 4:00	6 3	1	2:00 2:00	4 2 1		1	1 5	1 1 1 4	6 2 2 2 2		55
Mailander 15	4:00 2:00	3 3	4	5:00	4	5 3	1	5	1 1 1 3 4 2 1	2 3 3:30 3:30		62
Orth 16	3:00 3:30	6 2	1	1:00 1:00	4 1		1	6	1 4 5 4	2 6 2 1 1 6:00 6:00		71
Smith 17	7:30 1:00	5	2	4:05	4 1	7	2	2 6 1	2 1 3 2 1	1 1 2 2		57.5
Maloney 18	2:00	2	1	2:00	1 1			2	1 1	4:40 2:25		20
Howard 19							1					
Bruce 20	[illegible] 8:00	6 2	6 1	6:00 6:00	4 2	1 2	1 2	6 20 1	2 2 5 6 4 2 1	1 6 2 3 3 6:00	1	135
Southwick 21	6:00 3:00	6 3	4		4 1	4		1 8	2 6 1 1	2 6 3 1 2 1 4:00		[illegible]
Tucci 22	3:55 2:00	6 3	4	7:00 4:00	4 2 1	10 4		14 1	2 1 6 4 3 1	6 2 2 2 3 3 5:00		[illegible]
Lanois 23	2:00 3:30	1 3				3			1 3	2 2		[illegible]
Myers 24	7:20 4:00	2 3	1		4	5	1	4	2 5 1 1	6 3 3		14
Williams 25	4:00 4:00	6 3	1		1 1	1	1	4	1 3 3 2 1	2 6 1 1 1 2 1		50
Riordan 26	2:00 5:30	6 2	1		3 1	15 4		8	1 2 1 6 2 3	2 6 3 3 1:00 1:00		76.5
Frazier 27	10:00 4:30	6 3	6	7:00	4 1	15 4 1		6 20 1	6 4 3 1	2 6		[illegible]
Hirsh 28	4:00 4:30	4 3	1 1		4	9		4	1 3 1 1	2 6 2 2:30 2:30		[illegible]
Anastasia 29	10:00 8:00	6 2	1 1	7:00 5:00	4 2 1	3 1	2	1 7 1	2 3 6 4 1	4 2 2 3 5:00 5:55	1	39
Edge 30												

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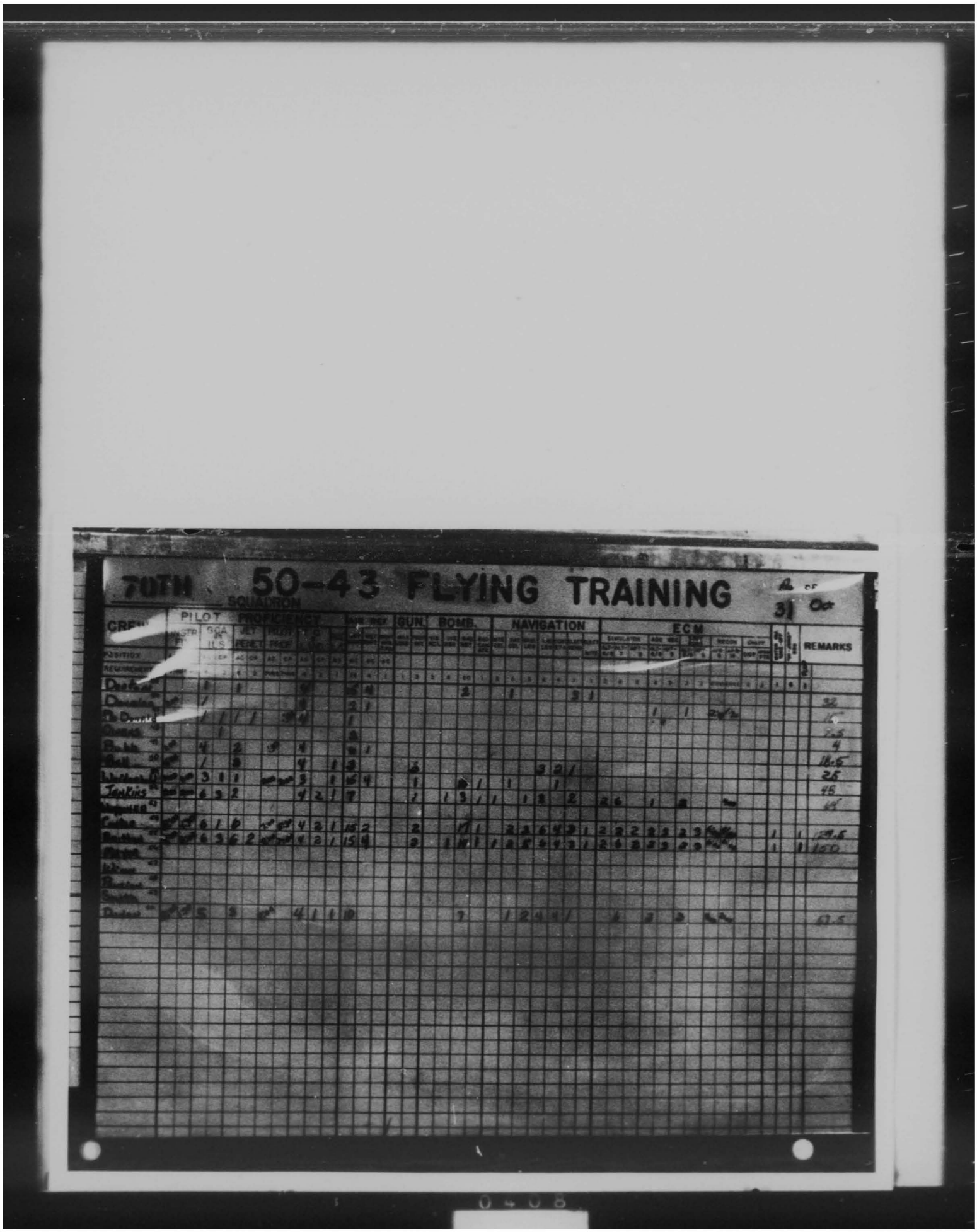

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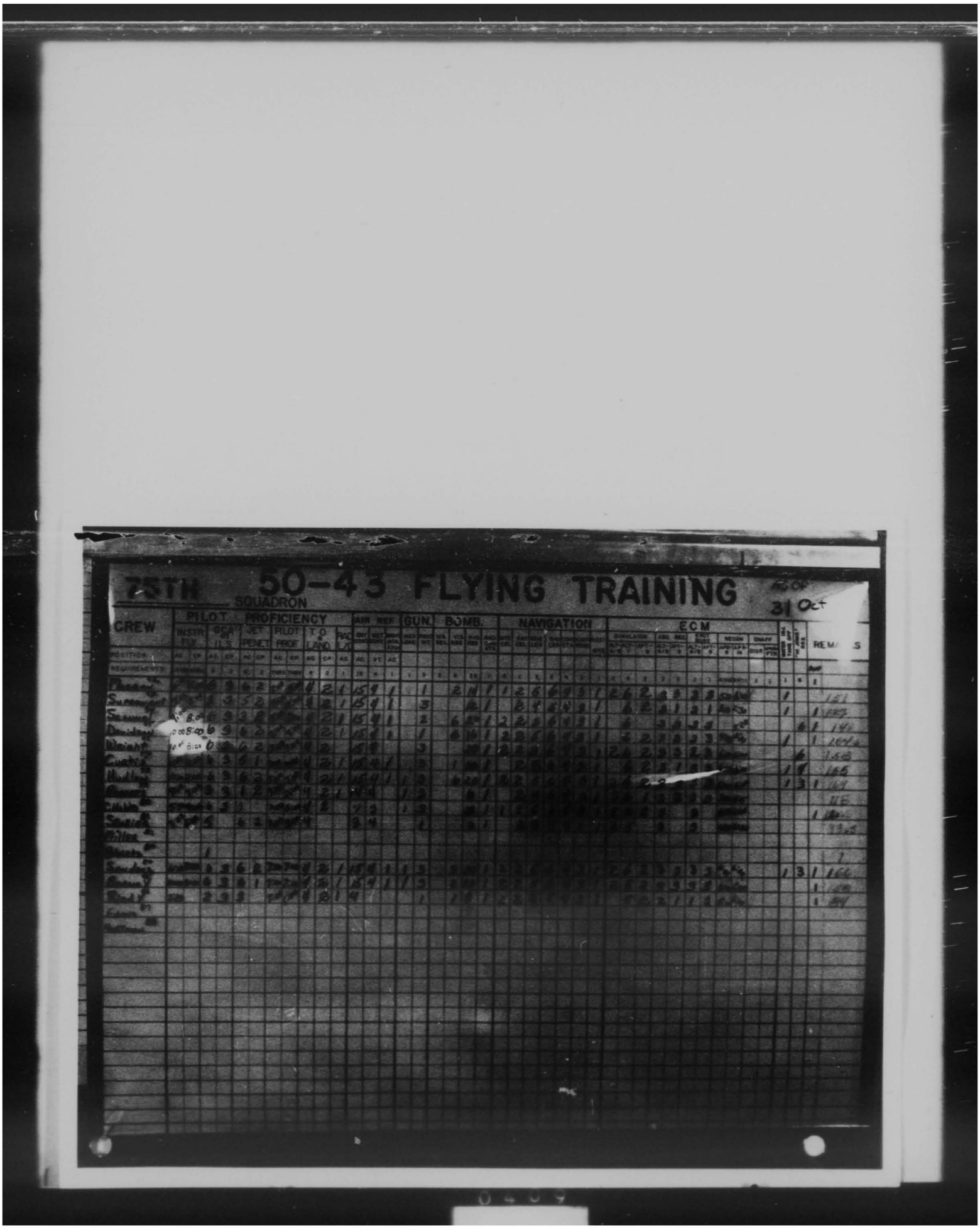

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—BOMBING PROFICIENCY—

CREW	VO	RADAR CEA MONTH	RADAR CEA QUARTER	RADAR CEA 180 DAYS	VISUAL CEA MONTH	VISUAL CEA QUARTER	VISUAL CEA 180 DAYS
14	Marcott	2 3100			1 570		
15	Daniel						
16	KIMBALL	3 2823					
17	Aquilar					2 935	
*18	Massie	2 4220					
19	Low						
*20	Scott	14 1476				9 1316	
21	Ahlstedt	8 1706					
22	NORMAN	5 2558					
23	Kirch	4 1828					
24	Rainoldi	4 1738					
25	Gillespie	4 2113					
26	Martin	8 1810					
27	Tapcic						
28	Bushee						
29	Lang	3 1763				1 2050	
30	Reus						

—NAVIGATOR PROFICIENCY—

AS OF 31 OCT 56

NAVIGATOR	NITE X MONTH	NITE X QUARTER	NITE X 180 DAYS	GAR MONTH	GAR QUARTER	GAR 180 DAYS
Taylor, R.						
Correppoli	1 24	1 24				
Watnee				2 13	2 13	
Doyle				1 16		
Damoud						
McCloskey						
Rolby	1 19			1 02	5 17	
Acquabiva						
BURNETT					1 13	
Schwight						
Pullen						
Brown, G.R.						
MacKendren						
Cheever						
Javurek	1 22					
Hewes		-	-		2 17	
Russell						

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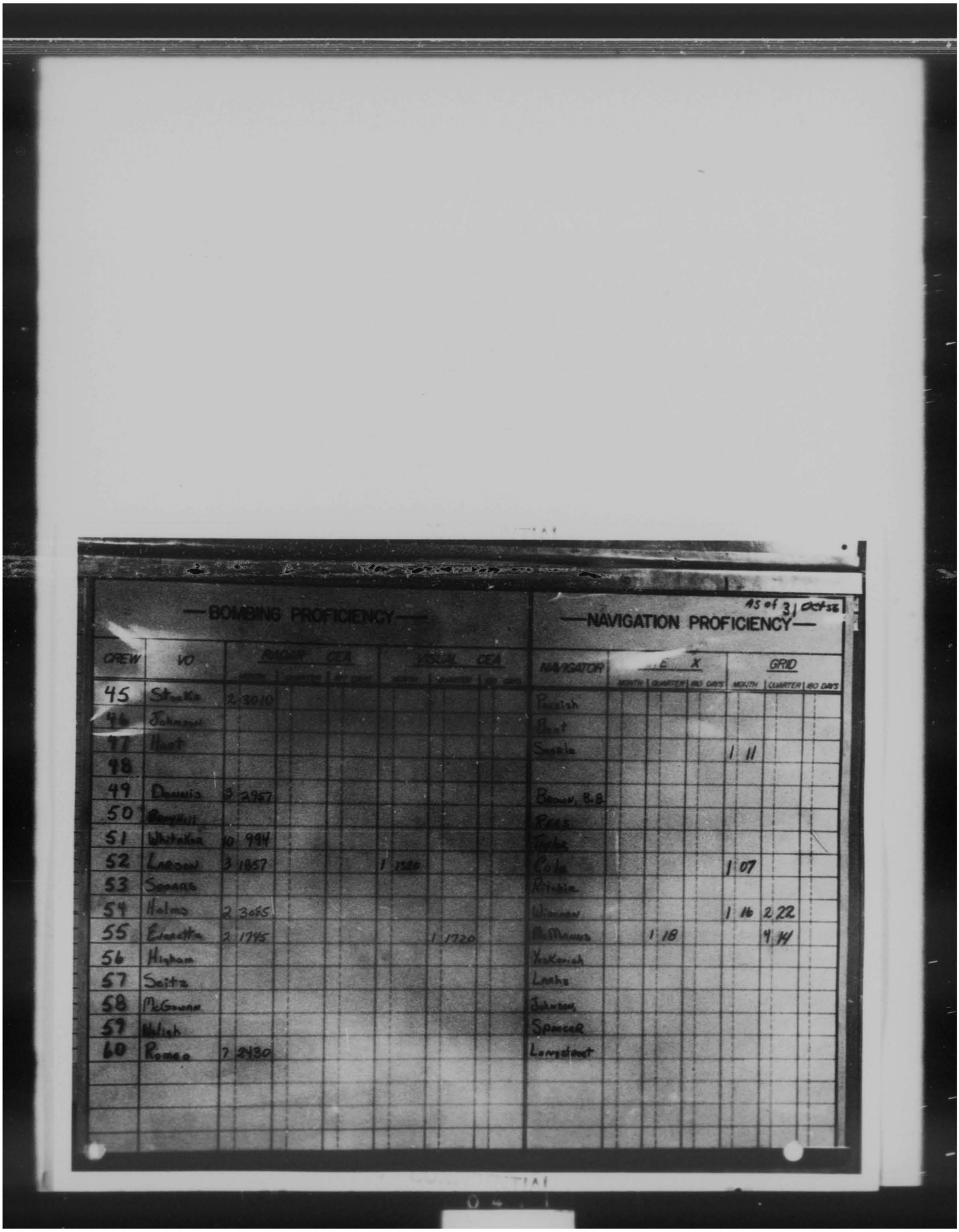

AS of 31 Oct 56

—BOMBING PROFICIENCY—												—NAVIGATION PROFICIENCY—									
CREW	VO	RADAR CEA				VISUAL CEA						NAVIGATOR	[illegible]E X				GRID				
		MONTH	QUARTER	180 DAYS		MONTH	QUARTER	180 DAYS					MONTH	QUARTER	180 DAYS		MONTH	QUARTER	180 DAYS		
45	Stocks	2	3010									Parrish									
46	Johnson											Best									
47	Hart											Searle					1	11			
48																					
49	Dennis	3	2957									Brown, B.B.									
50	Bray Hill											Rees									
51	Whitaker	10	994									Taylor									
52	Larson	3	1857			1	1320					Cole					1	07			
53	Spears											Ritchie									
54	Helms	2	3085									Wiseman					1	16	2	22	
55	Everette	2	1745					1	1720			McManus		1	18				4	14	
56	Higham											Yeskevich									
57	Seitz											Laahs									
58	McGowan											Johnson,									
59	Walsh											Spencer									
60	Romeo	7	2430									Longstreet									

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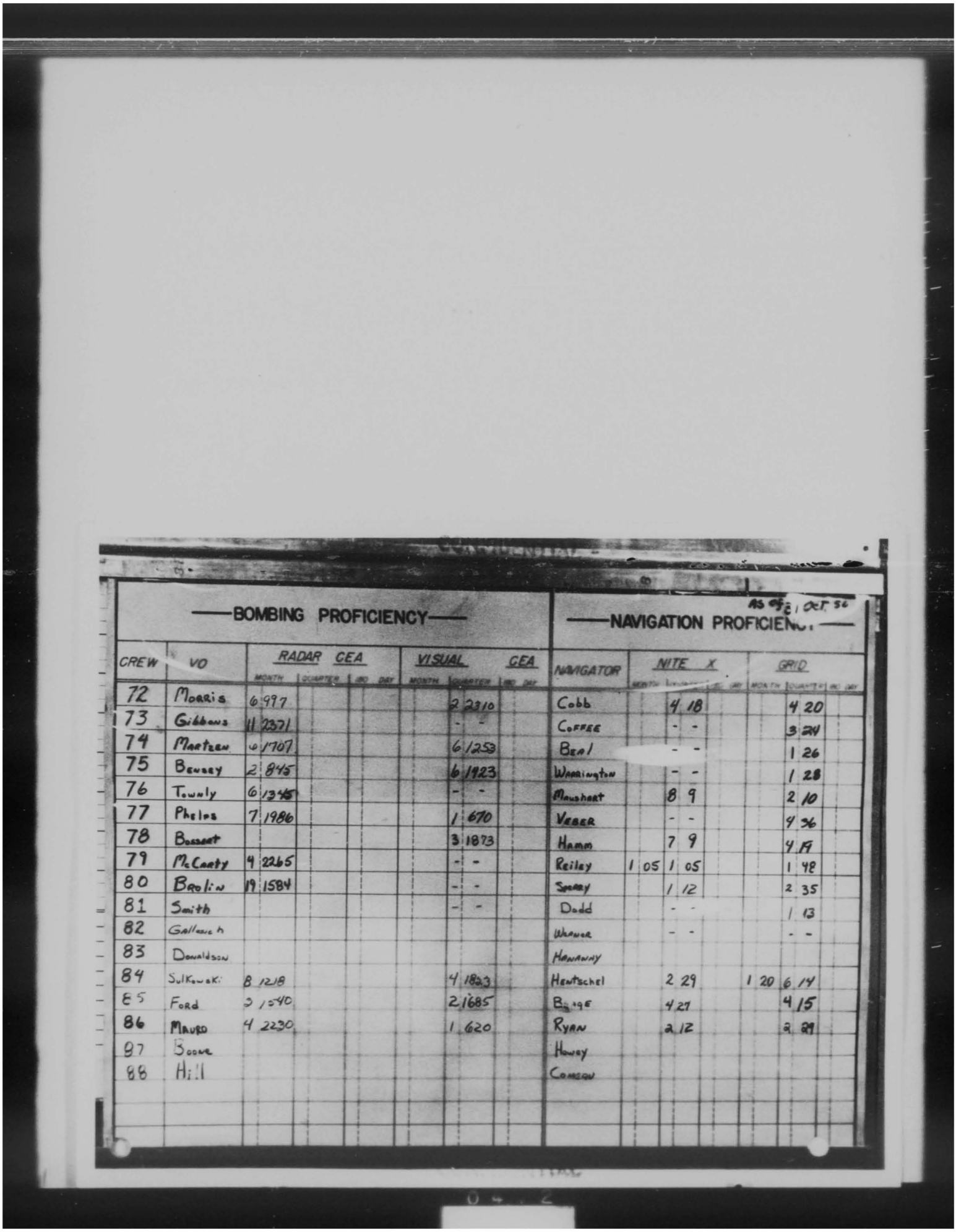

——BOMBING PROFICIENCY——

CREW	VO	RADAR BOMBING MONTH	RADAR BOMBING QUARTER	RADAR GEA 3RD	RADAR GEA DEV	VISUAL BOMBING MONTH	VISUAL BOMBING QUARTER	VISUAL GEA 3RD	VISUAL GEA DEV
72	Morris	6	997				2 2310		
73	Gibbons	11	2371				- -		
74	Martzen	6	1707				6 1253		
75	Bewsey	2	845				6 1923		
76	Townly	6	1345				- -		
77	Phelps	7	1986				1 670		
78	Bassett						3 1873		
79	McCarty	4	2265				- -		
80	Brolin	19	1584				- -		
81	Smith						- -		
82	Gallowich								
83	Donaldson								
84	Sulkowski	8	1218				4 1823		
85	Ford	2	1540				2 1685		
86	Mauer	4	2230				1 620		
87	Boone								
88	Hill								

——NAVIGATION PROFICIENCY——

As of 21 Oct 56

NAVIGATOR	NITE X MONTH	NITE X QUARTER	NITE X 3RD	NITE X DEV	GRID MONTH	GRID QUARTER	GRID 3RD	GRID DEV
Cobb		4 18				4 20		
Coffee		- -				3 24		
Beal		- -				1 26		
Warrington		- -				1 28		
Mansheart		8 9				2 10		
Veber		- -				4 36		
Hamm		7 9				4 19		
Reiley	1 05	1 05				1 48		
Searey		1 12				2 35		
Dodd		- -				1 13		
Wagner		- -				- -		
Hennanny								
Hentschel		2 29			1 20	6 14		
Bragg		4 27				4 15		
Ryan		2 12				2 29		
Hovey								
Comeau								

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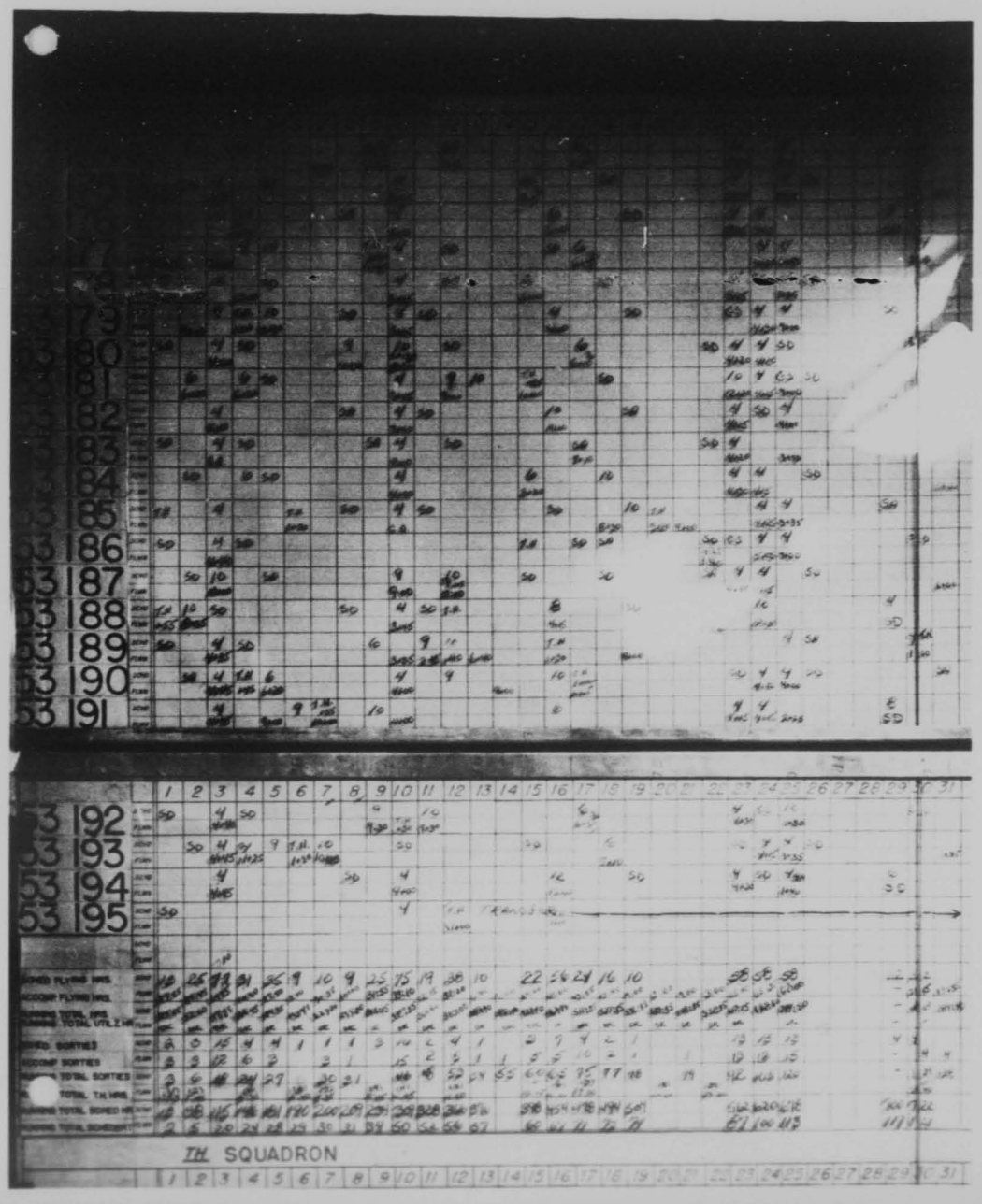

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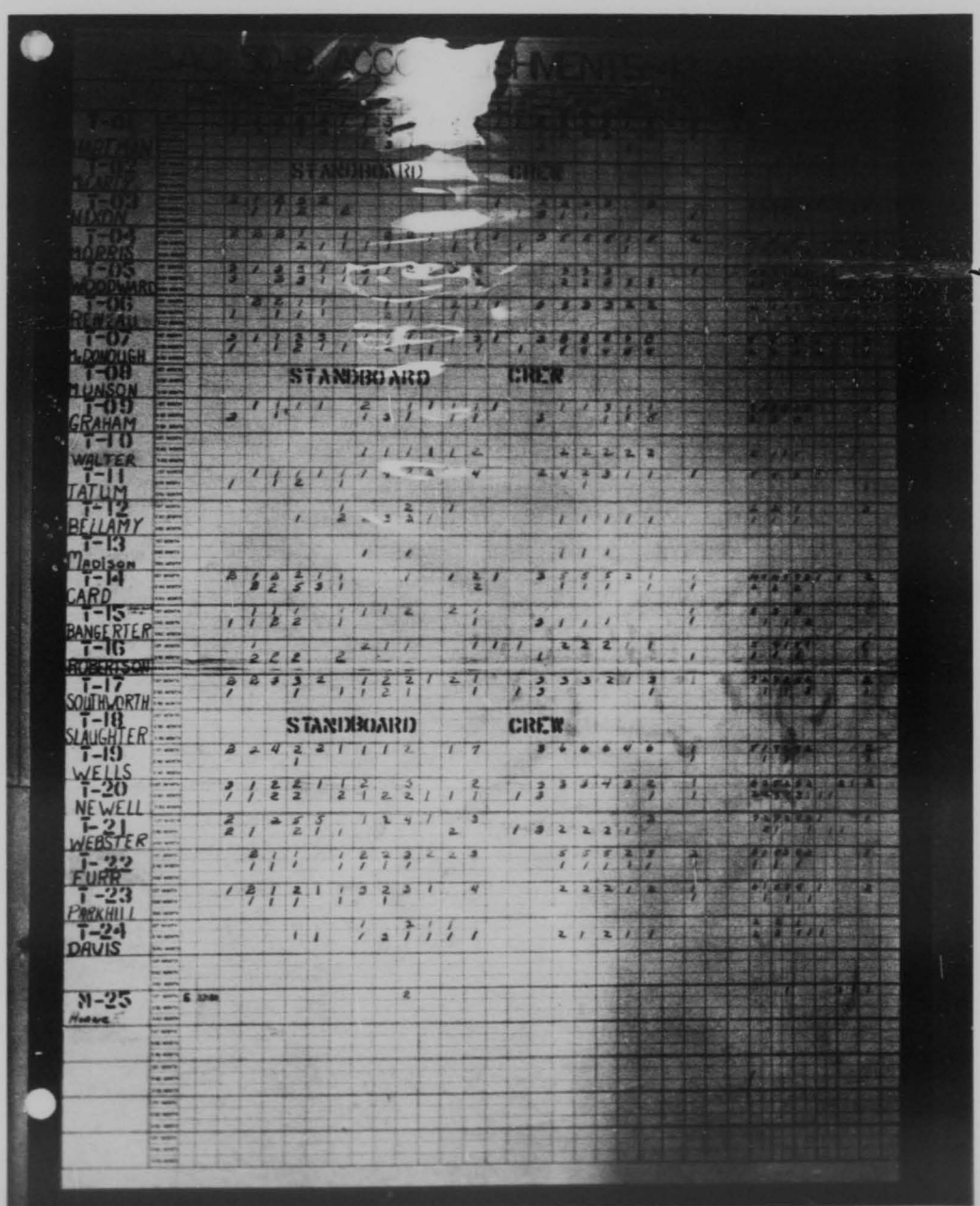

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42D AREF COMBAT CREWS

AS OF 20 Sept 56

CREW NO.	AIRCRAFT COMMANDER	CO-PILOT	NAVIGATOR	ENGINEER	BOOM OPERATOR	REMARKS
T-01	HARTMAN	COCKRUM	MARTIN	WHITT	WELLS	
T-02	McCARTY	CULBRETH	TAYLOR	MILLER	HOLCOMB	
T-03	NIXON	ROWE	LARKIN	SMITH	HICKS	
T-04	MORRIS	BLUM	BAECHLE	KOIBERT	PATTERSON	
T-05	WOODWARD	VAINWRIGHT	PARKES	SCOTT	HANRAHAN	
T-06	RENEAU	KUETHE	REESE	DICKSION	GOLDSBERRY	
T-07	McDONOUGH	LENZ	McCARTY	MARTIN	FERGUSON	
T-08	MUNSON	MEYER	ENGELKE	YATES	SCHLUSSLER	
T-09	GRAHAM	EICHENBERGER	SEPPAIA	BUSH	JOYNER	
T-10	WALTER	MILLER	CRAFT	BAXTER	BLACKBURN	
T-11	TATUM	WRIGHT	HEYER	FERRAIOLI	WHITFIELD	
T-12	BELLAMY	Rowe	BETHKE	HARRISON	BEARD	
T-13	MADISON	BENSON	STAI	DEMAREE	BELCHER	
T-14	CARD	BELLAMY	CARTER	Williams	WILTSHIRE	
T-15	BANGERTER	TURNER	SAGE	HAMBALEK	JOHNSON	[illegible]
T-16	Robertson	KENYON	WARREN	STERN	BOYER	
T-17	SOUTHWORTH	KAISER	SMITH	THIEBAUD	SMITH	
T-18	SLAUGHTER	BROYLES	BEEBE	BEMIS	LOPEZ	
T-19	WELLS	GORDON	CASE	SEXTON	HOUGHBTY	
T-20	NEWELL	SMITH	DONALDSON	CUMMINGS	BUTTS	
T-21	WEBSTER	DOOLEY	KIMBALL	YERSAVICH	YOUNG	
T-22	FURR	WATSON	SULLIVAN	BENDOR	WEBB	
T-23	PARKHILL	BERRY	O'KEEFE	EAST	CALLAHAN	
T-24	Davis	Faye	[illegible]	[illegible]	[illegible]	[illegible]
IM-25	HORNE	VOORHEES	AMEND	FERRUCCI	CHURCHILL	

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HEADQUARTERS 45TH AIR DIVISION
LORING AIR FORCE BASE, MAINE
6 NOVEMBER 1956

B-52 CONVERSION PROGRESS REPORT #12

FOR

45TH AIR DIVISION (SAC)

This Report Contains 21 Pages

When the Foreword Section of this report is withdrawn or not attached, the classification of this report will be downgraded to CONFIDENTIAL.

45AD OPLAN 1-55
66745
9 Nov 56

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DO-1741

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DETAILED COMMAND ACTIONS

PERTAINING TO

PROGRESS REPORT #12

45TH AIR DIVISION PROGRAMMING PLAN 1-55

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FOREWARD TO PROGRESS REPORT #12

SECTION I - GENERAL

1. To reflect a more comprehensive presentation of the problem area, this report has combined the problem areas and the overall evaluation in Section II of this report.

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SECTION II - PROGRESS EVALUATION

1. Overall: The progress of the conversion is being critically affected by the delays in aircraft delivery and the resultant shortage of available flying hours.

a. The Boeing Aircraft Company has stated that only 24 additional aircraft will be delivered by 31 January 1957. This schedule will result in only 44 aircraft at Loring as of that date provided no aircraft are transferred or diverted to other units. In order for the Wing to be operationally ready, a minimum of 39 aircraft must be possessed and an average of 25 aircraft operationally ready. With only 39 aircraft possessed an in-commission rate of 64% must be maintained in order to meet the aircraft operationally ready requirement. Experience during September and October indicates that a 64% in-commission rate will be difficult to maintain considering the requirements of the "failure to fix" and TOC requirements. A more realistic estimate of maintenance capability would indicate an in-commission rate of 60% which would require a possessed aircraft strength of 42 in order to meet the requirement of 25 aircraft operationally ready. A further slippage in aircraft delivery, or the transfer or diversion of aircraft from Loring, which would result in less than 42 aircraft possessed as 1 February 1957, would jeopardize meeting the programmed operational readiness date. (SECRET)

b. Present estimates indicate the requirement for thirty-two combat ready crews by 1 February 1957 will be possible provided the Boeing Aircraft delivery estimate is maintained and no aircraft are transferred or diverted from Loring. However, the flying hours per crew must be re-aligned to the following program:

Combat Ready Crews	20 hours per month
N-Crews selected for upgrading	30 hours per month
Remaining crews - maximum individual training while flying with other crews.	

This program will be necessary for November and December until the assigned aircraft and maintenance capability will produce the necessary flying hours for a more balanced program. This program is not desirable because of its effect on those crews not selected for upgrading but is considered more desirable than delaying the operational readiness date of the Wing. This reduced training program will increase the problem of meeting 50-8 training requirements subsequent to the operational readiness date because of the higher requirements for non-ready crews. (SECRET)

2. Supply:

a. Improvement in the status of "Z" and "Non Z" account items has been slow and continues to restrict maintenance activities. Four "Z" account line items are listed as critical in addition to shortages of Armament and Electronic test equipment which are not included in the "Z" account. (CONFIDENTIAL)

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b. Personal Equipment - Although there has been some improvement in personal equipment, many items are still considered critical. Supply assistance letters have been initiated (See item 49) (UNCLASSIFIED)

c. Equipping (CONFIDENTIAL)

"Z" Account	98%
Table II and XVI Spares (15 acft)	94%
FAK (One Squadron)	
Pre-Strike	27.4%
Post-Strike	29.4%
Base	16.7%
UAL, Tactical Squadron	84.0%
UAL, Maintenance Squadron	93.2%

(1) The number of AOCP and anticipated AOCP items is increasing due to the lack of adequate stock levels. Supply effectiveness is only 55 percent. New stock level requirements are being reported as consumption experience is determined; however, additional requirements develop daily. (CONFIDENTIAL)

(2) The reduction in Flyaway Kit percentages reflects the effect of the new listing received in October and should rapidly improve as items are processed into the flyaway kit section. (CONFIDENTIAL)

(3) A reduction in UAL percentages occurred as a result of UAL changes received during October.

d. The AFSD to support the minor repair of J-57 engines has not been received and the expected publication date is apparently indefinite. The availability of an adequate stock level of engine parts has become critical. (CONFIDENTIAL)

e. Deficiency in RT-324 units - In low temperatures, a nylon sleeve in the RT-324 unit fails which causes the beacon plunger assembly to stick when being switched to beacon position. This may cause the failure of beacon operation and will prevent returning to the Bomb-Nav. function. Until modified units become available, beacon position will not be used after temperatures at Loring reach 1°F. This procedure will eliminate the use of the APS 64 beacon for rendezvous. A modified sleeve is incorporated in the RT-324 A; however, these modified units will probably not be available until March 1957. Action should be taken to expedite correction of this deficiency by local installation of the redesigned sleeve rather than wait for the completely modified units.

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3. Facilities:

a. Liquid Oxygen Storage - Only one tank has been received and installed. The delivery of the additional tank required is expected in November. (UNCLASSIFIED)

b. The approval for the modification of the D.C. Hangar doors has been received and the project is awaiting funding action and contract. The project will probably not be completed until after the first of the year. A contract has been awarded for B-52 inserts for the present doors with scheduled delivery in early January. (UNCLASSIFIED)

4. Training:

a. Flying time - 85 sorties and 744 hours were flown in October of which 13 sorties and 39 hours were accomplished on test and ferry mission. The accumulative flying time and sorties through October is 1709 hours and 192 sorties. (CONFIDENTIAL)

b. Crew Status (SECRET)

43 crews assigned
*39 crews arrived from 4017th
20 crews 51-19 qualified
7 crews combat ready

*Of the 39 crews which have arrived from 4017th:

9	crews	are	0-20%	complete	on	50-43	requirements
8	"	"	20-40%	"	"	"	"
7	"	"	40-60%	"	"	"	"
6	"	"	60-80%	"	"	"	"
2	"	"	80-100%	"	"	"	"
7	"	"	combat ready				
39	TOTAL						

Although SAC Reg 50-43 has been amended deleting the item requirements, the regulation will continue to be used as a guide and as a means of measuring progress.

c. RBS Activity: 178 Radar RBS runs were accomplished in October with a CEA of 1794 feet which was an improvement over the CEA of 2033 feet reported for the month of September. Reliability based on a CE of 3500 feet, was 92%. The Wing Visual CE for the month of October was 1057 feet with a reliability of 100%. (SECRET)

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d. No visual releases have been accomplished (See item 77) (UNCLASSIFIED)

e. Training activity in night and grid navigation during the month of October was low with only 24 grid legs and 8 night celestial navigation legs. The night navigation CEA was 19.2 miles with a reliability of 88%. Although the grid CEA was only 13.4 miles, the reliability was 88%. The majority of the grid navigation was flown in connection with day celestial and accounts for the relatively low reliability. Only one night navigation leg was scored as unreliable. (SECRET)

f. Gunnery training is still slow with a low fire-out rate and a high ANFE rate on the gunnery system. The lack of an adequate gunnery trainer is also effecting the proper training of gunners. (SECRET)

g. Rendezvous equipment - A test conducted at Loring indicates that the present APN-69 equipment is not compatible with the APS-64 radar. Poor scope presentations make rendezvous impossible as range and bearing of the beacon cannot be determined. In many instances the APN-69 Beacon signal was not received or was unusable although usable ground beacon signals could be received. (SECRET)

5. Progress on Project "Spic and Span" - A planning meeting has been held which outlined the initial steps toward developing a plan for submission to Eighth Air Force Headquarters with each step suspensed to insure as rapid progress as feasible. The initial steps included: "Preparation of the basic layout of the Armament and Electronics Building, individual shop lay-outs, painting and lighting requirements and preliminary cost estimates." (CONFIDENTIAL)

6. Personnel:

a. Due to the non-availability of the OJT Packaged Program course outlines, the 45TH AIR DIVISION OJT program is being seriously hampered. Personnel, both "Hard Core" and skilled input, find it difficult to instruct personnel without a formal course outline. Fields considered critical are: 321X0K, 323X0G, 341X1E and 431XB.

b. In view of the above, it is requested that command action be taken to procure an earlier publication date for these OJT Package Programs than the date cited in the Report "STATUS OF DEPARTMENT OF THE AIR FORCE PACKAGE PROGRAMS", dated July 1956.

W. K. MARTIN
Brigadier General, USAF
Commander

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REPORT OF DIRECTOR OF MATERIEL

SUBJECT	NECESSARY ACTION	DEVELOPMENT AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
1. Rehabilitation of Existing Facilities		a. JP-4 Seal Coat: Loring Project 145-56, Sealcoating, Aircraft Maintenance Areas is _____	65%	6
		Project 67-57 is 100% complete pending final acceptance inspection. Slipperiness was overcome by the application of sand in the final coat.	90%	9
		b. Taxiway Lights: Project LOR 78-57, modify Taxiway Lights has been submitted to Hq 8AF for technical review.	10%	1
		c. Luria Docks: Project has been included in the 59 MCP. A formal request for consideration and approval of a closed circuit television setup has been dispatched from this Hq.	0%	0
		d. Multi-purpose Docks: Actual construction has not started because of material difficulties.	10%	1
		e. Modify D.C. Hangar for B-52 Operations: Construction has just started.	10%	1
		f. Power and Lights to Maintenance Stands: Construction has just started.	0%	0

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
1. Cont'd		g. Stand for Refueling Doors: Curb for Aircraft Parking Ramps for Outrigger Gear: Outrigger gear platforms complete. Curbs are installed. Plans are in SAF awaiting funds for stands for refueling doors.	70%	7
		h. Flight Simulators: Project now awaits delivery of simulators.	74%	7
		i. Replace South Asphaltic Concrete Holding Pad with Portland Cement Concrete: Design of this modification will begin by the AFIRO in Boston. Item is now in the FY 58 Military Construction Program.	0%	0
		j. JP-4 to Hydrants: 13 of 15 filter conversion kits are now on hand and in the process of being installed. Two kits have not yet been received.	60%	6
2. New Construction	Coordinate with AIO on programs of new construction items.	a. Jet Engine Test Stand: Phase I and II complete. Portable test stand is operational. Expected date of completion is 1 Dec 56.	90%	9
		b. Liquid Oxygen Plant: Project Relocation of T8505, to provide cover for the existing LOX generator.	90.7%	9
		(1) LOX Equip. Instal. Oper & Spare Support: The spare parts for the LOX equipment is approximately_____.	73%	7

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
2. Cont'd		b. LOX Plant (Cont'd) LOX generator on loan to this station is operational, however, capacity of 5-6 gal per hour will not meet present demand. Skid mounted generator installed in new building will be operational 17 Nov if unit checks out. Parts for Loring trailer mounted generator on LP since Sept. Repeated calls to depots located partial supply of parts required. Factory advised 7 Nov 56 that remaining items will be available for shipment by 15 Nov. Portion of progress report dated Sept 56 concerning second LOX 500 Gallon Tank applies to this report. Both storage and production at the moment insufficient to meet BWP requirements. With additional aircraft this will be aggravated until second tank is received.		
		c. MA-6A Bomb Nav System Flyaway Benches: Three production benches on hand. Until we exceed 30 aircraft, this bench set-up is adequate. Estimated delivery date on remaining benches is November 56.	75%	7
4. Z-Accounts (Supply)	Take necessary action for maintenance of accurate B-52 Supply Status data on the following:			
	a. Equipment items "Z" Account	a. 860 line items in account 825 line items on hand 35 line items with partial issue or no supply action 5 line items critically required for 30 aircraft	97.7%	10

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SUBJECT	NECESSARY ACTION	DEVELOPMENT AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
4. Cont'd	b. Non "Z" Account	b. 2156 line items in account 1568 line items received	73%	7
	c. Local Purchase	c. 877 line items in account 572 line items received	65%	6
	d. Table II support for 15 aircraft on automatic AFSD	d. AFSD has been cancelled, however, outstanding items remaining on backorder to Loring will be followed up on periodically.		
	e. Initial support of Flyaway Kit Spares for B-52 aircraft.	e. Pre-Strike: Auth: 10,496; On Hand: 2,876; %Complete 27.4% Post-Strike: Auth: 5,536; On Hand: 1,648; %Complete 29.4% Base-Strike: Auth: 27,511; On Hand: 4,605; %Complete 16.7% Drop in percentage of FAK completeness due to the fact that, while the new listings show substantial reduction of line item authorizations, a large percentage of these authorizations are new items, not previously authorized.		
	f. Disposition of excess B-36 Spares	f. A representative from Travis AFB has arrived to screen Base Supply's remaining stocks of B-36 items. This will take approximately two days. The remaining B-36 spares which are excess to requirements will be shipped automatically to the appropriate depots.	70%	7

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
4. Cont'd	g. Disposition of B-36 FAK Spares.	g. B-36 kits have been processed for transfer to 6th BW, Walker AFB. Items applicable to the B-52 will remain at this station. Request for airlift to Walker AFB has been granted by 8AF.	100%	10
5. Engine Build-Up	AFSD for J-57 Spare Parts	EDD is Nov 56 for AFSD. Lack of AFSD will delay work in minor repair line in EBU.		
25. Safety Guard for Exposed Switches & Panels in Acft	Install additional guards	TMI has been published. Requirements are being accomplished in Periodic Inspections. Estimated Date of Completion: 31 Dec 56.	75%	7
26. Painting of Maint. Selector Switches & Guard on Fuel Panel.	Set up procedures to assure painting of those items upon receipt of acft.	See paragraph 25.		
36. Publications Procurement	Procure all pplicable publications for B-52 Aircraft	Basic Files are complete, revisions and additions are processed as they are received.	100%	10

END OF DIRECTOR OF MATERIEL REPORT

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REPORT OF THE DIRECTOR OF OPERATIONS

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
2-40 Gunnery Training	Establish a program to develop and/or procure equipment to improve gunnery training and fire-out rate.	ANFE ITEMS, particularly potentiometers, have curtailed gunnery training. An estimated 65% of gunnery training has been lost due to the shortage of Fire control spares. A low fire-out rate, (Wing Av63%) has resulted from numerous malfunctions of old type gun chargers which are not equipped with heaters and frequently freeze at altitude. A new gun charger incorporating heaters is under development, but is not expected to be available for several months. Some ANFE items have been procured. However the quantity obtained is so little that fire-out rate has not improved significantly. Procurement action will continue.	55%	5
49. Personal Equipment Requirements for B-52.	Secure necessary personal equipment.	There has been some improvement; however, the following items remain critical: Large P-4 Helmets-EDD December 56 6-Man Life Rafts-Aircraft equipment but not on current authorization list. F-1A Automatic Release- No EDD. PK-2 Life Rafts-90 now available. MD-1 Container-SAC Regulated-No EDD. A-17 Flying Boots - No EDD. Flying Gloves - No EDD.	70%	7

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
49. Contd		The B-5 parachute is no longer critical. Supply assistance letters have been submitted.		
58. Airborne Radar Instrument Let-Down Procedure	Establish and test fly airborne radar instrument let-down procedures.	A satisfactory airborne radar instrument let-down procedure has been published in Section 8 of the B-52 Flight Handbook. However, additional radar offsets have been established and will be published during November in a supplement to the data contained in the handbook.	95%	9
77. Training Bombs	Establish a capability to drop practice bombs from the B-52.	Data has been received from 8AF and Boeing to the effect that 500 and 750 lb practice bombs may be dropped from the center cluster rack. Boeing states that 250 lb bombs have never been dropped from a B-52; this wing, therefore, will make no further plans to use 250 lb bombs until and unless higher authority so directs. No practice drops can be made, however, until the shortage of electrical components (J-22 Junction box, and Bomb Group Selector) is rectified. Procurement action has been undertaken by the Armament Branch.	50%	5
86. Altitude Indoctrination.	Schedule all programmed B-52 Crew Members through altitude indoctrination.	The conversion program for accomplishing altitude indoctrination for crew members has been completed. Altitude indoctrination scheduling will be continued for personnel whose currency is soon to expire.	100%	10

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
97. Operation of Training Aids.	Report periodically on the status of procurement and operation of: a. Ultrasonic trainers. c. Periscopic Sextant Mock-up.	a. The Wing now possesses a T-2A and a T-3 trainer, neither of which has been converted to the B-52 configuration. The T-3 has been physically modified to approximate an MA-6A trainer, but is unsatisfactory. The modification kit for the T-3 trainer is not expected until May or June 57. A modification kit for the T-2A was to be shipped in October but has not been received. These inadequacies steadily become more critical as additional crew members report for duty. c. This item has been requisitioned and has been back-ordered. Delivery date is uncertain.	90%	9
101. Training	A. Monitor the delivery of Synthetic Trainers	A. Gunnery Training is at present unsatisfactory, since the T-1A Gunnery Radar Trainer with a 41B Modification is suitable for training only for the MD-5 radar system. Pending receipt of an A-3A trainer, due to arrive in March 1957, assigned gunners are receiving specialized training on a maintenance mock-up operated by the 42d A&E Sq. Delivery of the B-52 Simulator is not expected until March 1957. The building for this trainer is ready except for minor work which cannot be accomplished until the trainer arrives.	50%	5

END OF REPORT OF THE DIRECTOR OF OPERATIONS

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
102. Communications	(a Monitor the administrative telephone system to assure adequate communications are provided.	(a) Base Administrative System: Present 1000 lines are 99.8% loaded and cannot take any additional loading. All equipment is now on hand for 600 line expansion except line finder shelves. As a result of recent trip to Rome AFD, it was determined that these shelves are to be delivered to Signal Corps Procurement District in Sept. Rome AFD at our request is requesting direct shipment to Loring.		
	(b) Monitor the outside cable plant project to assure cable distribution to aircraft stub and nose dock areas is accomplished at earliest possible date.	(b) Underground cable construction is---------- 100% Underground cable splicing is------ 99% All strand is installed and approximately 25% of aerial cable is installed. Weather permitting construction will be completed by Nov 56.	100% 99%	10 9
103. Fund (42ABG Comptroller)	Insure that fund requirements for conversion of the 42BW are included in financial plan, and that funds made available in accordance therewith are allotted to support schedule buildup.	Funds required for B-52 conversion were included in FY 57 Annual Financial Plan and revised and submitted 10 Sept. Tentative Annual Budget Authorization and First Quarter Allotments represent 81% of estimated requirements in overall budget requirements. An individual ferrying requirement exists. An additional $78,000 is necessary. Funds have been		

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
		requested by letter and by verbal conversation with Eighth Air Force Comptroller personnel.		
104. Public Relations Office of Information	Prepare in coordination with Hq 45AD and Hq 42BW news releases concerning this plan.	Plans are being coordinated with the Boeing and Pratt Whitney Companies in regard to articles in their house organs. B-52 story is appearing in current issue of Popular Science Magazine. Tours and talks are continuing. B-52 Maintenance Features have been and will be appearing in the LIMELITE.		

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REPORT OF THE DIRECTOR OF PERSONNEL

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS
106. Manning of B-52 T.O. or UMD's	Projected assignment of presently assigned personnel in duties authorized by B-52 T.O. and UMD's. This must include personnel input of "Hard Core" type, plus retained assigned personnel. Requisition personnel shortages sufficiently early to insure procurement when needed as determined by overall timing of the 42BW Conversion.	Projection of presently assigned personnel has been made against current SAC Unit Manning Documents.

a. Officer Manning:

Auth	% Assigned	% Effective	1 Mar 57 % Projected Assigned
465	110	95.9	106%

Greatest requirement for additional officer input to increase effective manning and alleviate shortages is as follows:

AFSC	Title	Auth	Asgd	% Assigned Projected 1 Mar 57
3234	Armament Sup Off	5	3	80 *
3244	Armament Opns Off	4	3	75
4334	Flt Test Maint Off	4	2	50
6424	Supply Off	11	10	91 **
9034	Med Supply Off	1	0	0
9356	Med Off, Avn Med	5	4	80
9446	Otolaryngologist	1	0	0
9636	Radiologist	1	0	0
9716	Nurse, Admin	1	0	0
9754	Nurse, General	12	11	91
9836	Oral Surgeon	1	0	0
9856	Prosthodentist	1	0	0

* Critical because one officer assigned is hospitalized for an extended period.

** Critical because 2 of assigned officers are at entry skill level.

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SUBJECT NECESSARY ACTION DEVELOPMENT & PROBLEMS

b. Airmen Manning:

(1) Direct Support Areas:

Career Field	% Assigned	% Assigned Projected 1 Mar 57
30 Radio Radar Systems	152.0	142.5
32 Armament Sys Maint	143.7	143.2
42 A/C Access Maint	120.8	120.2
43 A/C & Engine Maint	88.8	83.3
472X0 Grnd Power & Support Equip Technician	104.7	100.0
534X0 Airframe Repair Tech	119.7	111.2

Shortages in the 43 Career Field are primarily due to the following AFSC's:

AFSC	Auth	% Assigned	% Assigned Projected 1 Mar 57
431X1B	86	100.0	52.3 *
431X1E	630	78.5	79.3

Above is computed to include personnel being cross-trained into AFSC's indicated.

* 45AD message 9609, dated 20 Sep 56, requested expeditious action to assign additional personnel in this AFSC to this command. In reply, 8th AF message DPAIB 23389, dated 27 Sep 56, stated that due to overall command shortages, further inputs could not be made at this time. This message authorized as a temporary measure the utilization of Reciprocating Engine Mechanics, AFSC 432X1 in this field. With OJT this measure will partially alleviate a critical manning situation; however, manning in Required Specialty (MIRS) will be adversely affected.

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19

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX

(2) Overall Airmen Manning:

	AUTH	ASGD	MIRS	Body % Manned	%MIRS	%Prjd ASGD
Direct Support	1894	2005	1587	105.9	83.8	101.7
Indirect Support	613	624	406	101.8	66.2	101.4

111. SAC Resource Crews	Monitor assignment of B-52 Combat Crews trained from SAC resources.	To date 53 crews of all types have completed B-52 crew training at Castle AFB: Staff crews 5 Former B-36 crews 18 Former B-47 crews 30 * *Of the 30 former B-47 crews trained from SAC resources, 23 have been reassigned to Loring AFB and 22 have actually arrived. 7 have completed TDY training at Castle and have returned to home stations for subsequent PCS assignment to Loring. Reassignment should be completed by 1 Dec 56. All should arrive by 10 Dec 56. 3 remaining B-52 crews, programmed for Loring AFB have entered training and will graduate on dates indicated: 1 Staff Crew 19 Nov 56 2 Former B-36 Crews 5 Dec 56	77%	8

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
114. Technical Training Maintenance Package	Screen all assigned and input maintenance personnel to determine priority and sequence in filling training quotas in the following: Jet Engine Mechanic AC Elec Repairman AC Mechanic B-52 AC Hydraulic Repairman Pneumatic Power Cart Mechanical Accessories & Equip Repairman Structural Repair of High Perf Act A-3A FSC Mechanic (B-52) Turret System Tech (B-52,A-3A) A-3A Radar Technician (B-52) A-3A Turret Drive Sys Installation B-52 Capsule Equip & Sys Indoctrination Capsule Removal & Inst Specialist Radio Maint Tech K-3A & A-14 Autopilot Tie-in Instl/A-14 Autopilot & N-1 Compass.	Programmed training period (Jan-Oct 56) for the maintenance Training Package has ended. This phase of the B-52 conversion program is considered complete. Final results are as follows: Originally Programmed Quotas 630 Actual Quotas due to additions, cancellation of courses, and non-availability of personnel 585 Quotas filled by 45AD 324 Quotas filled by other commands 261	100%	

END OF DIRECTOR OF PERSONNEL REPORT

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base, Maine

42DCR

SUBJECT: Monthly Analysis (RCS: SAC U-54 (8AF-1)

TO: Commander
Eighth Air Force
ATTN: Comptroller Directorate
Westover Air Force Base, Massachusetts

1. Low areas in the SAC Management Control System. There were no low areas in the 42nd Air Refueling Squadron items under the rating system during the month with the exception of navigation reliability. Eighty-eight percent of score was earned with only two unreliable runs. The high circular errors on these runs resulted from frontal weather conditions and completing the leg during twilight when no celestial fixes could be made. The 42nd Bomb Wing is not under the Management Control system. An analysis of B-52 training accomplishments was included with the B-52 Conversion report. (UNCLASSIFIED)

2. The B-52 progress report covers the major activities during the month. (UNCLASSIFIED)

3. Special Project data.

a. A study of other supply cost data indicated that most maintenance personnel were using an expense code (2561, 2081 etc) for recoverable aircraft parts instead of code 0020. This error was causing exceptionally high Wing and AREF costs per flying hour. Temporary instructions were issued and a new instruction booklet is in the process of preparation which should eliminate this requisitioning error.

b. The Wing Director of Materiel has issued a Technical Maintenance Instruction to clarify the reporting of aviation fuel and oil consumption. The reports will continue to be checked by the Wing Comptroller prior to being forwarded to the expense accounting section. (UNCLASSIFIED)

c. An evaluation of a 42nd Bombardment Wing bomber stream mission was prepared to obtain an estimate of the quality of the crew and aircraft performance on the mission. In addition to a crew rating system, a comparison with the Eighth Air Force bomber stream mission, Pace Setter IV was made. Enclosed are the charts used in presenting this comparison. Thirteen aircraft were scheduled and thirteen aircraft were airborne. Each chart shows the best Wing and 8th AF on Pace Setter IV and the 42nd Bombardment Wing on Furcollar I. (UNCLASSIFIED)

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42DCR, 45AD, 21 November SUBJ: October Monthly Analysis, RCS: SAC U-54 (8AF-1)

(1) Chart No. 1 - Navigation Reliability - The number of navigation legs with a CE of less than 32 miles against the number of scored legs flown was used to obtain the percent reliable. The relatively low reliability was caused by one unreliable run attributed to crew error. With the exception of this leg, the observer of this crew has a CEA of 8.9 miles. (SECRET)

(2) Chart No. 2 - Bombing Reliability - Richmond - The 42nd Bomb Wing bombing reliability on this target was 90.9 percent with one run over 3500 feet attributable to equipment malfunction. The Wing CEP and CEA were below 8th Air Force and the CEP was below that of the 310th Bomb Wing which had the best CEP. (SECRET)

(3) Chart No. 3 - Bombing Reliability - Springfield - The wing reliability on this target was slightly better than 8th Air Force. The wing CEA was also lower than the 8th Air Force CEA. The one unreliable run was attributed to poor choice of aiming point. (SECRET)

(4) Chart No. 4 - Bombing Reliability - Montreal - The Wing reliability on Montreal was 100 percent with only one unit in 8th Air Force obtaining a better CEA on CEP. (SECRET)

(5) Chart No. 5 - Bombing Reliability - All targets - The Wing Reliability on bombing was 94.1 percent against the 8th Air Force 90.9 percent. The wing was second on average circular error and had a better CEP than any other unit. It should also be noted that the Wing had no gross errors on this mission.

(6) Chart No. 6 - Outstanding Crews - Four crews met the requirement of making 3 bombing runs with both CEA and CEP below 1500 feet. The wing percentage was 30.8 percent of the participating crews designated outstanding. The best crew was Major Morgan's with a CEA of 907 feet. (SECRET)

(7) Chart No. 7 - Abort Rate - The Wing abort rate was the weakest item in the comparison. One abort was attributed to bomb site error and one to equipment malfunction. Four aborts resulted from crew in-flight maintenance error which occurred when the observer installed a tube improperly in its socket resulting in power loss to the bomb nav system which prevented camera verification of the navigation leg in addition to accomplishing the bombing runs. One other navigation leg was lost because of camera malfunction. (SECRET)

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42DCR, 45AD, 21 November 1956 SUBJ: October Monthly Analysis, RCS: SAC U-54 (8AF-1)

4. There were no major problem areas beyond the control of the reporting unit other than those covered in the B-52 Conversion Progress Report. (UNCLASSIFIED)

5. The 42nd Air Refueling Squadron should complete the quarter within the SAC upper quartile on the Management Control System for the first time since its activation. Over 99% of score should be made on training minimums and only small losses of points on USCM and navigation reliability should occur. One hundred percent of score should be earned on all other items. (CONFIDENTIAL)

FOR THE COMMANDER:

Incl. 1
Photographs
Fur Collar/Pacesetter IV

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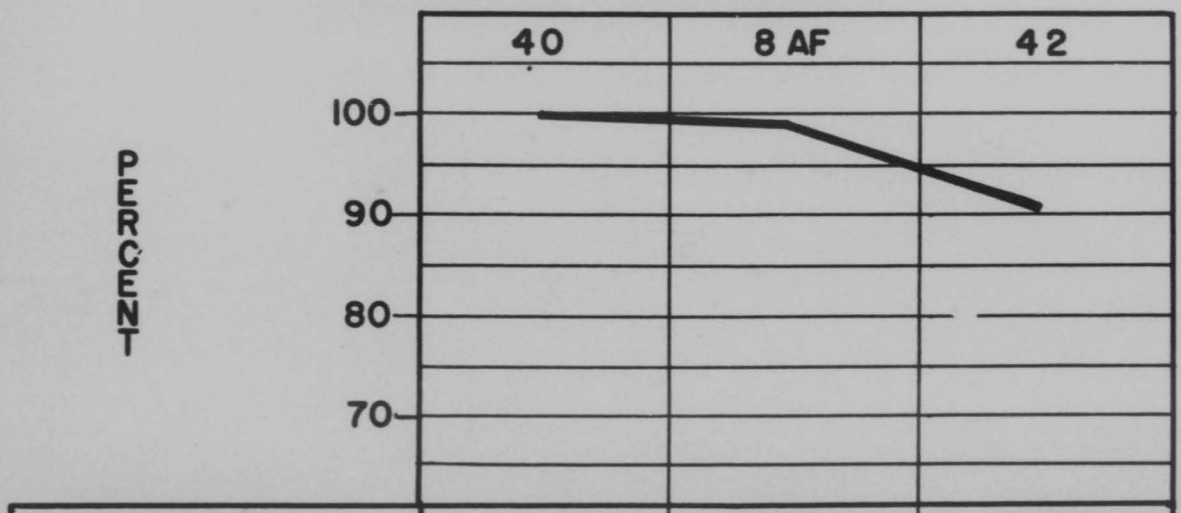
FUR COLLAR / PACESETTER IV

NAVIGATION RELIABILITY



	40	8 AF	42
REL FACTOR	100	98.0	90.9
NR SCORED REL	29	149	10
NR SCORED	29	152	11

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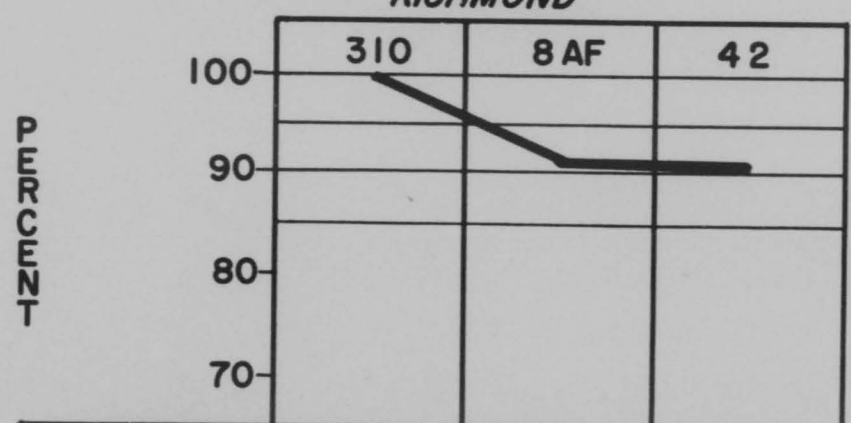
BOMBING RELIABILITY

RICHMOND



REL FACTOR	100	92.0	90.9
CEA	1227	1951	1378
CEP	1235	1550	1120
NR RUNS	18	150	11
GROSS ERRORS	0	4	0

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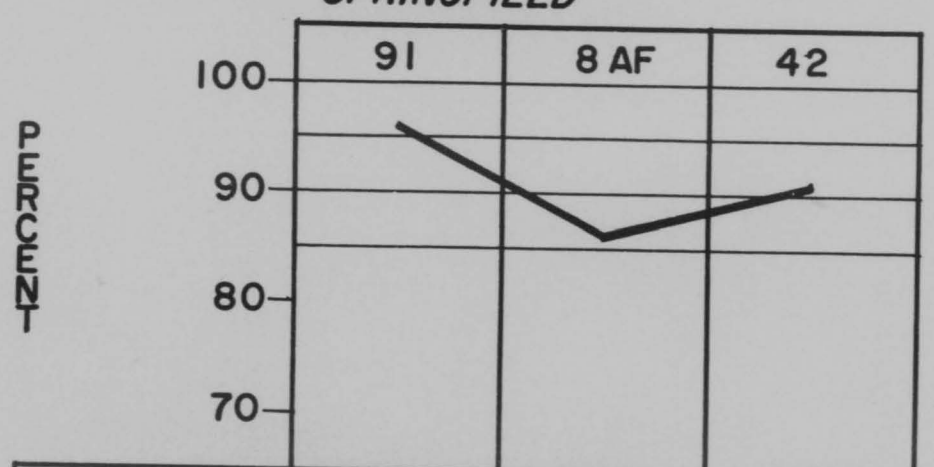
FUR COLLAR/PACESETTER I V

BOMBING RELIABILITY

SPRINGFIELD



	91	8 AF	42
REL FACTOR	96.0	87.9	90.9
CEA	2092	2091	1999
CEP	1920	1620	1950
NR RUNS	25	149	11
GROSS ERRORS	1	8	0

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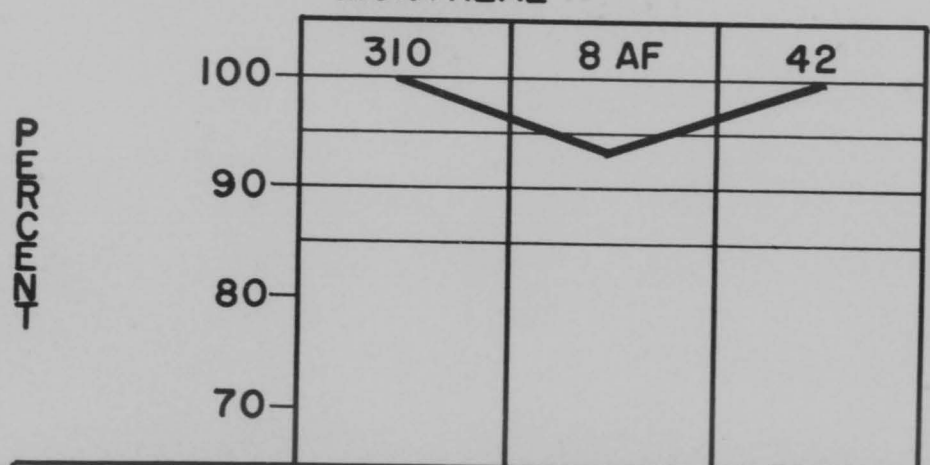
FUR COLLAR/PACESETTER IV

BOMBING RELIABILITY

MONTREAL



REL FACTOR	100	93.0	100
CEA	1161	1879	1354
CEP	935	1650	1000
NR RUNS	18	142	12
GROSS ERRORS	0	2	0

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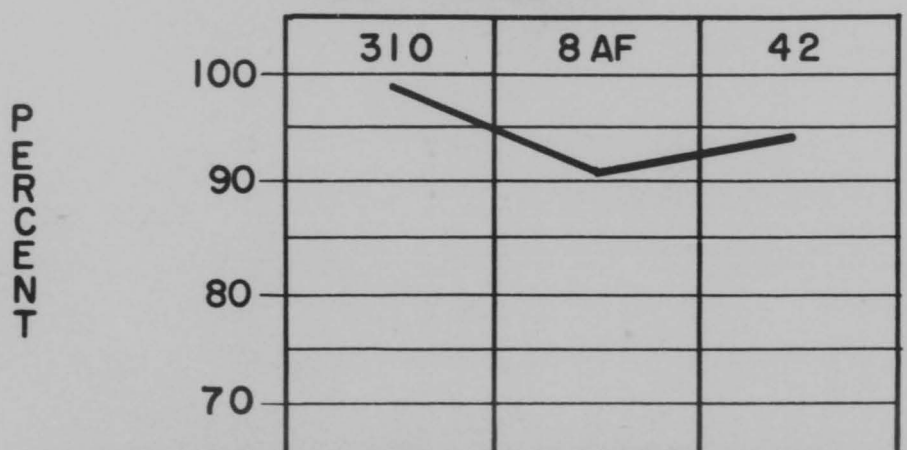
FUR COLLAR/PACESETTER IV

BOMBING RELIABILITY

ALL TARGETS



	310	8 AF	42
REL FACTOR	98.1	90.9	94.1
CEA	1394	1975	1571
CEP	1150	1620	1300
NR RUNS	54	441	34
GROSS ERRORS	1	14	0

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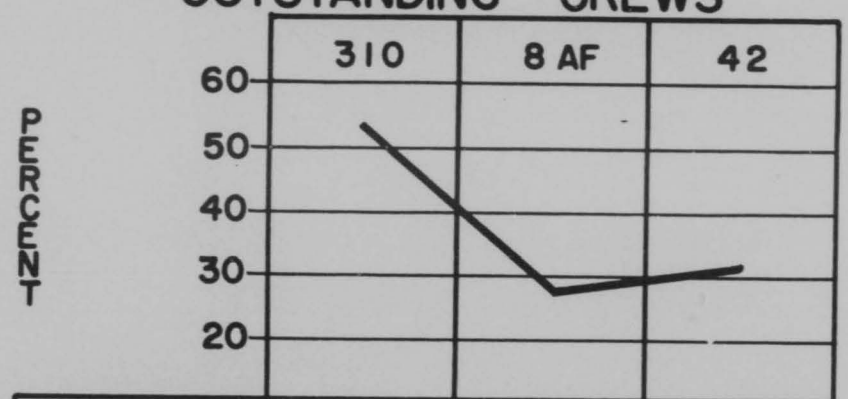
FUR COLLAR / PACESETTER IV

OUTSTANDING CREWS



	310	8 AF	42
% OUTSTANDING	53.8	28.9	30.8
OUTSTANDING CREWS	14	58	4
CREWS PARTICIPATING	26	201	13

AIRCRAFT COMDR.	OBSERVER	CEA	CEP
MORGAN	MORRIS	907	770
SCANNEL	MARTIZEN	1223	1000
WRIGHT	TOWNLEY	1233	900
SUPERNANT	GIBBONS	1447	1070

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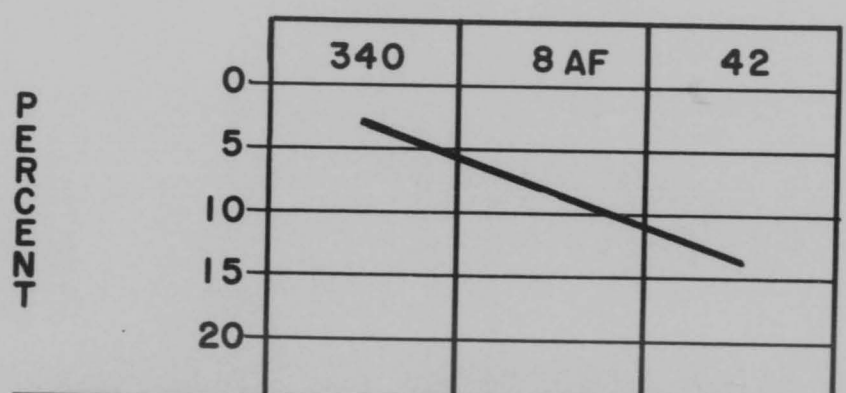
FUR COLLAR / PACESETTER IV

ABORT RATE



	340	8 AF	42
ABORT RATE	2.7	7.6	13.5
ABORTS	4	61	7
NR POSSIBLE RUNS	148	801	52

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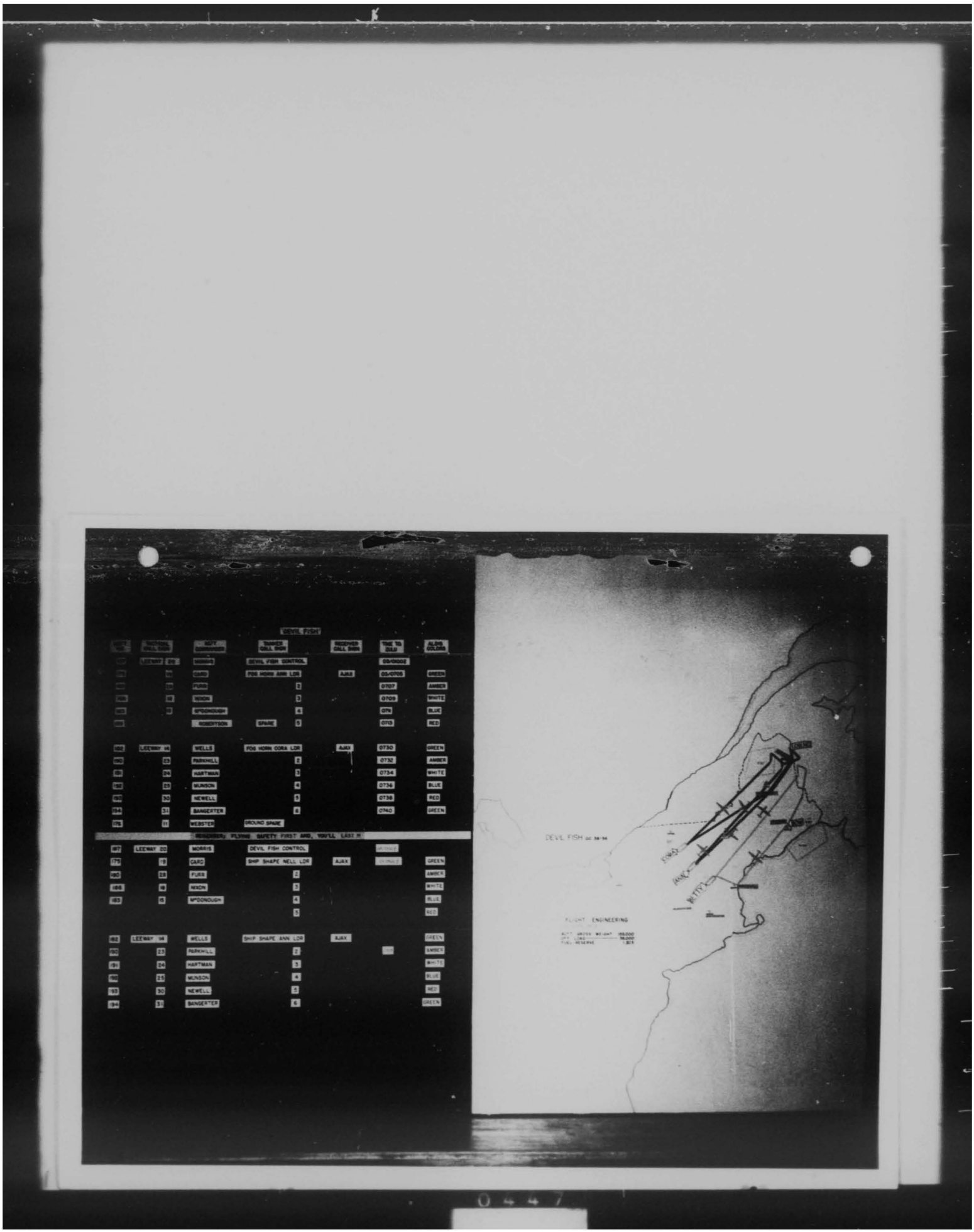

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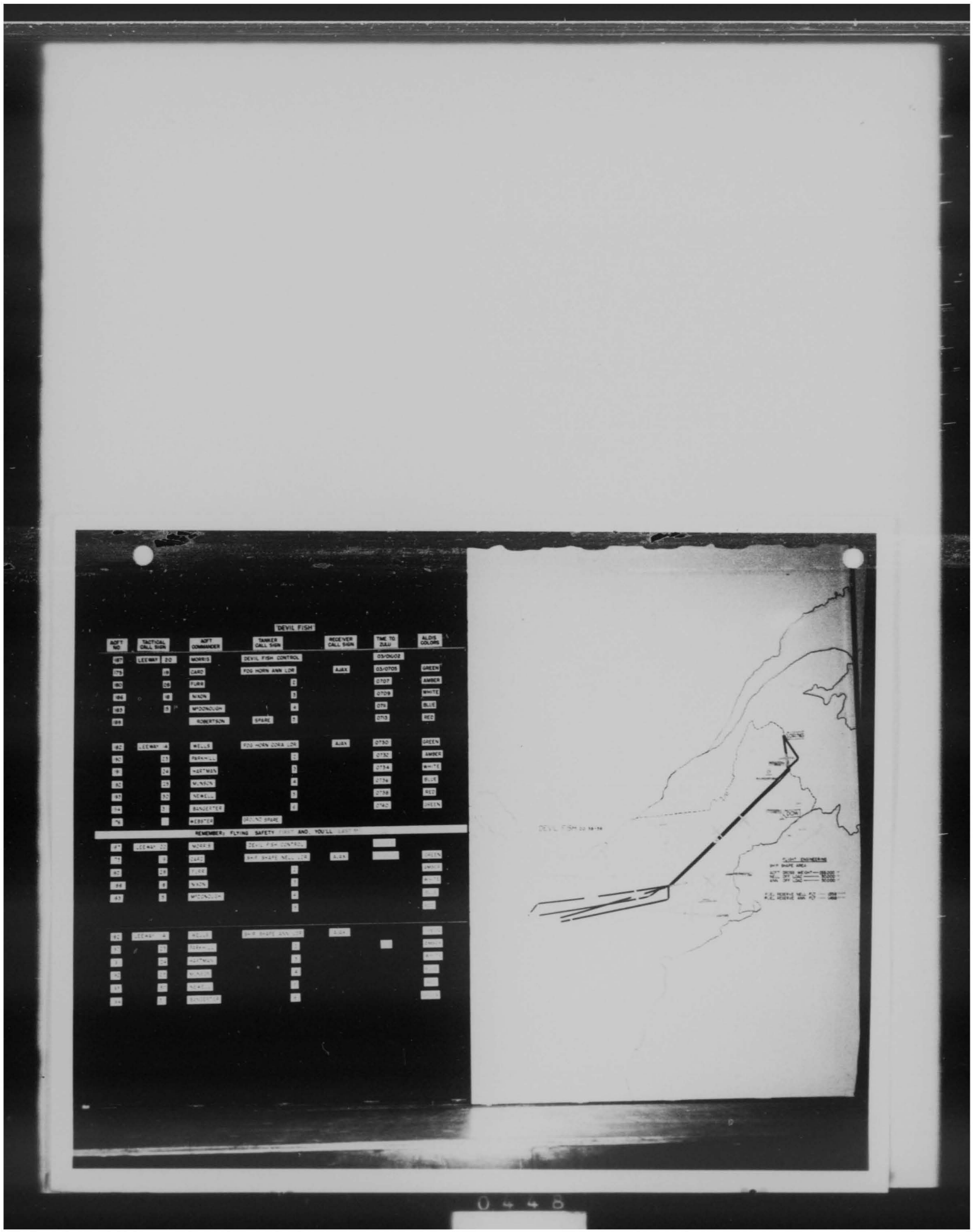

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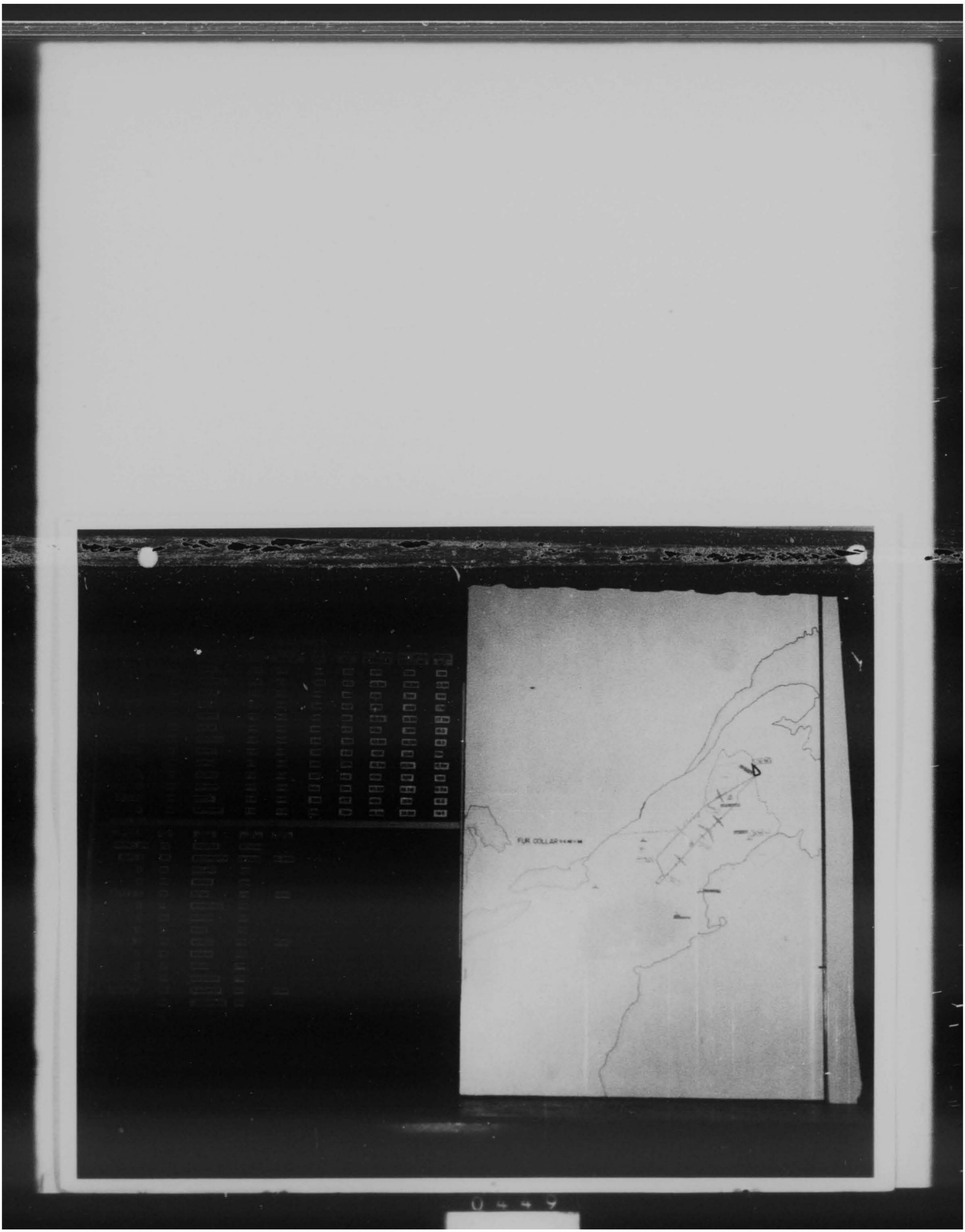

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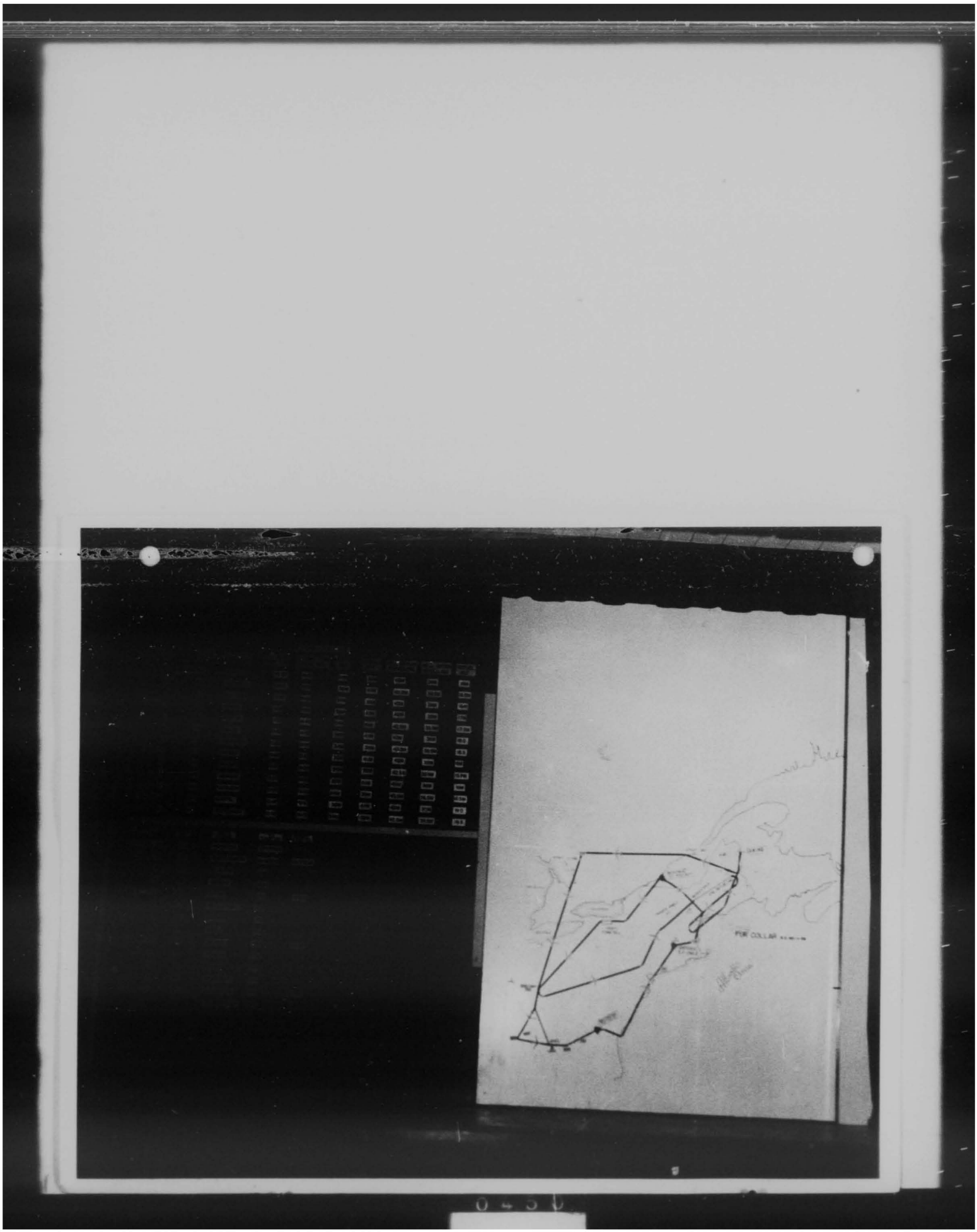

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
31 OCTOBER 1956

Pilots Flimsy 42-2-56 - "FUR COLLAR II".

1. GENERAL BRIEFING: To be held in the Training and Briefing Building on Monday 5 October 1956 at 0900 HRS. All crew members are required to attend. (U)

2. SPECIALIZED BRIEFING: To be held immediately after the General Briefing in the Training and Briefing Building. (U)

3. PRE TAKE-OFF WEATHER BRIEFING: (Approx 2:30 HRS. before take-off) (U)

1st Cell	0330 EST
2nd Cell	0430 EST
3rd Cell	0530 EST
4th Cell	0630 EST

4. START ENGINES: 40 minutes prior to take-off. (U)

5. TAXI: 20 minutes prior to take-off. (U)

6. TAKE-OFF: Two minutes between cell aircraft. One hour between cells. Aircraft will line up on the runway separately. (U)

7. CLIMB: (For Apology Refueling Area) standard departure pattern to Houlton. (For Pepper Box Area). NORTH T/O: Climb straight ahead for 3 minutes and turn on course. SOUTH T/O: Climb straight ahead for 3 minutes, turn left to a heading of 100° to 10,000', and then to on course heading. Climb Airspeeds: 310 KIAS to 27,000', Mach .765 to level off. (C)

8. LEVEL OFF AND CELL JOIN UP: (C)

a. Airspeeds

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(1) Lead Aircraft: After level off reduce cruise airspeed to 420 TAS to facilitate closure of other aircraft in cell.

(2) Other Aircraft In Cell: After level off increase airspeed to 460 TAS.

b. Checking Altimeters and Instruments:

(1) #2 aircraft will close to squadron show formation on the lead aircraft, and check altimeters, airspeed, and mach numbers. After this check has been made #2 aircraft will withdraw to enroute cell formation position.

(2) #3 aircraft will check his instruments on #2 aircraft, #4 aircraft on #3 aircraft and assume cell position as mentioned above.

c. Cell Formation: As each aircraft joins into position he will so advise the lead. When the last aircraft is in position, the leader will advise the entire cell that he is accelerating to 450 TAS.

d. The lead aircraft will advise other aircraft in the cell his ETA to prominent check points along the route to aid in cell join up.

9. RENDEZVOUS PROCEDURES: (C)

a. All receiver aircraft will turn on APN-76 rendezvous equipment when reaching a point 200 nautical miles from tanker orbit point. After initial contact between tanker and receiver forces, all aircraft, except leader, will turn off APN-76 to avoid confusion.

b. The lead aircraft will direct other aircraft in the cell to change to primary refueling frequency after cell join up. The lead aircraft will

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communicate with the tanker leader as far as possible from the rendezvous point and furnish ETA to the rendezvous point based on lastest navigational information.

c. Five (5) minutes prior to descent, the lead aircraft will direct other aircraft in the cell to assume 10 degree echelon right formation.

d. Descent will be made upon command of the lead aircraft, and will be made at 4,000 FPM, idle power, air brakes at number 4 position. The lead aircraft will retain partial power to aid other aircraft in retaining relative position.

NOTE: Receivers will not descend for air refueling when flight visibility at refueling altitude is one mile or less.

e. The altimiters will be reset to 29.92 prior to level off upon command of the lead aircraft.

f. Upon arriving at briefed level off altitude, the receiver leader will maintain his level IAS until the following range versus speed schedule applies:

(1) 4 nautical miles 300 KIAS

(2) 3 nautical miles 275 KIAS

(3) 2 nautical miles 250 KIAS

(4) 1 nautical miles 225 KIAS

(5) Formating speed will be 200 KIAS.

10. REFUELING PROCEDURES: (C)

a. After arrival into visual contact with the tanker formation and final positioning beneath the tanker formation, the receiver leader will direct all receivers to assume the observation position behind the assigned tanker.

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b. When positivily in the observation position behind the assigned tanker and with refueling check list complete, each receiver will so inform receiver leader.

c. After all receivers have reported ready to refuel, the receiver leader will direct aircraft to move to contact position and begin transfer of fuel.

d. Upon completion of refueling all receivers move back into observation position. The receivers will furnish the tanker with their call sign, and report transfer completed to the receiver leader. The receivers will be notified of amount of fuel transferred by the boom operator displaying a 12 by 18 inch placard against the operators window. Large bold numerals representing 100 pound increments of fuel transferred will be printed on this car. EXAMPLE: 30,000 pounds would be 300.

e. When the receiver leader has determined all receivers have completed refueling, and receiver observers are ready to maintain station keeping, he will advise the tanker leader to clear the refueling track. Receivers will maintain heading, altitude, and position.

f. When the tankers have cleared the refueling track, the receivers upon command of the receiver leader will accelerate to climb speed. (310 KIAS)

g. While the tankers are clearing the refueling track, all receivers will return to the enroute cell formation. (At this time the altimeters will be reset to MSL altimeter setting corrected for instrument error determined at initial join up.)

h. After allowing time for all aircraft to reach the climb speed, the leader gives the order to start climb. Climb will be made in enroute cell formation. (Return to receiver interplane frequency at this time, upon command of the lead ship.)

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11. In the event the 12-76 rendezvous combination is not successful the APN-69 tanker equipment, and or the UHF/DF equipment will be used. If the lead aircraft cannot establish electronic contact, he will notify other aircraft in the cell to attempt contact. (C)

12. It should be clearly established between the tanker and receiver leaders what equipment is being utilized for the rendezvous, and the debriefing officers advised of any troubles encountered during the rendezvous after the mission is complete. (C)

13. Upon level off after climb from refueling (which will be approximately 35 miles from the Loring VOR) aircraft will establish a 1000' vertical separation, and 1 mile trail separation, in preparatipn for orbit over the Loring VOR to effect a (12) twelve minute bomber stream interval. (U)

14. ORBIT OVER LORING VOR. (U)

a. The aircraft will arrive over Loring VOR at the following altitudes; #1, 35,000'; #2, 36,000'; #3, 37,000'; and #4, 38,000'.

b. Aircraft will effect a (12) twelve minute bomber stream by orbiting over Loring VOR in a left hand race track pattern, inbound heading 225°, outbourn heading 45°. The pattern will be established with 4 minute 180° turns, and 2 minute legs. If timing has been accurate up to this point, the lead aircraft will depart the VOR without delay at 35,000', #2 aircraft will orbit approximately 12 minutes, and depart the VOR at 37,000', #3 will orbit for 24 minutes and depart the VOR at 35,000', #4 will orbit for 36 minutes and depart the VOR at 37,000'. If the timing has not been as planned, due to longer time in refueling, it may be necessary to orbit more or less time. Nevertheless, the time

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in the orbit will be established when the lead aircraft departs on course. All aircraft will announce time departing the Loring VOR over interplane frequency. The observers will assist the pilot in determing the final orbit pattern, to establish accurate timing when departing the Loring VOR.

15. ECM RUN: As soon as practical after departing Loring VOR each aircraft will contact "WILD BILL" for permission to accomplish ECM spot jamming. (C)

16. ALTIMETERS SETTINGS: Mean sea level altimeter setting will be used throughout the mission except for the refueling phase. For the sake of standard procedures the lead aircraft of the bomber stream will secure the altimeter settings from CAA, and pass to other aircraft in the stream at what points he changes his altimeter settings. (U)

17. RBS PROCEDURES: Each aircraft will monitor the RBS calls of each aircraft ahead of him and insure that his initial RBS call in does not cause any interference. RBS scores will be received so as not to interfere with succeeding RBS runs. (U)

18. ABORTS: (U)

a. Ground Aborts: Call Loring tower for instructions.

b. Air Aborts:

(1) While in cell: Aircraft will fill up the vacated slot.

(2) While in bomber stream: Aircraft will maintain bomber position.

c. Aircraft aborting will advise the lead aircraft on difficulties and intentions, and secure an individual clearance for remainder of mission.

19. LET DOWN TO LORING: Aircraft will contact Loring RAPCON 50 miles prior to Houlton for descent instructions. All aircraft will arrive over

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Houlton at 35,000' and perform a standard Houlton straight in approach to Loring. (U)

20. ALTERNATE BASES: (U)

Westover AFB

Wright Patterson AFB

Goose AB

21. Debriefing will be conducted in the 70th Bomb Squadron briefing room immediately after landing. Crews should complete forms as much as possible prior to debriefing to expedite procedure. (U)

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22. PERFORMANCE:

a. Aircraft Loading: Aircraft will be loaded as indicated on the master flight plan.

b. Planning Factors:

(1) Winds. Predicted winds have been used on master flight plan. Crews will compute individual flight plans using latest metro data.

(2) Climbs. No temperature departure used in computing climbs on basis of the NRT climb charts.

(3) Cruise. Master flight plans has been computed for the lead aircraft at base altitude thoroughout the mission. Fuel consumed has been increased 1% for time in formation. The master flight plan altitudes are below optimum so that the top aircraft will experience minimum range penalty. The cruise fuel consumption has been increased by amount required for "off altitude" flying.

c. Performance Logs: Log entries will be made at the following times and to the extent indicated:

(1) Start engines = complete as required.

(2) Start T.O. roll = time & totalizer.

(3) At best Climb IASK = time & totalizer.

(4) Level off = Complete entry.

(5) Cruise = Complete entry each one (1) hour period, or at major change in performance. (Alt, IAS)

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(6) Cruise = Time & totalizer at 30 minute periods between complete cruise entries.

(7) DS prior to IFR, IFR, & Accel. to best Cl IASK = One log entry for this elapsed time, with the time entry being terminated at begin CL to CR alt. Show IFR alt, all fuel gage readings, and formating IASK.

(8) DS prior to landing, traffic pattern, touch down = One log entry for this elapsed time, with time entry being terminated at touch down.

(9) Cut engines = enter time and all fuel gage readings.

The Pilots Flight Progress Chart will be maintained with a broken line (- - - -) indicating predicted performance and a solid line for actual. Performance logs will be turned in to the Debriefing Teams on termination of mission.

23. Communications:

a. Radio Channelization will be normal except as indicated below.

(1) ARC-21: Chan 8, 4731.5; IFR HF EMERGENCY. (C)

(2) ARC-34: Chan 2, 341.4; Interplane (Sec)
Chan 7, 321.0; Interplane (Pri) (C)
Chan 8, 384.6; St Louis RBS (Pri)
Chan 9, 258.2; Omaha RBS (Pri)
St Louis RBS (Sec)
Chan 19, 308.8; IFR Back-up & Wx Acft (C)

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1B frequency.

b. Call Signs:

(1) B-52:

(a) For all except interplane and refueling communications: Normal Tactical call sign incorperating the cell color designator. EXAMPLE: "Upkeep Blue 15".

(b) Interplane and refueling: The cell color designator with a suffix indicating the aircraft position in the cell. EXAMPLE: Green Leader, Green Two, etc.

NOTE: In case of an abort, call signs will be changed so as to indicate aircraft position in the cell at all times. EXAMPLE: In event "Blue Two" has a late take-off, "Blue Three"and "Blue Four" will automatically change to "Blue Two" and"Blue Three" respectively. If the delayed aircraft tags on to the end of the stream he would assume the call sign of"White Five".

c. Air Refueling Phase:

(1) SAC Manual 100-1, dated September 1956 applies. Procedures will be Pre-target, Bomber Overseas, NEAC Alfa. Rendezvous point & C/R plan procedures are assigned as follows: (C)

BLUE CELL - - - - - - - - CORA
GREEN CELL- - - - - - - DORIS
ORANGE CELL - - - - - - - EDNA
WHITE CELL - - - - - - - FRANCES

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d. Reports:

(1) Position reporting is to be accomplished by #2 aircraft of each cell while aircraft are in formation. Reports will contain the phrase "FUR COLLAR (appropriate color designator) MISSION, FOUR AIRCRAFT" will be included as the first part of message text. ~~Attachment #5 provides a following route guide.~~

(2) Position reporting will be accomplished by the first and last aircraft while in bomb stream. The Phrase "(first or last) FUR COLLAR - AIRCRAFT" is to be the first part of message text. ~~Inclosure #6 provides a post-refueling reporting guide.~~

(3) SAC Regulation 55-14 may be complied with by making a call to Pinetree Radar ~~at the point indicated on Inclosure #5~~.

e. Monitor of radios:

(1) Number two aircraft of each cell will monitor the GCI Common frequency at all times while over Canadian territory.

(2) All aircraft will monitor the GCI Common while over Canadian territory in bomber stream.

(3) All aircraft will monitor interplane except as otherwise required. With two UHF sets installed, there should be no problem in maintaining this guard.

(4) During rendezvous and IFR, the VHF tanker interplane and HF emergency IFR frequencies will be monitored in accordance with SAC Manual 100-1.

(5) The High Frequency of 11,228 kcs is to be monitored for three minute intervals, beginning at :05, :25, and :45 past

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each hour except during refueling operations.

f. RBS information calls are to include the phrase "Fur Collar Run".

g. The recall word is "WATERTANK". (C)

24. ECM:

a. An ADC Spot run will be accomplished against ADC site "WILD BILL".

b. Aircrew will give an abbreviated call in to the site giving only the tactical call sign of the aircraft and requesting clearance for an ADC Spot run. Aircraft will report over the IP and upon completion of the run. Scores will not be requested by the aircaft. Scores will be forwarded to the wing by the ADC site.

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"FUR COLLAR # 2" TAKE-OFF & CONTROL TIME SCHEDULE

	Acft No.	Call Sign	Acft Comdr	Est. Wind T/O Time (Z)	Refueling Rendz (Z)	LIZ VOR B/Stream Dept (Z)	HHCL Paducah (Z)
***	401	Upkeep Blue 10	Rioridan	1107	1342	1437	1740
	404	Upkeep Blue 11	Southwick	1109		1449	1752
	407	Upkeep Blue 12	Tucci	1111		1501	1804
	*665	Upkeep Blue 13	Anastasia	1113		1513	1816
							1828 (OPEN)
	402	Upkeep Green 41	Britton	1207	1442	1537	1840
	405	Upkeep Green 42	Confer	1209		1549	1852
	666	Upkeep Green 44	Bell	1211		1601	1904
	672	Upkeep Green 46	Owens	1213		1613	1916
							1928 (OPEN)
	403	Upkeep Orange 71	Hudlow	1307	1542	1637	1940
	667	Upkeep Orange 74	Stickler	1309		1649	1952
	670	Upkeep Orange 75	Scannell	1311		1701	2004
	400	Upkeep Orange 70	Roberts	1313		1713	2016
							2028 (OPEN)
	406	Upkeep White 72	Wright	1407	1642	1737	2040
	674	Upkeep White 16	Meyers	1409		1749	2052
**	675	Upkeep White 47	Jenkins	1411		1801	2104
****	664	Upkeep White 73	Childs	1413		1813	2116
							2128 (OPEN)
							2140 (OPEN)

* Col Hillman
** Col Swancutt
*** Gen Martin
**** Col Barr

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INCL # 1

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"FUR COLLAR # 2" ALTITUDE ASSIGNMENTS

Cell & Position	Altitude Prior to Refueling	Altitude Refueling	Altitude Over Loring	Alt to 4300N 7800W	Alt to End Day "X"	Alt to Omaha	Altitude to Michipicoten Bay	Altitude to End Grid	Altitude to Houlton VOR
Blue #1	34M	15M	35M	35M	36M	39M	40M	41M	35M
Blue #2	34.5M	15.5M	36M	37M	38M	41M	42M	43M	
Blue #3	35M	16M	37M	35M	36M	39M	40M	41M	
Blue #4	35.5M	16.5M	38M	37M	38M	41M	42M	43M	
Green #1	34M	15M	35M	35M	36M	39M	40M	41M	35
Green #2	34.5M	15.5M	36M	37M	38M	41M	42M	43M	
Green #3	35M	16M	37M	35M	36M	39M	40M	41M	
Green #4	35.5M	16.5M	38M	37M	38M	41M	42M	43M	
Orange #1	34M	15M	35M	35M	36M	39M	40M	41M	35
Orange #2	34.5M	15.5M	36M	37M	38M	41M	42M	43M	
Orange #3	35M	16M	37M	35M	36M	39M	40M	41M	
Orange #4	35.5M	16.5M	38M	37M	38M	41M	42M	43M	
White #1	34M	15M	35M	35M	36M	39M	40M	41M	35
White #2	34.5M	15.5M	36M	37M	38M	41M	42M	43M	
White #3	35M	16M	37M	35M	36M	39M	40M	41M	
White #4	35.5M	16.5M	38M	37M	38M	41M	42M	43M	

NOTE: All altitudes MSL except refueling which is 29.92.

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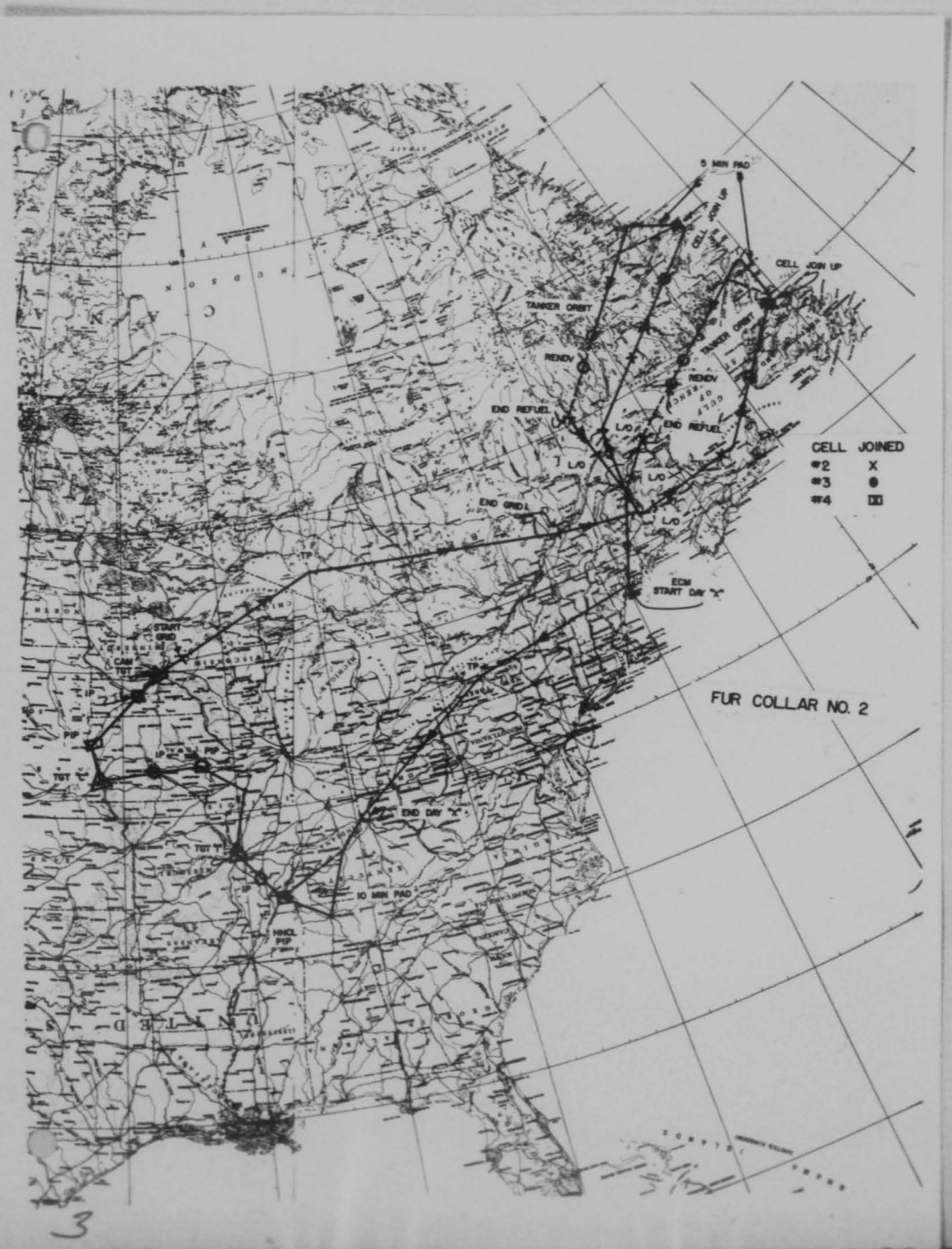

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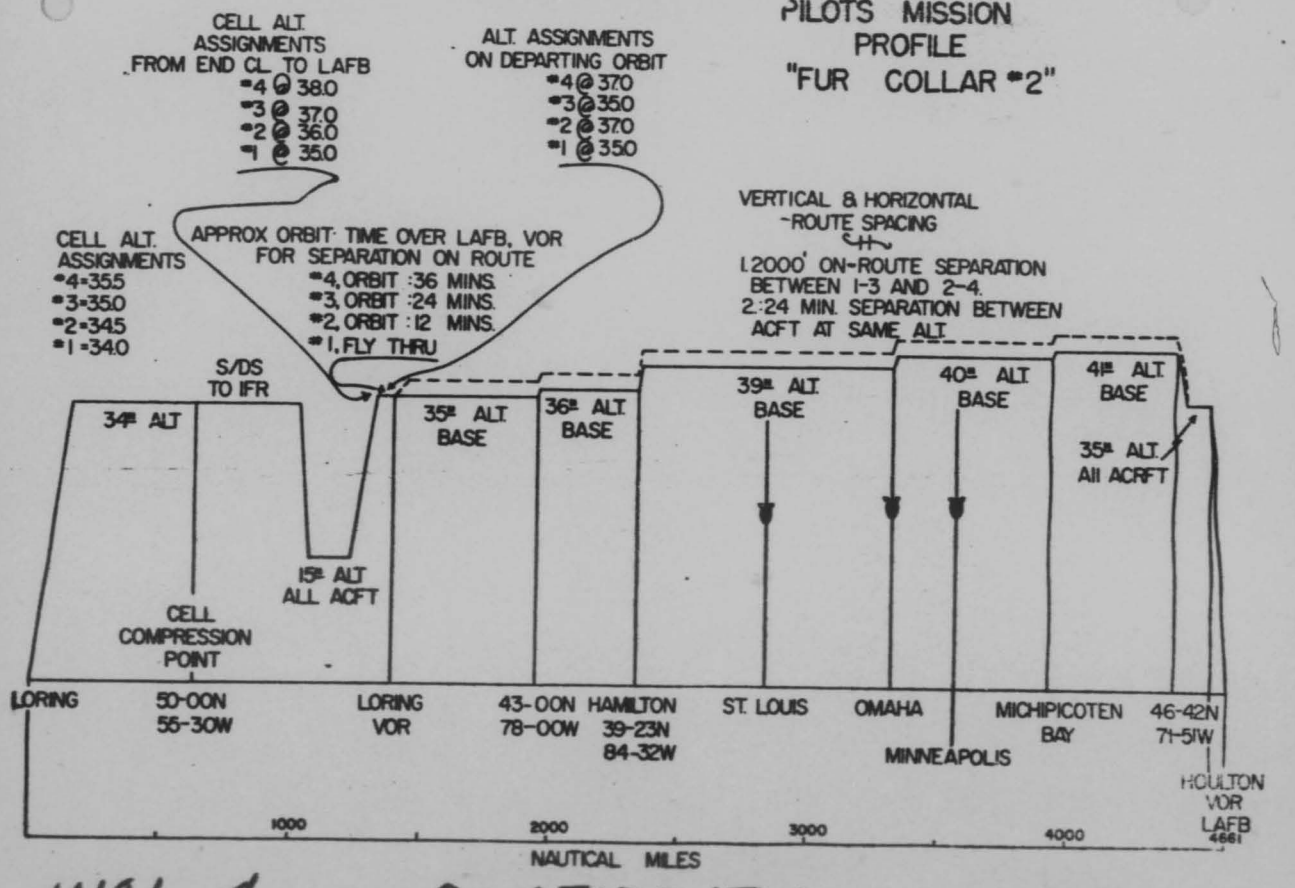
PILOTS MISSION PROFILE "FUR COLLAR #2"



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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
7 NOVEMBER 1956

PILOTS FLIMSY

(GENERAL BRIEFING 0900 LOCAL 5 NOVEMBER 56)

1. PRE-TAKE OFF WEATHER BRIEFING — TAKE OFF TIME

1st Cell	0400 EST	*0625 EST
2nd Cell	0500 EST	0725 EST
3rd Cell	0600 EST	0825 EST
4th Cell	0700 EST	0925 EST

*Take-off times will be advanced 10 minutes if Pepper Box area is used.

2. START ENGINES: 35 minutes prior to take-off.

3. TAXI: 20 Minutes prior to take-off and in take-off order. Ground aborts will follow tower instructions.

4. TAKE-OFF: 1 Minute interval between aircraft in a cell.

a. North Take-off: All aircraft climb on heading 022 Mag (167KIAS) to first level off (6,000 ft) leader will maintain 167KIAS until formation is joined. #2, #3, #4, adjust power as required.

b. South Take-off: All aircraft climb on heading 190°M (167 KIAS) for three minutes, from start of roll then start 1/2 needle width turn to the left and roll out on a heading of 020° until reaching 1st level off (6,000 ft). Leader will maintain (167 KIAS) until formation is joined. #2, #3, and #4 will adjust power as required.

c. AT SUCCEEDING CLIMB POINTS: Leader will announce a time to climb. On the leader's signal all aircraft will commence to climb.

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5. Enroute cell formation: As specified in the SAC Tac Doctrine (1 mile horizontal, 500 foot interval in trail).

6. #2 aircraft in each cell will make ATC position reports and GCI reports.

7. Orbit, Rendezvous, & Refueling Procedures will be as outlined in the SAC Tactical Doctrine.

8. Air Abort: Contact cell leader, advise, execute 90° turn to left, fly for three minutes and contact nearest radio facility for ATC clearance to landing base.

9. ATC Reporting:

a. #2 aircraft in each cell will give position reports as outlined in Enclosure # 2 .

b. Authentication, if required by GCI sites, will be outlined in current AFSAL 5104 and ACP 156 extract. All times are Z.

10. Alternate landing fields:

Westover AFB

Dow AFB

Plattsburg

Goose

Harmon

11. Fuel reserve over Loring VOR - Apology 14,900#
Pepperbox 13,325#

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Letdown

1. Cell leader maintain enroute formation to a point 40 miles N of Loring VOR.

2. Prior to reaching this designated point cell leader will contact Loring Approach and give aircraft order of landing desired and request latest landing information and let down as briefed.

3. When over the descent point cell leader will advise leaving 15,000 for 4,000 (all aircraft descend 1,000 ft per minute 170 KIAS). #2 commence descent 1 minute later; #3 two minutes later and #4 three minutes later. Aircraft will not start descent until the aircraft below them has departed.

4. Each aircraft will report passing thru 11,000, 7,000 and at assigned altitude over the VOR (#1 - 4,000; #2 - 5,000; #3 - 6,000; #4 - 7,000).

5. #2, #3, and #4 will establish right hand holding pattern, heading 005° M and 185°, one minute legs. #1 will announce his departure from the VOR inbound to the station.

6. Rapcon will descend the stack as each lower 1,000 foot altitude is cleared. Aircraft will be advised of their expected departure times and plan accordingly. Departure from the VOR will be at 3 minute intervals.

7. Upon landing aircraft will keep in mind that the next landing aircraft is two to three minutes behind them and plan roll accordingly.

8. Missed approach procedures will be as given by Loring Rapcon.

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3

2 Incl
1. Recap schedule
2. Reporting Route Guide

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7 NOVEMBER 1956

FUR COLLAR RECAP SCHEDULE

ACFT NO	REPORTING CALL SIGN	ACFT COMDR	REFUELING CALL SIGN	RECEIVER CALL SIGN	TIME TAKE OFF(Z)	FREQUENCIES
187	Leeway 20	Parkhill	Fur Collar Control		07/0707	136.08 (P); 308.8 (S)
179	Leeway Cora 27	Wells	Cora Ldr	Upkeep Blue	07/1125	Interplane: 129.4 MCS(P); 308.8(S)
180	28	Slaughter	#2		1126	Ref Freq: 279.8 MCS; 308.8(Back-Up)
191	24	Hartman	#3		1127	HF Emerg: 4731.5 KCS
194	31	Bangerter	#4		1128	
182	Leeway Doris 14	Bellamy	Doris Ldr	Upkeep Green	1225	Interplane: 133.2 MCS(P); 308.8(S)
176	11	Webster	#2		1226	Ref Freq: 291.9 MCS; 308.8(Back-Up)
188	21	Robertson	#3		1227	HF Emerg: 4731.5 KCS
177	12	McDonough	#4		1228	
184	Leeway Edna 16	Card	Edna Ldr	Upkeep Orange	1325	Interplane: 127.9 MCS(P); 308.8(S)
175	19	Newell	#2		1326	Ref Freq: 303.2 MCS; 308.8(Back-Up)
181	13	Graham	#3		1327	HF Emerg: 4731.5 KCS
189	22	Davis	#4		1328	
185	Leeway Francis 17	McCarty	Francis Ldr	Upkeep White	1425	Interplane: 115.2 MCS(P); 308.8(S)
165	10	Tatum	#2		1426	Ref Freq: 324.2 MCS; 308.8(Back-Up)
183	15	Madison	#3		1427	HF Emerg: 4731.5 KCS
186	18	Nixon	#4		1428	
178	Leeway 26	Reneau	Ground Spare			

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INCL #1

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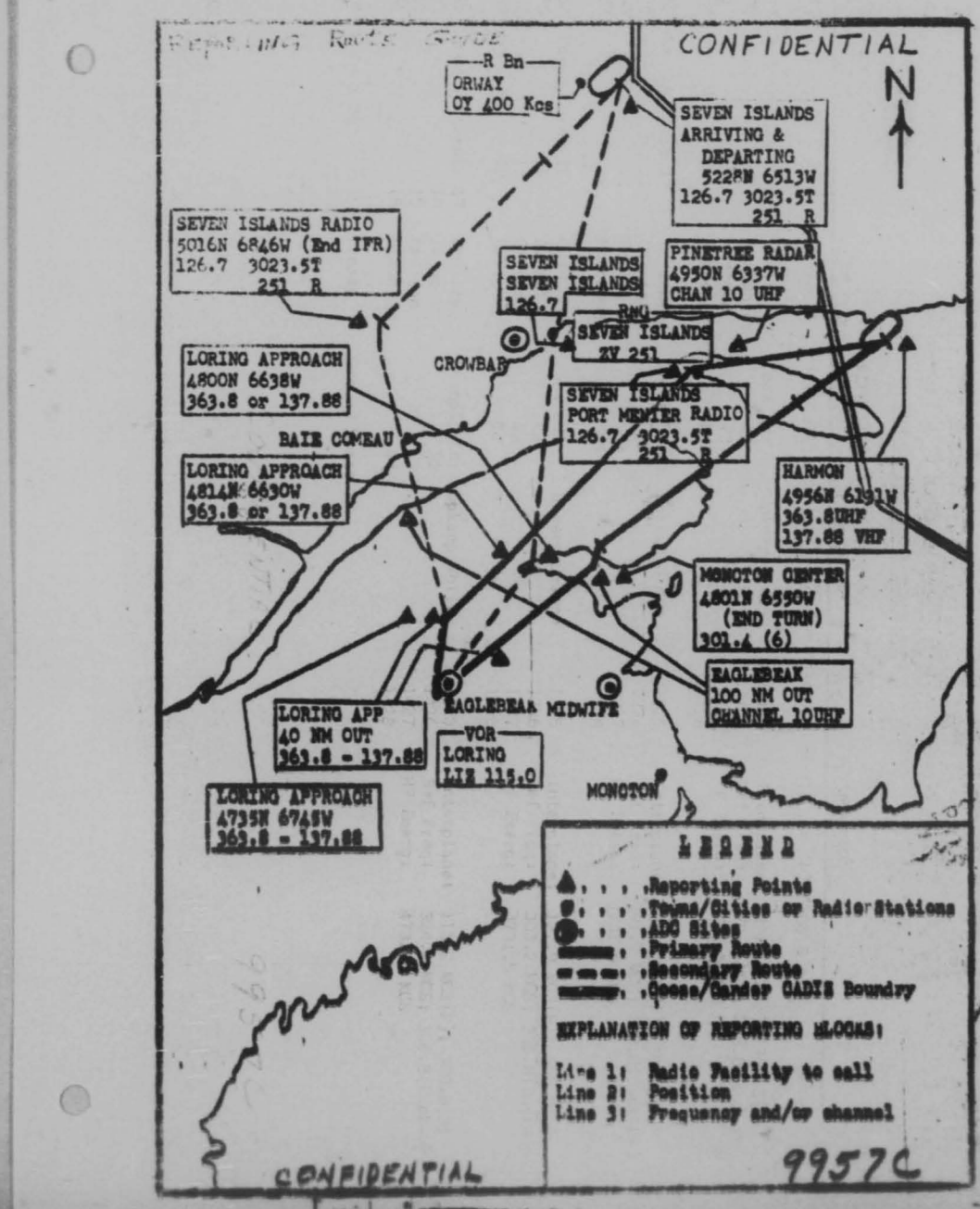

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
31 OCTOBER 1956

RADAR OBSERVER FLIMSY 42-2-56 FUR COLLAR #2.

1. GENERAL: RBS and camera runs will be accomplished by assigned operators. (U) Only Radar runs will count toward accomplishment of the mission Tango or malfunction runs will not be attempted.

2. BOMB LOAD: NONE (U)

3. BOMB TABLES: T.O. 11N-60-42 (U)

4. CAMERAS: O-15 in each aircraft; K-38 in all cell lead aircraft and the deputy lead aircraft of the first two cells. (U)

5. PHOTO PROCEDURES: In accordance with photo procedures in section VIII of T.O. 1B-52B-1. Normal RBS camera procedures will be used on St Louis and Minneapolis. IBDA camera procedures will be used for the attack on Omaha using an assumed down time of 120 seconds (C). Cell lead aircraft will accomplish vertical photography on the target sites using the following camera Intervalometer settings. (a) Delay 10 Sec. (b) exposure interval 5 sec. (c) Exposure limiter 40. The Deputy lead aircraft will use the same intervalometer settings but will accomplish photography on the PIP of Paducah, Ky. All aircraft are directed to accomplish some sector scan photography on Paducah, Ky. (U)

5. BOMB RUN DATA: (U)

RUN NO.	PIP	TC/DIST	IP	TG/DIST	TARGET
1	PADUCAH, KY	320/54	MURPHYSBORO, ILL.	320/68	ST. LOUIS "I"
2	IOWA CITY, IA.	267/95	DES MOINES, IA.	260/105	OMAHA "C"
3	SIOUX CITY, IA.	043/145	AREAM MANTAKO	043/57	MINNEAPOLIS

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7. TARGET DATA: (C)

TARGET CLASS ELEVATION		DESCRIPTION	OAP #1	OAP #2
a.	"I"	SCULLIN STEEL CO. AP-TOP	TGT "D"	CENTER OF NORTH-MOST CITY BR
	"IIB"	OF EASTERNMOST OF FOUR BRICK	S4,130	N21,620
	"596"	SMOKE STACKS	E33,250	E32,940
b.	"C"	UNION PACIFIC RR SHOPS	TGT "M"	CENTER OF BRIDGE
	"IIA"	AP-TOP OF N.E. CORNER AT	N2,200	S. OF MUN A/P
	"1020"	LARGE L SHAPED BLDG	E2,200	S 7,000 E,2,760
c.	"COCA"	CENTER OF ROUND HOUSE TURN TABLE NEAR ST. ANTHONY		SEE SPECIAL TGT SHEETS
	"JULIETT"	N. W. CORNER OF MAIN BLDG IN INDUSTRIAL AREA		SEE SPECIAL TGT SHEETS
	"KILO"	CENTER OF 3 HANGERS ON ALERT PAD, WOLD-CHAMBERLIN AF		SEE SPECIAL TGT SHEETS

#1	BLUE	CELL WILL RUN TGT KILO AT MINNEAPOLIS
#2	GREEN	CELL WILL RUN TGT COCA AT MINNEAPOLIS
#3	ORANGE	CELL WILL RUN TGT JULIETT AT MINNEAPOLIS
#4	WHITE	CELL WILL RUN TGT KILO AT MINNEAPOLIS

8. METHOD OF AIMING: Radar offset on all targets.(U)

9. REQUIREMENTS:

a. One RBS run on St. Louis and Omaha.

b. IBDA Radar Photography on Omaha.

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c. One Scorable Radar Camera Attack on Minneapolis.

d. Vertical photography as outlined in paragraph 4 and 5 above. (U)

e. O-15 Scope photos will be taken at termination of day celestial and grid navigation legs.

10. RBS Scores will not be requested from the Bomb Plots if it will interfere with succeeding aircraft on bomb runs.

11. Each cell leader will accomplish normal navigation while in cell formation. When in formation with the tankers for refueling, only the lead radar observer in each cell will go to normal beacon operation. Other observers in cell may go to beacon function only if transmission is to dummy load. Position in formation will be maintained by normal cell tactics. (C)

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
7 NOVEMBER 1956

NAVIGATORS FLIMSY 42-2-56 "FUR COLLAR #2.

1. Routes, Altitudes, Control times, primary refueling area and alternate refueling area are contained in this flimsy as inclosures. Attention is directed to the left hand margin of Navigators log on which letter designation ("A"and "B" etc) have been placed to be used for inter-plane ETA'a etc. (U)

2. Each aircraft will climb out on course from Loring to level off at the same airspeed. After level off the cell leader will fly 420 K TAS until cell is joined. Succeeding aircraft will fly 460 K TAS until overtaking the leader. After the cell is formed all aircraft will fly 450 K TAS. Also the entire route after refueling will be flown at 450 K TAS. (C)

3. LATE TAKE-OFFS:

a. For primary refueling route an aircraft may take-off 44 minutes after the cell leader, proceed on course to point "C", cut across and intersect cell at point "F". (Pt. Ref- see Navigators log). (U)

b. For secondary refueling area an aircraft may take-off one hour after cell leader, proceeding on course to point B-1, cut across and intersect cell at point F-1, (Pt. Ref- see Navigators log). (U)

c. Aircraft failing to get off for refueling portion of mission may still complete Bomber Stream portion of mission, by taking off 11 minutes prior to assigned altitude departure time from Loring. Course will be Loring to Houlton to Brunswick, Me. Joining bomber stream mission at Brunswick, Me. (U)

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4. REQUIREMENTS:

a. 1 Day Celestial

b. 1 Grid Leg

c. Make assigned HHCL time over Paducah, Ky. Within plus or minus 2 minutes.

d. 1 Refueling rendezvous.

e. Navigate route as briefed.

INCL. #1 Navigators Log

INCL. #2 Route Chart

INCL. #3 Altitude Assignments

INCL. #4 Take-off and Control Time Schedule

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MISSION FLIGHT PLAN | O. C. AND NICKNAME: FUR COLLAR #2 | UNIT: 42 B.W. | TYPE ACFT: B-52 | WAVE: CONFIDENTIAL | CELL CALL SIGN | REMARKS: PG. #1.

	POUNDS
ACFT BASIC	167291
CREW 9	2070
FUEL 128 GAL	986
ATO	—
RACK	—
EXT TANKS (WEIGHT EMPTY)	2650
MISCELLANEOUS	—
CHAFF	—
OPERATING	173000

	POUNDS
BOMBS	
AMMO	
WATER AUG	
STATIC	434600
START ENGINES AND TAXI FUEL ALLOWANCE	4000
TAKE-OFF GROSS	430600

TOTAL FUEL 257600

NR FULL ATO REQUIRED: ESTIMATED WIND
NR EMPTY ATO REQUIRED: FLIGHT
ATO FIRING SPEED: PLAN

RUNWAY: PRESSURE ALT 700 | LENGTH 11,900 | AIR TEMP 37
CRITICAL FIELD LENGTH | CRITICAL AIR TEMP
TAKE-OFF DISTANCE | TAKE-OFF SPEED
CRITICAL WIND COMPONENT: 1ST LEG | 2ND LEG | 3D LEG

APOLOGY PRIMARY — PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	GROSS WT	
	LORING AFB															257600	430600	
																8700	8700	
	S-T-T-O - ACC											10	:03	10		248900	421900	
	HOULTON VOR 46-02N 67-51W	CL.	193	270/30 +4	197	+22		18M		410	402	76	14	96				+4
												76	17	106				
A	L/O 45-55N 66-50W	CL.	079	270/40 -1	078	+22		34M	.765	410	950	30	06	41		13000	13000	
												106	23	147		235900	408900	+2
B	EAST POINT 46-28N 61-59W	CR.	081	270/50 -1	080	+24		34M	.72	420	470	205	26	183		8900	8900	
												311	49	330		227900	400000	
C	CP 48-42N 58-05W	CR.	050	270/50 -5	045	+27		34M	.72	420	458	210	28	196		8750	8750	
												521	1:17	526		218250	391250	
D	COMPRESSION PT. 50-00N 55-30W	CR	050	270/50 -5	045	+29		34M	.72	420	458	124	16	112		4940	4940	
												645	1:33	638		213310	386310	
E	TP 51-34N 55-30W	CR	360	270/50 -6	354	+32		34M	.77	450	448	96	13	98		4060	4060	
												741	1:46	736		209250	382250	
F	CP 50-30N 59-50W	CR	242	270/50 +3	245	+31		34M	.77	450	405	170	27	203		8750	8750	
												911	2:13	939		200500	373500	+2
	SID 49-56N 61-32W	CR	240	270/50 +3	243	+29	-	34M	.77	450	405	73	11	82		3400	3400	
												984	2:24	1021		197100	370100	
	L/O 49-41N 62-17W	DS	240	270/40 +3	243	+28		24M		410	375	31	05	34		510	510	
												1015	2:29	1055		196590	369590	
G	RENDV 49-28N 62-52W	CR	240	270/30 +3	243	+28		15M		300	272	27	06	30		1700	1700	
												1042	2:35	1085		194890	367890	
	COMPLETION PT. 48-20N 65-45W	AR	240	270/30 +3	243	+26		15M		250	222	130	35	146		12900	12900	
												1172	3:10	1231		181990	354990	
																30000	30000	
	ON LOAD ACC & ST CLB. 48-13N 65-53W	CL	226	270/30 +5	231	+25		15M			228					211990	384990	
												9	:02	9		1200	1200	
												1181	3:12	1240		210790	383790	

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Confidential — Pg #2

MISSION FLIGHT PLAN — CONTINUATION SHEET

	FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PL. PRED FUEL REMAINING	FUEL FLIGHT PL. GROSS WT	
	48-13N 65-53W															210790	383790	
	40			270/40				28.3				76	12	82		6410	6410	
	47-22N 67-18W	CL	226	+4	230	+24				410	382	1257	3:24	1322		203880	376880	
E	LORING AFB			270/50				35M				37	06	45		1880	1880	
	46-58N 67-53W	CR	226	+6	230	+23			.77	450	413	1294	3:30	1367		202000	375000	
	BRUNSWICK EGAM St Bdy			270/50								205	:29	217		9300	9300	
J	43-52N 69-56W	CR	205	+6	211	+20		35M	.77	450	426	1499	3:59	1574	1556	192700	365700	
	TP			270/50								357	53	400		16060	16060	
	43-00N 78-00W	CR	261	+1	262	+14		35M	.77	450	400	1856	4:52	1974		176690	349640	
	HAMILTON END DAY-X			270/50								368	:54	405		15900	15900	
K	39-23N 84-32W	CR	233	+4	237	+4		36M	.77	450	410	2224	5:46	2379		160740	333740	
	LOUISVILLE			270/50								88	13	94		3490	3490	
	38-14N 85-44W	CR	218	+5	223	-1		39M	.77	450	418	2312	5:59	2473		157250	330250	
	NASHVILLE			270/50								137	19	143		5450	5450	
	36-10N 86-47W	CR	202	+6	208	-2		39M	.77	450	430	2449	6:18	2616		151800	324800	
	PADUCAH HHCL PIP			270/50								104	15	113		4270	4270	
4	37-04N 88-36W	CR	302	-3	299	-4		39M	.77	450	408	2553	6:33	2729		147530	320530	
	MURPHYSBORO IP			270/50								55	08	60		1950	1950	
	37-46N 89-21W	CR	320	-5	315	-4		39M	.77	450	415	2608	6:41	2789		145580	318580	
	ST LOUIS TGT I			270/50								66	:11	86		3300	3300	
L	38-37N 90-18W	BR	320	-5	315	-5		39M	.77	450	415	2674	6:52	2875		142280	315280	+2
	PEORIA VOR			270/50								130	17	128		4600	4600	
	40-41N 89-48W	CR	008	-6	002	-4		39M	.77	450	453	2804	7:09	3003		137680	310680	
	IOWA CITY PIP			270/50								97	14	105		3600	3600	
M	41-39N 91-31W	CR	305	-3	302	-5		39M	.77	450	408	2901	7:23	3108		134080	307080	
	DES MOINES IP			270/50								95	14	105		3550	3550	
	41-34N 93-37W	CR	267	+1	268	-6		39M	.77	450	400	2996	7:37	3213		130530	303530	
	OMAHA TGT C			270/50								107	18	135		4800	4800	
V	41-16N 95-55W	BR	260	+1	261	-8		39M	.77	450	400	3103	7:55	3348		125730	298730	+2
	SIOUX CITY PIP			270/50								76	11	79		2850	2850	
O	42-28N 96-22W	CR	345	-6	339	-9		40M	.77	450	435	3179	8:06	3427		122880	295880	
	ABEAM MANKATO IP			270/50								145	18	135		4700	4700	
	44-15N 94-09W	CR	043	-5	038	-8		40M	.77	450	485	3324	8:24	3562		118180	291180	
	MINNEAPOLIS CAM TGT			270/50								57	07	52		1800	1800	
P	44-56N 93-12W	BR	043	-5	038	-6		40M	.77	450	485	3381	8:31	3614		116380	289380	
	START GRID			270/50								59	07	52		1750	1750	
	45-27N 92-00W	CR	062	-3	059	-5		40M	.77	450	495	3440	8:38	3666		114630	287630	
	MICHIPICOTEN BAY			270/50								330	40	300		9600	9600	
Q	47-55N 84-52W	CR	062	-3	059	+1		40M	.77	450	495	3770	9:18	3966		105030	278030	
	END GRID			270/50								535	1:04	480		15250	15250	
R	46-42N 74-51W	CR	099	0	099			41M	.77	450	500	4305	10:22	4446		89780	262760	

SAC FORM 10 APR 56 1b FC 2320 Track No. 1 NAVIGATION Confidential C-9912

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Confidential Pg #3

MISSION FLIGHT PLAN – CONTINUATION SHEET

FROM 46-42N 71-51W ROUTE	FLT COND	T.C.	WIND D/V DRIFT	T.H.	VAR	M.H.	TEMP ALT	IAS MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	GROSS WT
															84780	262780
S HOULTON VOR 46-02N 67-51W	CR	104	270/50 +1	105	+20		35M	.77	450	500	173 4478	21 10:43	158 4604		5040 84740	5040 257740
T LORING AFB 46-58N 67-53W	DS	358	270/30 -4	354	+22		20M		400	400	57 4535	10 1053	57 4661		600 84140	600 257140
LAND 2nd TAXI												15 11:08			3500 80640	3500 253640

NOTE: ESTIMATE CELL JOIN UP for #2, #3 and #4 AIRCRAFT at the following POINTS

46-24N 62-36W #2

48-04N 59-14W #3

49-52N 55-45W #4

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MISSION FLIGHT PLAN	O. C. AND NICKNAME: FUR COLLAR #2	UNIT: 42 B.Wg	TYPE ACFT: B-52	WAVE	CELL CALL SIGN	REMARKS: F4 4

	POUNDS				POUNDS		
ACFT BASIC	167294			BOMBS		Confidential	
CREW 9	2070			AMMO			
OIL 122 GAL	986			WATER AUG			
ATO	—			STATIC		NR FULL ATO REQUIRED	
RACK	—			START ENGINES AND TAXI FUEL ALLOWANCE		NR EMPTY ATO REQUIRED	
EXT TANKS WEIGHT (EMPTY)	2650						
MISCELLANEOUS	—						
CHAFF	—	TOTAL FUEL	257600	TAKE-OFF GROSS	430600	ATO FIRING SPEED	
OPERATING	173000						

RUNWAY		
PRESSURE ALT 700	LENGTH	AIR TEMP 27
CRITICAL FIELD LENGTH		CRITICAL AIR TEMP
TAKE-OFF DISTANCE		TAKE-OFF SPEED
CRITICAL WIND COMPONENT		
1ST LEG	2ND LEG	3D LEG

PEPPER-BOX SECONDARY

PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT	
	[illegible] AFB															257,600	430,600	
																5700	5700	
	STTETO - ACC											10	03	10		246900	421900	
A1	L/O TP 49-19N 67-23W	CL	009	270/30 -4	005	+24		22M		410	415	132 / 142	20 / 23	130 / 140		13000 / 235900	13000 / 408900	+1
B1	CP 52-00N 61-38W	CR	054	270/50 -4	050	+28		34	.72	420	461	274 / 416	36 / :59	252 / 392		12300 / 223600	12300 / 396600	
C1	HUNTINGTON ISLAND 53-48N 56-50W	CR	054	270/50 -4	050	+34		34	.72	420	461	199 / 615	26 / 1:25	182 / 574		6900 / 214700	8900 / 387700	
D1	Compression Pt 54-28N 57-42W	CR	308	270/50 -4	304	+35		34	.72	420	380	38 / 653	08 / 1:33	56 / 630		2580 / 212120	2580 / 385120	+2
E1	TP 55-12N 59-28W	CR	308	270/50 -4	304	+36		34	.77	450	410	76 / 729	11 / 1:44	82 / 712		3120 / 209000	3120 / 382000	
F1	CP 53-18N 63-46W	CR	228	270/50 +4	232	+33		34	.77	450	408	183 / 912	29 / 2:13	217 / 929		9050 / 199950	9050 / 372950	+2
	L/O 52-30N 65-10W	CR	228	270/50 +4	232	+32		34	.77	450	408	68 / 980	10 / 2:23	75 / 1004		3550 / 196400	3550 / 369400	
	L/O 52-06N 65-47W	DS	225	270/40 +4	229	+29		24		410	380	32 / 1012	05 / 2:28	34 / 1038		510 / 195890	510 / 368890	
G1	RENDV. 51-46N 66-21W	CH	225	270/30 +4	229	+28		15M		300	278	28 / 1040	06 / 2:34	30 / 1068		1700 / 194190	1700 / 367190	
I1	END REFUEL 50-11N 68-48W	AR	225	270/30 +4	229	+26		15M		250	228	130 / 1170	34 / 3:08	142 / 1210		12550 / 181640	12550 / 354640	
	ON LOAD															30000 / 211640	30000 / 384640	
	ACC 5# CLMB 50-03N 68-46W	ACC	170	270/30 +6	176	+24		15M		250	258	08 / 1178	:02 / 3:10	08 / 1218		1200 / 210490	1200 / 383440	
	L/O 48-43N 68-25W	CL	190	270/50 +7	177	+24		28.3		410	418	83 / 1261	:12 / 3:22	82 / 1300		6910 / 203530	6910 / 376530	

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Confidential Pg #5

MISSION FLIGHT PLAN – CONTINUATION SHEET 3:22 1300

	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
48-43N 68-25W															203530	376530
ROUTE																
LOKING AFB			270/50								111	:15	112		4430	4430
K1 46-58N 67-53W	CR	170	+6	176	+23		35m		450	455	1372	3:37	1412		199100	372100

NOTE: ESTIMATE CELL JOIN UP for #2, #3 and #4 Aircraft at the following Points

51-06N 63-44W #2

52-44N 59-50W #3

57-28N 57-44W #4

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Confidential Pg # 6

MISSION FLIGHT PLAN – CONTINUATION SHEET

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
TO ALTERNATE BASES																
① WITH AIR REFUELING AS PLANNED																
HOULTON VOR							35M				4478	10:43	4604		84740	257740
											465	1:00	450		16395	16395
GOOSE BAY VOR	CRCL	030	270/50 -6	024	+27		44	.77	450	470	4943	11:43	5054		68345	241345
HOULTON VOR							35M				4478	10:43	4604		84740	257740
											780	1:55	860		27995	27995
WRIGHT-PAT VOR	CRCL	240	270/50 +3	243	+10		44	.77	450	408	5258	12:38	5464		56745	229745
MISSED AIR REFUELING																
HOULTON VOR							35M				4478	10:43	4604		63400	236400
											465	1:00	450		15700	15700
GOOSE BAY VOR	CRCL	030	270/50 -6	024	+27		45.8	.77	450	470	4943	11:43	5054		47700	220700
HOULTON VOR							35M				4478	10:43	4604		63400	236400
											780	1:55	860		26750	26750
WRIGHT-PAT VOR	CRCL	240	270/50 +3	243	+10		15.8	.77	450	408	5258	12:38	5464		36650	209650

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Pg #7

MISSION FLIGHT PLAN – CONTINUATION SHEET

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T.A.S.	G.S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL ALLOWED / FUEL FOR REMAINING	[illegible]

NOTE: ESTIMATE CELL JOIN UP FOR #2, #3 AND #4 AIRCRAFT AT THE FOLLOWING POINTS —

PRIMARY ROUTE

46-24N 62-36W #2

48-04N 59-14W #3

49-52N 55-45W #4

SECONDARY ROUTE

51-06N 63-44W #2

52-44N 59-50W #3

54-28N 57-44W #4

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"FUR COLLAR # 2" ALTITUDE ASSIGNMENTS

Cell & Position	Altitude Prior to Refueling	Altitude Refueling	Altitude Over Loring	Alt to 4300N 7800W	Alt to End Day "X"	Alt to Omaha	Altitude to Michipicoten Bay	Altitude to End Grid	Altitude to Houlton VOR
Blue #1	34M	15M	35M	35M	36M	39M	40M	41M	35M
Blue #2	34.5M	15.5M	36M	37M	38M	41M	42M	43M	
Blue #3	35M	16M	37M	35M	36M	39M	40M	41M	
Blue #4	35.5M	16.5M	38M	37M	38M	41M	42M	43M	
Green #1	34M	15M	35M	35M	36M	39M	40M	41M	35M
Green #2	34.5M	15.5M	36M	37M	38M	41M	42M	43M	
Green #3	35M	16M	37M	35M	36M	39M	40M	41M	
Green #4	35.5M	16.5M	38M	37M	38M	41M	42M	43M	
Orange #1	34M	15M	35M	35M	36M	39M	40M	41M	35M
Orange #2	34.5M	15.5M	36M	37M	38M	41M	42M	43M	
Orange #3	35M	16M	37M	35M	36M	39M	40M	41M	
Orange #4	35.5M	16.5M	38M	37M	38M	41M	42M	43M	
White #1	34M	15M	35M	35M	36M	39M	40M	41M	35M
White #2	34.5M	15.5M	36M	37M	38M	41M	42M	43M	
White #3	35M	16M	37M	35M	36M	39M	40M	41M	
White #4	35.5M	16.5M	38M	37M	38M	41M	42M	43M	

NOTE: All altitudes MSL except refueling which is 29.92.

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"FUR COLLAR # 2" TAKE-OFF & CONTROL TIME SCHEDULE

	Acft No.	Call Sign	Acft Comdr	Est. Wind T/O Time (Z)	Refueling Rendz (Z)	LIZ VOR B/Stream Dept (Z)	HHCL Paducah (Z)
***	401	Upkeep Blue 10	Rioridan	1107	1342	1437	1740
	404	Upkeep Blue 11	Southwick	1109		1449	1752
	407	Upkeep Blue 12	Tucci	1111		1501	1804
	*665	Upkeep Blue 13	Anastasia	1113		1513	1816
							1828 (OPEN)
	402	Upkeep Green 41	Britton	1207	1442	1537	1840
	405	Upkeep Green 42	Confer	1209		1549	1852
	666	Upkeep Green 44	Bell	1211		1601	1904
	672	Upkeep Green 46	Owens	1213		1613	1916
							1928 (OPEN)
	403	Upkeep Orange 71	Hudlow	1307	1542	1637	1940
	667	Upkeep Orange 74	Stickler	1309		1649	1952
	670	Upkeep Orange 75	Scannell	1311		1701	2004
	400	Upkeep Orange 70	Roberts	1313		1713	2016
							2028 (OPEN)
	406	Upkeep White 72	Wright	1407	1642	1737	2040
	674	Upkeep White 16	Meyers	1409		1749	2052
**	675	Upkeep White 47	Jenkins	1411		1801	2104
****	664	Upkeep White 73	Childs	1413		1813	2116
							2128 (OPEN)
							2140 (OPEN)

* Col Hillman
** Col Swancutt
*** Gen Martin
**** Col Barr

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AIR FORCE NAVIGATOR'S LOG CONFIDENTIAL

PILOT EVR COLLAR "2" NAVIGATOR _____ CREW NO. _____ PLANE NO. _____ ORGANIZATION 42 AREFS TYPE KC-97 DATE 7 NOV 56

ENG. START	T. O.	LAND	FLIGHT TIME

FORMATION POSITION APOLOGY

GROSS WT. AT T. O. LB./GAL. ABOARD AT T. O.	
ALTERNATE—	
TIME TO ALTERNATE—	HRS. M.
FUEL REQUIRED TO ALT.—	GAL.

SUN		MOON		TWILIGHT	
RISES	SETS	RISES	SETS	A. M.	P. M.

WATCH FAST SLOW Rate sec/hr GAIN LOSE

AT GCT (DATE)

T.O. 1125 1225 1325 1425

Departure LORING Destination LORING

OFFICIAL: (NAME) (RANK) (NAVIGATOR)

ALT. SETT. DEP. 29.92 DEST. 29.92

FLIGHT PLAN 30000

FROM— TO—	TRUE COURSE	DRIFT	WIND USED D / V	TRUE HEADING	VAR.	MAG. HEADING	TEMP. °C / ALT.	IAS / TAS (K)	G. S. (K)	DISTANCE THIS LEG	TIME	ELAPSED TIME	FUEL CONSUMED	FUEL REMAINING
LIZ												+10		
47-35N 67-45W	005	-5	280/15	360	+22	022	6-8	185	183	40	+13	+23		
48-14N 66-30W	054	-3	280/15	051	+23	074	6-8	215	226	64	+17	+40		
PORT MENIER RADIO	042	-4	280/20	038	+26	064	10-12	223	234	129	+33	1+13		
49-56N 61-31W	086	0	270/35	086	+28	114	15-17	230	255	109	+26	1+39		
	060	-5	270/35	055		083								
ORBIT	240	+5	270/35	245	+28	273	17.0	230	-	-	+21	2+00		
49-27N 62-52W RENDEZVOUS PT	240	+5	270/35	245	+28	273	16.5	230	199	60	+18	2+18		
48-17N 65-45W END REFUELING	240	+4	270/35	244	+26	270	16.5	256	218	135	+37	2+55		
48-01N 65-50W 45° TURN	189	+8	270/35	197	+24	221	16.5	240	232	17	+04	2+59		
47-16N 67-07W START DESCENT	228	+6	270/35	234	+24	258	16.5	210	183	69	+23	3+22		
LORING VOR	229	+6	270/30	235	+22	257	↘	200	176	40	+14	3+36		
	0									663				

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AIR FORCE NAVIGATOR'S LOG

PILOT FUR COLLAR #2 NAVIGATOR _____ CREW NO. _____ PLANE NO. _____ ORGANIZATION 42AREFS TYPE KC-97 DATE 7NOV56

ENG. START	T. O.	LAND	FLIGHT TIME

FORMATION POSITION PEPPER BOX

GROSS WT. AT T. O. LB./GAL. ABOARD AT T. O.	
ALTERNATE—	
TIME TO ALTERNATE—	HRS. M.
FUEL REQUIRED TO ALT.—	GAL.

SUN		MOON		TWILIGHT	
RISES	SETS	RISES	SETS	A. M.	P. M.

WATCH FAST SLOW Rate sec/hr GAIN LOSE

AT GCT (DATE)

T.O.
1115 E
1215
1315
1415

Departure LORING Destination LORING

OFFICIAL: (NAME) (RANK) (NAVIGATOR)

ALT. SETT.
DEP. 29.97
DEST. 29.97

FLIGHT PLAN

FROM— TO—		TRUE COURSE	DRIFT	WIND USED D / V	TRUE HEADING	VAR.	MAG. HEADING	TEMP. °C. ALT.	IAS / TAS (K)	G. S. (K)	DISTANCE THIS LEG	TIME	ELAPSED TIME	FUEL CONSUMED	FUEL REMAINING
LORING AFB													+10		
48-00N 66-38W		039	-5	280/20	034	+23	057	↗	185	194	79	+25	+35		
SEVEN ISLANDS RNG		007	-9	270/35	358	+25	023	17.0	230	231	134	+35	1+10		
52-28N 65-13W		013	-8	270/35	005	+28	033	17.0	230	235	142	+36	1+46		
ORBIT		045 / 225	-6 / +6	270/35	039 / 231	+29	068 / 260	17.0	230		—	+17	2+03		
51-47N 66-22W	RENDEZVOUS PT	225	+6	270/35	231	+28	259	16.5	235	208	59	+17	2+20		
50-16N 68-46W	END REFUELING	225	+5	272/35	230	+26	256	16.5	260	234	130	+33	2+53		
50-00N 68-46W	45° TURN	184	+8	270/35	192	+25	217	16.5	240	236	16	+04	2+57		
MONT JOLI RNG		169	+9	270/35	178	+20	202	16.5	220	223	88	+24	3+21		
47-35N 67-45W	START DESCENT	162	+9	270/35	171	+23	194	16.5	220	228	63	+17	3+38		
LORING VOR		182	+8	270/30	190	+23	213	↘	200	196	47	+14	3+52		
											758				

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE,
MAINE
31 October 1956

FUR COLLAR #2

NAVIGATORS FLIMSY:

1. Adequate charts will be carried to cover 200 N.M. either side of course and alternate bases.

2. Mission requirements:

   a. Monitor take off with APS-42A

   b. Three hours of cell formation

   c. Rendezvous (by cell leader).

   d. Monitor let down and landing with APS-42A.

3. Rendezvous settings:

a. Cora cell	APN-12	T-8,R-7 ;	APN-69	1-1-2	(C)
b. Doris cell	APN-12	T-4,R-6 ;	APN-69	2-1-1	(C)
c. Edna cell	APN-12	T-7,R-6 ;	APN-69	2	(C)
d. Francis cell	APN-12	T-7,R-5 ;	APN-69	2-2	(C)

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NRT–EPR SETTING–IN CLIMB

FLY 310 IAS_K TO 26,800' P/A, THEN .765M DURING BALANCE OF CLIMB.

OAT, IND.	PRESSURE ALTITUDE X 1000'							OAT, IND.
	5	10*1	15	20*1	25	30*1	35	
30°C	207							30°C
25°	2.12							25°
20°	2.18	2.17						20°
15°	2.22	2.22						15°
10°	2.29	2.28	2.28					10°
5°	2.34	2.34	2.33					5°
0	2.41	2.41	2.40	2.39				0
-5°	2.47	2.47	2.46	2.45				-5°
-10°	2.55	2.54	2.53	2.53	2.52			-10°
-15°	2.61	2.60	2.60	2.59	2.58			-15°
-20°	2.68	2.68	2.67	2.66	2.65	2.65		-20°
-25°		2.73	2.73	2.72	2.71	2.71		-25°
-30°		2.80	2.80	2.79	2.78	2.78	2.78	-30°
-35°			2.86	2.85	2.85	2.84	2.84	-35°
-40°			2.93	2.93	2.92	2.91	2.91	-40°
-45°				2.99	2.98	2.97	2.97	-45°
-50°				3.06	3.05	3.04	3.04	-50°
-55°					3.12	3.11	3.11	-55°
-60°					3.18	3.18	3.18	-60°

*1. Mandatory check of climb EPR values to be performed at 10,000', 20,000', & 30,000' P/A.

2. For EPR setting at temps other than listed, interpolate between values presented above.

3. Refer to: 42nd BW OPS memo B10-6, 22 Oct '56 & Figs. B5-21, B5-30, B11-5, T.O. 1B-52-1A, 30 Sept '56

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WING REGULATION)
NUMBER 66-9)

HEADQUARTERS, 42D BOMBARDMENT WING (H)
Loring Air Force Base, Maine
24 October 1956

MA6A SYSTEMS MALFUNCTION ANALYSIS

(Supersedes Wing Reg 66-9, dated 24 August 1955)

1. PURPOSE:

a. To provide the best available information for analyzing MA6A equipment malfunctions.

b. To teach the observers of this wing how to provide the information necessary to adequately and intelligently report on malfunctions that need follow up and maintenance.

c. To promote better cooperation between the observers and A&E.

d. To provide the Malfunction Data Collection Analysis Unit with all the facts necessary for the 252 and 190 Reports.

e. To more adequately fix the agency of responsibility.

2. RESPONSIBILITY:

a. Tactical squadron commanders will be responsible for insuring that the Radar Observers meet with representatives of the Armament and Electronics Squadron at the time and place as specified in the General portion of this regulation.

b. The A&E Squadron Commander will be responsible for insuring that the Radar Observers meet with representatives of the Armament and Electronics Squadron at the time and place as specified in the General portion of this regulation.

(1) Bombing Navigation System Technician

(2) Contractor Technical Representatives

(3) MDCAU System Historian

(4) Bombing System Aircraft Crew Chief, if available

3. GENERAL: After each flight where an unsatisfactory MA6A performance has been indicated on the Form 252, the Radar Observer will meet with the MA6A Analysis Team to discuss and analyze the malfunctions that occurred. These meetings will be held in addition to the regular crew debriefing, as set forth in

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Wing Regulation 66-3 and 55-15. The location of the meetings will be the MDCAU Office of the A&E Building, from 0800 to 0900 or 1300 to 1400 hours local time, depending upon aircraft landing time.

a. If the aircraft lands before 2200 hours, the meeting will be conducted at 1300 hours the following day. If the aircraft lands after 2200 hours, the meeting will be held at 0800 hours the second day.

b. This meeting will be conducted by the Officer in charge of the MDCAU, another officer, or representative designated by the A&E Squadron Commander.

c. A sign-in roster will be maintained by the MDCAU Office and each Radar Observer will be required to certify as to his attendance.

d. The required attendance of the personnel as set forth in this regulation is on a high priority basis and will take precedence over the normal day-to-day duties. Normally, individual discussions should not take longer than 15 to 20 minutes, but if it becomes necessary the A&E Squadron Commander will assign 20 minute periods to each Tactical Squadron within the specified periods listed.

BY ORDER OF THE COMMANDER:

FRANK L. WRIGGLESWORTH
Major, USAF
Adjutant

OFFICIAL:
Frank L Wrigglesworth
FRANK L. WRIGGLESWORTH
Major, USAF
Adjutant

DISTRIBUTION:
150-42DOS
5-ea wg Sq
5-ea Wg Staff Sec
20-42ADJ
5-Comdr 8AF

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MA6A GROUND ACCEPTANCE CHECK

WARNING: CHECKS ARE NOT TO BE PULLED IF BOMBS ARE ABOARD AIRCRAFT.

This check is to be followed when the MA6A System is checked after (hr) Dock Inspection. Also the applicable portion of the check list will be followed when the MA6A is to be accepted after major maintenance by A&E.

PERSONNEL REQUIRED:
1) VO
2) NAV
3) A&E MECHANIC (FULLY QUALIFIED)
4)

EQUIPMENT NECESSARY:
1) Pencil
2) Screw Driver
3) Normal A&E Mechanic Tool Kit
4) Vac Tube Voltmeter
5) Stop Watch
6) TACH Oscilloscope
7) HEADSET - 2

The symbol column is to be used to rate the items checked as to whether they are satisfactory (S) or unsatisfactory (U). Also the column is to be used to record readings as required.

Upon completion of the Acceptance Check the system will be signed off as "ACCEPTED" if all items are satisfactory. In the event any items are rated as unsatisfactory a (U) will be placed in the Symbol Column and the discrepancy will be fully explained on the Remarks sheets provided. The discrepancy will then be corrected by the section concerned and that portion of the check will then be re-run and if item or items are then rated as satisfactory the system will be signed off as "ACCEPTED".

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	SYM
A. EXTERIOR INSPECTION	
1. Auxilary Power Unit - Adequate Fuel. - 115 V.A.C. 28 V.D.C. connected. Insure sufficient fuel is in APU to complete the checks.	
NOTE: It is recommended that an APU be used that will supply power to the total acft in order that compartment lites will be available.	
2. CHECK PHASE LITES OF PROPER SYSTEM. ie: BNS ONLY - LEFT LITE ON AIRCRAFT PROPER - 1-2-3.	
WARNING: IF NOT IN PROPER PHASE DISCONNECT APU AND RECONNECT AND RECHECK PHASING. IF STILL NOT IN PHASE DISCONNECT APU AND OBTAIN ANOTHER POWER UNIT.	
3. Bomb Bay Door Actuators - Disconnected.	
4. Rademe flush and latched and checked for cracks and soft spots.	
5. Drain hole clear	
6. Y-7 Periscope glass inspected for cleanliness and scratches.	
7. Radar observers down-ward ejection hatch and external release handle checked flush with airplane skin.	
8. Bomb door limit, release, and camera Micro switches (9) checked for condition and security.	
9. U-2 release air pressure 1200-1500 PSI	
10. U-2 release latched	
11. A-5 releases cocked - (if installed).	
12. Bomb bay exygen supply shut off levers and interphone OFF.	
13. Visually inspect the bomb bay for fuel and hydraulic leaks and check security of wires, cables and pneumatic ducts. All loose equipment clear of bomb bay doors.	
14. Check vertical camera window for cleanliness.	

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	SYM
15. NAVIGATORS ESCAPE HATCH	
a. Check security and condition of hinges, cables and rubber hatch seal.	
b. Check security of catapult safety pull pin initiator lanyard to hatch.	
c. Check proper positioning of catapult initiator safety pin.	
d. Check cable restraint swaged balls in both right and left arming lever.	
B. INTERIOR INSPECTION Ejection seats and hatches checked -	
1. Insure that 7 pins, radar ejection seats, and 7 pins, nav. Ejection seat are properly installed with streamers attached.	
2. Radar seat	
a. Ascertain that the ejection hatch inside handle is in the locked position (full left) and that handle recess is clear.	
b. WARNING: VISUAL CHECK ONLY TRIGGER PULL RING CHECK FOR PROPER STOWAGE IN DOWNWARD POSITION.	
c. Catapult safety pull pin initiator lanyard - check security of attachment to hatch.	
d. Cable restraint swaged balls in both right and left arming levers.	
3. Navigator seat	
a. Check security of safety belt initiator actuating rod to initiator and seat rail bracket.	
b. Check trigger pull ring proper stowage in downward position.	
4. Visually inspect periscope mount. (Both Periscopic Sextant and mount will be fully checked on the test flight operational preflight)	

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	SYM
5. Radar pressure pump dessicant - checked	
6. VA correction set at tagged time and CSM OFF	
7. MA-1 fuse box and fuse holders - checked	
8. Security of amplifiers in racks-checked	
9. Stab. Amp rack - Power Switch - ON	
10. Spare amplifiers - Fuses - Tubes - checked for quantity, type and security of mounting.	
11. Servo-Amplifier stab-unstab switch to stab position.	
12. N-1 compass circuit breakers-in	
13. BNS - heat control switch - pre-heat position is used on the ground when temperature is below zero degrees centigrade.	
14. Radar obs. circuit breaker panel - all circuit breakers-IN.	
15. Radar Pressure Pump - Hold on until pressure reaches 40 Hq. return Sw to OFF. (This reading will be rechecked later thereby providing a check for leakage in the wave guide, Rt Unit, Modulator, and IP-284 Pressure Seal)	
16. Bomb Control Panel.	
a. Master bomb control Sw-OFF	
b. Bomb Indicator light switch - OFF	
c. Salvo Sw - OFF and safetied.	
d. K-3A Switch - Manual	
17. Bric - Trani & Zero Bombs - Lites OUT	
18. Variac Control - CCW to 73 V.	
19. D-2 Release Switch - Stowed	
20. Auxiliary Radar Indicator	
a. Video gain - CCW	
b. Bias - CCW	
c. Sector amplitude - CW and in detent	
21. APS-64 Radar Control Unit:	
a. Power Sw. - OFF	
b. Meter SW. - AC or DC	
c. FTC Sw. - OFF	
d. Recvr Gain - Full CCW	

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SYM

e. Log-Lin Sw - Lin
f. Operation Sw - Rad - Hi Res.
g. Sweep Delay - Full CCW and Depressed
h. Range Dial - 30 NM
CAUTION: DO NOT RUN RANGE OVER 50 NM.
i. Tilt Zero Degrees
j. Illum knob - CW

22. APS-64 Frequency Control Meter - Checked

a. Wave Guide Selector Switch - MAN ANT

23. Primary Control:

a. Function Sw - OFF
b. Range Mk - X hrs Sw - X hr
c. PPI - UC Sw - PPI
d. Radar Alt Sw - OFF
e. Illum Sw - ON
f. Offset Sw - OUT
g. Aux PPI or NAV. Track Sw - OUT

24. Switch Box SA-350 - PMG - ON

25. Ballistics Control

a. ATF - 48 Sec
b. Trail 21000 ft
c. OFFSET #1 N-40,000 ft
E-W- Zero
d. OFFSET #2 N-S- Zero
E-40,000 ft
e. Offset Sw - OFFSET #1
f. Bombing Mode Sw - Syn
g. Illum Sw - CW

26. 10" Indicator

a. Bias Control - CCW
b. Range Lites - CW
c. Video Gain - CCW
d. Drill Marks - CCW

27. O-15 Camera Power Sw - OFF

28. Vertical Camera Power Sw - OFF

29. Camera Master Sw - OFF

30. Camera Intervelometer Power Sw - OFF

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SYM

31. Y-7 Periscope:

    a. Main Sw - OFF
    b. Grid Sw - OFF
    c. Off Dimmer Control - CW
    d. Filter Selector - Clear
    e. Grid Selector - Clear
    f. Transfer Knob - NORMAL
    g. Pressure Pump Dessicant - Checked.

32. Clam Shell Doors - Open

    a. Check Preiscope for clearness of vision.

33. Auto-Pilot Remote Turn Controller:

    a. Turn knob in Detent
    b. Remote Turn Control Sw - MANUAL

34. Navigation Unit:

    a. Lat. & Long. counter setting knobs - In Detent
    b. Reference point Sw - Planes's Position
    c. Illum Sw - CW

35. Polar Navigation Control:

    a. Polar Angle Indicator - 080°
    b. Nav method Sw - NORMAL
    c. North Pole-South Pole - Sw ---North Pole
    d. Illum Sw - CW

36. Rear Special Weapon Manual Release Handle - Stowed

37. Forward Special Weapons Manual Release Handle - Stowed

38. Special Weapons Manual Lock Handle - Stowed.

NOTE: BNS is now ready for the power on Acceptance Check.

1. Volts and Cycles checked for correct output on APU.

2. Primary Control Function Sw - STAB
   (Note time of turn on 2nd timing period should cut in at 7 MIN. ± 1 MIN.)

3. Check stab A-1A Power Supply - 175V (Red)
   300V (Green) after 30 sec.

4. Check A.T. Repeater and true heading transmitter with N-1 compass (± Mag Var) for correct true heading

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	SYM
5. Turn Mag. Var. 10° E & W for proper follow of the T.H. Unit	
6. Y-7 Periscope Main Sw - NORMAL	
7. Radar Pressure Check	
a. Check for 40" Hg, Pressure should not decrease	
b. Bleed Pressure to normal	
8. Radar Control Unit Power Sw-Stand By	
9. Check that A.C. & D.C. power are within tolerances.	
10. Primary Control Function Sw - NAV	
11. Check that VA goes to Red Dot and then to 150K ± VA correction.	
12. Check Comp. A-1A Power Supply. (175V Red & 300V Green after 30 seconds.	
13. Set H to 40,000 ft in Ballistic Control	
a. H in Polar Converter agrees ± 15 ft on Fine Dial	
14. Pull VA AMP.	
15. Set 750 Ft/Sec VA in Tracking Computer	
a. VA repeater agrees 444K ± 5K	
16. Static Bomb Sw Check	
a. Function switch to TRACK	
b. Pull Areo Heading and Gyrosyn amplifier	
c. Set AT to zero degrees in Heading Unit	
d. Set Tf at 55 sec on Ballistic Control	
e. Check that AT in the Tracking Computer equals zero degrees plus/minus .15 degrees	
f. Check that Tf in the Tracking Computer equals 55 sec plus/minus .08 sec.	
g. C.S.M. to ON	
h. Switch to memory point and set We to zero and Wn to 120 knots (South)	
i. C.S.M. to OFF	
j. Set We to zero and Wn to 200 ft/sec (North) into the Tracking Computer by hand.	
k. Zero Xe in the Tracking Computer and remove the Xe amplifier	
l. Set Xn to approx. 10 miles North	
m. Check that Ar equals zero degrees plus/minus .3 degrees	

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SYM

n. Function switch to BOMB
o. Set Ti in Tracking Computer to 60 sec (TG about 5) with tracking handle and pull TI amplifier
p. Increase TF until function switch unlatches then decrease TF until function switch latches in bomb. The difference between TI and TF should equal 1[illegible] sec ± .5 sec
q. Increase Tf on Ballistic Control until 27VDC is read at E-8601-64 in C.A.U. to ground (Bomb door voltage open).
r. In C.A.U. check for 27VDC at E-8603-1 (auto pilot control voltage)
s. In Tracking Computer the difference between Ti and Tf should be 3 sec plus/minus .5 sec
t. Tg indicators (PDI) and (VO) should repeat time difference in item #19. to within ½ sec.
u. Increase Tf in Ballistic Control until Bomb release light comes ON and check in Tracking Computer that Ti equals Tf plus/minus .1 sec
v. Increase Tf in Ballistic Control until Function switch returns to TRACK at which time Tf in Tracking Computer should read .7 sec plus/minus .5 sec greater than Ti in Tracking Computer.

17. Remove AERO heading (MAH) and Gyrosyn (MH) Amplifiers.

18. PDI Follow Check

a. Set AT Heading Unit to 10 degrees and check turn angle on PDI it should read 10 degrees left plus/minus 2 degrees.
b. Set AT Heading Unit to 350 degrees and check turn angle on PDI it should read 10 degrees right plus/minus 2 degrees.
c. Set AT in Heading Unit to zero degrees the turn angle should be within the width of the index line.

19. Re-Insert TI Amplifier

RELEASE PROBLEM NO.1

1. Function Sw - Track

2. Set AT at 000° with screw in AT Unit.

a. Read 000° ± .15° in Track Comp. and Bombing Comp.

3. With AT to 000° check:

a. E-8801 - - 97 to 103
b. E-8801 - - 98 to 103
Terminals should read 9V to 12V AC (VA corr. to A & B Gyros)

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SYM

4. In Memory Pt. set winds on NAV. Unit:

   a. E-W Zero
   b. N-S Approx. 120K South

5. Memory Pt Switch - OFF

6. CSM - OFF

7. XE (set with track handle):

   a. Zero in Track Comp.

8. Remove XE Amplifier.

9. Set XN approx. 10 NM NORTH

10. WN - Set with wind Knob to 200 ft/sec NORTH.

11. WE - Set with wind Knob to ZERO

12. BRIC - - - - Train and 10 Bombs

13. UHF - - - -On for a Tone Release

14. Function Sw - Bomb and check that PDI Lamp Lites

15. Tone Sw - ON

16. Decrease XN slowly with Track handle until bomb release lite is on. Check for:

   a. Turn angle on PDI equals 0° (Width of index line)
   b. Tone cuts off
   c. Intervelometer operates
   d. Beta in Polar Converter Reads $38.00^{\circ} \pm .3^{\circ}$

   WITH RELEASE LIGHT STILL "ON CHECK:

   e. RS in the Polar Converter equals 50,760 ft $\pm$ 300 ft.
   f. Phi equals zero $\pm .3^{\circ}$
   g. TiVa in Track Comp. equals (TiVa-L) + L $\pm$ 120 ft.
   h. AR in Bomb Comp. equals zero $\pm .3^{\circ}$

17. With Offset No.1 IN check for the following values:

   a. RS equals 81,700 ft $\pm$ 300 ft.
   b. Phi equals zero $\pm .3^{\circ}$
   c. Beta equals $60.69^{\circ} \pm .3^{\circ}$

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RELEASE PROBLEM NO. 2

			SYM
1.	Offset Switch OUT		
2.	Reset TF to 55 sec		
3.	Replace XE amplifier		
4.	Function Sw	TRACK	
5.	Set AT to 090° with screw in AT unit	090°	
6.	CSM	ON	
7.	In memory Pt. set winds on Nav. Unit	N-S Zero E-W approx 120 K west	
8.	Memory Pt. Sw	OFF	
9.	CSM	OFF	
10.	XN (set with track handle)	ZERO in Track Comp.	
11.	XN amplifier	REMOVED	
12.	XE	Approx. 10 nm EAST	
13.	Wh (set with wind knob)	ZERO	
14.	We (set with wind knob)	200 ft/sec EAST in TRACK. Comp	
15.	Function Sw	BOMB	
16.	Decrease XE slowly with tracking handle until Bomb Release:		
	a. At the instant Bomb Release Lites, check:		
	(1) Turn angle on PDI equals 0° (Width of index line)		
	(2) Beta in the Polar Converter equals 38.70° ± .3°		
	(3) RS equals 59,700 ft ± 300 ft.		
	(4) Phi equals 090° ± .3°		
	b. With Offset No. 2 IN:		
	(1) Beta equals 60.69° ± .3°		
	(2) RS equals 81,700 ft ± 300 ft.		
	(3) Phi equals 090° ± .3°		
17.	Increase TF slowly on Ballistics Control until bomb release and check that Function Switch Returns to Track Position.		
18.	Meter Bomb Door close signal at E-8601-65 (27V DC)		

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SYM

19. Replace only XN amplifier.

RG LIMIT OPERATION CHECK

1. Set the following:

   a. XE — 40 nm EAST
   b. XN — ZERO
   c. Function Sw — TRACK

2. Switch Offset #1 IN and check to see that:

   a. RG limit light lites
   b. Optical crosshairs move in Azimuth with tracking handle

3. Press forward Sighting button with RG in limits. Check to see that:

   a. XE and XN fix dials slew
   b. Optical crosshairs should remain fixed.
   c. CSM - ON

4. Depress Dead Mans Sw and check that:

   a. XE and XN fix dials move
   b. RG limit light goes out
   c. Replace all AMP.

5. Depress forward sighting button and check that:

   a. Beta equals $60^\circ \pm 5^\circ$
   b. Theta equals zero $\pm 3^\circ$

MEMORY POINT CHECK

1. Function Sw — TRACK
2. Memory Pt. displacemtnt Sw — MEMORY POINT
3. With a stop watch, time the CSM for the following values:
   a. Green Light ON — Tag Time
      (Green Lite is the 15 sec. light. Tolerance is ±2 sec. No minus value tolerance.)
   b. Memory Point Warning Light - Tag Time
      (Memory pt. warning is the 270 sec. red light. Tolerance is ± 7 Sec.)
   c. Memory Pt. Displacement Sw - Off at Tag Time
      (Memory Pt Switch drops out at 300 Sec. Tolerance is ± 5 Sec.)

NOTE: TIME INTERVAL BETWEEN GREEN AND RED LIGHT SHOULD AGREE WITH TAG TIME ± 1 SEC.

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SYM

ECO CHECK: (Accomplished with Tech Rep or exper. mechanic if STAB trouble is suspected)

1. Line up gimbals so that a gyro pinch off tube faces Roll Gimbal

2. Force off Roll Gimbal until ECO just lites. (4 gear teeth = 3°)

3. Measure voltage E-8801-118 & E-8801-119 to E-8801-103. Vector sum of there voltages shouldn't be greater than 5V AC.

4. Move gimbal approx. 10° (13 1/3 gear teeth equals 10°)

5. Place in Reset: Should erect 2.5° a minute ± 1°

6. ECO lite: Should go out at 2.7V AC ± 1.3V

7. Allow levels to settle below .5V then move yoke 090° and repeat check

8. Leave side off STAB unit for AZ. Comp. check

NOTE: The following two checks will take a total of 30 minutes. Start the Gyro drift check and while waiting for the time to expire proceed to the APS-64 check. (Follows the gyro deslave check). After 15 minutes record the reading on the gyro drift check and start the gryo deslave check. Then continue the APS-64 check while waiting for the time to expire on the gyro deslave check.

GYRO DRIFT CHECK: (Free Drift Check)

1. Function Sw - STAB

2. NAV. Method Sw - POLAR

   a. AT dial should change 080° ± .3°
   b. Y-7 (Θ) AZ dial should change 080° in opposite direction.

3. Record change in AT for 15 minutes. (AT change should be 2.75 ± .5°) (Figured on 3.75 x sine of Lat)

GYRO DESLAVE CHECK

1. Check BNS in 3rd timing period (integrators driving)

2. Polar Angle 360°

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			SYM
3.	Navigation method Sw	NORMAL	
4.	CSM	OFF	
5.	Function	NAV	
6.	Set Lat in NAV control	46-56 NORTH	
7.	Normal - Deslave Sw	DESLAVE	
8.	Rotate Mag VAP 15° EAST & WEST. AT should not move. This indicates that deslave loop is activated.		
9.	Observe AT for 15 minutes. AT should not drift more than ± .5°		
10.	CSM	ON	
11.	Polar Angle Dial	360°	
12.	Normal - Deslave Sw	NORMAL	

APS-64 Checks:

Tune Up - After 5 min. time period
Meter Sw to Mag

1. RCU Power Sw - Scan Fast
2. Variac Control - CW until Mag reads 4.2 MA
3. RCU Meter Sw - check all positions for correct readings:
   a. +600 DC Block to full scale
   b. +300 DC Block
   c. +150 DC Block
   d. -105 DC Block
   e. -300 in DC Block
   f. +26.5 DC High side of DC Block
   g. AC AC Block
   h. IND HV-DC Block 10 ± 1 divisions
   i. MOD HV - 7 ± 1½ divisions
   j. MAG 4.2 MA (Readjust if necessary)
   k. XTAL current should be between 4-12 divisions on control meter when in "RAD-HI". Res. and below 50 miles ground range.

NOTE: CHECK XTAL 1 & XTAL 2

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SYM

4. Radar indicator - adjust & check for tilt, heading mark, range marks & scope presentation.

5. RCU operation switch - Hi Gain - Check Mag current for 11 units ± 2 and then switch to Hi - Res.

6. Frequency Control Unit - Check wave guide switch in following position:

   a. Man Load - Targets disappear
   b. Man Ant - Targets Re-appear
   c. Auto check for disappearance of targets when increase and decrease switch is moved to the increase and decrease positions. Targets will reappear when switch is returned to neutral position, if wave guide switch is in auto.
   d. Semi - auto check for disappearance of targets when increase - decrease positions, Targets will not reappear when switch is returned to neutral position.
   e. Hold switch in transmit and note that targets reappear Release switch to Semi-Auto position and note that target remain.
   f. Man Ant - check that targets remain for all positions of the increase-decrease switch.
   g. Return switch to Auto position.

7. Range Mark Zero Adjustment.

a. Radar pwr Sw	SCAN OFF
b. Radar Alt.	ON
c. Altitude Set	30,400 ft
d. Range Control	6 miles or where first 5 mile fixed renge mark is visible.
e. Range Mark Zero	Adjust so that VRM & first 5 mile fixed range MK coincide.
f. Radar pwr Sw	SCAN FAST

8. Radar Altitude Check.

a. Function Sw	NAV
b. Radar Altitude control	Set H above 20,000 ft
c. Fix Dials	North = 15 miles East = Zero
d. Radar Alt Sw	ON. Check that vertex moves to, or is already in center of PPI; optics SA to 000° & red light comes on.

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		SYM
9. Sweep Length Adjust		
a. Function Sw	NAV	
b. Altitude	5000 ft	
c. Radar pwr Sw	SCAN	
d. Function Sw	STAB	
e. Radar Range Control	40 miles	
f. Range Mks - X hairs Sw	RANGE MKS	
g. Sweep Amplitude	Adjust so that sweep is 2/3 the radius of the scope	
h. Sweep Length adjust	Adjust so that fourth fixed range marker pip is at end of sweep & also that sweep extends approx. 1/8" past fourth fixed range marker pip.	
i. Sweep Amp Control	Adjust so that fourth fixed range marker pip is at the edge of PPI.	
j. Radar pwr Sw	SCAN FAST	
k. Function Sw	NAV	
10. Max - Min Sweep Delay adjust		
a. Function Sw	NAV	
b. Radar Alt Sw	ON. Remove Ø & RG amps.	
c. Radar Alt Sw	OFF	
d. Range Mk-X-Hair Sw	X-hair	
e. Altitude Control	Set 5,000 ft. Turn sweep delay MIN until the VRM just desappears in the center of the scope.	
f. Altitude Control	Set 60,000 ft. Turn sweep delay MAC until the VRM just desappears in the center of the scope.	
g. Repeat steps e&f until no further adjustments are necessary.		
h. Replace the Ø & RG amplifiers.		
ICE CHECK		
1. Function Sw	NAV	
a. Check AZ mark and Yoke move 360° in response to the tracking handle.		
b. Check Operation of AUX - PPI Sw		
2. Function Sw	TRACK	

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SYM

a. Vertex at periphery for 360° movement of tracking handle.
b. With altitude at 60,000 ft. check Range sweep expansion with movement of the Tracking Handle.

(1) Vertex on the edge from 4½ to 50 miles of RG and vertex should be at Ø/180 ± 03°.
(2) Range mark not more than 1/16 inch jump thru 16½ mile point.
(3) With RG between 304,000 ft. & 182,000 ft., Range MK at 3 inches + 1 inch beyond center of scope.
(4) With RG between 182,000 ft. and 27,360 ft., Range MK at center of scope ± ½ inch.

PMG OPERATION CHECK

1. Function Sw to BOMB check to see that:

a. Dots on both sides of sector (every fourth dot intense)

2. Turn CSM OFF and Radar Altitude ON: Adjust altitude to 18,000 ft. Set RG less than 5nm. Check that:

a. Thin 6,000 ft O. - mark falls under crosshair

3. Turn CSM ON for simulated bomb run and check:

a. The camera solenoid operates by the camera control unit until bomb bay door open pulse - then solenoid operates on each CW and CCW scan.
b. At bomb release - altitude delay is removed.

POLAR NAVIGATION CHECK

1.	Polar angle dial	Set to 005°
2.	Navigation method Sw	POLAR Check that AT increases 5° ± .3°
3.	Navigation method	POST POLAR. Check that AT returns to original value with 2 min.
4.	Navigation method Sw	NORMAL
5.	Polar Converter	Record value of Ø
6.	Polar Angle Dial	Set to 090°
7.	Navigation method Sw	POLAR. Check that AT increases 090° from original value; heading marker and targets on ppi rotate 090° CW:

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			SYM
		AZ MK (β in Polar conv remains constant and the C-1 azi dial and Stab unit yoke move 090° CW	
8.	Polar Angle Dial	Set AT to 360° by moving Polar dial slowly CCW until AT reads 360°. Check that Polar Angle dial reads 360° minus original AT ± .3°. Heading marker & Targets rotate CCW until heading mark reads 360° ± 2° Azi marker does not move; & C-1 azimuth dial & Stab unit yoke move CCW	
9.	Navigation method Sw	NORMAL	

NAV CONTROL CHECK (System must be in at least the 2nd Timing period and TRACK

1. Remove VA Amp & set VA - 1000 ft/sec in Track Comp
2. Remove Aero Heading & Gyrosyn Amp & Set AT equals 045° in heading unit with screw.
3. Remove Phi Amp. or Radar Alt. Sw ON if Radar operative.
4. Set winds to Zero in Tracking Computer.
5. Turn CSM OFF
6. Switch to TRACK
7. Place planes position - Ref point Sw in PLANES position
8. Set Lat Counter to 40° 00 North
   Long Counter to any convienent value
9. Set XE & XN dials to Zero in NAV Control
10. Turn CSM ON for exactly 6 minutes & then turn CSM OFF
11. Read Lat Counter: 40° 42N ± 02 min
    Long Counter: changed by 55 min ± 02 min
    XE dial in Nav Control equals 42 mi ± mi
    XN dial in Nav Control equals 42 mi ± mi

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	SYM
12. Place planes position Ref point Sw in Ref point & read: Lat Counter: 40° 00 N ± 02 min Long Counter: Original value ± 03 min	
13. Reset counter to local Lat & Long.	
14. Turn CSM ON	
AZIMUTH ALIGNMENT CHECK (Accomplish with tech rep or A&E specialist if azimuth alignment trouble is suspected)	
1. Spot an object at least 200 ft ahead and along the center line of the aircraft.	
2. While looking towards the nose of the aircraft, displace the object 23 inches to the right of the center line to compensate for periscope offset.	
3. Function Sw — NAV	
4. Bombing Mode Sw — I/S	
5. Bore Sight Sw — SA	
6. Place the X-hairs on the object with the track. handle (adjust SA on line of sight control)	
7. Compare Ø in the polar Converter with AT in the Heading Unit. Difference in Ø & AT should not exceed ± .2°	
8. Bombing Mode Sw — NORMAL ± .0 .1 degree	
9. Final check will be made on the Bore Sight of the radar set at the aircraft using the UPM 11 on the ground and lined up with center line of the aircraft.	
LIQUID LEVEL CHECK	
1. Check liquid levels for .075V ac or less at E-8801 - 118 & 119 to E-8801-103 (use Vacume Tube Volt meter)	
AZIMUTH COMPUTER CHECK	
1. Stab Unit — Remove glass inspection plate	
2. Function Sw — NAV	

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			SYM
3.	Range MK - X-hair Sw	RANGE MARK	
4.	Bomb Mode Sw	L/S	
5.	Bore Sight Sw	SA	
6.	SA dial	090°	
7.	Tilt roll Gimble in Stab Unit		
8.	Heading marker	Stationary	
9.	Decrease SA slowly from 090° to 010°	Heading mark should shift (This checks roll correction to scope	
10.	Range MK-X-hair Sw	X-hair	
11.	Increase SA slowly from 010° to 090°	Azimuth mark remains stationary. Tgts move under X-hair	
12.	Stab Unit	Replace Glass inspection plate	
13.	Replace all amplifiers		

The following is a ground check for actual operation of Bomb Bay Doors and U-2 Release.

The APS-64 will be shut down in accordance with the VO check list. The computer system will be shut down in accordance with the VO check list after the Bomb Door and U-2 checks are completed.

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REFER TO DASH 1, SECTION VIII, PAGES 526 THRU 534 FOR CLUSTER BOMB RELEASE SYSTEM OPERATIONAL CHECK AND SPECIAL WEAPONS RELEASE SYSTEM OPERATIONAL CHECK.

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HEADQUARTERS 42D BOMBARDMENT WING (H)
Loring Air Force Base, Maine

OPERATIONS MEMO)

NUMBER B10-6)

22 October 1956

FLYING GENERAL

B-52 Climb Power Setting

(This Operations Memo supersedes Operations Memo B10-6 dated 2 July 1956, which will be immediately removed from files and destoryed)

1. PURPOSE: To present a standard procedure for establishing climb power after take off and after air refueling.

2. SCOPE: This memorandum is applicable to all B-52 Aircraft Commanders and Pilots.

3. GENERAL:

a. Difficulty has been experienced in setting climb power on B-52 aircraft because of several important check list items that must be accomplished in rapid succession, after take-off. These are:

(1) Reduce take-off thrust to climb thrust while,

(2) Observing flap position indicator during flap retraction. Coordination of these two items are complicated by oscillation of the EPR gages.

4. PROCEDURE:

a. Even though all engine instruments are cross-referenced during change in power setting, fuel flow may be accepted as a prime indicator when reducing to climb thrust. Since fuel flow and thrust are directly related, the following procedure will be followed, to alleviate difficulty in reading oscillating EPR indicators during initial climb-out:

(1) After take-off:

(a) Clear runway at T.O. thrust

(b) Accelerate to climb speed.

(c) Note fuel flow totalizer

(d) Multiply by 15%

(e) Subtract product of (d) from fuel flow totalizer

(f) Reduce throttles to provide new fuel totalizer reading.

Incl 3

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(g) Scan EPR gage for approximate correct reading (Optimum for climb).

(h) Adjust individual throttles for correct EPR readings.

(i) Cross-reference fuel flow totalizer, individual fuel flows, EPR, EGT, and RPM. (RPM primarily for overspeed).

NOTE: After initial climb-out, climb thrust will be established as soon as possible, so EPR gage readings will conform with those presented on 42D Bomb Wing Standardization Board Flipcard, entitled "NRT-EPR-INCLIMB". Mandatory EPR checks will be made at pressure altitudes of 10,000'; 20,000'; and 30,000', for indicated temperature.

(2) After Air Refueling

(a) Advance throttles to full open position

(b) Accelerate to climb speed

(c) Note fuel flow totalizer

(d) Multiply by 10%

(e) Follow remainder of steps presented in the "after take-off" procedure, above. Mandatory EPR checks will be made at 20,000' and 30,000', using flip card entitled "NRT-EPR-INCLIMB".

5. RESPONSIBILITY: Squadron Commanders will be responsible for compliance with the provisions of this memorandum.

BY ORDER OF THE COMMANDER:

DON W. BAILEY
Colonel, USAF
Director of Operations

OFFICIAL:

Frank L. Wrigglesworth

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

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WING REGULATION)
NUMBER 66-1)
SUPPLEMENT 2)

HEADQUARTERS 42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base, Maine
25 October 1956

MAINTENANCE
TEST FLIGHT, B-52 AIRCRAFT

Fuel Loading and Sequencing Procedure for Test Flight

1. PURPOSE: To prescribe the manner in which the fuel required for local test flights will be loaded aboard B-52 aircraft, and to outline the optimum fuel sequencing procedure.

2. SCOPE: The provision of this Supplement to 42D Bomb Wing Regulation 66-1, dated 23 August 1956, apply to personnel of the following organizations who may be utilized in servicing B-52 aircraft, preparing them for test flight; or conducting the test flight:

a. Hq. Sq. 42nd Bomb Wing
b. 69th Bomb Squadron
c. 70th Bomb Squadron
d. 75th Bomb Squadron
e. 42nd Periodic Maintenance Sqdn.
f. 42nd Field Maintenance Sqdn.

3. RESPONSIBILITY: It will be the responsibility of each Squadron Commander to insure compliance with the provisions of this Supplement.

4. PROCEDURE:

a. After the last flight, prior to periodic dock inspection, the aircraft will be serviced with a fuel load of 150,000 pounds. The fuel will be loaded aboard the aircraft in the following manner:

Incl 7

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TANK	REQUIRED FUEL LBS	DIPSTICK *1 INCHES
L.H. DROP	18500	28.4
L.H. OUT B	5000	*2
#1 MAIN	*3F - 15000	
#2 MAIN	F - 17900	
CEN WING	*4 - 18500	24.9
#3 MAIN	F - 17900	
#4 MAIN	F - 15000	
R.H.OUT B	5000	*2
R.H. DROP	18500	28.4
FWD CELL #1	5300	19.6
FWD CELL #2	5300	21.7
MID BODY	3300	5.1
AFT BODY	4800	9.2
	*5-150,000	

(1) *1 Fuel density of 6.5 lbs/gal used to convert "Fuel Load, Lbs", to gallons for determining above "Dipstick Inches" from dipstick tables, T.O. 1B-52B-2-5, revised 14 September 1956. Increase or decrease in actual fuel density will inversely change above "Dipstick Inches" for fuel weights shown in partically filled tanks.

(2) *2 Fill outboard tanks to 770 gallons, as indicated by hydrant meter. This quantity is too small for dipping.

(3) *3 "F" = Full, shut-off by weight. Check filler neck visually for fuel condition.

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(4) *4 Of the 18,500 pounds initially loaded in the center wing tanks; it is estimated that 15,000 pounds will be transferred to MAINE #1, #2, #3 and #4 to replenish these tanks to the "full, shut-off by weight" level on completion of post dock engine trimming and miscellaneous engine trouble shooting. Therefore, the amount of fuel in the center wing prior to starting engines for the test flight should be approximately 3500 pounds.

(5) *5 For reasons stated above, the total fuel load aboard immediately prior to test flight will be approximately 135,000 pounds.

b. With fuel loaded as prescribed above, the aircraft should weight approximately 310,143 pounds on the hardstand and have a center of gravity of 30.0% MAC. The general loading data is as follows:

BASIC WEIGHT	167,037
OIL (128 GAL)	986
CREW (9 MEN)	2,070
EXTERNAL TANKS	2,550
FUEL	135,000
WATER INJECTION	2,500
STATIC GROSS WEIGHT	310,143

With the water injection tanks dry, the hardstand gross weight would be 307,643 pounds with a center of gravity of 30.8% MAC.

c. Fuel will be loaded aboard the aircraft in the manner prescribed in 4, a, above, for the following reasons:

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(1) 5000 pounds in each outboard tank is the minimum level from which fuel can be transferred from these tanks, when the aircraft is in a ground attitude. It is impractial to specify less than 5000 pounds in each outboard tank since it would require difficult draining or defueling in case of an error in loading to any lesser specification. For example: Assume 3000 pounds are to be loaded in each outboard. In this case, if one tank was inadvertently loaded to 3700 pounds, it would be necessary to load the other to the same level to maintain lateral balance. With such maneuvering probable, no preplanning of C.G. would be applicable.

(2) External tanks, 18,500 pounds will be loaded in the external drop tank, instead of the previously recommended 19,500 pounds (which is the quantity necessary to actuate the "high level by weight" cut-off switches), so as to allow sufficient expansion space after the aircraft is loaded with cold fuel and then moved into a warm hangar.

(3) Center wing tank has been loaded with 18,500 pounds to provide a 15,000 pound "pad" for engine trimming and trouble shooting, as discussed in paragraph 4a (4) #4, above. The approximate 3500 pounds remaining in this tank, after replenishing MAINS #1, #2, #3 and #4 will be sufficient to conform with the 10% rule discussed below. The center wing tank has been chosen as the location for the 15,000 pound fuel pad because small increases in the center wing fuel load,

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from the test flight loading as herein planned, will have small effect of the center of gravity planning presented below. However, that effect will be in the nose heavy direction, or to decrease the static and take-off % MAC.

(4) Main body tank has been loaded with 3300 pounds in accordance with the established Boeing Factory practice of specifying the minimum amount of fuel shall be 10% of the total tank volume. This rule will be followed if the aircraft is to be on the ground for an extended period (providing fuel cell maintenance is not to be accomplished) to assure sufficient fuel is loaded to "wet down" the cells and aid in preventing leakage.

(5) Forward and aft body tanks. The forward body cells will be loaded with 5300 pounds each (10,600 lbs. total) and the aft body tank with 4800 pounds, to obtain the most favorable C.G. condition. The 10,600 pounds in the forward body cells is required because of the aft C.G. tendency of the aircraft with the external tanks loaded to 18,500 each while the center wing has only 3500 pounds.

(6) The main tanks (1, 2, 3, &4) will be loaded to full "shut-off by weight" to assure proper C.G. control from time of "start engines" until attaining "best climb speed". At point of "best climb speed" fuel transfer to the #1, #2, #3, and #4 main tanks must begin in order to keep the C.G. safety inside the aft (tail heavy) limit.

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d. If the static test flight fuel load of 135,000 pounds is distributed in the manner required above, the aircraft will be free of the maximum speed restriction of 280 IASK which is imposed if the fueling loading falls within the provisions of the following rule:

"If there is fuel in the outboard wing tanks and the external tanks are less than full, maximum speed will be 280 IASK".

(Because of wing flutter characteristics)

e. During flight, the following fuel transfer sequence is recommended. The C.G. in % MAC shown will be that experienced if the starting fuel load is as specified above, (in quanity and location), if the static C.G. is as discussed above (30. or 30.8%), and if the transfer sequence is followed in detail.

		% MAC
(1)	Main Tanks (Start Engs. Thru T.O.) (Until Best CL IASK)	31.8
(2)	FWD & AFT Body (Until AFT Empty) (5800 Lbs. Remain in FWD)	31.6
(3)	MID BODY (Until Empty)	31.4
(4)	OUT B & CENTER WING (Until Center Wing Empty)	31.8
(5)	BALANCE OF OUT'DS	31.2
(6)	FWD & DROPS (Until FWD Empty)	31.2
(7)	BALANCE DROPS	19.6
(8)	MAINS TO 90,000 LBS.	21.3

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As fuel is used from the main tanks, past the 50,000 pound level noted in step (8), the C.G. will move aft until, for example, at the 40,000 pound level the C.G. should be approximately 22% MAC at a gross weight of 210,000 pounds.

f. Attached as Inclosure #1, is a diagram of the C.G. shift due to fuel sequencing, as recommended above. The C.G. line plotted in a solid line (_____) is the resultant of a wet take-off. The C.G. line plotted in a dash line (- - - -) is for a dry take-off. It will be noted that at the end of take-off (at best climb speed) the aircraft will have a C.G. of 31.8% MAC, regardless of wet or dry loading, so long as fuel is loaded in the manner specified and consumption is approximately as indicated for start engines, run up, taxi, and take-off. The effect of salvoing external drop tanks immediately after take-off is indicated by the cross hatched line (/////). A sample Weight and Balance Form "F" is attached as Inclosure #2.

BY ORDER OF THE COMMANDER:

2 Incls
1. B-52 C.G. Diagram
2. Sample W & A Bal. Form "F"

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

(OFFICIAL & DISTRIBUTION)

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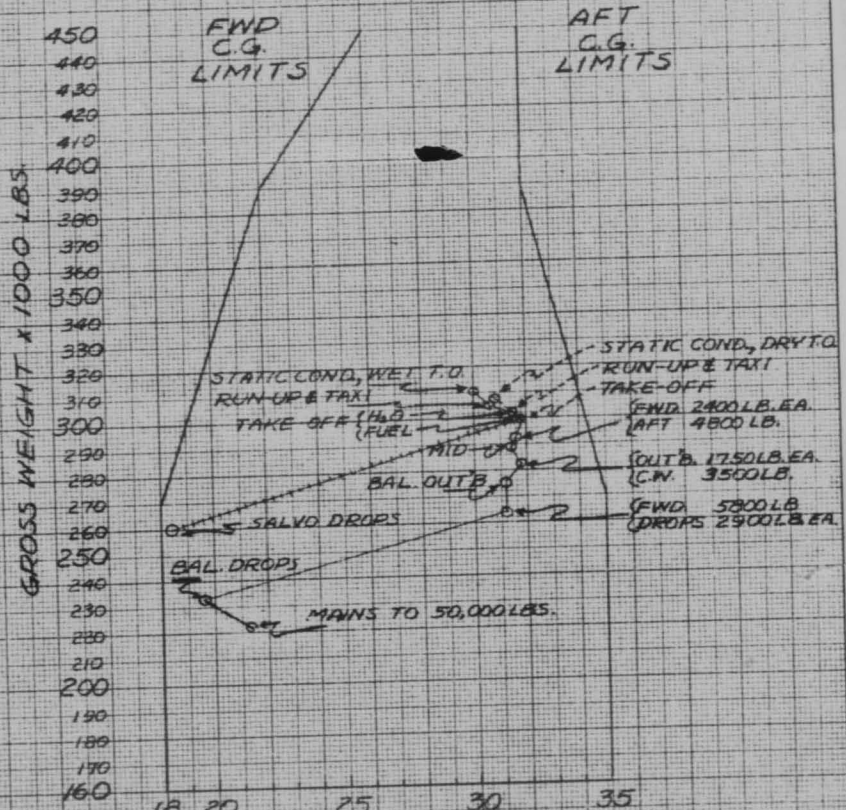
TEST FLIGHT FUEL SEQUENCING



CODE

C.G. SHIFT, SALVO EXT. TANKS

C.G. SHIFT, SPECIFIED TEST FLIGHT FUEL SEQUENCE

C.G. SHIFT, DRY T.O.

NOTES

1. Run-up, Taxi, Take-off fuel taken from #1, #2, #3, & #4 Mains.
2. Begin fuel sequencing, as indicated, at BEST CL. IAS K.

			REVISED	DATE
CALC				
CHECK				
APR				
APR				

B-52 C.G. RESULTANT
135,000 LB. FUEL LOAD
310,019 LB. GR WT., STATIC, WET
(FOLLOW 42D BW REVISED FUEL SEQ)

BOEING AIRPLANE COMPANY
SEATTLE 14, WASHINGTON

PAGE Sht 1

BAC 461 C-RA

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WEIGHT AND BALANCE CLEARANCE FORM F

TACTICAL

SAMPLE (USE REVERSE FOR TRANSPORT MISSIONS) SAMPLE

FOR USE IN T. O. 1-1B-40 & AN 01-1B-40

DATE	AIRPLANE TYPE	FROM	HOME STATION
	B-52C&D	LAFB	LORING AFB
MISSION/TRIP/FLIGHT/NO.	SERIAL NO.	TO	PILOT
FLIGHT TEST	400	LAFB	

REMARKS FUEL LOAD

TANK	WT	INDEX
MAINS 1&4	30000	64.2
MAINS 2&3	35800	37.2
OUTB	10000	42.2
C.W.	3500	38.8
AFT	4800	45.2
MID	3300	46.2
FWD 1	5300	34.8
FWD 2	5300	33.1
DROPS	37000	81.0

LANDING COND. (OPER COND + FUEL REM)

	172643	70.0
1&4	22300	66.1
2&3	27700	45.5
LAND.	222643	45.5

COMPUTER PLATE NO. (If used): E-1092

REF	ITEM	WEIGHT	¹ INDEX OR MOM/
1	BASIC AIRPLANE (From Chart C)	167037	715
2	OIL (128 Gal.)	986	707
3	DISTRIBUTION OF LOAD		

COMPT.	CREW NO.	CREW WEIGHT	BAGGAGE	CARGO AND MISC.		
A	8	1840			1840	654
G	1	230			230	666
				TANKS (EXT)	2550	700
4	OPERATING WEIGHT				172643	700

	COMPT.	ROUNDS	CALIBER		
5 AMMUNITION			NONE		
6 BOMBS, ROCKETS, ETC.	FORWARD				
	AFT		NONE		
	EXTERNAL				
	ROCKETS				
7 FUEL	BUILT IN (Gal.)				
	BOMB BAY (Gal.)				
	EXTERNAL (SEE REMARKS Gal.)				
	TOTAL			135000	810
8	WATER INJ. FLUID (300 Gal.)			2500	772
9	JATO OR RATO				
10	TAKEOFF CONDITION (Uncorrected)			310143	772
11	CORRECTIONS (If required)			− 5260	+ 25
12	TAKEOFF CONDITION (Corrected)			304883	797
13	TAKEOFF C. G. IN % M. A. C. OR IN.			30.6	
14 LESS EXPENDABLES	JATO OR RATO				
	BOMBS				
	AMMUNITION				
	FUEL (SEE REMARKS)			− 85000	
				222643	455
15	ESTIMATED LANDING CONDITION				
16	ESTIMATED LANDING C. G. IN % M. A. C. OR IN.			21.3	

Pertinent instructions to the pilot for shifting load and crew during takeoff and landing should be noted above.

CORRECTIONS (Ref. 11)

COMPT.	ITEM	CHANGES (+ or −) WEIGHT	¹ INDEX OR MOM/
1&4	FUEL	−2630	+0.7
2&3	FUEL	−2630	+1.8
TOTAL WEIGHT REMOVED		−5260	−
TOTAL WEIGHT ADDED		+	+
NET DIFFERENCE (Ref. 11)		−5260	+2.5

LIMITATIONS

² GROSS WT. TAKEOFF (lb.)	³ GROSS WT. LANDING (lb.)
450 000	270,000

	FROM	TO (% M.A.C. OR IN.)
¹ PERMISSIBLE C. G. TAKEOFF	19.2	34.1 IN.
PERMISSIBLE G. LANDING	18.0	35.0 IN.

¹ Enter constant used.
² Enter values from current applicable T. O.
³ Applicable to gross weight (Ref. 12).
⁴ Applicable to gross weight (Ref. 15).

COMPUTED BY (Signature)

WEIGHT AND BALANCE AUTHORITY (Signature) Zuelz

PILOT (Signature)

DD FORM 1 SEPT 54 365F

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOT4 23 October 1956

SUBJECT: Fuel Loading, B-52 Aircraft

TO: See Distribution

1. Standard fuel loads for B-52 aircraft, as contained in Inclosure 1, 42d Bomb Wing Regulation 55-4, dated 25 July 1956, are hereby superceded by those on Inclosure 1 to this letter.

2. These fuel loading changes have been necessitated, for the following reasons:

a. Increase in standard test flight fuel load from 120,000 lbs. to 135,000 lbs. to allow more adequate landing reserve during winter operations.

b. Decrease in external drop tank loading from 19,500 pounds to 18,500 pounds. This is to provide adequate expansion space in these tanks during winter operations, when cold fuel will be loaded and the aircraft subsequently moved to a warm hangar. Expansion difficulties with other tanks is not anticipated due to their having more empty space above their full levels. Also, more insulation from differential temperature affect is provided by the surrounding aircraft structure.

3. This letter will remain in effect until 42d Bomb Wing Regulation 55-4, dated 25 July 1956 is revised in the immediate future.

BY ORDER OF THE COMMANDER:

Inclosure
Standard Fuel Loads
B-52 Aircraft

Frank L. Wrigglesworth
FRANK L. WRIGGLESWORTH
Major, USAF
Adjutant

DISTRIBUTION:
2 cys ea 42DM
69BSC
70BSC
75BSC
42PMS
42FMS
300 cys 42BW Stand Board (1 cy ea B-52 AC,P)

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STANDARD FUEL LOADS, B-52C AIRCRAFT

135,000 Lbs.			200,000 Lbs.	
Dipstick Inches	Fuel Load Lbs	Tanks	Fuel Load Lbs	Dipstick Inches
28.4	18500	L.H. Drop	18500	28.4
*3	5000	L.H. Out'B	F-15000	
	F-15000	#1 Main	F-15000	
	F-17900	#2 Main	F-17900	
6.9	3500	Cen Wing	F-36560	
	F-17900	#3 Main	F-17900	
	F-15000	#4 Main	F-15000	
*3	5000	R.H. Out'B	F-15000	
28.4	18500	R.H. Drop	18500	28.4
19.6	5300	FWD Cell #1	2150	8.7
21.7	5300	FWD Cell #2	2150	9.3
5.1	3300	Mid Body	22040	35.1
9.2	4800	Aft Body	4300	8.3

210,000 Lbs.			220,000 Lbs.	
Dipstick Inches	Fuel Load Lbs.	Tanks	Fuel Load Lbs.	Dipstick Inches
28.4	18500	L.H. Drop	18500	28.4
	F-15000	L.H. Out'B	F-15000	
	F-15000	#1 Main	F-15000	
	F-17900	#2 Main	F-17900	
	F-36560	Cen Wing	F-36560	
	F-17900	#3 Main	F-17900	
	F-15000	#4 Main	F-15000	
	F-15000	R.H. Out'B	F-15000	
28.4	18500	R.H. Drop	18500	28.4
8.7	2150	FWD Cell #1	4500	17.1
9.3	2150	FWD Cell #2	4500	18.6
54.2	32040	Mid Body	F-32500	
8.3	4300	Aft Body	9140	16.8

230,000 Lbs.			257,600 Lbs.	
Dipstick Inches	Fuel Load Lbs.	Tanks	Fuel Load Lbs.	Dipstick Inches
28.4	18500	L.H. Drop	18500	28.4
	F-15000	L.H. Out'B	F-15000	
	F-15000	#1 Main	F-15000	
	F-17900	#2 Main	F-17900	
	F-36560	Cen Wing	F-36560	
	F-17900	#3 Main	F-17900	
	F-15000	#4 Main	F-15000	
	F-15000	R.H. Out'B	F-15000	
28.4	18500	R.H. Drop	18500	28.4
25.0	7000	FWD Cell #1	F-15550	57.4
28.8	7000	FWD Cell #2	F-12950	58
	F-32500	Mid Body	F-32500	
25.8	14140	Aft Body	27240	49.2

See Footnotes on reverse side
INCLOSURE #1, 42BW Ltr, Subj: Fuel Loading, B-52 Aircraft, 23 Oct 56

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Section: 15
Item: 2B
Date: June 23, 1955
File: 15.08
Revised: Sep. 14, 1956

B-52 G.S.L.

SUBJECT: USE OF DIPSTICKS

The purpose of this revision is to delete GSL dipstick information now included in the T.O. 1B-52B-2-5 which pertains to airplanes with 1000 gallon external drop tanks. This revision also presents new data based on calibrations of B-52C, airplane No. 53-399, pertaining to aircraft models with 3000 gallon external drop tanks. This information will be included in the T.O.'s 1B-52B-2-5 and 1B-52D-2-5 in the October and November revisions, respectively. The attached data is applicable to existing F52425 series dipsticks.

Ben F. Werner

Attachment

WSS:cem

Incl 6

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DIP STICK INCHES	FUEL QUANTITY - GALLONS									
	MAIN WING TANKS				OUTBD WING TANKS Externals Empty		OUTBD WING TANKS Externals Full		EXT WING TANKS	
	#1	#2	#3	#4	L.H.	R.H.	L.H.	R.H.	L.H.	R.H.
.0										
.2	150		50						1065	1065
.4	180	50	75	120	890	850	1020	1015	1085	1085
.6	210	75	85	150	905	875	1030	1025	1100	1100
.8	220	100	105	175	915	895	1045	1030	1115	1115
1.0	235	115	120	200	930	905	1055	1040	1135	1135
1.2	245	130	135	215	940	915	1070	1050	1150	1150
1.4	260	140	145	230	955	930	1080	1065	1165	1165
1.6	270	150	155	250	965	945	1095	1075	1185	1185
1.8	285	165	165	260	980	955	1105	1085	1200	1200
2.0	300	175	175	275	990	970	1115	1100	1215	1215
2.2	310	185	185	290	1005	985	1130	1110	1230	1230
2.4	325	195	195	300	1020	995	1140	1120	1245	1245
2.6	340	205	200	310	1030	1010	1150	1135	1260	1260
2.8	350	215	210	325	1045	1020	1160	1145	1280	1280
3.0	365	225	220	340	1060	1035	1175	1155	1295	1295
3.2	380	235	235	350	1070	1050	1185	1170	1310	1310
3.4	395	245	245	365	1085	1065	1195	1180	1325	1325
3.6	410	255	255	380	1100	1080	1210	1195	1340	1340

NOTE: AIRPLANE ATTITUDE - HORIZONTALLY AND LATERALLY LEVEL
WING UNSUPPORTED EXCEPT BY OUTRIGGERS
JP - 4 FUEL TEMPERATURES DURING CALIBRATIONS 63 °F TO 73 °F
DIPSTICK DESIGN - WEIGHT UNIT - DRAWING NO. FT. 11-30085
DIPSTICK READING EDGE FACING AFT ON WING TANKS
DIPSTICK READING EDGE FACING OUTBOARD ON BODY TANKS
ZERO BASED ON TRAPPED FUEL CONDITION
OUTBOARD WING TANKS FILLED AFTER MAIN TANKS WERE FULL.
EXTERNAL WING TANKS FILLED AFTER OUTBOARD TANKS WERE FULL.
OUTRIGGER OLEOS FILLED TO NORMAL OPERATING PRESSURE. OUTRIGGERS TOUCH GROUND. SIMULTANEOUSLY AS FUEL IS ADDED TO WING TANKS. (TO OBTAIN EQUAL WING DEFLECTION AS OUTRIGGER TAKES LOAD.
NUMBERS BELOW HEAVY LINE ARE CURVE EXTENSIONS AND NOT ACTUAL DATA. FOR ACCURATE DATA TANK SHOULD BE DRAINED.

B-52C
53-399 PAGE 1

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DIP STICK INCHES	FUEL QUANTITY - GALLONS									
	MAIN WING TANKS				OUTBD WING TANKS Externals Empty		OUTBD WING TANKS Externals Full		EXT WING TANKS	
	#1	#2	#3	#4	L.H.	R.H.	L.H.	R.H.	L.H.	R.H.
3.8	425	270	265	395	1110	1095	1220	1205	1355	1355
4.0	440	280	280	410	1125	1110	1235	1215	1370	1370
4.2	455	290	290	420	1140	1130	1245	1230	1385	1385
4.4	470	305	305	435	1155	1145	1255	1240	1400	1400
4.6	485	315	315	450	1165	1160	1270	1250	1415	1415
4.8	505	330	325	470	1180	1175	1280	1265	1430	1430
5.0	520	340	340	485	1195	1190	1295	1275	1445	1445
5.2	535	355	350	500	1210	1205	1305	1290	1460	1460
5.4	555	365	365	515	1225	1220	1320	1300	1475	1475
5.6	570	380	380	530	1240	1235	1330	1315	1490	1490
5.8	585	395	390	550	1255	1255	1340	1325	1505	1505
6.0	605	405	405	565	1270	1270	1355	1340	1520	1520
6.2	625	420	420	580	1285	1285	1370	1350	1535	1535
6.4	645	435	435	600	1300	1300	1380	1365	1550	1550
6.6	660	450	450	620	1315	1320	1395	1375	1560	1560
6.8	680	465	465	635	1330	1330	1410	1390	1575	1575
7.0	700	480	475	655	1350	1350	1420	1400	1590	1590
7.2	715	495	490	675	1360	1360	1435	1415	1605	1605
7.4	735	510	505	695	1380	1380	1450	1425	1620	1620
7.6	755	525	520	710	1395	1395	1460	1440	1635	1635
7.8	775	540	535	730	1410	1410	1475	1455	1650	1650
8.0	795	560	550	750	1425	1425	1490	1465	1665	1665
8.2	810	570	565	770	1440	1440	1500	1480	1680	1680
8.4	830	590	580	785	1455	1455	1515	1495	1695	1695
8.6	850	605	595	805	1475	1470	1530	1505	1710	1710
8.8	870	620	610	825	1490	1485	1540	1520	1725	1025
9.0	890	635	625	845	1505	1500	1555	1530	1740	1740
9.2	910	650	640	865	1520	1515	1570	1545	1755	1755
9.4	935	670	655	885	1535	1530	1580	1560	1765	1765
9.6	955	685	675	905	1550	1545	1595	1575	1780	1780
9.8	975	700	690	930	1565	1560	1605	1585	1795	1795
10.0	1000	720	705	950	1580	1575	1620	1600	1810	1810
10.2	1015	735	720	970	1595	1590	1630	1615	1825	1825

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DIP STICK INCHES	FUEL QUANTITY - GALLONS									
	MAIN WING TANKS				OUTBD WING TANKS Externals Empty		OUTBD WING TANKS Externals Full		EXT WING TANKS	
	#1	#2	#3	#4	L.H.	R.H.	L.H.	R.H.	L.H.	R.H.
10.4	1040	750	735	990	1610	1605	1645	1630	1840	1840
10.6	1060	770	755	1010	1625	1620	1660	1640	1855	1855
10.8	1080	785	770	1030	1640	1635	1670	1655	1865	1865
11.0	1100	800	785	1050	1655	1650	1685	1670	1880	1880
11.2	1125	820	800	1075	1670	1665	1695	1680	1895	1895
11.4	1145	840	820	1095	1680	1680	1710	1695	1910	1910
11.6	1165	855	835	1115	1695	1695	1720	1705	1920	1920
11.8	1190	870	850	1140	1710	1710	1735	1720	1935	1935
12.0	1210	890	865	1160	1720	1720	1745	1730	1950	1950
12.2	1230	910	885	1180	1735	1735	1760	1745	1965	1965
12.4	1255	925	900	1200	1750	1750	1770	1755	1975	1975
12.6	1275	940	915	1225	1760	1765	1780	1770	1990	1990
12.8	1295	960	930	1245	1775	1780	1795	1780	2005	2005
13.0	1315	980	950	1260	1785	1790	1805	1790	2020	2020
13.2	1340	995	965	1290	1800	1805	1815	1805	2035	2035
13.4	1360	1010	980	1310	1815	1820	1830	1815	2045	2045
13.6	1380	1030	1000	1330	1830	1830	1840	1830	2060	2060
13.8	1400	1050	1015	1355	1840	1845	1850	1840	2075	2075
14.0	1420	1070	1030	1375	1855	1855	1865	1850	2090	2090
14.2	1440	1085	1045	1395	1865	1870	1875	1865	2105	2105
14.4	1465	1105	1060	1420	1880	1880	1885	1875	2120	2120
14.6	1485	1120	1080	1440	1890	1895	1900	1885	2130	2130
14.8	1505	1140	1095	1460	1900	1905	1910	1900	2145	2145
15.0	1525	1155	1105	1485	1915	1915	1920	1910	2160	2160
15.2	1545	1170	1125	1505	1925	1930	1930	1925	2175	2175
15.4	1565	1190	1145	1525	1935	1940	1940	1935	2185	2185
15.6	1585	1205	1160	1545	1950	1950	1950	1950	2200	2200
15.8	1605	1225	1180	1565	1960	1960	1960	1960	2215	2215
16.0	1625	1240	1200	1585	1970	1970	1970	1970	2230	2230
16.2	1645	1260	1215	1605	1980	1980	1980	1985	2240	2240
16.4	1660	1275	1235	1630	1990	1990	1995	1995	2255	2255
16.6	1680	1290	1255	1650	2000	2000	2005	2010	2270	2270
16.8	1700	1305	1270	1670	2010	2010	2015	2025	2280	2280

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DIP STICK INCHES	FUEL QUANTITY - GALLONS									
	MAIN WING TANKS				OUTBD WING TANKS Externals Empty		OUTBD WING TANKS Externals Full		EXT WING TANKS	
	#1	#2	#3	#4	L.H.	R.H.	L.H.	R.H.	L.H.	R.H.
17.0	1720	1320	1290	1690	2020	2020	2025	2035	2295	2295
17.2	1740	1340	1305	1710	2030	2030	2035	2045	2310	2310
17.4	1755	1360	1325	1725	2035	2040	2045	2055	2320	2320
17.6	1775	1370	1345	1745	2045	2050	2050	2070	2335	2335
17.8	1790	1390	1360	1765	2055	2060	2060	2080	2345	2345
18.0	1810	1405	1375	1780	2060	2065	2070	2090	2360	2360
18.2	1830	1420	1395	1800	2070	2075	2080	2100	2370	2370
18.4	1845	1440	1410	1820	2080	2085	2085	2110	2380	2380
18.6	1860	1455	1430	1835	2085	2090	2095	2120	2390	2390
18.8	1880	1475	1450	1855	2095	2100	2105	2130	2405	2405
19.0	1895	1490	1465	1870	2100	2105	2110	2135	2415	2415
19.2	1910	1510	1485	1885	2110	2115	2120	2145	2425	2425
19.4	1930	1525	1500	1900	2115	2120	2125	2150	2435	2435
19.6	1945	1540	1515	1920	2125	2130	2130	2155	2450	2450
19.8	1960	1560	1535	1935	2130	2135	2140	2165	2460	2460
20.0	1970	1580	1550	1950	2140	2140	2145	2170	2470	2470
20.2	1990	1595	1570	1965	2145	2150	2150	2175	2480	2480
20.4	2000	1610	1590	1980	2150	2155	2160	2180	2490	2490
20.6	2015	1630	1610	1995	2160	2160	2165	2181	2500	2500
20.8	2030	1645	1625	2010	2165	2170	2170	2185	2510	2510
21.0	2040	1660	1640	2020	2170	2175	2180	2190	2525	2525
21.2	2055	1680	1660	2035	2175	2180	2185	2192	2535	2535
21.4	2070	1700	1675	2050	2180	2185	2190	2196	2545	2545
21.6	2080	1715	1695	2060	2185	2190	2195	2199	2555	2555
21.8	2095	1735	1710	2070	2190	2195	2197	2200	2565	2565
22.0	2105	1750	1730	2085	2194	2200	2200	2201	2575	2575
22.2	2120	1770	1745	2100	FULL	FULL	FULL	FULL	2580	2580
22.4	2130	1785	1765	2110					2590	2590
22.6	2140	1800	1780	2120					2600	2600
22.8	2150	1820	1800	2135					2610	2610
23.0	2160	1835	1815	2145					2620	2620
23.2	2170	1850	1830	2155					2630	2630
23.4	2180	1870	1845	2165					2640	2640

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DIP STICK INCHES	FUEL QUANTITY - GALLONS									
	MAIN WING TANKS				OUTBD WING TANKS Externals Empty		OUTBD WING TANKS Externals Full		EXT WING TANKS	
	#1	#2	#3	#4	L.H.	R.H.	L.H.	R.H.	L.H.	R.H.
23.6	2190	1890	1865	2180					2645	2645
23.8	2205	1900	1880	2190					2655	2655
24.0	2215	1920	1895	2200					2665	2665
24.2	2225	1940	1910	2210					2675	2675
24.4	2230	1955	1930	2215					2685	2685
24.6	2240	1975	1950	2225					2690	2690
24.8	2250	1990	1965	2230					2700	2700
25.0	2260	2010	1980	2240					2710	2710
25.2	2265	2025	2000	2250					2720	2720
25.4	2275	2045	2015	2255					2730	2730
25.6	2280	2060	2030	2265					2735	2735
25.8	2290	2075	2045	2270					2745	2745
26.0	2300	2095	2060	2280					2755	2755
26.2	2305	2110	2080	2285					2760	2760
26.4	2315	2125	2095	2295					2770	2770
26.6	2320	2140	2110	2300					2780	2780
26.8	2325	2160	2125	2305					2785	2785
27.0	2330	2175	2140	2310					2795	2795
27.2	2335	2190	2160	2313					2800	2800
27.4	2340	2210	2175	2318					2810	2810
27.6	2345	2225	2190	2322					2815	2815
27.8	2350	2240	2200	2326					2825	2825
28.0	2353	2255	2220	2330					2830	2830
28.2	2357	2270	2235	2333					2835	2835
28.4	2360	2285	2250	2335					2845	2845
28.5	2364			2337						
28.6	FULL	2300	2265	FULL					2850	2850
28.8		2315	2280						2855	2855
29.0		2330	2295						2865	2865
29.2		2340	2310						2870	2870
29.4		2355	2325						2875	2875
29.6		2370	2335						2885	2885
29.8		2385	2350						2890	2890
30.0		2400	2365						2900	2900

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DIP STICK INCHES	FUEL QUANTITY - GALLONS									
	MAIN WING TANKS				OUTBD WING TANKS Externals Empty		OUTBD WING TANKS Externals Full		EXT WING TANKS	
	#1	#2	#3	#4	L.H.	R.H.	L.H.	R.H.	L.H.	R.H.
30.2		2410	2390						2905	2905
30.4		2425	2395						2910	2910
30.6		2440	2410						2915	2915
30.8		2450	2420						2925	2925
31.0		2465	2435						2930	2930
31.2		2475	2450						2935	2935
31.4		2490	2460						2940	2940
31.6		2500	2475						2945	2945
31.8		2510	2485						2950	2950
32.0		2520	2500						2955	2955
32.2		2535	2510						2960	2960
32.4		2545	2525						2962	2962
32.6		2555	2535						2965	2965
32.8		2565	2545						2970	2970
33.0		2575	2560						2975	2975
33.2		2585	2570						2980	2980
33.4		2595	2580						2982	2982
33.6		2605	2590						2985	2985
33.8		2615	2605						2988	2988
34.0		2625	2610						2990	2990
34.2		2630	2620						2992	2992
34.4		2640	2630						2994	2994
34.6		2650	2640						2995	2995
34.8		2655	2650						2996	2996
35.0		2665	2660						2997	2997
35.2		2670	2670						2998	2998
35.4		2680	2680						2999	2999
35.6		2690	2685						3000	3000
35.8		2695	2695						FULL	FULL
36.0		2700	2700							
36.2		2710	2710							
36.4		2720	2715							
36.6		2725	2725							

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DIP STICK INCHES	FUEL QUANTITY - GALLONS									
	MAIN WING TANKS				OUTBD WING TANKS Externals Empty		OUTBD WING TANKS Externals Full		EXT WING TANKS	
	#1	#2	#3	#4	L.H.	R.H.	L.H.	R.H.	L.H.	R.H.
36.8		2730	2730							
37.0		2740	2735							
37.2		2745	2745							
37.4		2750	2750							
37.6		2760	2755							
37.8		2765	2760							
38.0		2775	2765							
38.2		2780	2775							
38.4		2785	2780							
38.6		2791	2786							
		FULL	FULL							

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DIP STICK INCHES	FUEL QUANTITY - GALLONS					REMARKS
	BODY TANKS				CENTER WING TANK	
	FWD Cell 1	FWD Cell 2	MID	AFT		
.0						
.2						
.4						
.6	15	25		35		
.8	20	40	50	50		
1.0	25	50	65	60		
1.2	30	60	80	75		
1.4	35	70	100	90		
1.6	45	75	120	100	50	
1.8	50	90	145	120	66	
2.0	60	92	170	130	83	
2.2	65	100	195	140	100	
2.4	70	110	215	165	115	
2.6	80	112	235	170	130	
2.8	85	120	260	185	150	
3.0	90	125	280	205	165	
3.2	100	130	305	220	175	
3.4	105	140	325	235	200	
3.6	115	145	350	255	220	
3.8	120	150	370	270	235	
4.0	130	155	390	290	250	

NOTE: AIRPLANE ATTITUDE - HORIZONTALLY AND LATERALLY LEVEL
WING UNSUPPORTED EXCEPT BY OUTRIGGERS
JP - 4 FUEL TEMPERATURES DURING CALIBRATIONS 63° F TO 73° F
DIPSTICK DESIGN - WEIGHT UNIT - DRAWING NO. FT. 11-30085
DIPSTICK READING EDGE FACING AFT ON WING TANKS
DIPSTICK READING EDGE FACING OUTBOARD ON BODY TANKS.
ZERO BASED ON TRAPPED FUEL CONDITION.
OUTBOARD WING TANKS FILLED AFTER MAIN TANKS WERE FULL.
EXTERNAL WING TANKS FILLED AFTER OUTBOARD TANKS WERE FULL.
OUTRIGGER OLEOS FILLED TO NORMAL OPERATING PRESSURE. OUTRIGGERS TOUCH GROUND. SIMULTANEOUSLY AS FUEL IS ADDED TO WING TANKS. (TO OBTAIN EQUAL WING DEFLECTION AS OUTRIGGER TAKES LOAD.)
NUMBERS BELOW HEAVY LINE ARE CURVE EXTENDIONS AND NOT ACTUAL DATA.
FOR ACCURATE DATA TANK SHOULD BE DRAINED.

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DIP STICK INCHES	FUEL QUANTITY - GALLONS					REMARKS
	BODY TANKS				CENTER WING TANK	
	FWD Cell 1	FWD Cell 2	MID	AFT		
4.2	135	160	415	300	270	
4.4	145	168	435	320	290	
4.6	155	175	455	335	310	
4.8	160	180	470	355	325	
5.0	170	185	500	370	345	
5.2	180	190	515	390	360	
5.4	190	195	540	410	380	
5.6	200	205	555	425	400	
5.8	205	210	575	440	420	
6.0	215	215	595	460	440	
6.2	225	225	610	480	460	
6.4	230	230	635	495	480	
6.6	240	235	650	510	500	
6.8	250	245	670	530	520	
7.0	255	250	690	545	540	
7.2	265	255	705	560	565	
7.4	275	260	720	580	585	
7.6	280	270	750	600	605	
7.8	290	280	770	615	630	
8.0	300	285	790	630	650	
8.2	310	290	805	650	670	
8.4	315	300	825	670	695	
8.6	325	305	845	685	715	
8.8	335	315	865	700	740	
9.0	345	320	885	720	760	
9.2	350	330	905	735	785	
9.4	360	335	920	750	810	
9.6	370	345	940	770	830	
9.8	380	350	960	790	860	
10.0	385	360	980	805	880	
10.2	395	365	1000	820	905	
10.4	405	375	1020	840	930	
10.6	415	380	1040	860	955	
10.8	425	390	1060	875	980	

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DIP STICK INCHES	FUEL QUANTITY - GALLONS					REMARKS
	BODY TANKS				CENTER WING TANK	
	FWD Cell 1	FWD Cell 2	MID	AFT		
11.0	430	395	1080	895	1000	
11.2	435	405	1100	910	1030	
11.4	445	410	1120	930	1055	
11.6	455	420	1140	950	1080	
11.8	456	425	1160	965	1105	
12.0	470	435	1180	980	1130	
12.2	480	440	1200	1000	1155	
12.4	490	450	1215	1015	1180	
12.6	495	455	1235	1030	1200	
12.8	505	465	1255	1050	1230	
13.0	515	470	1275	1070	1260	
13.2	525	480	1295	1085	1285	
13.4	530	485	1315	1100	1310	
13.6	540	495	1335	1120	1340	
13.8	550	500	1355	1140	1365	
14.0	560	505	1370	1155	1400	
14.2	565	515	1390	1170	1420	
14.4	575	525	1410	1190	1445	
14.6	585	530	1420	1205	1470	
14.8	595	540	1450	1220	1500	
15.0	600	550	1470	1240	1525	
15.2	610	555	1490	1260	1550	
15.4	620	565	1510	1275	1580	
15.6	630	570	1530	1295	1605	
15.8	640	580	1550	1310	1635	
16.0	645	590	1565	1330	1660	
16.2	655	595	1585	1350	1690	
16.4	665	605	1605	1365	1715	
16.6	675	610	1625	1380	1745	
16.8	685	620	1645	1400	1770	
17.0	690	630	1660	1415	1800	
17.2	700	635	1680	1435	1820	
17.4	705	645	1700	1450	1850	
17.6	720	650	1720	1470	1875	
17.8	725	660	1740	1490	1905	

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DIP STICK INCHES	FUEL QUANTITY - GALLONS					REMARKS
	BODY TANKS				CENTER WING TANK	
	FWD Cell 1	FWD Cell 2	MID	AFT		
18.0	735	670	1760	1500	1930	
18.2	745	675	1780	1520	1955	
18.4	755	685	1800	1540	1980	
18.6	765	695	1820	1555	2010	
18.8	775	700	1840	1580	2035	
19.0	785	710	1860	1590	2060	
19.2	795	720	1880	1605	2090	
19.4	805	725	1900	1625	2115	
19.6	815	735	1915	1640	2145	
19.8	825	740	1935	1660	2170	
20.0	835	750	1955	1675	2195	
20.2	845	755	1975	1695	2220	
20.4	855	765	1995	1710	2250	
20.6	865	770	2010	1730	2275	
20.8	875	780	2030	1745	2300	
21.0	885	790	2050	1765	2330	
21.2	895	795	2070	1780	2355	
21.4	905	800	2090	1800	2380	
21.6	915	810	2110	1820	2410	
21.8	925	820	2130	1835	2435	
22.0	935	825	2150	1850	2460	
22.2	945	835	2170	1870	2490	
22.4	955	840	2190	1890	2515	
22.6	965	850	2210	1905	2540	
22.8	975	855	2230	1924	2565	
23.0	985	865	2250	1940	2595	
23.2	995	870	2270	1955	2620	
23.4	1000	880	2290	1975	2645	
23.6	1015	885	2310	1995	2665	
23.8	1020	895	2325	2010	2700	
24.0	1030	900	2345	2025	2725	
24.2	1040	910	2365	2040	2755	
24.4	1050	915	2385	2060	2780	

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DIP STICK INCHES	FUEL QUANTITY - GALLONS					REMARKS
	BODY TANKS				CENTER WING TANK	
	FWD Cell 1	FWD Cell 2	MID	AFT		
24.6	1060	925	2405	2080	2805	
24.8	1070	930	2425	2095	2830	
25.0	1080	940	2440	2110	2860	
25.2	1090	945	2460	2130	2885	
25.4	1100	955	2480	2150	2910	
25.6	1110	965	2500	2165	2940	
25.8	1120	970	2520	2180	2970	
26.0	1130	980	2540	2200	2990	
26.2	1140	985	2560	2215	3015	
26.4	1150	995	2580	2235	3040	
26.6	1160	1000	2595	2250	3070	
26.8	1170	1010	2615	2270	3100	
27.0	1175	1015	2635	2285	3125	
27.2	1185	1025	2655	2305	3150	
27.4	1195	1030	2670	2320	3175	
27.6	1205	1040	2690	2340	3200	
27.8	1215	1045	2710	2355	3230	
28.0	1225	1050	2730	2375	3255	
28.2	1235	1060	2750	2390	3280	
28.4	1245	1065	2770	2410	3310	
28.6	1250	1070	2785	2425	3335	
28.8	1260	1080	2805	2445	3360	
29.0	1270	1090	2825	2460	3390	
29.2	1280	1095	2845	2480	3415	
29.4	1290	1100	2860	2495	3440	
29.6	1295	1110	2880	2510	3470	
29.8	1305	1115	2900	2530	3495	
30.0	1315	1125	2920	2545	3520	
30.2	1325	1130	2940	2560	3550	
30.4	1335	1140	2955	2580	3575	
30.6	1345	1145	2975	2600	3600	
30.8	1355	1150	2995	2615	3625	
31.0	1360	1160	3010	2630	3650	

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DIP STICK INCHES	FUEL QUANTITY - GALLONS					REMARKS
	BODY TANKS				CENTER WING TANK	
	FWD Cell 1	FWD Cell 2	MID	AFT		
31.2	1370	1170	3030	2650	3680	
31.4	1380	1175	3050	2670	3705	
31.6	1390	1180	3070	2685	3730	
31.8	1400	1190	3090	2700	3755	
32.0	1410	1200	3110	2720	3785	
32.2	1415	1205	3130	2735	3810	
32.4	1425	1210	3145	2755	3835	
32.6	1435	1220	3165	2770	3860	
32.8	1440	1225	3185	2790	3890	
33.0	1450	1230	3200	2805	3915	
33.2	1460	1240	3220	2825	3940	
33.4	1465	1245	3240	2840	3970	
33.6	1475	1255	3260	2860	3995	
33.8	1485	1260	3275	2875	4020	
34.0	1490	1265	3295	2895	4045	
34.2	1500	1275	3315	2910	4070	
34.4	1510	1280	3330	2930	4095	
34.6	1520	1290	3350	2945	4120	
34.8	1525	1295	3370	2965	4150	
35.0	1535	1300	3385	2980	4170	
35.2	1540	1310	3405	3000	4200	
35.4	1550	1315	3425	3015	4225	
35.6	1560	1320	3445	3035	4250	
35.8	1570	1330	3460	3050	4270	
36.0	1575	1335	3480	3070	4300	
36.2	1585	1345	3500	3085	4320	
36.4	1595	1350	3515	3105	4345	
36.6	1605	1355	3535	3120	4370	
36.8	1610	1365	3550	3140	4395	
37.0	1620	1370	3570	3155	4420	
37.2	1630	1380	3590	3175	4445	
37.4	1640	1385	3605	3190	4465	
37.6	1645	1390	3620	3205	4490	
37.8	1655	1400	3640	3225	4515	
38.0	1660	1405	3660	3245	4535	

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DIP STICK INCHES	FUEL QUANTITY - GALLONS					REMARKS
	BODY TANKS				CENTER WING TANK	
	FWD Cell 1	FWD Cell 2	MID	AFT		
38.2	1670	1415	3680	3260	4560	
38.4	1680	1420	3695	3280	4585	
38.6	1690	1425	3715	3295	4605	
38.8	1695	1435	3730	3315	4630	
39.0	1705	1440	3750	3330	4650	
39.2	1710	1445	3770	3350	4670	
39.4	1720	1455	3790	3365	4695	
39.6	1725	1460	3805	3380	4720	
39.8	1735	1470	3820	3400	4740	
40.0	1745	1475	3840	3420	4760	
40.2	1750	1480	3855	3435	4780	
40.4	1760	1490	3875	3455	4805	
40.6	1770	1495	3890	3470	4825	
40.8	1775	1500	3910	3490	4850	
41.0	1785	1505	3925	3505	4870	
41.2	1790	1515	3940	3520	4890	
41.4	1800	1520	3960	3540	4910	
41.6	1810	1530	3980	3555	4930	
41.8	1815	1535	3995	3575	4950	
42.0	1825	1540	4010	3595	4970	
42.2	1835	1550	4030	3605	4990	
42.4	1840	1555	4045	3625	5010	
42.6	1850	1560	4065	3640	5030	
42.8	1855	1570	4080	3660	5050	
43.0	1865	1575	4095	3675	5070	
43.2	1875	1580	4115	3690	5090	
43.4	1885	1585	4130	3710	5110	
43.6	1890	1595	4145	3725	5130	
43.8	1900	1600	4165	3745	5145	
44.0	1905	1605	4180	3760	5165	
44.2	1915	1615	4195	3775	5180	
44.4	1925	1620	4210	3795	5200	
44.6	1935	1625	4230	3810	5215	
44.8	1940	1630	4245	3830	5235	
45.0	1950	1640	4260	3840	5250	

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DIP STICK INCHES	FUEL QUANTITY - GALLONS					REMARKS
	BODY TANKS				CENTER WING TANK	
	FWD Cell 1	FWD Cell 2	MID	AFT		
45.2	1950	1645	4275	3860	5265	
45.4	1965	1650	4290	3875	5280	
45.6	1975	1660	4310	3895	5295	
45.8	1985	1665	4320	3910	5310	
46.0	1990	1670	4340	3925	5325	
46.2	2000	1675	4355	3945	5345	
46.4	2005	1685	4370	3960	5355	
46.6	2015	1690	4385	3975	5370	
46.8	2020	1695	4400	3995	5385	
47.0	2030	1700	4420	4010	5400	
47.2	2035	1705	4430	4025	5410	
47.4	2045	1715	4450	4045	5425	
47.6	2050	1720	4460	4060	5435	
47.8	2060	1725	4480	4075	5450	
48.0	2065	1730	4490	4090	5458	
48.1					5461	
48.2	2075	1740	4510	4110	FULL	
48.4	2080	1745	4520	4130		
48.6	2090	1750	4535	4145		
48.8	2095	1755	4560	4160		
49.0	2105	1765	4575	4175		
49.2	2110	1770	4590	4195		
49.4	2120	1775	4595	4210		
49.6	2125	1780	4610	4225		
49.8	2130	1785	4625	4240		
50.0	2140	1790	4640	4260		
50.2	2145	1800	4650	4275		
50.4	2155	1805	4670	4290		
50.6	2160	1810	4680	4310		
50.8	2170	1815	4695	4325		
51.0	2175	1820	4710	4340		
51.2	2180	1825	4725	4360		
51.4	2190	1830	4740	4375		
51.6	2195	1835	4750	4390		
51.8	2200	1845	4765	4410		
52.0	2205	1850	4780	4425		

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DIP STICK INCHES	FUEL QUANTITY - GALLONS					REMARKS
	BODY TANKS				CENTER WING TANK	
	FWD Cell 1	FWD Cell 2	MID	AFT		
52.2	2215	1855	4795	4440		
52.4	2220	1860	4810	4460		
52.6	2225	1865	4825	4475		
52.8	2235	1870	4840	4490		
53.0	2240	1875	4850	4510		
53.2	2245	1880	4865	4525		
53.4	2255	1885	4880	4540		
53.6	2260	1890	4895	4555		
53.8	2270	1895	4910	4575		
54.0	2275	1900	4925	4590		
54.2	2280	1905	4940	4605		
54.4	2285	1910	4955	4620		
54.6	2295	1915	4970	4635		
54.8	2300	1920	4980	4655		
55.0	2305	1925	4995	4670		
55.2	2315	1930	5010	4685		
55.4	2320	1935	5025	4700		
55.6	2325	1940	5040	4715		
55.8	2335	1942	5050	4735		
56.0	2340	1948	5065	4750		
56.2	2345	1950	5080	4765		
56.4	2355	1955	5095	4780		
56.6	2360	1960	5110	4795		
56.8	2370	1965	5124	4810		
57.0	2375	1970	FULL	4830		
57.2	2385	1972		4845		
57.4	2390	1975		4860		
57.6	2395	1980		4875		
57.8	2405	1985		4890		
58.0	2410	1990		4905		
58.2	2420	1992		4920		
58.4	2429	1995		4940		
58.6	FULL	FULL		4955		
58.8				4970		
59.0				4985		

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DIP STICK INCHES	FUEL QUANTITY - GALLONS					REMARKS
	BODY TANKS				CENTER WING TANK	
	FWD Cell 1	FWD Cell 2	MID	AFT		
59.2				5000		
59.4				5015		
59.6				5030		
59.8				5045		
60.0				5060		
60.2				5075		
60.4				5090		
60.6				5105		
60.8				5120		
61.0				5130		
61.2				5145		
61.4				5160		
61.6				5175		
61.8				5185		
62.0				5200		
62.2				5220		
62.4				5230		
62.6				5245		
62.8				5260		
63.0				5275		
63.2				5290		
63.4				5305		
63.6				5315		
63.8				5330		
64.0				5345		
64.2				5360		
64.4				5375		
64.6				5390		
64.8				5400		
65.0				5415		
65.2				5430		
65.4				5445		
65.6				5455		
65.8				5470		
66.0				5485		

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DIP STICK INCHES	FUEL QUANTITY - GALLONS					REMARKS
	BODY TANKS				CENTER WING TANK	
	FWD Cell 1	FWD Cell 2	MID	AFT		
66.2				5500		
66.4				5510		
66.6				5525		
66.8				5540		
67.0				5550		
67.2				5565		
67.4				5580		
67.6				5595		
67.8				5605		
68.0				5620		
68.2				5630		
68.4				5645		
68.6				5660		
68.8				5670		
69.0				5685		
69.2				5700		
69.4				5710		
69.6				5725		
69.8				5740		
70.0				5750		
70.2				5765		
70.4				5780		
70.6				5790		
70.8				5800		
71.0				5815		
71.2				5825		
71.4				5840		
71.6				5850		
71.8				5865		
72.0				5875		
72.2				5890		
72.4				5900		
72.6				5915		
72.8				5925		
73.0				5940		
73.2				5948		
73.4				FULL		

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WING REGULATION)
NUMBER 50-28)

HEADQUARTERS 42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base, Maine
1 Oct 1956

TRAINING

Bombing Gross Error

(Supercedes 42D Bomb Wing Reg 55-2 dated 29 Feb 56)

1. PURPOSE: To improve the overall bombing proficiency of the Wing by analyzing and determining the causes of gross errors and unreliable bomb runs and to recommend corrective action to the appropiate agencies to prevent the recurrance of the same errors.

2. SCOPE: This Regulation is applicable to all personnel of this Command. Gross error reports need not be submitted for GPI, malfunction or test runs unless specifically requested.

3. MEMBERSHIP OF THE GROSS ERROR BOARD: As outlined in Eighth Air Force Supplement to SACR 50-28.

4. NON-BOARD MEMBER ATTENDANCE: Visits to board proceedings by Commanders, Staff members, radar observers and civilian technical advisors is encouraged but subject to the discretion of the board president.

5. GROSS ERROR PROCEDURE:

a. At the conclusion of a flight involving a gross error, the observer involved will fill out 42D Bomb Wing Gross Error Bombing Form #8 and attach it to the Bombing Flight Record, SAC Form III. If an equipment malfunction is suspected, a SAC Form 190 (Major Malfunction Report) will be accomplished. On return to duty from crew rest the observer involved will follow-through processing of the gross error. A separate form #8 must be accomplished for each gross error.

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b. Upon receipt of Gross Error Form #8 the Squadron Observer will have it typed in three (3) copies and hand-carried to A&E within two (2) hours after beginning of the following work day.

c. A&E will complete A&E portion of Gross Error Form immediately. Upon completion, A&E will forward the original and 1 copy to Wing Targer Intelligance Section, retaining the third copy for A&E files.

d. Target Intelligence Section will analyze the film and complete PI section of the form. After completion, the original will be retained on file by Wing Staff Observer assigned to the Targer Section and the remaining copy picked up by Squadron Observer or his represenative.

e. The Gross Error Board will meet when all information, including SAC Form 47, has been assembled. The board president is authorized to appoint a project officer to supplement or follow up board action when deemed necessary.

f. The Wing Nav-Bomb Section will prepare all reports to higher Headquarters. Also disseminate board findings to maintenance organizations and observer personnel in the Wing.

6. This directive shall be made a part of the Radar Observers information file until rescinded.

7. Gross Errors for the B-52 aircraft are not outlined in SAC REG 50-28. Until an appropriate change is made, the gross error limits for the B-47 will be applicable.

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a. Listed below are the defining limits of a gross error for direct radar bombing:

TARGET TYPE	B-47 K-SYSTEM
I-A	5,000
II-A	5,500
II-B	6,000

b. The limits of a gross error for offset radar bombing will not exceed those established for II-A target types in the table above. This also applies to all runs made on class III-A targets.

c. The limits of a gross error for evasive action runs will not exceed these limits established in paragraph A above.

d. Listed below are the defining limits of a gross error for visual drops and visual RBS.

PRESSURE ALTITUDE	B-47 K-SYSTEM
25,000 feet	2,000 feet
30,000 feet	2,500 feet
35,000 feet	3,000 feet
40,000 feet and above	4,000 feet

BY ORDER OF THE COMMANDER:

OFFICIAL:
Frank L. Wrigglesworth
FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

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GROSS ERROR BOMBING REPORT

		DATE
OBSERVER	RBS SITE	CE
CREW NO.	TARGET	RANGE
SQDN	CLASS OF TARGET	DEFLECTION
ACFT NO.	RELEASE # & TIME	RUN TYPE
DATE	BOMB ALTITUDE	RUN CLASS

SUMMARY OF CIRCUMSTANCES (By Observer)

OBSERVERS SIGNATURE

A&E REPORT, Covering the following and results:
(Post flight, Calibration, Bench Checks, Componants and Parts requiring replacement)

A&E MAINT. SUPERVISOR

FORM
42BW 8
1 Oct 56

Replaces 42BW Form 8, dtd 28 Feb 56

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PI SIGNATURE

PI FILM ANNALYSIS

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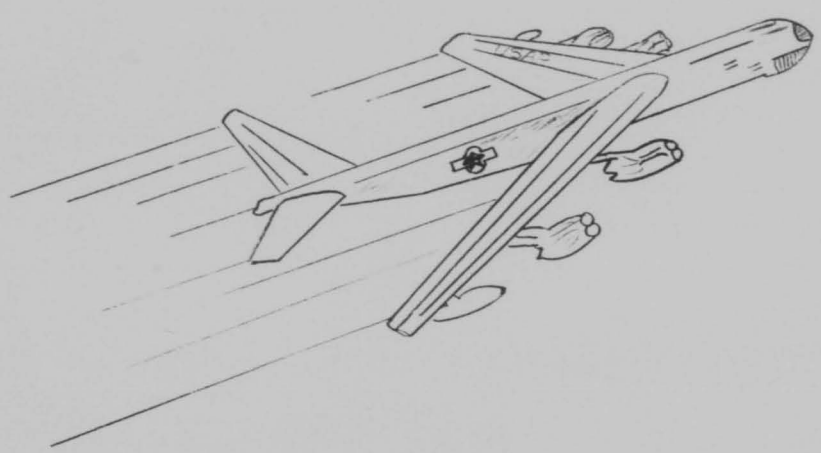
42D BOMBARDMENT WING(H)



B-52

TAKE-OFF DATA
FOR
BRIEFING OFFICERS

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

B-52 TAKE-OFF DATA FOR BRIEFING OFFICERS:

INDEX

ITEM	PAGE NO:
1. COVER LETTER	1
2. INTRODUCTION	3
3. INSTRUCTION FOR USE	5
4. DRY TAKE-OFF DATA	6
5. WET TAKE-OFF DATA	10

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

DOT4 30 OCTOBER 1956

SUBJECT: B-52 Take-off Data for Briefing Officers.

TO: See Distribution

1. SAC Regulation 55-37, dated 6 July 1956, Subject: Take-off Data, Jet Aircraft, directs that flight planning and briefing officers check take-off performance computations submitted by pilots of jet aircraft within the command. The purpose of checking these computations is to prevent take-off under unsafe conditions.

2. Although the attached data has been computed since shortly after receipt of the above dated directive, it has been held in abeyance until this date. This has been necessitated by two revisions of the criteria which originally established the increments of temperature and pressure altitude in which limiting maximum gross weights would be presented. Eighth Air Force Standardization Board recently assured this Headquarters that the increments of temperature (3°F) and pressure altitude (300 feet) used by this organization more than satisfied the requirement of the revised SAC Regulation 55-37, dated 5 Oct 1956, which now states that data will be computed in increments of 5°F and 500 feet pressure altitude.

3. The attached tabular data is not intended to uncover every error that may possibly be inherent in all the computations recorded on 42D ABG Form 420 (i,e, acceleration and go-no-go distance and IAS, minimum recommended flaps-up IAS, etc.) It is only a check that the actual take-off gross weight is within the limit stated herein for certain operating conditions. If this is true, the stopping or continued take-off capability of the aircraft would be satisfactory.

4. This data will be used by local checking and clearing authority to ascertain that the actual take-off gross weight for the latest airdrome conditions do not place the aircraft in any unsafe or extremely marginal take-off conditions.

5. To provide additional detailed check of all take-off data items, the Squadron Staff Aircraft Performance Engineer will check and initial each 42D ABG Form 420, which will be attached to AF Form 175, prior to the flight clearance being submitted to higher authority for approval.

-1-

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BY ORDER OF THE COMMANDER:

for Joseph H. Foss Jr. 1/LT
FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

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70 BS 5 cys
75 BS 5 cys
42ABG BASE OPS OFFICER 5 cys
42BW STANDBOARD 200 cys

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INTRODUCTION

1. The B-52 take-off data, presented in tabular form on the subsequent pages, has been extracted from Appendix II, Technical Order 1B-52B-1A, dated 30 March 1956.

2. Take-off restrictions is provided in terms of a maximum gross weight (at the end of the runway) for conditions of:

a. Temperature

b. Pressure Altitude

c. Effective runway available.

3. With reference to the above restricting conditions, the basic SAC Reg directs that the following detailed rules govern the compilation of the attached tabular data:

a. TEMPERATURE: The maximum temperature value will be equal to the maximum temperature experienced at the station. Records highs at Caribou, Maine are:

96°F, June 1944.

95°F, August 1944.

95°F, July 1952.

The minimum temperature value will be that required for the aircraft to take-off in a maximum gross weight configuration. Temperature will be presented in increments of 3°F, starting from the recorded high of 96°F.

b. FIELD PRESSURE ALTITUDE: For each 3°F temperature increment, field pressure altitude will be shown in increment of 300 feet to cover the maximum spread which can be expected with 99.5% probability above and below the annual mean daily field pressure altitude. Maximum and minimum pressure altitudes probable at Loring AFB, under the above criteria are +1820' and -380', as stated in 5th Weather Group Ops. letter. Subject: "Temperature & Pressure Altitude Data in Support of SAC Reg 55-37", dated 16 Oct 1956.

c. EFFECTIVE RUNWAY AVAILABLE: Although the total length of hard surface runway at Loring AFB is 12,100 feet, only 11,800 feet are considered as effective runway available after the aircraft has made a large radius turn from the warm-up pad and aligned itself on the runway for take-off. The purpose of the large radius turn is to prevent tip gear reversal.

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4. In accordance with SAC Regulation 55-37, the critical field length has been made equal to the effective runway available. As stated in Appendix II, T.O. 1B-52B-1A, "Critical Field Length is the runway length required to accelerate the air plane, experience an engine failure, and then either take-off with the remaining engines or stop in the same total runway distance". Then, since both critical field length and runway available are 11,800 feet, a safe take-off index in terms of maximum premissable take-off gross weight (for conditions of temperature and pressure altitude) is determined from the Critical Field Length Charts. This has been accomplished by working backwards from a constant critical field length line of 11,800 feet, through varying conditions of temperature and pressure altitude and finding the permissable T.O. gross weight for each combination of conditions, as presented in the tabular data.

5. Maximum permissable take-off gross weights for dry thrust configuration is presented on pages 6, 7, 8, and 9. The tabular data for wet thrust is on pages [illegible]. In accordance with instructions contained in T.O. 1B-52B-1, wet take-off thrust will not be used below 40°F.

6. Corrections for reduced braking coefficients due to wet and icy runway surface will be applied as follows:

a. Wet Runway. For a wet runway condition, the critical field length requirement would normally be increased by multiplying the CFL by 1.014. Since the tabular data presents maximum take-off gross weights for varying atmospheric conditions, and for a fixed critical field length of 11,800 feet, it will be necessary to reflect the effect of decreased braking by application of a gross weight reduction factor of -2500 pounds to the take-off gross weights herein presented.

b. Icy Runway. At temperatures of 32°F or below, the critical field length requirement of the aircraft, dry thrust and 450,000 pounds, is less than 11,800 feet. This fact remains true even when it is considered that the braking effect is equivalent only to the rolling friction of the tires; the only stopping forces are airbrakes and drag chute. Applying such minimum braking effect is equal to multiplying the actual CFL by 1.09 for the most conservative braking condition. For example:

Conditions:	
T.O. Gr. Wt.	450,000 lbs.
Runway temp.	32°F
Field P/A	1800'
Thrust Condition	Dry
KCFL	1.09
Find:	
Critical field length (For dry runway)	10,800'
Critical field length (For icy runway)	11,780'

(10,800' x 1.09 = 11,780')

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INSTRUCTIONS FOR USE

When AF Form 175 is submitted to clearing and checking authority, the take-off gross weight entry on 42D Air Base Group Form 420 must not be in excess of that stated in the tabular data for conditions of field pressure altitude and runway temperature for an effective runway length of 11, 800 feet at Loring AFB. For Example:

T.O. Gr.Wt. (Form 420)	=	431,000 lbs.
Runway Temperature	=	51°F
Field Pressure Altitude	=	600'
Thrust Configuration	=	Dry

By reference to tabular data page 9, it will be seen that the maximum permissable take-off gross weight is 450,000 pounds. In other words, the stopping distance requirement and/or continued take-off capability of the aircraft, in the event of engine failure (see definitions of critical field length), is well within the effec-time runway length available.

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DRY T.O. BASED ON 11,800 FT.

RUNWAY TEMP	PRESSURE ALTITUDE	RUNWAY LENGTH	MAXIMUM GROSS WEIGHT
96° F	-300 ft.	11,800	402000
	0 ft.		397000
	300 ft.		393000
	600 ft.		389000
	900 ft.		385000
	1200 ft.		381000
	1500 ft.		377000
	1800 ft.		373000
93° F	-300 ft.	11,800	405000
	0 ft.		401000
	300 ft.		397000
	600 ft.		393000
	900 ft.		389000
	1200 ft.		385000
	1500 ft.		381000
	1800 ft.		377000
90° F	-300 ft.	11,800	409000
	0 ft.		405000
	300 ft.		401000
	600 ft.		397000
	900 ft.		393000
	1200 ft.		390000
	1500 ft.		386000
	1800 ft.		381000
87° F	-300 ft.	11,800	412000
	0 ft.		409000
	300 ft		405000
	600 ft.		401000
	900 ft.		391000
	1200 ft.		393000
	1500 ft.		389000
	1800 ft.		385000
84° F	-300 ft.	11,800	417000
	0 ft.		413000
	300 ft.		410000
	600 ft.		406000
	900 ft.		402000
	1200 ft		398000
	1500 ft.		394000
	1800 ft.		390000

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DRY T.O. BASED ON 11,800 FT. (CON'T)

RUNWAY TEMP	PRESSURE ALTITUDE	RUNWAY LENGTH	MAXIMUM GROSS WEIGHT
81° F	-300 ft.	11,800	422000
	0 ft.		418000
	300 ft.		414000
	600 ft.		410000
	900 ft.		406000
	1200 ft.		402000
	1500 ft.		398000
	1800 ft.		394000
78° F	-300 ft.	11,800	426000
	0 ft.		422000
	300 ft.		418000
	600 ft.		414000
	900 ft.		410000
	1200 ft.		406000
	1500 ft.		402000
	1800 ft.		398000
75° F	-300 ft.	11,800	430000
	0 ft.		426000
	300 ft.		422000
	600 ft.		418000
	900 ft		414000
	1200 ft.		410000
	1500 ft.		406000
	1800 ft.		402000
72° F	-300 ft.	11,800	435000
	0 ft.		431000
	300 ft.		427000
	600 ft.		423000
	900 ft.		419000
	1200 ft		414000
	1500 ft.		410000
	1800 ft.		406000
69° F	-300 ft.	11,800	440000
	0 ft.		436000
	300 ft.		432000
	600 ft.		428000
	900 ft.		423000
	1200 ft.		419000
	1500 ft.		415000
	1800 ft.		411000

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DRY T.O. BASED ON 11,800 FT. (CON'T)

RUNWAY TEMP	PRESSURE ALTITUDE	RUNWAY LENGTH	MAXIMUM GROSS WEIGHT
66° F	-300 ft.	11,800	444000
	0 ft.		440000
	300 ft.		436000
	600 ft.		432000
	900 ft.		428000
	1200 ft.		423000
	1500 ft.		419000
	1800 ft.		415000
63° F	-300 ft.	11,800	450000
	0 ft.		445000
	300 ft.		441000
	600 ft.		437000
	900 ft.		433000
	1200 ft.		429000
	1500 ft.		425000
	1800 ft.		420000
60° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		446000
	600 ft.		442000
	900 ft.		437000
	1200 ft.		432000
	1500 ft.		428000
	1800 ft.		423000
57° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		445000
	900 ft.		441000
	1200 ft.		436000
	1500 ft.		432000
	1800 ft.		427000
54° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		450000
	900 ft.		445000
	1200 ft.		441000
	1500 ft.		437000
	1800 ft		432000

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DRY T.O. BASED ON 11,800 FT. (CON'T)

RUNWAY TEMP	PRESSURE ALTITUDE	RUNWAY LENGTH	MAXIMUM GROSS WEIGHT
51° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		450000
	900 ft.		450000
	1200 ft.		446000
	1500 ft.		441000
	1800 ft.		437000
48° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		450000
	900 ft.		450000
	1200 ft.		450000
	1500 ft.		446000
	1800 ft.		441000
45° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		450000
	900 ft.		450000
	1200 ft.		450000
	1500 ft.		450000
	1800 ft.		445000
42° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		450000
	900 ft.		450000
	1200 ft.		450000
	1500 ft.		450000
	1800 ft.		449000

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WET T.O. BASED ON 11,800 FT.

RUNWAY TEMP	PRESSURE ALTITUDE	RUNWAY LENGTH	MAXIMUM GROSS WEIGHT
96° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		450000
	900 ft.		446000
	1200 ft.		441000
	1500 ft.		436000
	1800 ft.		431000
93° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		450000
	900 ft.		448000
	1200 ft.		444000
	1500 ft.		439000
	1800 ft.		434000
90° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		450000
	900 ft.		450000
	1200 ft.		447000
	1500 ft.		442000
	1800 ft.		438000
87° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		450000
	900 ft.		450000
	1200 ft.		450000
	1500 ft.		445000
	1800 ft.		441000
84° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		450000
	900 ft.		450000
	1200 ft.		450000
	1500 ft.		450000
	1800 ft.		445000

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WET T.O. BASED ON 11,800 FT. (CON'T)

RUNWAY TEMP	PRESSURE ALTITUDE	RUNWAY LENGTH	MAXIMUM GROSS WEIGHT
81° F	-300 ft.	11,800	450000
	0 ft.		450000
	300 ft.		450000
	600 ft.		450000
	900 ft.		450000
	1200 ft.		450000
	1500 ft.		450000
	1800 ft.		449000

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SURVIVAL

SURVIVAL

SIZE UP THE SITUATION- YOURSELF- THE COUNTRY- THE ENEMY
UNDUE HASTE MAKES WASTE KEEP YOUR TEMPER- FACE THE FACTS
REMEMBER WHERE YOU ARE
VANQUISH FEAR AND PANIC
IMPROVISE
VALUE LIVING
ACT LIKE THOSE AROUND YOU
LIVE THROUGH BEING WELL TRAINED

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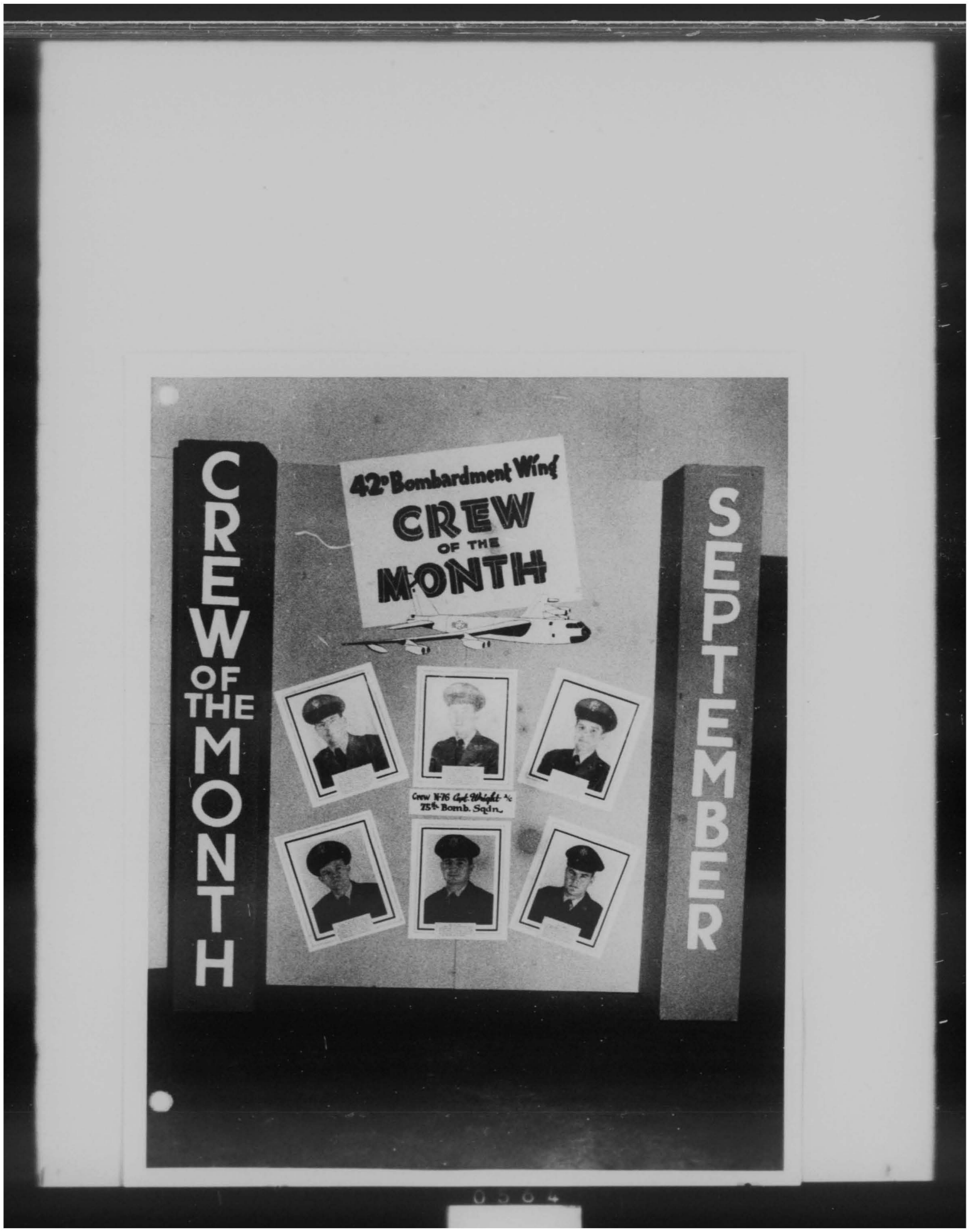

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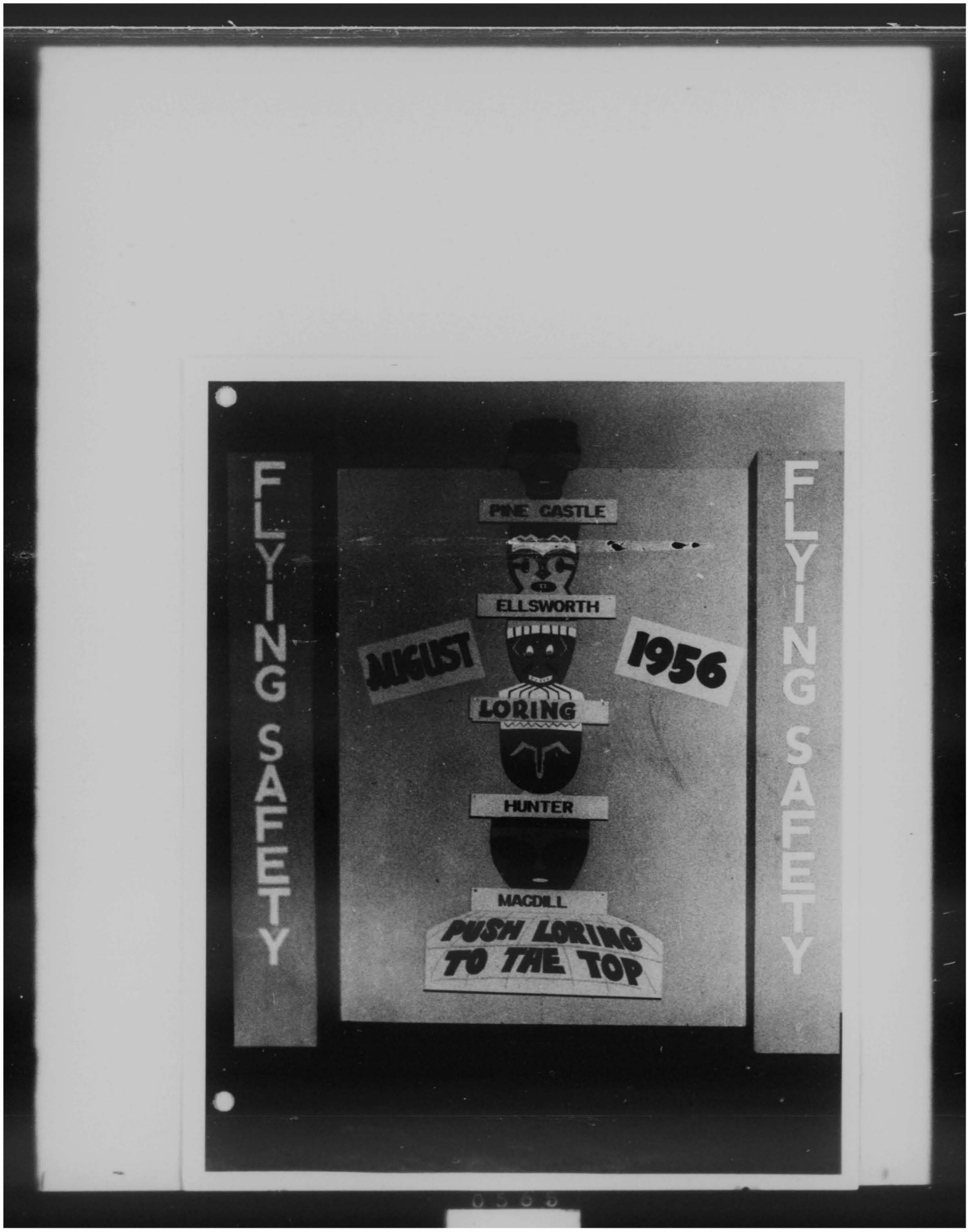

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Report of Problem Area in The Training of B-52 Gunners

1. The following information offers a resume of the problem areas relative to the B-52 Gunnery Trainer.

2. Information regarding the gunnery trainer was received at Loring Air Force Base in April 1956 that a "B" modification was to be sent to this station for the AFC T-1A gunnery trainer. Unfortunately this modification will not suffice in making a suitable A-3A Gunnery Trainer, as the proposed "B" modification will convert the trainer to an MD-5 training device. Since Loring is receiving aircraft with the A-3A Gunnery System, the gunners need a trainer more homogeneous to the A-3A System. The MD-5 and A-3A radar systems are completely different and in addition, the A-3A is a highly complicated system compared to the MD-5. Therefore it would be highly undesirable to train gunners on a system such as the MD-5 and then place them on an aircraft equipped with the A-3A system.

3. A message was sent by Lt. Franz, Wing Gunnery Officer, to 8th AF informing them of this problem (See Incl #1). Eighth AF replied with the following answer. "SAC has advised that a slippage in production for A-3A Trainer will delay delivery until approximately February 1957". (See Incl #2). An earlier message from 8th AF informed us that an A-3A gunnery trainer then being utilized at Lowery AFB may be released to Loring AFB. (See Incl #3). However this trainer has been shipped to Westover AFB for utilization by MTD at that station.

4. The lack of a suitable trainer at this station has seriously impared the proficiency of the gunner. At present we are utilizing an A&E Maintenance Mock-up, to try and substitute for an actual trainer. This mock-up solves only a small portion of our problem due to the limitations of a Mock-up, and due to maintance training that must be accomplished. Gunners are now getting the information from the regular gunnery classes we are runing. These classes are conducted by Armor Tech Reps in an attempt to supplement for the lack of actual scheduled gunnery trainer time they should be receiving.

3 Incls
a/s

GORDON G. FRANZ
1st. Lt., USAF
Wing Gunnery Officer

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COPY

COMAIRDIV 45 LORING AFB, ME

COMAF 8 WESTOVER AFB, MASS

/UNCLASSIFIED/42DOT2 6779 . ATTN: ODT3 MAJ. ZEPP, SUBJECT: A3A TRAINER. INFOR REGARDING TELEPHONE CONVERSATION WITH MAJ. ZEPP 8 JUNE 56. B MODIFICATION FOR T-1A TRAINER WILL NOT SUFFICE IN MAKING DESIRABLE A3A TRAINER FOR GUNNERS. B MODIFICATION WILL MAKE TRAINER AN MD-5. SINCE THIS STATION WILL RECEIVE A3A SYSTEMS ON B-52 AIRCRAFT GUNNERS WILL NEED A TRAINER MORE SUTIED TO THE A3A SYSTEM. MD-5 AND A3A RADAR IS COMPLETELY DIFFERENT. THIS STATION HAS INFO FOR A SUITABLE TRAINER SUBMITTED BY S/SGT ROBERT L. JOHNSON, AF-18397323 TO COMBINE THE E-26 PROJECTOR CARRIAGE AND STAND WITH T-1A TRAINER TO BUILD A TRAINER THAT WILL GIVE THE GUNNER ON A B-52 TYPE AIRCRAFT SIMULATED TRAINING THAT IS COMPARABLE TO THE A3A SYSTEM USED ON THE AIRCRAFT. THIS INFO WILL BE FORWARDED TO YOU BY MAIL IF YOU DESIRE.

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Incl #1

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COPY

FM COMAF 8 WESTOVER AFB MASS

TO COMAIRDIV 45 LORING AFB ME

/UNCLASSIFIED/ODT2A 50774. SUBJECT: A3A GUNNERY TRAINER. REFERENCE YOUR MESSAGE 42 DOT2 6779, DATED 13 JUN 56, SAME SUBJECT. THIS MESSAGE IN II PARTS. PART I. HQ SAC HAS ADVISED THAT SLIPPAGE IN PRODUCTION OF COMPONENTS FOR A3A MODIFICATION KIT DUE TO A STRIKE AT THE MANUFACTURE'S PLANT WILL DELAY DELIVERY UNTIL APPROXIMATELY FEBRUARY 1957. IN AS MUCH 41B MODIFICATION KIT HAS BEEN PROCURED FOR SHIPMENT TO LORING AFB TO CONVERT AN/APG-T 1A TRAINER TO MD-5 CONFIGURATION, SUGGEST INSTALLATION BE COMPLETED AND UTILIZED ON AN INTERIM BASIS UNTIL A-3A COMPONENTS ARE RECEIVED. 10-45-88. REQUEST INFORMATION CONCERNING S/SGT ROBERT L. JOHNSON'S LOCALLY DESIGNED A3A TRAINER BE SUBMITTED FOR EVALUATION.

21 JUN 56

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Incl #2

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COPY

FM CINSAC OFFUTT AFB NEBR

TO COMAF 8 WESTOVER APB MASS

INFO COMAIRDIV 45 LORING AFB MASS

/UNCLASSIFIED/DPPTA 13962. REFERENCE YOUR MESSAGE CDT-2 48577, DATED 6 FEB 56, SUBJECT: A-3A FIRE CONTROL SYSTEM B-52B-E1 MTD. CITED MTD IS SCHEDULED FOR ASSIGNMENT TO LORING AFB, 1 APR 56.

THE A-3A FIRE CONTROL SYSTEM TRAINER IS CURRENTLY BEING UTILIZED AT LOWRY AFB TO FACILITATE TRAINING OF B-52 GUNNERS. EVERY EFFORT IS BEING MADE TO PROGRAM A-3A FIRE CONTROL SYSTEM INTO LOWRY IN ORDER THAT SAC SYSTEM MAY BE RELEASED FOR UTILIZATION AT LORING. HOWEVER, DUE TO PRODUCTION STATUS OF THIS EQUIPMENT IT MAY BE NECESSARY TO CONTINUE USING THE A-3A SYSTEM AT LOWRY TO ASSURE SUFFICIENT OUTPUT OF GUNNERS TO MEET SACS REQUIREMENTS. FURTHER INFORMATION WILL BE FURNISHED YOUR HEADQUARTERS AS TO THE AVAILABILITY OF THIS EQUIPMENT UPON RECEIPT BY THIS HEADQUARTERS.

20 FEB 56

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Incl #3

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B-52 GUNNERS A-3A
AMPLIFIED CHECKLIST

I. VISUAL CHECK
1. Check Form 1 (Part 2 Item 17)
2. Pre-flight clearance with crew chief

II. STATION VISUAL
1. All switches in the following positions.

Safe-fire Switch	DOWN (SAFE)
Off-Warm up	Off
Search Radar	DOWN (OFF)
Emergency Search	DOWN (OFF)
Emergency	DOWN (OFF)
Search Emergency Off	UP (ON)
Track Emergency Off	UP (ON)
Auxiliary Stand By	DOWN (OFF)
Search Auxiliary Operate	DOWN (OFF)
Track Auxiliary Operate	DOWN (OFF)
Search Antenna Auxiliary On	DOWN (OFF)
Track Range Marker	DOWN (OFF)
Control Handles	NEUTRAL
Radar Manual Track Switch	OFF (MANUAL)
Range Switch	RADAR
B and C Scope Intensity	Full CCW
Overlay	Full CCW

2. All Circuit Breakers In
3. Press to test on the Following lamps.

Search on	Track on
Power on	Gyros Ready
Target Warning	On Target
Ready to Fire	Emergency On

4. Check condition and security of mount of all units in the pressurised compartment.
5. Check condition of sight dessicant and pump switch off.
6. Check condition and security of mount of all units in the unpressurised compartment.

42D ABG FORM 409 FC: 2720
16 JULY 56

0570

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III. TURRET VISUAL

1. Check guns visually for proper clearence.
2. Check turret for general condition.
3. Check radome for cracks or damage.
4. Remove Hemispheric sight dome cover and inspect optic head.
5. Clear personnel and obstructions for operational pre-flight.

IV. OPERATIONAL CHECK

1. Warm up Mode.
   a. Turn the selector switch to the warm-up position.
   b. Check that power-on light is on.
   c. Check that the hydraulic pump motors operate (It is possible to hear the motors)
   d. Precision power supply will come on in 1 min.
   e. Gyro ready lamp should come on within 20 mins.
   f. Check that turret is stowed dead aft.
   g. Radars may be used after 3 and 1/2 minutes. No cursors will be present.
2. Emergency Warm-up Mode
   a. With selector switch in warm-up, turn the emergency switch to "emergency". Emergency should come on.
   b. Turret should follow the hand controls positionally.
3. Emergency On Mode.
   a. Place the selector switch to "On".
   b. Turret should still follow hand controls positionally.
   c. Optics, L/S pointer, and cursors positioned by the turret.
   d. Range card should stow at 1500 feet.
4. On Mode.
   a. Move turret off the stow position with the control handles and action switches not depressed.
   b. Turn emergency switch off. Light should go out. Turret should stow, regardless of control handle opsition. System is now in "ON" mode.

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c. L/S pointer and optics should stow.

5. Search On Mode
   a. Place sarch radar switch to "ON"
   b. Search radar lamp should light.
   c. Check B and C scope presentation. (Adjust scope controls)
   d. With action switches depressed, check "B" and "C" scope cursoring.
   e. Position hand controls, optics, L/S pointer and cursors should follow in the same direction at a velocity proportional to hand control displacement.
   f. Release hand control; Rate optics and L/S pointer should stow, cursors should disappear.
6. Acquisition Mode
   a. Place track range markers on.
   b. Press track button to the Light Press position.
   c. With action switches depressed, cursors should follow and range gate should lock on 500 yard target.
   d. "On Target" light should come on.
7. Radar track-Radar range Mode
   a. With on target light on, release track press button. System is now in radar track-radar range mode and hand controls have no control over turret and cursor position.
   b. Check that range card reads 1500 feet.
   c. Rotate range wheels away from gunner. Range gate should lock on 2000 yard range marker, range card should read 6000 feet.
   d. Press stow button on control panel, optics, L/S pointer and turret should stow. Range gate and cursors should disappear.
8. Second Target Mode.
   a. Place system into radar track mode. Depress and hold second target button on the right control grip.
   b. The second target cursor should appear indicating the position of the turret.

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c. With action switches depressed, move hand controls. Check that the optics, L/S pointer, and cursors follow. Turret remains locked on first target.

d. Release action switches and control handles. Depress stow button. Optics, L/S pointer and turret should stow.

9. Manual Track with Radar Range Mode.

a. Place track switch on right control grip to "Manual" position.

b. Depress action switches, depress track press to light press position. Range gate should lock on 500 yard marker. After on target light comes on release track press button.

c. Observe that turret follows at an angular rate proportional to the displacement of the control handles.

d. Release action switches and control handles. Depress stow button. Optics, L/S pointer and turret should stow.

e. Turn Range marker switch off.

10. Manual track-Stadia Range Mode

a. Place the range switch on the right hand side of the control column to the manual position.

b. Depress action switches and press and release track button.

c. Move the hand controls in a positive direction.

d. Check that turret moves in a positive direction, with an acceleration proportional to the displacement of the control handles.

e. Check that optics and L/S pointer follow the turret approximately.

f. Adjust the wing span control on left side of the hemispheric sight.

g. Check that reticle increases and decreases with wing span adjustment.

h. Rotate range wheels.

i. Check that range card follows and reticle size increases and decreases at a speed proportional to displacement of range wheels.

j. Stow the optics, L/S and turret with the stow button.

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11. Emergency Search on Mode
    a. With the selector switch on, place the emergency search switch on.
    b. Observe that emergency search light comes on and track antenna begins to program in a pattern of approximately 9° in elevation and 46° in azimuth.
12. Emergency Search Search Mode
    a. With system in emergency search on mode, depress action switches.
    b. Antenna continues to program.
    c. L/S servos run at a rate proportional to control handle deflection.
13. Emergency Search Synchronization Mode
    a. With the system in emergency search search, press track press to light press.
    b. Antenna still programs.
    c. Turret follows L/S Servos through hand controls.
14. Emergency Search Acquisition Mode
    a. Place track press button to hard press.
    b. Track antenna stops programming.
    c. Range gate sweeps to 2500 yards and locks on target.
    d. Stow turret with stow switch.
    e. Emergency search switch "OFF"
    f. Place search radar switch to "OFF"
    g. Radar indicator controls full counterclockwise.
    h. Turn selectow switch off.

0574

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REPORT OF AIRCRAFT STATUS AND PURPOSE OF FLIGHT

REPORTS CONTROL SYMBOL

MAJOR AIR COMMAND	SUBCOMMAND	WING	GROUP
SAC	8th AF	42d Bomb Wing (H)	None
SQUADRON	**DETACHMENT**	**INSTALLATION**	**DATE OF REPORT**
None	None	Loring A.F.B., Maine	1 thru 31 Oct 1956

PART I

LINE NO.	TYPE, MODEL, AND SERIES	ASSIGNMENT OR STATUS CODE	TOTAL NUMBER ACFT ON HAND	TOTAL HOURS		NOT OPERATIONALLY READY					NOT OPERATIONALLY READY FLYABLE	NUMBER OF LANDINGS, LAUNCHINGS, OR FLIGHTS	HQ USAF/CMD HQ USE	
				ON HAND	OPERATIONALLY READY	SUPPLY	TECHNICAL ORDER COMPLIANCE	PERIODIC MAINT INSP	MAL-FUNCTION MECH DEFECTS, OPR DAM	OTHER REASONS				
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	KC-97G	CC	21	14997	12355	535		981	1126		233	146		
2														
3	B-52C	CC	20	14880	9303	380	1181	3001	1015		723	98		
4														
5	C-119C	CP	5	3450	2021	352		520	557		47	59		
6														
7														
8														
9														
10														

PART II

LINE NO.	TYPE, MODEL, AND SERIES	ASSIGNMENT OR STATUS CODE	HOURS FLOWN									HQ USAF/CMD HQ USE		
			SPECIAL FERRIED BY MATS FERRY PILOTS	TRAINING		ADMINISTRATIVE	COMBAT READINESS TNG			OTHER	TOTAL			
				COMBAT CREW AND OPERATIONAL	STUDENT		TRAINING	DUAL PURPOSE	SPECIAL MISSIONS					
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	KC-97G	CC		765						25	790			
2														
3	B-52C	CC		704						40	744			
4														
5	C-119C	CP					2	143		3	148			
6														
7														
8														
9														
10														

68820C

TYPED NAME, GRADE AND TITLE OF COMMANDING OFFICER

ROBERT A ST PIERRE A/2C USAF

SIGNATURE OF COMMANDING OFFICER

Robert A St Pierre

W-0094L

INCL 1

AF FORM 15 MAY 54 110a PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base, Maine
Part I
Management Control Statement
Analysis of Points Lost
October 1956
Bombardment

A PERSONNEL

1. Manning in Required Specialties.

a. Officer Manning:

MONTH	AUTH	ASGD	% BOEY MANNING	MIRS	%MIRS	% QUARTERLY CHANGE	SAC RATING SCORE
Aug	465	502	108	419	90.1		80
Sep	465	518	111	442	95.1		100
Oct	465	512	110	446	95.7	+ 5.8	100

(1) Officers not Manned in Required Specialties as of 31 October 1956:

UMD POSITION	GRADE,NAME,ORGN	PAFSC	DAFSC	REASON
Intell StaffOf	Lt. Col Adams, 428[illegible]	2016	2016	Officer Diverted HDCSA 1 Nov 56
Intell Photo-Radar Off	1Lt. Chatman, 428[illegible] 1Lt. Biagiotti, 428[illegible]	1124 2041	2041 2041	Directed Duty Directed Duty
Dep Director of Materiel	Lt. Col Etherington, 428[illegible]	4336	4336	Position currently unauth. Requestfor UMD chg submitted 28 Sep 56
Personnel Off	1Lt. Dickerman, 428[illegible]	7321	7321	Off filling WO Position
AcftMaintOff	1Lt. Foley, 69[illegible]	6421	4341	Directed Duty
AcftMaintOff	1Lt. Peloubet, 758[illegible]	4341	4341	Directed Duty
Job Con Off	1Lt. Pierson, 428[illegible]	4351	[illegible]	

This non-rated officer is not MIRS because he [illegible] filling the rated position of UR Officer in Quality Control, AF [illegible]334 (Flight Test Maintenance Officer). He has effectively perform[illegible] duty in the UR section for 14 months and his [illegible] is June 57; therefore it is considered advisable that he continue to fill this [illegible]sition until a better qualified replacement becomes available.

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UNIT POSITION	GRADE,NAME,ORGN	PASS	DUTY	REMARKS
Nav KC-97	2Lt Pantazelos, 42ARS	1531P	1521P	Directed Duty
Nav KC-97	2Lt Steiner, 42ARS	1531P	1521P	Directed Duty

These officers were assigned on 18 Oct 56 after completion of Primary Basic Navigator Course.

Air Ops Off	Maj Hume, 42BW	1416	1435	Off TDY at Intcp Contr Trng. Upon compl he will be rsgd to ATC.
Nav KC-97	2Lt. White, 42ARS	1531A	1521P	Off sus from fly status pending final decision of FCB action, 21 Sep 56 and 36-2 action 11 Oct 56.
Gen Med Off	Capt Frascati, 42TH	9326	9326	Officers do not have prof tng to be asgd auth medical specialist positions.
	Capt Schain, 42TH	9326	9326	

Crew - The following officers are former B-36 crew members (except 3 ECM Officers who did not receive B-52 training for reasons indicated) who cannot be effectively assigned to any authorized vacancies and whose status is indicated.

STATUS	PILOTS	OBSERVERS	ENGINEERS	ECM	TOTAL
Awaiting DOS	1	3	4	2	10
Pending EDCSA	2	7	7		16
Awaiting assignment instruct.	2	1			3
Pending board action		1		1	2
Oct	5	12	11	3	31
Sep	8	18	14	3	43
Aug	20	21	16	12	69

The following officers who were trained on staff or overage crews are excess to current authorizations but will be used in implementing the 1.6 ratio in November and/or as replacements for 1 observer and 10 ECM operators currently assigned crews who have DOS prior to 1 Jan 58.

ECM Officers	11
Observers	10

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SUMMARY OF NON-CREW OFFICERS NOT MIRS AUG THRU OCTOBER

AFSC	TITLE	AUG	SEP	OCT	REASON
1435	Air Operations Off		1	1	PCS to AUL after compl of Intcp Contr Tng
1521P	Acft Obsr, KC-97	1	1	3	(1) FEB Board Action (2) Dir Duty
2016	Intell Staff Off			1	EDCSA 1 Nov 56
2044	IntellPhoto-Radarofi	1	2	2	Directed Duty
2054	Intell Off		1		
4316	AcftMaintStaffOff	1	1	1	UMD Position Requested 28 Sep 56
4344	Acft Maint Off	3	3	2	(2) Directed Duty
4351	Job Control Off		1	1	Non-rated Off filling Rated Position, DOS Jun 57
6424	Supply Off	1	1		
7324	Personnel Off	2	1	1	Off filling WO position DOS Dec 56
9326	Gen Medical Off	5	2	2	Off's do not have profes-
	TOTAL	14	14	12	sional tng to be asgd auth positions.

(2) Critical Officer Shortages Requiring Action by higher headquarters.

The following 120 day projected critical shortages of officers are furnished higher headquarters for porgramming purposes to improve manning in required specialties in the most critical areas only but do not include all projected officer shortages.

				PROJECTED (120 DAYS)		
AFSC	TITLE	AUTH	ASGD	GAINS	LOSSES	% MANNED
3234	Armament Systems Off	5	3	1		80#
3244	Armament Oper Off	4	3			75
4334	Flight Test Maint Off	4	2			50
6424	Supply Off	11	10			91*
9034	Medical Supply Off	1	0			0
9356	Med Off, Aviation Med	5	4			80
9446	Otolaryngologist	1	0			0
9636	Radiologist	1	0			0
9716	Nurse, Admin	1	0			0
9754	Nurse, General	12	11			91
9836	Oral Surgeon	1	0			0
9856	Prosthodontist	1	0			0

* AFSC 6424 critical because 2 of assigned officers are at entry level.

Critical because one officer assigned has been hospitalized for an extended period. 45AD given first priority in Eighth AF by SAC for AAE officer 3234 provided from USAF resources.

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b. Airmen Manning

DIRECT SUPPORT MONTH	AUTH	ASGD	% BODY MANNING	MIRS	% MIRS	% MIRS CHANGE	SAC RATING SCORE
Aug	1894	1827	96.4	1235	65.2		10
Sep	1898	1931	101.7	1383	72.8		10
Oct	1894	2005	105.9	1587	83.8	+15.6	60
INDIRECT SUPPORT							
Aug	611	666	109.0	435	71.2		10
Sep	615	609	99.0	385	62.6		10
Oct	613	624	101.8	406	66.2	-05.0	10

Reasons for Loss Score:

(1) SUMMARY OF AIRMEN NOT MANNED IN REQUIRED SPECIALTIES

	AUG	SEP	OCT
010's in excess of helper level positions		25	25
010's training in position w/o vacancy		9	39
3 level airmen on OJT-C for the 5 level where no vacancy extists		106	99
3 level airmen on OJT-C for the 5 level where vacancy exists		248	158
3 level airmen on OJT-C for the 7 level (no 5 level) where vacancy exists		2	0
3 level airmen on OJT-D to career fields where vacancy exists at higher skill level		4	25
5 level airmen not on any type of OJT due to maximum manning at 7 level		110	121
5 level airmen on OJT-C for 7 level where no vacancy exists at lower skill level		100	44
5 level airmen on OJT-D to autherized career fields where vacancies exist at 7 level		22	0
7 level airmen not on any type of OJT and cross training prohibited by Project Guidance		55	18
Airmen in unauthorized AFSC's which cannot be cross trained due to Project Guidance		91	*107
TOTAL AIRMEN NOT MIRS	823	772	636

*70 of these airmen are AFSC 323X0A and 323X0B for which a waiver has been requested from higher headquarters for cross training into AFSC 323X0G

Amn assigned (2629) - Amn MIRS (1993) =636 Total Amn not MIRS

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(2) Critical Airmen Shortages Requiring Action By Higher Headquarters.

The following 120 days projected critical shortages fo airmen are furnished higher headquarters for programming purposes to improve manning in required specialties in the most critical areas only, but do not include all projected airmen shortages.

AFSC	AUTH	OCT UAFSC	SEP UAFSC	% OF CHANGE	PROJECTED 120 DAYS LOSSES	GAINS	% MANNED
321X0X	6	0	0	00.0	0	0	00.0
323X0G	58	27	17	-17.2	0	0	46.6*

*NOTE: A waiver to train AFSC 323X0A and 323X0B into this AFSC has been requested from higher headquarters to alloviate this shortage.

431X1B	630	495	358	-21.7	30	24	77.7
431X1B	86	86			41	0	47.5

NOTE: This is particularly critical because losses occur during 42ARFS Operation "Cold Wave", temporary relief has been afforded by 8AF authorization to use 423X1, Eng Mech, as crew chiefs during interim until imputs can be provided.

(3) Skill Level Distribution

DIRECT SUPPORT	42BW	7 LEVEL	5 LEVEL	3 LEVEL	010
AUTH	1894	475	1061	358	0
ASGD	2005	401	1109	490	5
PERCENTAGES	105.9	84.4	104.5	136.5	
INDIRECT SUPPORT					
AUTH	613	101	387	114	11
ASGD	624	91	262	248	23
PERCENTAGES	101.8	90.1	67.9	215.8	227.3

(4) Grade Level Distribution

DIRECT SUPPORT	42BW	MSG	TSG	SSG	A/1C	A/2C	A/3C	A/B
AUTH	1894	270	205	449	612	358	0	0
ASGD	2005	156	189	272	474	671	215	28
PERCENTAGES	105.9	57.8	92.2	60.5	77.5	187.4		
INDIRECT SUPPORT								
AUTH	613	49	52	186	202	113	11	0
ASGD	624	37	38	83	89	227	139	11
PERCENTAGES	101.8	75.5	73.0	44.6	44.1	200.9	1263.6	

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(5) Losses by Primary AFSC during October 1956

LOSSES	3 LEVEL	5LEVEL	7 LEVEL	TOTAL
Discharged	1	17	6	24
Transfered	6	17	6	29
Total this month	7	34	12	53
Total this year	123	610	160	893
Average monthly loss	12	61	16	89
PROJECTED 120 DAYS				
LOSSES	5	116	12	133
GAINS	39	12	4	55
NET GAINS OR LOSSES	+34	-104	-8	-78

(6) Local actions to improve manning

a. 911 airmen on OJT of 911 eligible

b. Test results and upgrading action

1. Air Force Job Knowledge Test.

	Last Quarter	Oct	Nov	Dec
Number eligible for testing	180	47		
Number tested	71	2		
Number passing tests	58	1		
Number upgraded to 3 level	69	7		
% passing test	81.7	50.0		
Average % passing test to date this year	78.9	80.0		
Number passing test but not yet upgraded	6	0		

2. Airman Proficiency Tests

	Last Quarter	Oct	Nov	Dec
Number eligible for testing	637	0		
Number tested	479	0		
Number passing tests	361	0		
Number upgraded to 5 level	168	95		
Number upgraded to 7 level	24	22		
% passing tests	75.3	0		
Average % passing tests to date this year	71.6	71.6		
Number passing tests but not yet upgraded	240	123		

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c. The table below shows the shortage in each squadron in meeting the USAF goal of 10% upgrade training each month of all airmen in the program. Cumulative shortages in Column 10 are the product of the number of months considered and the difference between Column 7 (Monthly Average Number Upgraded) and Column 8 (10% of number in training as listed in Column 2.)

SQUADRON SHORTAGES IN MEETING USAF GOAL OF 10% UPGRADE TRAINING

1	2	3	4	5	6	7	8	9	10
				NUMBER UPGRADED					
	NO IN PROGRAM	% IN PROGRAM	THIS	TO	MONTHLY	10% OF NO	SHORTAGE		
UNIT	TOTAL	OVER 5 MOS	OVER 5 MOS	MONTH	DATE	AVERAGE	IN TNG	MONTH	TOTAL
Gp Hq Sq	65	27	41.5	3	79	7.9	6.5	1.0	0
69 BMS	92	19	20.7	4	27	2.7	9.2	6.5	65
70 BMS	73	19	26.0	32	51	5.1	7.3	2.2	22
75 BMS	73	15	20.5	2	35	3.5	7.3	3.8	38
	2	23	37.1	13	41	4.1	6.2	2.1	21
	3	143	41.7	48	394	27.4	31.3	3.9	39
	0	15	38.5	1	57	5.7	8.0	2.3	23
	9	57	47.1		182	18.2	11.9	.0	0
	4	21	64.7	17	85	8.5	3.4	.0	0
	1	332	37.2	124	831	83.1	WING TOTAL		90

d. The adequacy of the OJT program in those squadrons showing a cumulative shortage in Column 10 of the above table must be correlated with the percentage of body manning and the effective manning and the percentage of airmen in the program over 5 months.

UNIT	AUTH	ASGD	MIRS	%MIRS	% BODY MANNED	% ON OJT OVER 5 MOS
Wg Hq Sq	164	174	103	62.2	106.1	41.5
69 BMS	163	170	120	73.6	104.3	20.7
70BMS	163	174	98	60.1	106.7	26.0
75BMS	163	158	119	73.1	96.9	20.5
42ABS	220	201	166	75.4	91.4	37.1
42FMS	901	920	807	89.6	102.1	45.7
42FMS	273	227	180	65.3	83.2	18.8
42AEMS	345	471	260	75.4	136.5	47.1
42TAC HOSP	115	134	91	79.1	116.5	64.7
42BW	2507	2629	1993	75.5	104.9	37.2

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IN GROUP	JUL	AUG	SEP	OCT	
TOT L	898	912	890	911	
1 Month	118	110	77	961	
TOT L	780	786	783	870	
2 Months	117	107	131	66	
TOT L	663	679	652	804	
3 Months	221	97	85	117	
TOT L	442	582	567	687	
4 Months	105	107	88	75	
TOT L	337	369	479	612	
5 Months	116	86	106	73	
OVER 5 Months	221	283	373	539	284 (45.6%) 62 (9.9%)
% of Total in program	28.6	32.6	36.4	37.7	35.8
% not upgraded					33.6
Time Lapse	25.0	23.8	21.0	26.0	
% upgraded					
1 month	62	62	111	104	
% upgraded	7.0	5.5	12.3	10.7	11.2
% upgraded monthly	9.0	8.58	8.92	9.5	
% average % upgraded monthly	10.28	9.32	9.25	11.2	

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2. AWOL Rate - One Hundred percent (100%) of score was earned on this item.

3. Reenlistment Rate

20% of score was earned on this item in October as 7 Airmen reenlisted out of an eligible 33. Six of them reenlisted to fill their own vacancies. Most prominent reasons given for not reenlisting were unfair promotions, poor management and supervision, and lack of personal freedom. The October separations and reenlistment study is shown below.

Skill Level	Separated	Reenlisted	Rate
Advanced 7 level	7	3	42.9%
Skilled 5 level	23	4	17.4%
Semi-Skilled 3 level	1	0	0.0%
	31	7	22.6%

Functional Categories	Separated	Reenlisted	Rate
Highly Technical	6	4	66.7%
Tech. Maint and Repair	20	2	10.0%
Tech. Admin. and Clerical	2	0	0.0%
Semi-Technical	2	1	50.0%
Non-Technical	1	0	0.0%
	31	7	22.6%

4. MTD Utilization - One Hundred percent (100%) of score was earned on this item.

B MATERIEL

1. Flying Hours Delivered, Percent of Required - 79% of score was earned on this item as 744 hours were flown against a programmed 942. The loss of flying hours was due primarily to T.O.C.s performed under project "Push Up". B-52s had to be stood down in order for the Boeing Contractor team to perform the necessary work on the aircraft. On the quarter, the B-52s are now 538 hours behind schedule with one month to go. With 1190 hours programmed for November, 1728 hours would have to be flown in order to earn 100% of score for the quarter.

C GENERAL

1. Cost Per Flying Hour - This item is not rated in the wing since there are no standards for B-52 wings. Cost trends can be noted by comparing this month against last month.

a. Personnel Costs - These costs dropped from $606,543 to $575,100. Most of this drop was in direct maintenance costs. In addition 744 hours were flown as compared to 360 hours last month. These two favorable factors enabled cost per flying hour to decrease from $1,684 last month to $773 this month. As our flying hours increase, this cost per hour should be further reduced.

b. Aviation POL Costs - Cost per flying hour on this item rose from $273 to $276. This cost is still low compared to the $293 standard but would result in 90% of score earned. A TMI prescribing procedures to be used in accounting for fuel was published on 9 November. It is hoped that more accurate information will result from its application.

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c. "Other" Supply Costs - Cost per flying hour was $121 this month as compared to $1535 last month. This reduction is the result of the elimination of many errors from the card type supply system. However, the figure still appears to be a little high. Some of the high cost items improperly listed in expense are shown below.

Item	Quantity	Unit Price	Total Value
Raft	90	$ 32.75	$ 2,947.50
Pumps	2	12,758.00	25,516.00
Computer	1	6,000.00	6,000.00
Receiver	2	4,200.00	8,400.00
Actuator	1	934.00	934.00
Meter	4	414.00	1,656.00
Tube	2	1,250.00	2,500.00
Kits (Ground Power Equip)	8	109.00	872.00
Engine (Ground Power Equip	1	3,200.00	3,200.00
Voltmeter	1	1,260.00	1,260.00
			$ 53,285.50

Most of the cost of the above listed items is not true expense. Their expendability codes shown in the expense run indicate that those particular items are not classified as base expendable items. The errors on these items begins in the squadrons where an improper card-atype account code is used by personnel when requisitioning parts or supplies. The error remains in the system through base supply and budget and accounting unless it is found and corrected. Code Cards for maintenance personnel are in the process of being prepared and in the meantime briefings have been held on proper procedures. Expense coding should continue to improve.

d. Contractual Services and "Other" Costs - Cost per flying hour on this item is $48 as compared to $86 last month. This high cost per flying hour continues to be caused by our small number of flying hours and our high TDY costs for ferry flights and people at B-52 schools. This cost will remain high for the next few months.

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: October 1956 | PAGE NR: 11 | NR OF PAGES: 20 | REPORTS CON[illegible] SYMBOL

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Aug	Sept	Oct	Nov	AVERAGE OR TOTAL
A Personnel							
1. MIRS							
(a) Officers	90%	60%	80%	100%	100%		
(b) Airmen							
(1) Direct	60%	10%	10%	10%	60%		
(2) Indirect	20%	10%	10%	10%	10%		
2. AWOL Rate	100%	100%	100%	100%	100%		
3. Reenlistment Rate	50%	20%	20%	30%	20%		
4. MTD Utilization	NR	100%	61%	100%	100%		
Personnel Total	55.6%	31.7%	31.1%	37.1%	61.2%		
B Materiel							
1. Flying Hrs. Dald.	100%	85%	NR	51%	79%		
2. M/H Util. Aircraft	NR	NR	NR	NR	NR		
Materiel Total	100%	85%	NR	51%	79%		
C General							
1. Cost/Flying Hour	83%	50%	NA	NA	NA		
2. Safety							
(a) Flying	100%	100%	100%	100%	100%		
(b) Ground	100%	90%	75%	55%	100%		

AAF [illegible] 102

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: October 1956 | PAGE NR: 12 | NR OF PAGES: 20 | REPORTS CONTROL SYMBOL:

ORGANIZATION AND LOCATION:
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Aug	Sept	Oct	Nov	AVERAGE OR TOTAL
3. Reports on Time	79%	NR	NR	NR	NR		
4. USCM Sabotage	NR	NR	NR	NR	NR		
General Total	83.1%	65.6%	91.7%	85.0%	100%		
Grand Total	84.2%	50.3%	43.4%	47.4%	70.4%		

AF FORM 102

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MANAGEMENT CONTROL STATEMENT | MONTH AND YEAR: October 1956 | PAGE NR: 13 | NR OF PAGES: 20 | REPORTS CONT SYMBOL

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Aug	Sept	Oct	Nov	AVERAGE OR TOTAL
A Personnel							
1. Manning in Required Specialties							
(a) Officer MIRS % Score	90%	60%	80%	100%	100%		
(1) No. Required			465	465	465		
(2) Number Assigned			502	518	512		
(3) No. IRS			419	442	446		
(4) Percent IRS			90.1%	95.1%	95.9%		
(b) Airmen MIRS Direct Support Skills % Sc.	60%	10%	10%	10%	60%		
(1) No. Required			1894	1898	1894		
(2) No. Assigned			1827	1931	2005		
(3) No. IRS			1235	1383	1587		
(4) Percent IRS			65.2%	72.9%	83.8%		
(c) Airmen MIRS, Indirect Support Sk. % Sc.	20%	10%	10%	10%	10%		
(1) No. Required			611	615	613		
(2)No. Assigned			666	609	624		
(3) No. IRS			435	385	406		
(4) Percent IRS			71.2%	62.6%	66.2%		
2. AWOL Rate, % Score	100%	100%	100%	100%	100%		
(a) Average Strength			2687	2753	2832		

AF FORM 182

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: October 1956	PAGE NR: 14	NR OF PAGES: 20	REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION: Headquarters 42dn Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Aug	Sept	Oct	Nov	AVERAGE OR TOTAL
(b) No. Going AWOL			4	3	0		
(c) Rate per 1000			1.48	1.09	0.00		
3. Reenlistment Rate % Score	50%	20%	20%	30%	20%		
(a) No. Eligible		-	77	65	33		
(b) No. Reenlisting			14	20	7		
(c) Percent Reenlisting			18.2%	30.8%	21.2%		
4. MTD Utilization % Score	NR	100%	61.1%	100%	100%		
a. Stand. Utilization							
(1) Mech. MTD Bomber			3500	3500	3500		
(2) Electronics MTD Bomber			1500	NR	NR		
(3) Total			5000	3500	3500		
b. Actual Utilization							
(1) Mech. MTD Bomber			9660	9207	9453		
(2) Electronic MTD Bomber			333	NR	NR		
(3) Total			9993	9207	9453		
Personnel Total	55.6%	31.7%	31.1%	37.1%	61.2%		
B Materiel							
1. Flying Hours. Percent of Req. % Score	100%	85%	NR	51%	79%		
(a) Hrs. Required Bomber				700	942		
(b) Hrs. Flown Bomber				360	744		
C General							
1. Cost/Fly Hr. % Score	83%	50%	NA	NA	NA		
(a) Fly Hours Bomber			545	360	744		
(b) Personnel Costs Bomber % Score			NA	NA	NA		

AF FORM 102

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: October 1956 | PAGE NR: 15 | NR OF PAGES: 20 | REPORTS CONTROL SYMBOL:

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Aug	Sept	Oct	Nov	AVERAGE OR TOTAL
(1) Total Cost			$511,229	$606,543	$575,101		
(2) Cost/Flying Hour.			$938.04	$1,684.84	$772.98		
(3) Stand. Cost/Flying Hour			NA	NA	NA		
c. Aviation POL Costs Bmb. $ Score			NA	NA	NA		
(1) Total Cost			$144,893	$98,168	$205,399		
(2) Cost/Flying Hour			$265.86	$272.69	$276.07		
(3) Standard Cost/Flying Hour			NA	NA	NA		
(4) Performance Index			NA	NA	NA		
d. All Other Sup. Costs Bmb. $ Score			NA	NA	NA		
(1) Total Costs			$148,677	$552,641	$89,745		
(2) Cost/Flying Hour			$272.80	$1,535.11	$120.62		
(3) Stand. Cost/Flying Hour			NA	NA	NA		
e. Cont. Services & Other Cost Bmb $ Score			NA	NA	NA		
(1) Total Cost			$57,073	$30,897	$35,916		
(2) Cost/Flying Hour			$104.72	$85.82	$48.28		
(3) Standard Cost/Flying Hour			NA	NA	NA		
2. Safety							
a. Flying $ Score	100%	100%	100%	100%	100%		
(1) No. of Accidents			0	0	0		

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: October 1956	PAGE NR: 16	NR OF PAGES: 20	REPORTS CONTR. SYMBOL	
ORGANIZATION AND LOCATION: Heqdqurters 42nd Bombardment Wing, Loring Air Force Base, Maine					

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Aug	Sept	Oct	Nov	AVERAGE OR TOTAL
(2) Flying Hrs.			545	360	744		
(3) Rate/100,000 Hrs. Flown			0	0	0		
(b) Ground % Score	100%	90%	75%	55%	100%		
(1) Ground Saf. Index			1.09	7.68	4.19		
(a) Mil. Inj. Rate/100,000 Mandays Ex			1.09	7.68	4.19		
1 No. of Mil. Disabling Injuries			1	7	4		
2 No. of Mandays Exposure			91,853	91,170	95,480		
(b) Gov. Mtr. Veh. Accd. RT/100,000 Miles Driven			0	0	0		
1 No. of Accd.			0	0	0		
2 No. of Miles Driven			19,765	17,652	19,372		
(c) Civilian Injury Rate/1,000,000Man Dys Ex			0	0	0		
1 No. of Civ. Disabling Injuries			0	0	0		
2 No. Manhours of Exposure			13,607	10,860	12,016		
(2) Accident Cost Index			$10.40	$3.45	$.43		
(a) Total Cost			$31,577	$10,718	$1,351		
(b) Mean Strength			3,037	3,111	3,146		
3. Reports on Time (No Information Required)	79%	NR	NR	NR	NR		
4. USCM Sabotage % Score	100%	NR	NR	NR	NR		

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: October 1956 | PAGE NR: 17 | NR OF PAGES: 20 | REPORTS CONT'L SYMBOL:

ORGANIZATION AND LOCATION:
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Aug	Sept	Oct	Nov	AVERAGE OR TOTAL
(a) No. Acft. Available							
(b) No. Acft. Sabot.							
(c) Percent Acft. Not Sabotaged							
(d) Number Flyaway Kit Systems							
(e) No. Flyaway Kit System Sabotaged							
(f) Percent Flyaway Kit System Sab.							
(g) Ground Rules Violated (Yes or No)							
General Total	83.1%	65.6%	91.7%	85.0%	100%		
Total	84.2%	50.3%	43.4%	47.4%	70.4%		

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42nd Air Refueling Squadron

1. Cost Per Flying Hour - 69% of score was earned on this item as compared to 71% earned last month. Points were lost in all areas, however the only area regressing from last month was Contractual Services and "Other" Costs.

a. Personnel Cost - 62% of score was earned on this item as compared to 58% last month. Cost per flying hour dropped from $310 to $290. Until the 42nd Bomb Wing has received most of its authorized 45 B-52 Aircraft, the Air Refueling Squadron is going to receive a higher than normal proportion of the cost of maintenance personnel and staff personnel. It is noted that their score is slowly improving each month.

b. Aviation POL Costs - 90% of score was earned on this item, the same as last month. Cost per flying hour was $128 this month as compared to $141 last month. This month's cost is below the standard of $135 per flying hour. A TMI prescribing procedures to be used in Accounting for fuel was published on 9 November. More accurate information should result from its application.

c. "Other" Supply Costs - 44% of score was earned on this item as compared to 14% last month. Cost per flying hour this month was $34 against $106 last month. Costs dropped from $79,605 to $26,424 as the costing under the new cardstype supply system improved. The $34 cost per flying hour still remains high in comparison to the standard of $15 per flying hour. Some of the high cost items listed in expense are shown below.

Item	Quantity	Unit Price	Total Value
Driftmeter	1	$1,599.26	$1,599.26
Inverter	3	677.00	2,031.00
Elbow Assembly	7	177.00	1,239.00
Headset	44	133.00	5,852.00
Generator	6	300.00	1,800.00
Carburetor	2	1,358.00	2,716.00
			$15,237.26

All of the above listed items are not proper expenses. Their expendability codes shown in the expense run indicate that every one of them is an item not classified as a base expendable item. Errors on these items begin at squadron level where an improper cardavtpe account code is used by personnel when requisitioning parts or supplies. The error remains in the system through base supply and budget and accounting unless it is discovered and corrected. Code cards for maintenance personnel are in the process of being prepared and in the meantime briefings have been held on proper procedures.

d. Contractual Services and "Other" Costs - Only 55% of score was earned on this while 100% was earned a month ago. TDY costs rose from $1,123 last month to $8,563 this month. The increased TDY expense was due to the flights of the KC-97s to OCMA where propeller changes were accomplished.

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: October 1956 | PAGE NR: 19 | NR OF PAGES: 20 | REPORTS CONTROL SYMBOL:

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing Part II, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: AREF DATA	CURRENT PERIOD (Applicable Months): Aug	Sept	Oct	Nov	AVERAGE OR TOTAL
1. Cost/Flying Hour % Score	74%	NR	84%	71%	69%		
a. Flying Hours Tanker			755	755	790		
b. Personnel Costs Tanker % Score			66%	58%	62%		
(1) Total Costs			$206,730	$234,041	$228,870		
(2) Cost/Flying Hour			$273.81	$309.99	$289.71		
(3) Standard Cost/Flying Hour			$180.00	$180.00	$180.00		
c. Aviation POL Costs Tanker % Score			90%	90%	90%		
(1) Total Cost			$93,140	$106,533	$101,021		
(2) Cost/Flying Hour			$123.36	$141.10	$127.87		
(3) Standard Cost/Flying Hour			$135.00	$135.00	$135.00		
(4) Performance Index			109%	96%	106%		
d. All Other Supply Costs Tanker % Score			90%	14%	44%		
(1) Total Cost			$12,484	$79,824	$26,812		
(2) Cost/Flying Hour			$16.53	$105.73	$33.94		
(3) Standard Cost/Flying Hour			$15.00	$15.00	$15.00		
e. Contractual Serv. & Other Costs Tanker % Score			100%	100%	55%		
(1) Total Cost			$2,856	$1,276	$35,916		
(2) Cost/Flying Hour			$3.78	$1.69	$10.98		
(3) Standard Cost/Flying Hour			$6.00	$6.00	$ 6.00		

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COST PER FLYING HOUR
Month Ending 31 October 1956

	Personnel		Supplies				Contractual and Others	
			Aviation POL		All Others			
	B-52	KC-97	B-52	KC-97	B-52	KC-97	B-52	KC-97
[illegible]								
Direct TAC [illegible] Costs								
69th BS	$106755		$ 57541		$ 3927[illegible]			
70th BS	100819		69288		16026			
75th BS	106281		78570		11696			
42nd [illegible]		$106990		$101021		$ 5639		
Total TAC [illegible]	$313855	$106990	$205399	$101021	$ 66995	$ 5639		
Direct Maintenance								
A&E Maint.	$ 68880	$ 22003			$ 6753	$ 7153		
Field Maint.	68532	53575			5967	6026		
Peridoic Maint.	36167	7939			4324	3189		
Total Direct Maint.	$173579	$ 83517			$ 17044	$ 16368		
Indirect Maintenance								
A&E Maint.	$ 5170	$ 1651			$ 314	$ 333		
Field Maint.	$ 11630	$ 9101			$ 3940	$ 3972	$ 107	$ 108
Peridoic Maint.	$ 3555	$ 780			$ 152	$ 112		
Total Indirect Maint.	$ 20355	$ 11532			$ 4406	$ 4417	$ 107	$ 108
TDY Costs							$ 35809	$ 8563
Sub Total	$507789	$202039	$205399	$101021	$ 88445	$ 26424	$ 35916	$ 8671
Headquarters	$ 67312	$ 26831			$ 1300	$ 388		
Total Costs	$575101	$228870	$205399	$101021	$ 89745	$ 26812	$ 35916	$ 8671
1-AF-A1 Total Tac. Fly Hrs.	744	790	744	790	744	790	744	790
Cost/Flying Hour	$ 773	$ 290	$ 276	$ 128	$ 121	$ 34	$ 48	$ 11
Standard Cost/Fly Hr.		$ 180	$ 293	$ 135		$ 15		$ 6
Performance Index			$ 106%	$ 106%				
% of Maximum Score Earned		62%	90%	90%		44%		55%
Points Earned		31	49.5	49.5		8.8		13.7
Total C[illegible]	$906161	$365374						
Total Actual Cost/Fly Hr.	$ 1218	$ 463						
Total Standard Cost/Fly Hr.		$ 336						
Total Points Earned		103						
Total Points Possible		150						
Overall % of Score Earned		69%						

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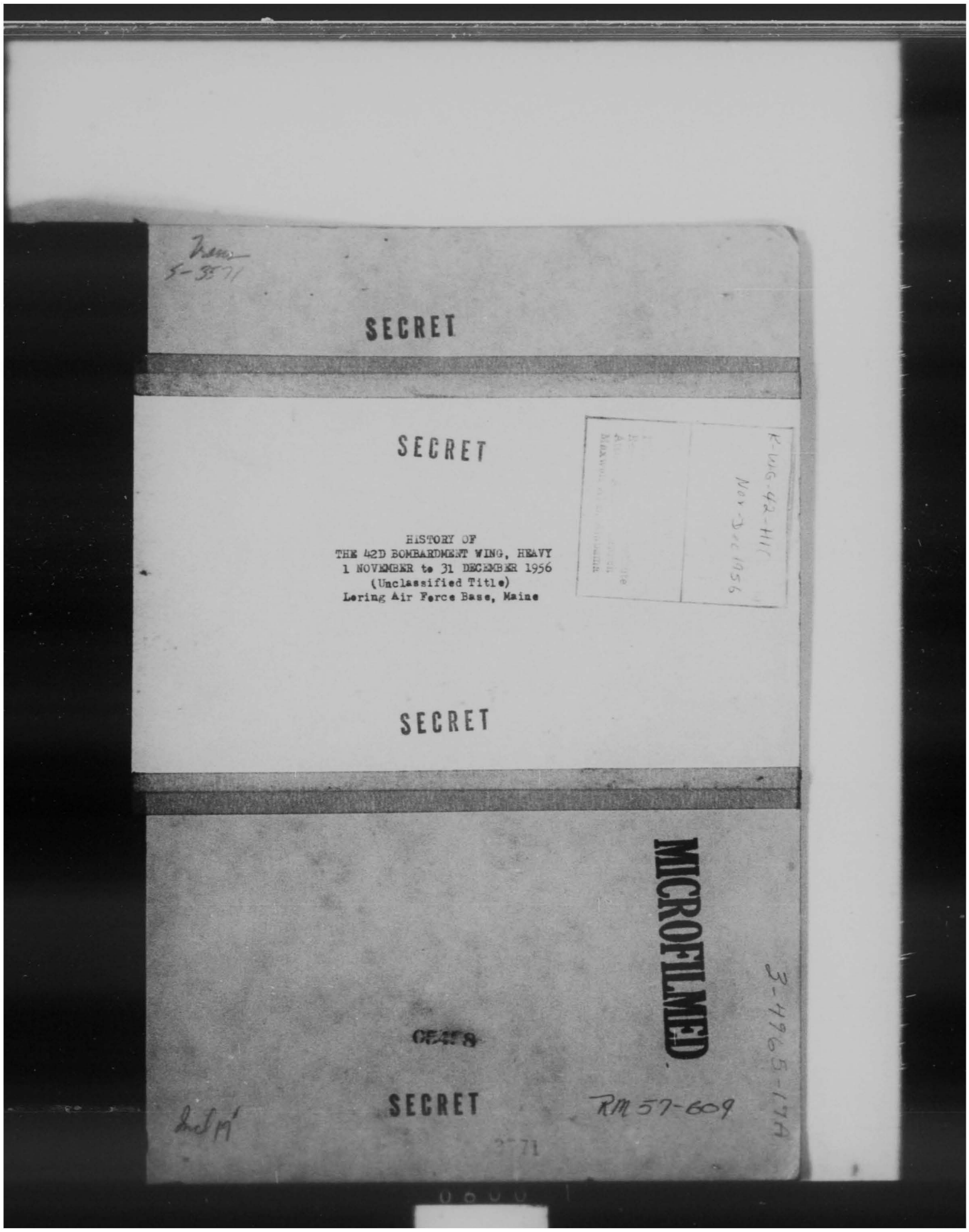

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HEADQUARTERS
45TH AIR DIVISION (SAC)
United States Air Force
Loring Air Force Base, Maine

DISO-H

13 FEB 1957

SUBJECT: Transmittal of History of the 42d Bombardment Wing, Heavy, for the Period 1 November to 31 December 1956 (RCS: AU-D5)

TO: Commander
Eighth Air Force
ATTN: Command Historian
Westover Air Force Base, Mass.

1. Transmitted herewith is the History of the 42d Bombardment Wing, Heavy, for the period 1 November to 31 December 1956 (RCS: AU-D5).

2. When inclosure one (1) is withdrawn or not attached, the classification of this correspondence will be downgraded to unclassified.

FOR THE COMMANDER:

JOSEPH H. JACOBY
Major, USAF
Adjutant

1 Incl.
Hist. Rept.
42BW (Quad)

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HSITORY OF
THE 42D BOMBARDMENT WING , HEAVY
1 NOVEMBER TO 31 DECEMBER 1956
(Unclassified Title)
Loring Air Force Base, Maine

Prepared for the Historical Section of the Information Services Office, 42d Air Base Group, by S/Sgt John J. Houlihan, AF 3224 6878, under the supervision of 1st Lt. Edward V. Johnson, Jr., Historical Officer.

(45th Air Division, Eighth Air Force,
Strategic Air Command)

D E Hillman

DONALD E. HILLMAN
Colonel, USAF
Commander

Edward V. Johnson

EDWARD V. JOHNSON, JR.
1st Lt., USAF
Historical Officer
(Information Services
Staff Officer)

John J. Houlihan

JOHN J. HOULIHAN
S/Sgt AF 32246878
Historian

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DONALD E. HILLMAN
Colonel, USAF
Commander

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TABLE OF CONTENTS

	PAGE
FRONTISPIECE	
FOREWORD	
ORGANIZATION, ADMINISTRATION AND PERSONNEL	1
Brief Unit History	1
THE MISSION AND ITS IMPLEMENTATION	7
Over-All Mission	7
OPERATIONS AND TRAINING	8
Flying Training	8
Ground Training	11
Problems and Developments	13
B-52 Conversion	19
Overall	19
PERSONNEL	21
Officer Manning	21
Airman Manning	21
Reenlistment Rate	23
Civilian Personnel	24
MAINTENANCE AND MATERIEL	25

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FOREWORD

This report contains the History of the 42d Heavy Bombardment Wing for the period 1 November through 31 December 1956. The origin and organization of this bomb wing are recounted along with important activities--mission and mission implementation, operations and training, maintenance and materiel, and personnel --being emphasized for the reporting period.

The information contained herein, relative to the History of the 42d Heavy Bombardment Wing at Loring Air Force Base, Maine, a unit of the 45th Air Division (SAC) covers activities of the wing and assigned organizations. It is related to previous monthly histories of the wing since its activation.

The present report was supervised by 1st Lt. Edward V. Johnson, Jr., USAF, Historical Officer (Information Services Staff Officer), and written by S/Sgt John J. Houlihan, Historian.

Like other month's reports, this history is subject to change, and additional information or suggested corrections will be welcomed.

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ORGANIZATION, ADMINISTRATION AND PERSONNEL

Brief Unit History

The 42d Heavy Bombardment Wing was activated at Limestone Air Force Base, Maine, on 25 November 1953 and was assigned to the Eighth Air Force.[1] Actually, the 42d was "re-activated". The parent unit to the 42d Bomb Wing was the 42d Bombardment Group, Medium, Army Air Forces, which had served in the South Pacific during World War II.[2]

The three primary squadrons of the World War II bomb group--the 69th, 70th and 75th[3] --were again "re-activated" with the 42d Wing.[4] During the war these bomb squadrons flew the B-25 "Billy Mitchell" bombers and were designated "Medium".[5] When activated again in 1953, the squadrons were re-designated "Heavy"[6] and the B-36 "Peacemaker" bomber became the primary aircraft.

During the fighting in the Pacific, the 42d Medium Bomb Group distinguished themselves by winning many battle credits and a Distinguished Unit Citation.[7]

---

1. SAC GO 10, 25 Feb 1953 /per DAF Ltr 322 (AFOMO 410h), 24 Mar 1953
2. USAF Hist Div Study, Sep 1955: "Hist Data per 42d Bomb Group (M) 1941-1946".
3. Ibid., also "Hist Data per 69th, 70th and 75th Bomb Sqdns (H).
4. SAC GO 10.
5. WD Ltr, AG 320.2 (10-17-40), M (Ret) M-C, 20 Nov 1940.
6. DAF Ltr, 322 (AFOMO 410h), 24 Mar 1953.
7. Battle credits awarded group for China Defensive and Offensive (Cir 1, Hq 13th AF, 10 Jun 1946), and for action in the Bismarck Archipelago, Luzon, New Guinea, Northern Solomons (WD GO 12, 12 Feb 1946) and Southern Philippines (DA GO 29, 21 Apr 1948). For a mission near Balikpapan on the Isle of Borneo, Netherlands East Indies from 23-30 Jun 1945, the group received a Distinguished Unit Citation (WD GO 44, 13 May 1946).

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In 1945, while stationed in Japan, the 42d Bomb Group was de-activated.[8]

In this same year, 1946, a seemingly unrelated event was taking place back in the United States; the construction of a small airstrip in the northern part of Maine.[9] Seven years later, at "Limestone Air Force Base", the 42d was re-activated.

Original construction of the base itself was begun in the Winter of 1946-47. During the initial construction period, up to the Winter of 1952-53, Limestone AFB was garrisoned by a small group of AF personnel.[10] The base did not come under the jurisdiction of Strategic Air Command until February 1953.[11]

When the 42d Bomb Wing was activated, the construction program went into high gear, hangars, docks, an extension to the runway, barracks--- many important facilities were initiated.

The first B-36 aircraft arrived during the latter part of March, 1953, just a few weeks after the wing had been activated. In April 1953 thewing launched its first training missions. By October 1953 not quite nine months after the wing was activated, the B-36 crews were flying more than 1,000 hours a month.[12]

---

8. GO # 60, Hq 5th AF, 20 Apr 1946, pusuant to instructions in WD Ltr AG 322 (26 Mar 1946), OB-I-E-M, 26 Mar 1946.
9. Named after Limestone Village, 7 miles from the base.
10. When first assigned, Jun 1950, this group was designated a base detachment. Later re-designated 4215th Base Svc Sqdn, then 4215th Air Base Sqdn (the latter discontinued per SAC GO 10 when the 42d Wing was activated).
11. SAC GO 18, 21 APR 1953.
12. Inscribed on plaque awarded WCO by Convair, 5 Dec 1955.

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At the time of activation, Brigadier General (then Colonel) Bertram C. Harrison, United States Air Force, was named commander. When the 45th Air Division was activated on 8 October 1954.[13] General Harrison became the new division commander and Colonel Jerome Tarter, USAF, took over as the wing commander.[14]

The 45th Air Division became the highest base echelon on activation in Oct 1954.[15] Another important change occured in Oct 1954 when the base was officially dedicated and re-named "Loring" on the first day of that month in honor of Major Charles J. Loring, Jr., a Maine jet hero, who was awarded the Congressional Medal of Honor, posthumously, for action in Korea.[16]

Before the air division came into being, the 42d Bomb Wing Headquarters had been the highest base echelon. The supporting units to the wing, the 42d Air Base Group, had been activated with the wing in 1953.[17] Under the division setup, the wing and air base group received equal status, ie. lateral communication with each other.[18]

The primary squadrons previously mentioned, were augmented in Feb of 1955, with the activation of the 42d Heavy Air Refueling Squadron.[19] The KC-97 tanker aircraft took its place on the flight line along with the bomb squadron's B-36s.

---

13. SAC GO 69, 8 Oct 1954 (Sec I).
14. Officers Roster, 45th AD, 1-31 Oct 1954 (RCS; 8 AF-PI). Brig. Gen. W. K. Martin, USAF, became div comdr 18 Jun 1955 and Brig. Gen. Harrison was reasgd Ramey AFB, P. R.
15. See 45th AD Organ. Chart, Exhibit # 1.
16. DAF GO 34, 15 Sep 1954 (Par 6).
17. SAC GO 10, actually "re-activated", WW II parent was 42d Svc Gp., AAF, disbanded in Belgium 1945/Ltr, Hq IX AF Svc Cmd, 22 May 1945 pursuant to WD Ltr, AG 322 OB-1-AFRPG-M, 4 Apr 1945./
18. SAC GO 10, Also see Exhibit # 1.
19. SAC GO 79, 8 Dec 1954.

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Activated with the wing to render maintenance support were the 42d Armaments & Electronics Maintenance Squadron, 42d Periodic Maintenance Squadron and 42d Field Maintenance Squadron.[20] A medical group was also activated (see below).[21] Necessary base support was made possible by the activation of the air base group squadrons,[22] and special attached units to group headquarters.[23]

Organizationally, the 42d Wing Headquarters was set up in two sections--the coordinating staff and the personal-specialist staff--which are directly responsible to the wing commander.[24] The wing coordinating staff--the directorates of personnel, materiel and operations--work on equal status with personnel, materiel and operations directorates of 42d Air Base Group Headquarters, and both staffs are responsible to the higher division directorates.[25] The wing personal/specialist staff includes[26] the comptroller, adjutant, air inspector, office of safety[27] and headquarters squadron.

The 42d Medical Group, activated as a wing unit in February 1953[28] had been operating the base hospital function since activation. In Feb 1954, after being activated one year, the 42d Medical Group was re-designated the 42d Tactical Hospital.[29]

---

20. SAC GO 10.
21. Ibid.
22. See Exhibit # 1.
23. Ibid.
24. See Exhibit # 1. Hq Agencies function IAW SAC Man 20-1. Dec 1954.
25. Ibid.
26. See Exhibit # 1.
27. Est. 1 Apr 1955 per SAC Directive (8th AF Msg. CS 186, 8 Mar 1955.
28. SAC GO 10.
29. SAC GO 3, 27 Jan 1954.

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A month later, in March 1954, the base hospital which had been functioning since February 1953, was designated to 4034th USAF Hospital.[30] Lieutenant Colonel James G. Langford, USAF, who had been named commander of the base hospital, commanded the 42d Tactical Hospital -- the "flying" medical facility of the wing.[31]

Wing conversion to the B-52 "Stratofort" intercontinental bomber, was to occur in 1956.[32] The first assigned B-52 aircraft arrived in May 1956.[33]

Key personnel changes were also made in mid-1956. Col. Donald E. Hillman USAF, became the new wing commander 1 June.[34] The 42d Tactical Hospital changed command 24 August when Col. Vance H. Marchbanks, Jr., USAF, took over.[35]

The base construction program had been speeded up in 1955 to prepare for the all-jet B-52. Over one-thousand feet of concrete extensions were accomplished on both ends of the runway--plus taxiway shoulder stabilization. A huge double-cantilever maintenance hangar was finished and eleven new Luria docks were begun. Other projects included fuel pipe lines, runway and taxiway lighting systems, and communications facilities.[36]

---

30. SAC GO 17, 15 Mar 1954.
31. Officers Roster, 45AD, 1-31 Mar 1954.
32. 8th AF Programming Plan 27-55, 26 Oct 1955.
33. Ibid., Incl. 2. Actually, 1st B-52 to land at Loring occured 9 Jan 1956 (acft was conducting cold weather tests for Air Proving Grnds in flight from Eglin AFB, Fla. to Alaska).
34. Officers Roster, 45AD, 1-30 Jun 1956. See Frontispiece, photo of Col. Hillman. Col. Tarter, previous commander reasgd Hq USAF.
35. Officers Roster, 45AD, 1-31 Aug 1956. Previous comdr Lt. Col. Langford reasgd Lockbourne AFB, Ohio.
36. AIO Program Status Report, MCP FY 56-57 (31 Dec 55).

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THE MISSION AND ITS IMPLEMENTATION

OVER-ALL MISSION

The 42 Heavy Bombardment Wing was activated primarily, to administer a force capable of flying strategic bombardment operations to any part of the globe.[1] In performing this task the latest technical knowledge and advanced weapons are utilized.[2]

In addition to long-range bombardment, air-to-air refueling is part of the wing mission.[3] Other tasks of the wing secondary in nature, are the training of assigned United States Air Reserve Personnel and/ or units, and the participation by the wing in civilian emergencies, such as the assistance which might be rendered during a time of disaster.[4]

Aircrews and ground support units are constantly being tested in their work in order to maintain the highest possible degree of efficiency.[5]

---

1. 8th AF Reg 23-9, 1 Apr 1954, as amended.
2. Ibid.
3. 8th AF Reg 23-9A, 2 Feb 1955.
4. As Outlined in AF Reg 23-9.
5. IAW B-52 Tng Commitments and as dir by opns orders fr higher hq.

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OPERATIONS AND TRAINING

FLYING TRAINING

The major mission which the wing was concerned with durin the month of November was that known as Operation "Quick Kick" , a Strategic Air Command and Eighth Air Force directed operation designed to test the combat capabilities of the B-52 Stratofortress on a sustained, simulated intercontinental bombing misicn.

Four of the 42d Bombardment Wing's B-52s tohk part in this mission together with aircraft from Castle Air Force Base. The wing aircraft departed Loring 24 November on a route which tohk them over the North Pole then to Elmendorf, Alaska, on down the West Coast across the Southern United States, around the Florida Peninsula to Washington, D. C. and on back to Loring where they landed on November 25th. One of the aircraft was directed to land at Friendship International Airport in Baltimore. All the wing aircraft but one flew the mission as briefed or as directed in-flight. The one aircraft which was unable to follow the plan experienced refueling difficulty in the Goose Bay, Labrador area and elected to fly direct from the North Pole to Seattle, Washington, where it rejoined the other three and continued the mission succesfully.

The wing aircraft were in the air over twenty-six hours and covered a distance of approximately 13,500 miles.[1]

---

1. TX Msg fm CINCSAC Offutt AFB, Nebr to 42d Bomb Wing Comdr on file this office. See Also Exhibit # 2 (Briefing & Debriefing Photos)

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The results of Operation "Quick Kick" were threefold, first it enabled SAC to test the capabilities of the B-52 on a sustained intercontinental bombing mission, secondly the feasability of utilising civilian airfields was determined through the one wing aircraft which was directed to land at Friendship International Airport in Baltimore, and finally it served as a timely test-bed for studies into aerial crew fatigue.[2]

The cruise control results of this mission indicated that the participating B-52 aircraft performed remarkably close to charted data.[3]

Other wing missions during the month of November included Operation "Fur Collar"II" on the 7th of November. This mission was run on targets at St. Louis, Omaha and the projected RBS site at Minneapolis-St. Paul.[4] Operators on this mission accomplished radar photography for the wing film library.[5]

"Bold Boy" was the third operation with which the wing was concerned in November. This was a continuing mission which involved B-52 aircraft flying to the Thule area and refueling with tankers From The SAC Thule Task Force. These missions are flown three times each week with three B-52s on each mission.[6]

---

2. Information confirmed by Dir of Opns Hq 42BW
3. See Exhibit # 3 (B-52C Flight Charts "Operation Quick Kick".
4. See Exhibit # 4
5. See Exhibit # 5
6. See Exhibit # 6

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During the period from 1 through 31 December 1956 the wing planned higher headquarters directed missions for future execution, including Operations "Quick Kick, Bravo", "Quick Kick, Coca" and "Country Club". In addition it wrote the plans for and briefed the 42d Air Refueling v Sqaadron on its rotational TDY to Thule Air Base. This TDY was known as Operation "Cold Wave".[7]

Operation "Cold Wave" is a continuing SAC mission during which SAC refueling units are deployed to Thule for periods averaging seventy-five days. As part of this mission the 42d Air Refueling Squadron , a unit of the 42d Bombardment Wing was scheduled to deploy to Thule commencing 28 December. Several factors however, delayed this operation. The first of these was a requirement which necessitated the inspection of all landing gear drag brake assemblies. Additionally, poor weather at both Loring and Goose Bay, Labrador caused further delay, and thirdly one aircraft was AOCP (Out of Commission For Parts) because of the need for a new landing gear strut.[8]

These delays coupled with deployment in two increments, as well as straggling of MATS aircraft led to the non-availability of key personnel and equipment at Thule, impeding the unit's turn-around capability and it's ability to resume normal training at Thule.[9]

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7. SEE Exhibit # 7 (Refueling Air Tng Rept for DEc 1956 RCS:9-SAC-T12)
8. Ibid Par 12b.
9. Ibid.

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The extended period required in support of the Eighth Air Force directed mission "Operation Power House" resulted in additional stanndown of aircraft. This prevented completion of all desired training prior to deployment of the refueling squadron. However, the non-accomplishment of this training did not significantly affect the deployment.[10] Ample time was available to instruct personnel on the use of the Solar APU and associated ground heating equipment modification prior to peloyment. However, sufficient time was not available to thoroughly indoctrinate all flight and ground crew personnel in the practical use of the equipment, and to formulate check lists, etc., for standard operating procedures. This was due to the aircraft being tied up in actual modification just prior to departure.[11]

The "Bold Boy" missions during which B-52s were dispatched each week on refueling missions to exercise the tankers at Thule continued.[12]

GROUND TRAINING

Ground training accomplishments once again fell below the desi- level during the reporting period due primarily to a still-in-effect SAC alert and a major mission associated with the alert, "Operation Quick Kick".

As of 28 November 1956, the desired goal for ground training under SAC Regulation 5024 was 100% complete. Since this goal was not reached three additional training periods for non-aircrew personnel were scheduled during December and unit commanders requested to make the fullest use of them.[13]

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10. SEE Exhibit # 7 Par 12c.
11. Ibid.
12. See Exhibit # 6
13. 42BW Dir of Opns Rept 1-30 Nov 1956.

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Unit achievements during November ranged from 29% complete through 88% complete, with the average falling at 61%. Crew members of the 42d Air Refueling Squadron (the only assigned aircrew personnel required to undergo training under SAC Regulation 50-24) are 100% complete.[14]

Because a revised training program was being devised, coordinated and published during the early part of the month, only one SAC Reg 50-43 ground trainijng period was made availablle during november. This one week period included four days of Special Weapons training and one day of academic training in 263 Equipment, Aircraft Forms, Ground Servicing, and Ground Power Equipment. The revised program was devised to avaoid unnecessasy and-or duplicated training, and after stabilization is to be attended by crews as crews. Crews who completed all or part of the 50-43 training presehted in the past, are given credit as appropriate under the new program.[15]

The Mechanical Section of the MTD (Mobile Training Detachment) graduated 84 students during November, while 83 students entered training. At month's end 75 students were still undergoing training.[16]

Ground training, in accordance with SAC Reg 50-43, during the month of December was in progress in accord with the revised program as mentioned above, and weekly classes were held for all crews requiring this training.[17]

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14. Ibid.
15. Ibid
16. Ibid
17. Rept of Dir of Opns Hq 42BW for Dec 1956. On file ISO-H.

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The attendance of these crews was largely dictated by their availability over and above flying commitments. Due to the extended weekends over the Christmas and New Year's Holidays, maximum training was not attained, however, Special Weapons training was fully conducted, thereby accomplishing the necessary training on an accelerated basis.

The mechanical section of the MTD graduated 125 students during the month, while 89 students entered training. There were no aircrew personnel in training at the end of the month. A total of 4,465 man hours was spent during the process of this training.[18]

During December the command sent 10 men to basic altitude indoctrination and 20 to the refresher course, both conducted at Westover Air Force Base.[19]

PROBLEMS AND DEVELOPMENTS

A need was reflected for more complete debriefing information for B-52 flight crews and as a result a new B-52 Pilot Debriefing Questionnaire and B-52 Observers Debriefing Questionnaire was published.[20]

To prevent possible damage to the Beta Mechanism in the MA6A System, Observer System Hanicut # 9, "Beta Mechanism Damage", was published and given to the B-52 Observers.[21]

The B-52 Bomb Bay Door and Release System Mechanisms are somewhat and certain events take place which are not considered normal. Observer Handout # 10 covers this thoroughly and has been distributed to the wing's B-52 observers.[22]

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18. Ibid.
19. Ibid.
20. See Exhibit # 8
21. See Exhibit # 9
22. See Exhibit # 10

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Some troubles are still being experienced in the B-52 with the APS 64 Beacon reception. In order to aid in overcoming thsess difficulties Observer Handout # 11, "Utilization of the APS 64 with the APN 69" (received from Eighth Air Force) was published and distributed to the B-52 observers.[23]

A more complete, "B-52 Observer APS 64 Beacon Function" debriefing questionnaire was published and is currently used in the debriefing of B-52 flight crews.[24]

A 42d Bomb Wing Pamphlet was published, Subject: Instructions for B-52 Flight Computer. The purpose of the pamphlet is to serve as an operating manual for the B-52 Flight Computer, on airplanes equipped with the J-57-19W and -29W engines. It is intended that this manual will be used as a guide during classroom indoctrination, or for self-study, in the use of the computer.[25]

Two cruise control examinations for B-52 Airplane Commanders and pilots were also written and published. The examination will be given for the purpose of determining current knowledge of the subject among pilot personnel. The results of the examination will determine the extent of refresher training required on the subject.[26]

Also published were B-52 weight and balance data on "flip cards" for pilots. This data is intended as an alternate method of computing center of gravity index and percent MAC.[27]

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23. See Exhibit # 11
24. See Exhibit # 12
25. See Exhibit # 13
26. See Exhibit # 14
27. See Exhibit # 15

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A conference was conducted with the Avion Technical Representative and the squadron staff aircraft performance engineers on the necessity of establishing a calibration program for B-52 fuel quantity indicating guages. It was determined that such a program was necessary and is currently being conducted by instrument specialists. To pinpoint erroneous fuel guages, instructions have been issued to pilot personnel to make an entry in DD Form 781, part 2, wherever an individual fuel tank quantity guage indicates other than zero to plus 50 pounds on the completion of fuel transfer.[28]

During the month of December, and in connection with the preparation for Operation "Quick Kick,Bravo" the Staff Performance Engineer section planned variations of Normal and Alternate fuel sequence on B-52 aircraft which will reserve 14,000 pounds in each drop tank. Insufficient data is presently available to indicate whether the transfer rates to these tanks are high enough to allow them sufficient fuel quantity (from empty condition)to counteract wing bending moment by the time refueling of other tanks is complete. If transfer rates are extremely slow, the reserved 14,000 pounds in the drops at the second refueling will condition the aircraft to be loaded to 428,000 pounds without exceeding wing bending moment.[29]

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28. See Exhibit # 16

29. See Exhibit #. 17

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A requirement was established to perform a fuel tank gage calibration for these aircraft committed to participate on mission "Quick Kick, Bravo". Accurate fuel gauges are indispensable in dtermining the aircraft's ability to fly according to charted data, since fuel remaining on board is periodically logged by the pilot; fuel remaining plus operating weight indicates actual flight gross weight.[30]

A program was also established to orientate pilots, navigators, and gunners on the in-flight lubrication of B-52 alternators. Present lubrication requirement is predicated on a 25 hours cycle of operation. Extensive Flying time of "Quick Kick, Bravo" requires that successful lubrication be accomplished in-flight.[31]

The wing also monitored the computation of flight engineers flight plans computed by crew engineers of the 42d Air Refueling Squadron in preparation for mission "Country Club".[32]

A suggested revision of DD Form 36J F was designed and reproduced. The reasons for desiring revision and a request to field test the suggested form were forwarded to Eighth Air Force.[33]

Forwarded correspondence to Eighth Air Force reporting the success of this organization in locally fabricating B-52 Flight Computers. A suggestion was also made that local fabrication be used as a means of obtaining computers as counteracted to contractor procurement.[34]

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30. See Exhibit # 18
31. See Exhibit # 19
32. See Exhibit # 20
33. See Exhibit # 21
34. See Exhibit # 22

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The 42d Bomb Wing Regulation 55-4 was revised to more adequately meet local needs in ground defueling of B-52 aircraft. Primary change is to publish a detailed chack list which outlines, in a step-by-step procedure, the correct items to be accomplished in operation of the aircraft and associated ground equipment. This check list, inclosure 3 to the basic regulation, has been subjected to intense prior field usage.[35]

The misaion "Quick Kick, Bravo" was Eighth Air Force directed and was drawn up as Plan 1 and Plan 2. The plans differ in refueling rendesvous points and in the number of tankers for refueling. As this was written the execution order had not yet been received from Eighth Air Force.[36]

A map of the Northeastern U. S. Refueling tracks was drawn. This map will facilitate any inflight changes in rggards to diverting to an alternate refueling area.[37]

The Northeastern Section of the U. S. has an excessive number of prohibited and restricted areas which contribute to clearance difficulties. A map indicating these areas was constructed and submitted to Eighth Air Force on the SAC T-12 report with the request that this situation be given considerable study.[38]

A sutdy of the Auto Pilot second station automatic operation was started. To facilitate this study a qustionnaire, "Survey of Second Station Automatic Operation", was produced and distributed to the B-52 navigators.[39]

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35. See Exhibit # 23
36. See Exhibit # 24
37. See Exhibit # 25
38. See Exhibit # 26
39. See Exhibit # 27

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A TWX was received from Eighth Air Force regarding changes to be made to Grid Gyro Log and Graph. This TWX was reproduced as Observer Handout #12 and issued to all B-52 Navigators.[40]

The Bomb Nav Systems Officer spent considerable time in coordinating with A&E Squadron and Squadron Observers in reference to MA6A System deficiencies and malfunctions. This purpose is to bring to the attention of all B-52 observers any malfunctions and/or deficiencies experienced by any one individual observer. MA6A System problems and limitations have been published at wing level as attachment A to BNS-L-1340 Form.[41]

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40. See Exhibit # 27

41. See Exhibit # 29

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B-52 CONVERSION

OVERALL

The progress of the B-52 conversion during November 1956 was affected by the Higher Headquarters directed mission, supply shortage, and a SAC Alert.[1]

At the end of December the conversion of the 42d Bombardment Wing to the B-52 had proceeded satisfactorily in most respects. The primary deficiencies have been related to systems malfunctions in the aircraft which have caused major delays in aircraft deliveries and excessive maintenance requirements. The delivery of aircraft in December was back on schedule with 44 aircraft assigned but prevented the orderly upgrading of crews to combat-ready status. In order to meet the original program of 32 combat-ready crews by 1 February 1957, a program was established to upgrade a minimum of 16 crews during the month of January.[2]

FLYING TIME

During the monthn of November 89 sorties and 966:50 hours were flown of which 294:35 hours were higher headquareters directed missions and 28:25 hours were test hops.[3]

In December 105 sorties and 946 hours were flown. 24 sorties and 110 hours of the flying time were accomplished on test hops and ferry flights.[4]

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1. See Exhibit # 30
2. See Exhibit # 31
3. See Exhibit # 30
4. See Exhibit # 31

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The breakdown of hours flown during the month of November is as follows:[5]

HOURS FLOWN PERFORMING MISSIONS ORDERED BY HIGHER HEADQUARTERS

Committment	Hours Programmed	Hours Accomplished
(1) Ferrying Aircraft	00:00	86:55
(2) Operation "Quick Kick"	00:00	123:00
(3) Support of 99 B. W.	00:00	9:20
(4) Operation "Bold Boy" (Support of Thule Tankers)	00:00	64:35
(5) "Bench Warmer"	50:00	51:30
TOTAL	50:00	294:35

The breakdown of hours flown during the month of December is as follows:[6]

HOURS FLOWN PERFORMING MISSIONS DIRECTED BY HIGHER HEADQUARTERS

Commitment	Hours Programmed	Hours Accomplished
/(1) Ferrying Aircraft	00:00	186:05
(2) Operation "Quick Kick"	00:00	123:00
(3) Support of 99 B. W.	20:00	19:20
(4) Operation "Bold Boy" (Support of Thule Tankers)	180:00	144:30
(5) "Bench Warmer"	50:00	51:30
TOTAL	250:00	524:30

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1. See Exhibit # 32.
2. Ref to Heavy Jet Bombardment Air Trng Rept for December 1956 RCS: SAC T-12 on file BISO-H Hq 42 ABG as part of Hist of 45AD for Dec 1956.

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m PERSONNEL

OFFICER MANNING

During the period from 1 November through 30 November 1956 the 42d Bombardment Wing (H) was authorized 600 officers, an increase of 135 over the 1-31 October period. The number of officers assigned however, decreased from 512 in October to 497 in November. The percentage of officers MIRS (Manned in Required Specialties) in November was 78.8, a drop of 17.1 percent over the October period. The SAC rating score for November dropped to 30 from the October score of 100. the reason given for this decrease was the increase in UMD (Unit Manning Document) as of 15 November, to provide 1.6 crew aircraft manning ratio.[1]

From 1 through 31 December 1956 the number of officers assigned within the wing remained at 600, while the number of officers assigned increased to 500 from the November figure of 497. The percentage of officers MIRS increased to 81.2 while the SAC rating score went to 40.[2]

AIRMAN MANNING:

From 1 through 30 November the wing was authorized 2507 airmen, including direct and indirect support categories.[3] The total number of airmen assigned was 2612, of whom 2,022 were MIRS.[4] In the direct support category the number of airmen authorized during this period was 1,894 and the number assigned 1980. In the indirect support category the number authorized was 613 and the number assigned was 632.[5]

1. Par 1a, part 1, Mgmgt Cont. Statement Hq 42BW Nov 1956 See Exhibit #33
2. See Exhibit #34 Par 1a.
3. See Exhibit #33 Par 1b.
4. Ibid., Par 1b(1).
5. Ibid., Par 1b.

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Although the number of airmen not manned in required specialties decreased during November as against the October period, the continuing large gap between the number of men assigned and those MIRS was attributed to a number of causes. Chief among these was the number of five-level airmen not on any type of OJT (On-The Job Training) due to maximum manning at the seven skill level, and the large number of three-level airmen on OJT-C for the five-level where no vacancy exists.[6] Following is a summary of all the reasons for airmen not being manned in required specialties:

REASON	# OF AIRMEN
010's in excess of helper level positions	24
010's training in position without vacancy	28
3 level airmen on OJT for the five level where no vacancy exists	127
3 level airmen on OJT for the five level where vacancy exists	88
3 level airmen on OJT for the seven level (no five level) where vacancy exists	3
3 level airmen on OJT to career fields where vacancy exists at higher skill levels	20
5 level airmen not on any type of OJT due to maximum manning at seven level[7]	149

6. See Exhibit #33 par 1b(1).
7. Ibid.

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5 level airmen on OJT for seven level where no vacancy exists at lower skill level	40
7 level airmen not on any type of OJT and cross training prohibited by Project Guidance	18
Airmen in unauthorized AFSC's which cannot be cross trained due to project guidance	8
	93

During the period 1 through 31 December 2,507 airmen in both direct and indirect support categories were authorized for the wing. The total number assigned was 2,610 of whom 536 were not Manned in Required Specialties.[9] In the direct support category there were 1894 airmen authorized and 1993 assigned while in the indirect category there were 613 authorized and 617 assigned. The reasons given for the lerge differnce between the number of airmen assigned and those MIRS were substantially the same as those given in November.[10] Summed up these individual reasons pointed up a lack of proper skill levels of assigned airmen in authorized AFSC's.[11]

REENLISTMENT RATE

The reenlistment rate for November was 30%, 11 airmen having reenlisted out of a possible 43. Reenlistment was considered to have declined during this period due to the approach of the holiday season. Five of the men separated indicated they would reenlist after Christmas at another base.[12]

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9. See Exhibit # 34 Par 1b
10. See Exhibit # 34 Par 1b(1)
11. Ibid Par 1b(1)
12. See Exhibit # 83 par 3
13. See Exhibit # par 3

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During December the reenlistment rate jumped to 60% of score. This increase over the previous month was attributed largely to the SAC operation "Christmas Stocking". 26 airmen reenlisted of an eligible 53.[13]

CIVILIAN PERSONNEL

During the period 1 November through 31 December 1956 the wing was authorized and assigned a total of 35 civilians. Of this total 3 were assigned wing headquarters and 32 were assigned to the 42d Field Maintenance Squadron.[14]

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13. See Exhibit # 35 par 3.

14. Information received in telephone conversation with Miss Dyer Loring AFB Office of Civilian Personnel Feb 1 1957.

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MAINTENANCE AND MATERIEL

AIRCRAFT STATUS

AOCP (Aircraft Out-Of-Commission For Parts) percentages for the month of November 1956 were as follows:

AOCP percentage for the B-52 aircraft was 0.0%[1]

AOCP percentage for the KC-97 aircraft was 1.0%[2]

The Operational Readiness status for the month of November for the B-52 aircraft was 60.6%, for the KC-97 aircraft it was 77.7%.[3]

AOCP percentages for the month of December were as follows:

AOCP percentage for the B-52 aircraft -- 2.00%

AOCP percentage for the KC-97 aircraft-- 2.00%[4]

The Operational Readiness status for the B-52 aircraft for the month of December was 56.5%.[5] There were no figures on the KC-97 for the month of December due to the TDY to Thule of tyhe 42d Air Refueling Squadron.

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1. Report of Aircraft Status and Purpose of Flight Hq 42BW 1-30 Nov 1956 RCS: 1-AF-A1. See Exhibit # 35
2. Ibid.
3. Ibid.
4. Rept of Acft Status and Purpose of Flt Hq 42BW 1-31 Dec 1956 RCS:1-AF-A1. See Exhibit # 36

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ROSTER OF KEY PERSONNEL
AS OF 31 DECEMBER 1956

COMMANDER	DONALD E. HILLMAN	COLONEL
DEPUTY COMMANDER	WOODROW P, SWANCUTT	COLONEL
DIR. OF OPERATIONS	DON. W. BAILEY	COLONEL
DIR. OF MATERIEL	GERARD G. WOLKE	COLONEL
DIR. OF PERSONNEL	HARVEY N. SMITH	LT. COL.
COMDR, 42D TAC HOSP	VANCE H. MARCHBANKS	COLONEL
ADJUTANT	FRANK WRIGGLESWORGH	MAJOR
COMDR, 69TH BOMB SQ	ROBERT R. SCOTT	LT. COL.
COMDR, 70TH BOMB SQ	JOHN R. RISHER	LT. COL.
COMDR, 75TH BOMB SQ	WALTER C. STEWART, JR.	LT. COL.
COMDR, 42D AIR REF SQ	WILLIE H. SONNTAG	MAJOR
COMDR, 42 A&E SQ	TOM B. STEWART	LT. COL.
COMDR, 42D PM SQ	GEORGE A. LINKO	LT. COL.
COMDR, 42D PM SQ	LORENZO CALIENDO	MAJOR

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LIST OF EXHIBITS

1. Organization Chart 45AD
2. Briefing and Debriefing Photos "Operation Quick Kick".
3. Flight Charts "Operation Quick Kick".
4. Radar Scope Photos St. Louis, Omaha and Minneapolis-St. Paul Targets.
5. Radar Scope Photos St. Louis Target Area.
6. Route Chart and Mission Flight Plans "Operation Bold Boy".
7. Refueling Air Training Report For December 1956 RCS: 9-SAC-T12, 42 AREFS, Thule Task Force, APO 23, New York, N. Y.
8. Pilots and Observers Debriefing Questionnaires, B-52.
9. Observer Handout # 9 "Beta Mechanism Damage" 42BW 31 Oct 1956.
10. Observer Handout # 10 "Bomb Bay Door and Release Instructional Check-out" 42BW 15 Nov 1956.
11. Ltr Fr Hq 8th AF to B-52 Observers Subj: Utilization of the APS-64 with the APN-69 dtd 9 Nov 1956.
12. B-52 Observers APS-64 Beacon Function.
13. 42BW Instructions For B-52 Flight Computer.
14. B-52 Cruise Control Examinations , Nos. 1 and 2. 15 Nov 1956.
15. B-52 Center of Gravity Computation Flip Cards.
16. Ltr Hq 42BW, Subj: Fuel Tank Gages" 28 Nov 1956.
17. Fuel Sequencing For "Quick Kick Bravo" 1st Method & 2nd Method.
18. Ltr Hq 42BW Dir Opns , Subj: Calibration of B-52 Fuel Tank Gages dtd 21 Dec 1956.
19. Ltr Hq 42BW, Subj: "Individual Check-Out on In-flight Alternator Lubrication, B-52" dtd
20. Engineers Flight Plans "Operation Country Club".
21. Ltr. Hq 45AD , Subj: Revision of DD Form 365F, For Tactical Aircraft, 13 Dec 1956.
22. Ltr Hq 45AD to Comdr 8th AF Attn: Dir of Opns, Subj: "B-52 Flight Computers. 13 Dec 1956.

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23. Wing Regulation 55-4 , Procedure for Ground Refueling B-52 Aircraft. Hq 42 BW 20 Dec 1956.

24. Mission Flight Plans Operation "Quick Kick Bravo".

25. Refueling Tracks Northeastern Section United States.

26. Prohibited and Restricted Areas Northeastern Section United States.

27. Survey of Second Station Automatic Operation.

28. TWX from 8th AF , Subj: Changes to be made to Grid Gyro Log and Graph.

29. MA6A System Problems and Limitations.

30. B-52 Conversion Progress Report # 13 For 45 AD, Hq 45 AD 10 Dec 1956.

31. B-52 Conversion Progress Report # 14 For 45 AD, Hq 45 AD 7 Jan 1956.

32. Heavy Jet Bombardment Air Training Report for November 1956, RCS: 2-SAC-T12, HQ 45 AD 6 Dec 1956.

33. Part I Management Control Statement Hq 42 BW, November 1956.

34. Part I Management Control Statement Hq 42 BW December 1956.

35. Report for Aircraft Status and Purpose of Flight 1 thru 30 Nov 1956 RCS: 1-AF-A1.

36. Report of Aircraft Status and Purpose of Flight 1 thru 31 Dec 1956, RCS: 1-AF-A1.

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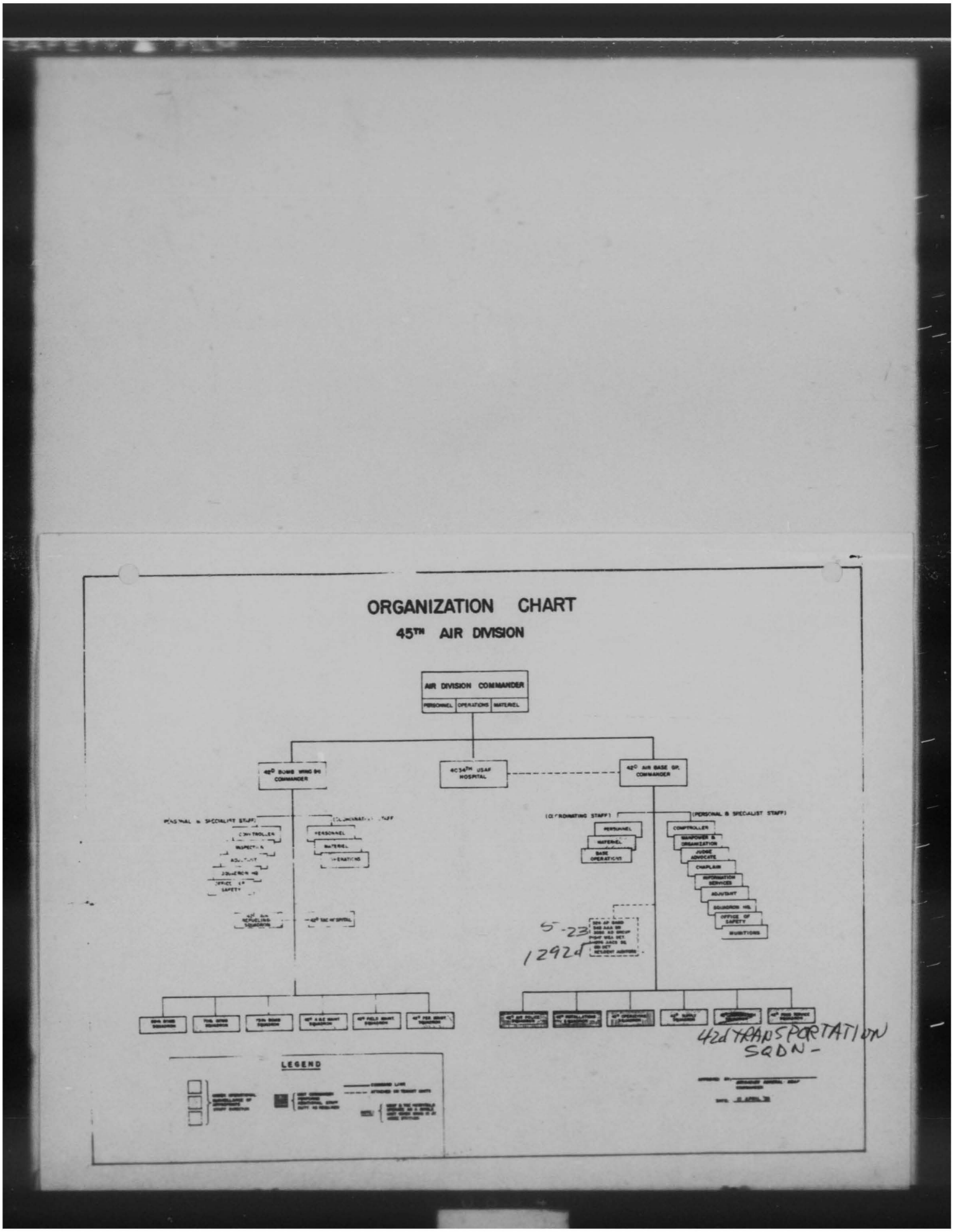

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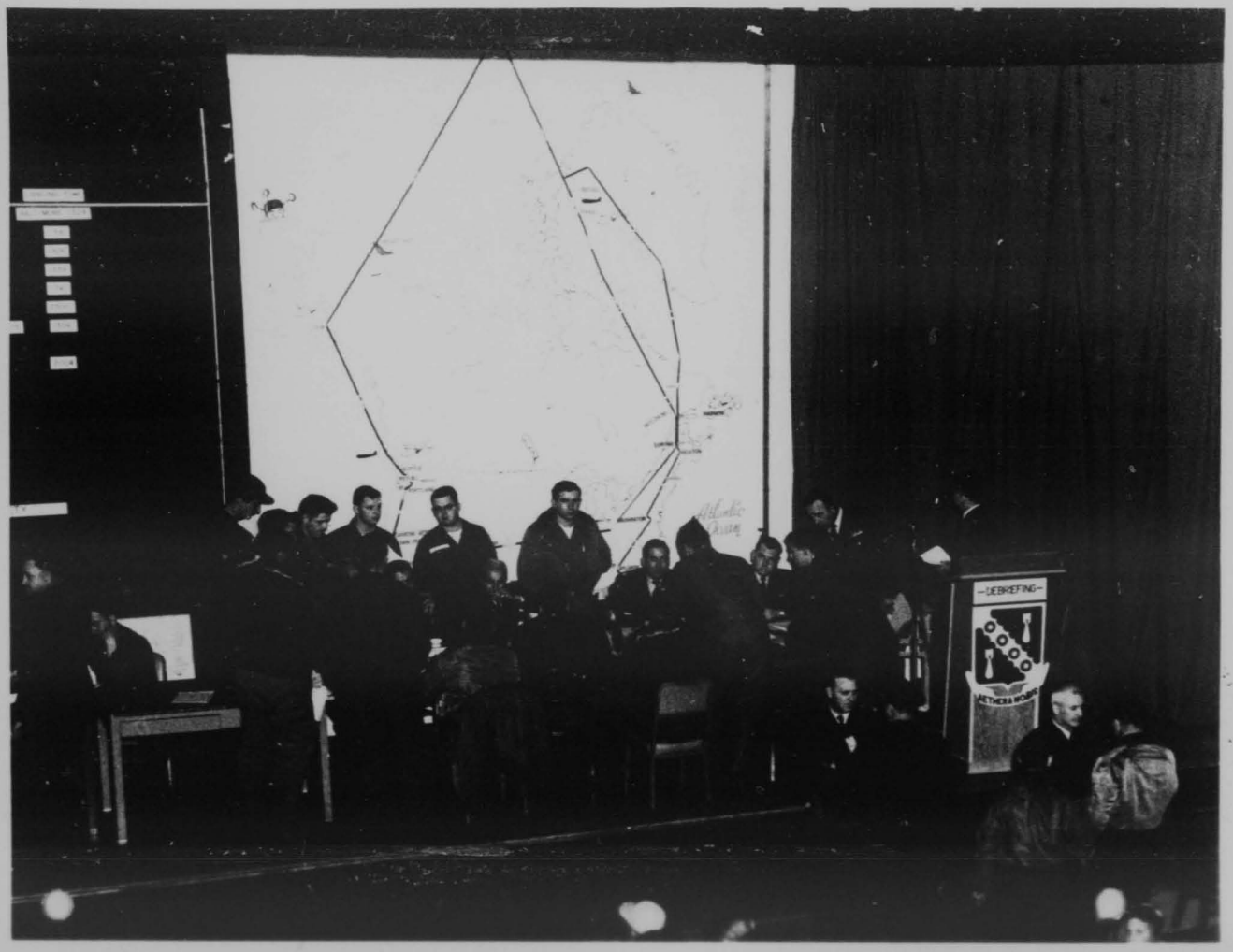

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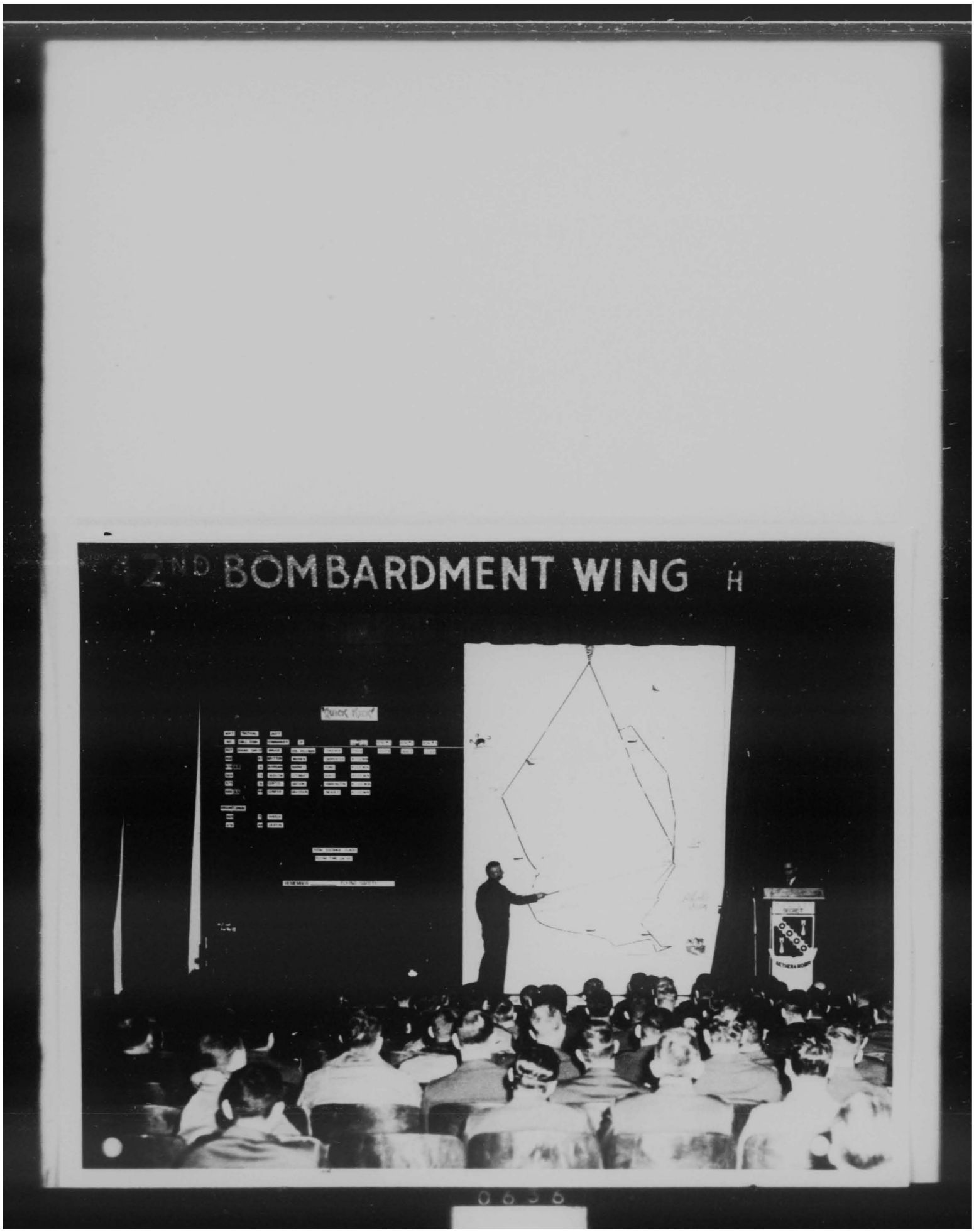

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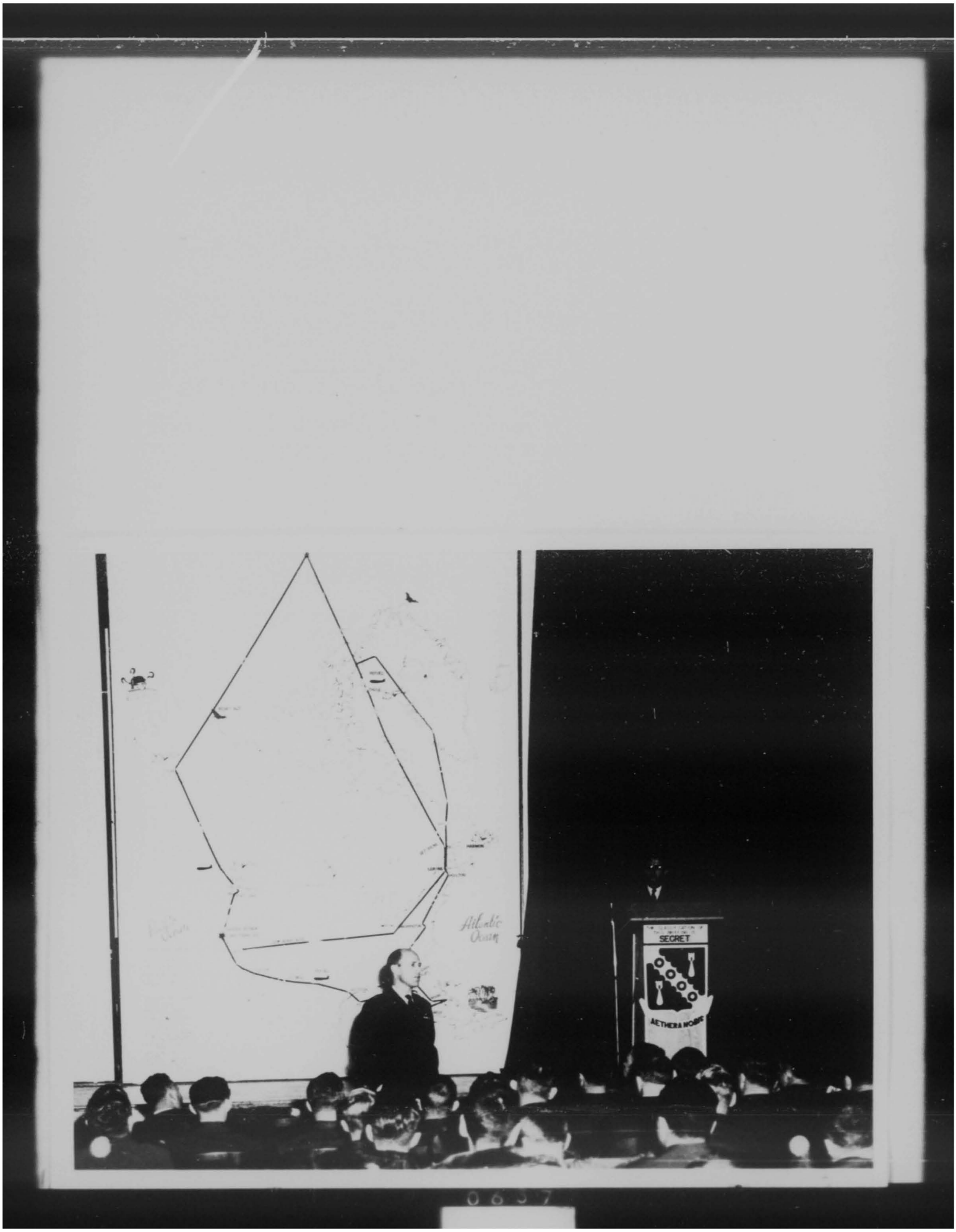

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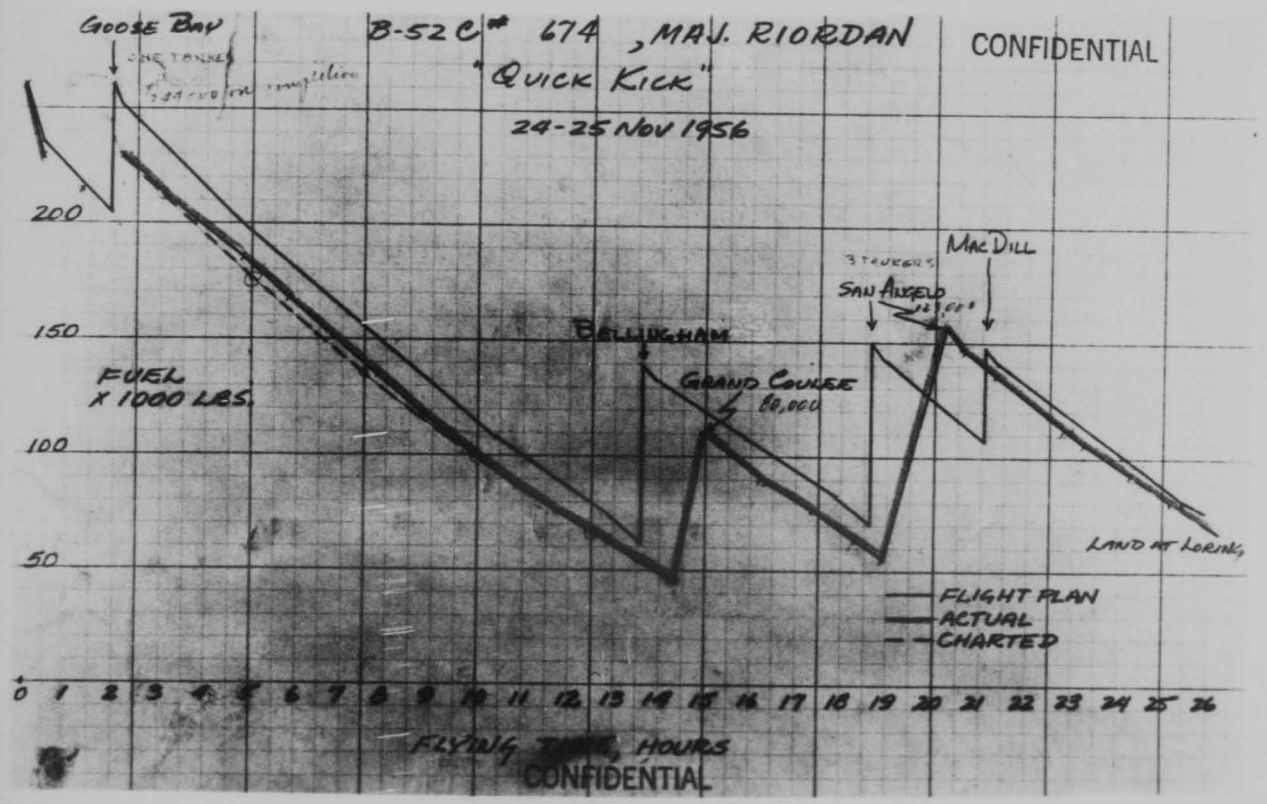

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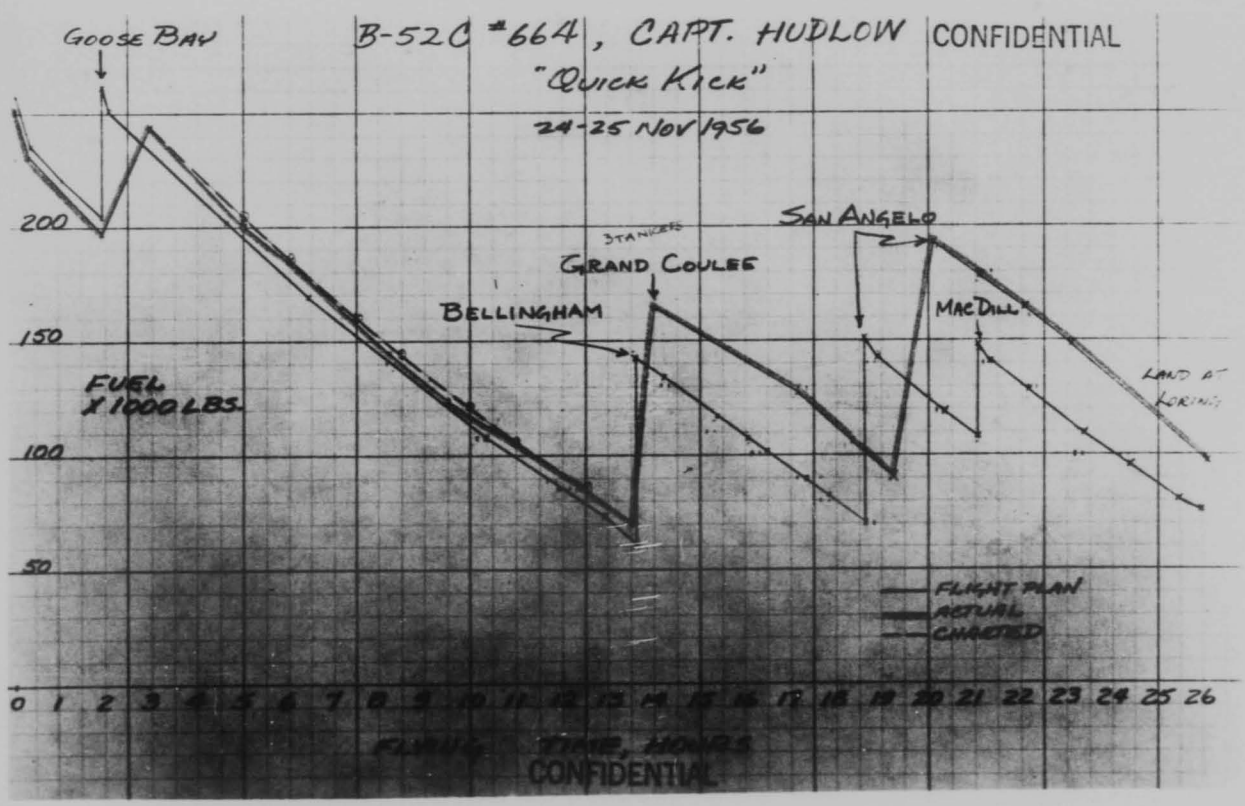

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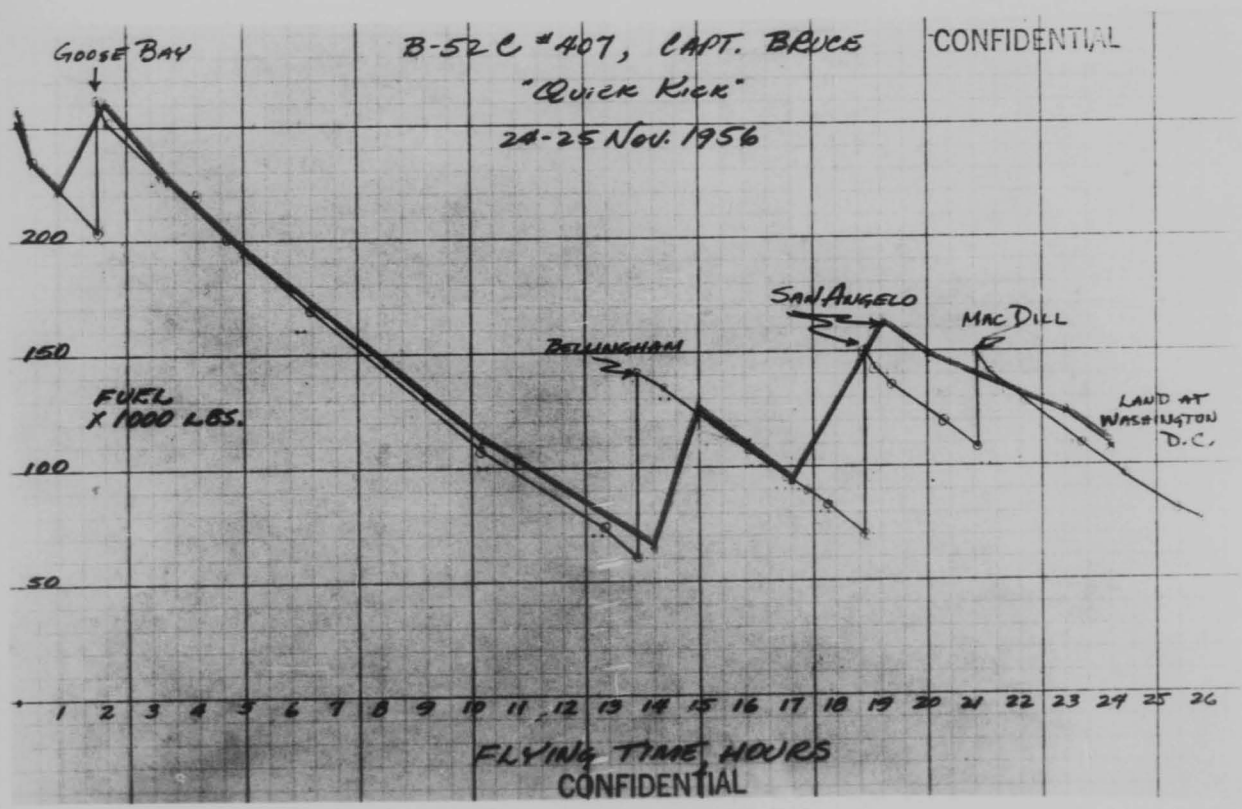

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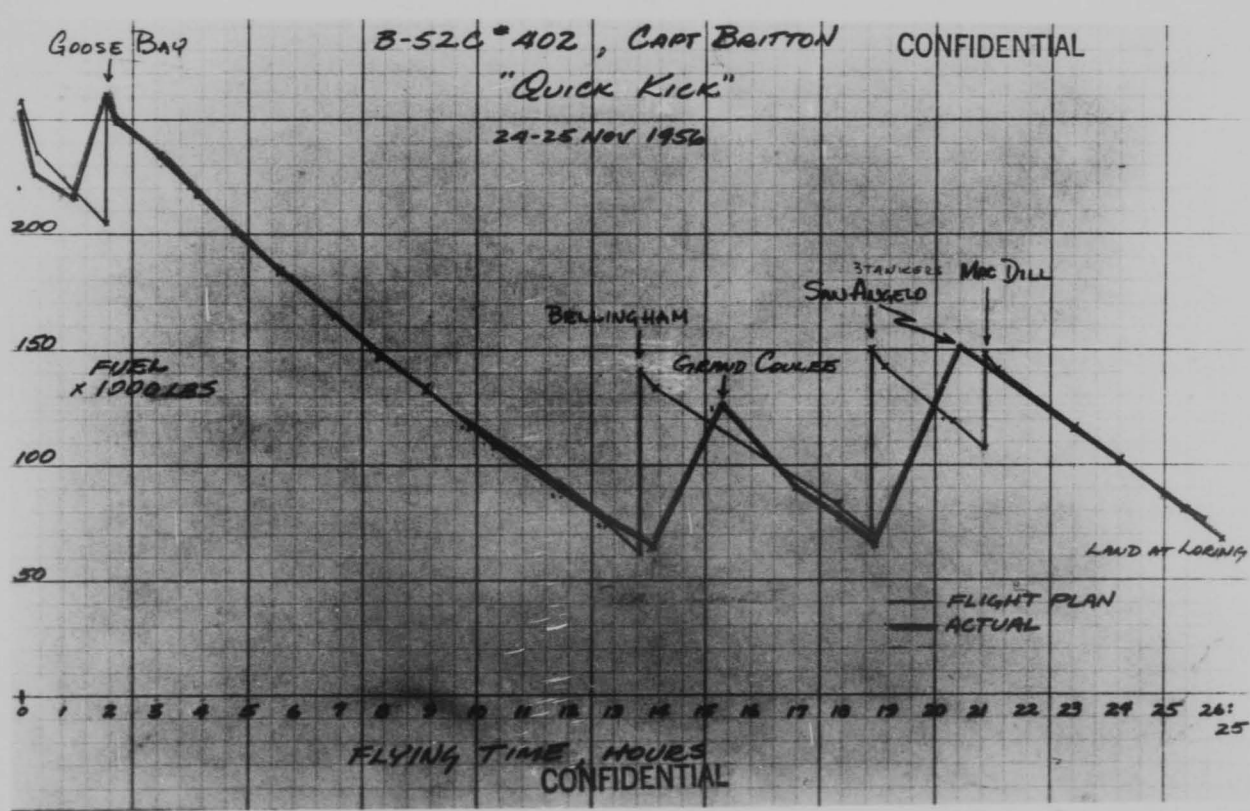

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ST LOUIS RBS
TARGET "INDIA"

ST LOUIS RBS : TARGET "INDIA"
IIB Elevation 595'

SCULLIN STEEL COMPANY.....
A.P.: Easternmost of four smoke stacks.
38-36-53.2 N
90-18-06.6 W

OFFSET INFORMATION

No.1 Target "D"
Elev. 744'

S 4,130'
E 33,250'

No.2 Center N-most of city bridges
Elev. 660'

N 21,620'
E 32,940'

320° 66NM

IP MURPHYSBORO, ILL
37-47 N
89-20 W

320° 55NM

PIP PADUCAH, KY
37-04-30 N
88-37-30 W

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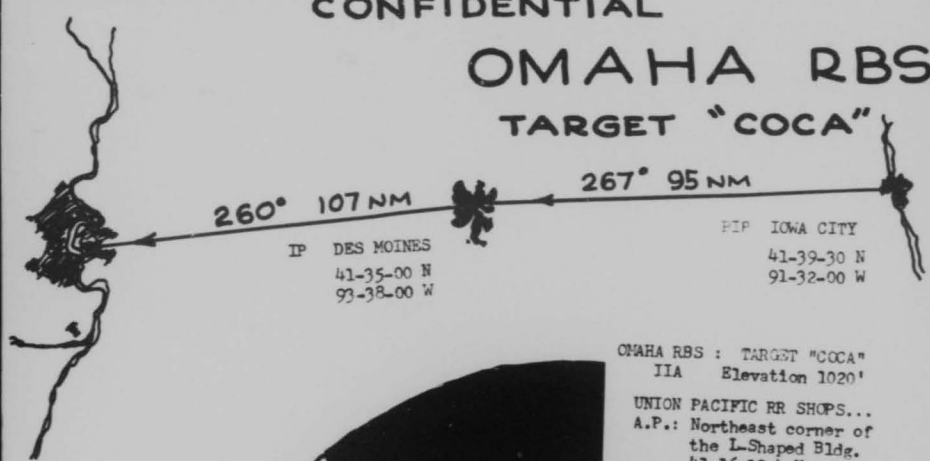
CONFIDENTIAL

OMAHA RBS

TARGET "COCA"



OMAHA RBS : TARGET "COCA"
IIA Elevation 1020'

UNION PACIFIC RR SHOPS...
A.P.: Northeast corner of the L-Shaped Bldg.
41-16-09.4 N
95-55-36.2 W

OFFSET INFORMATION

No. 1 Target "K"
Elev. 1024'

N 2,200'
E 2,200'

No. 2 Center RR Bridge S of Mun A/P
Elev. 1027'

N 3,400'
E 9,570'

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LEGEND

▲ . . . .REPORTING POINTS
. . . .
● . . . .GCI SITES
DYE FOX . . .5000' HARDSURFACE LANDING STRIP
- - - - . .GOOSE-GANDER CADIZ BOUNDARIES
— · — . .FIR BOUNDARIES
——— . .AIRCRAFT ROUTES

GCI SITE FREQUENCIES: 364.2 Pri.
243.0 Sec.

IFF PROCEDURES: Leader and individual aircraft turn Master Switch to "NORMAL", MODE II Switch up. In formation, other than lead aircraft put Master Switch on "STANDBY".

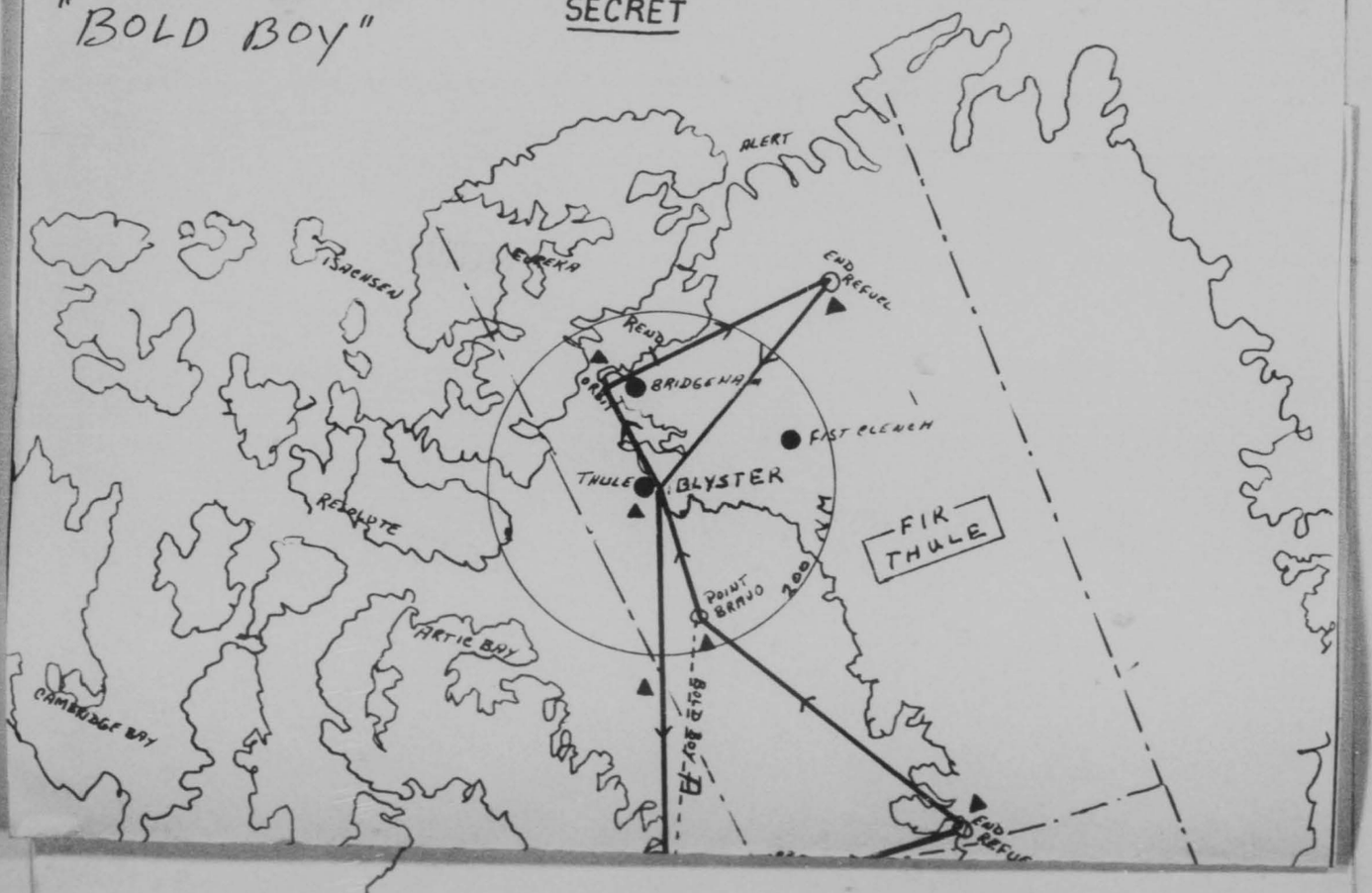
REPORTING: While overflying Moncton and Goose FIR, Reports will be sent every 200 NM. Otherwise, while flying a predominately north-south track, position reporting points will be at fixed reporting lines coincident with parallels of latitude spaced at intervals of 5° or as otherwise specified by ATC.

For lack of DOT/CAA facilities over the entire route, it will be appropriate to send position reports to "Pinetree Radar", or other GCI sites for relay to the proper aeronautical facilities.

Addressees will be the control agency for the area being overflown and area just passed through or to be entered prior to the next planned report. In addition, when sending reports to GCI sites, request the report be passed to "EAGLEBEAK" for relay to "UPKEEP CONTROL". EXAMPLE: Relay instructions for a report being sent to "CAPABLE" might read: "FOR GOOSE AND FROBISHER ATCC AIT PASS TO EAGLEBEAK FOR RELAY TO UPKEEP CONTROL".

"BOLD BOY"

SECRET



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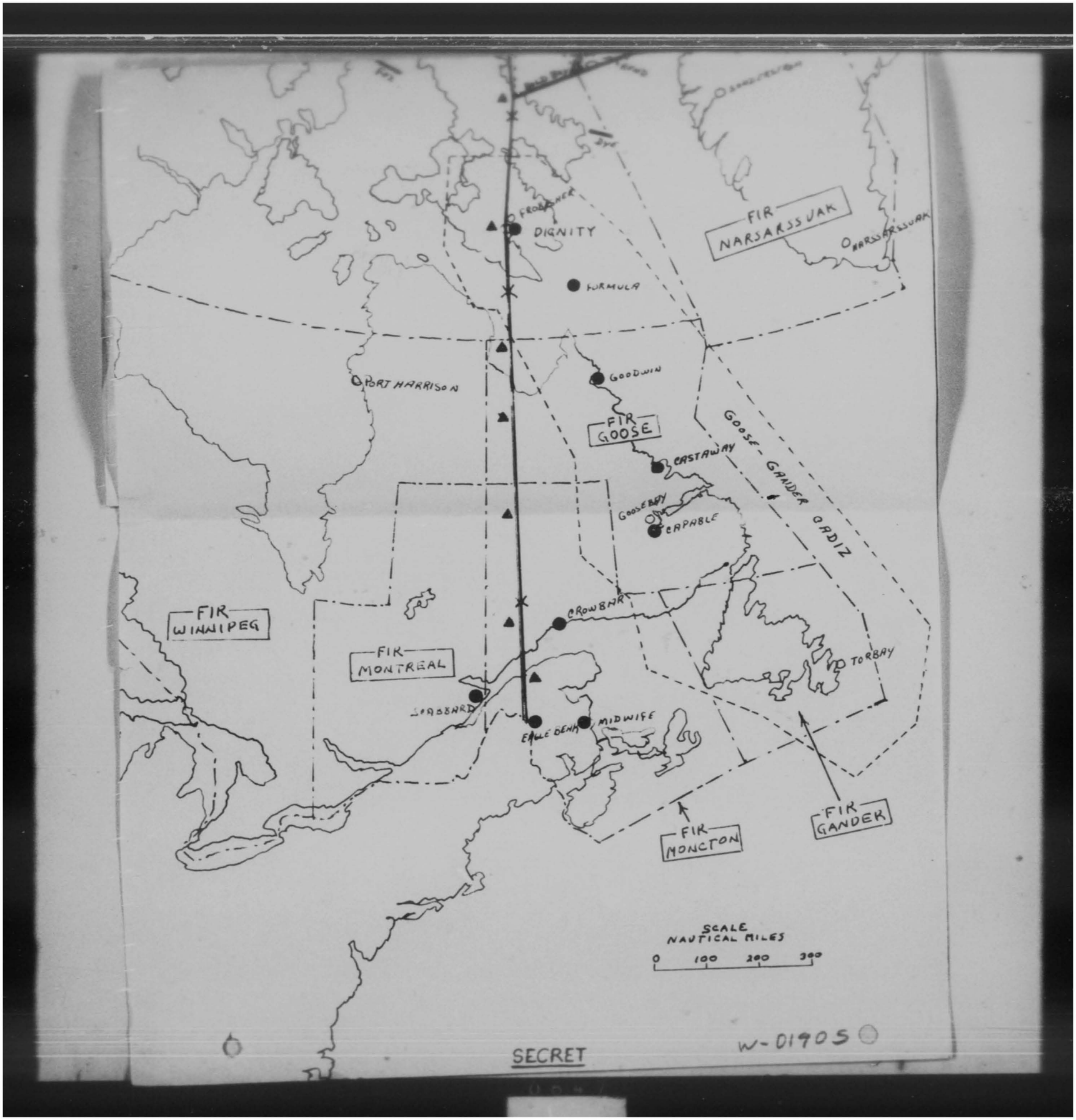

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MISSION FLIGHT PLAN	O. O. AND NICKNAME "A" BOLD Boy	UNIT 42B.Wg	TYPE ACFT B-52	WAVE	CELL CALL SIGN	REMARKS "A" Pg #1

	POUNDS				POUNDS		
ACFT BASIC				BOMBS		CELL	SQUAD
CREW				AMMO			
OIL				WATER AUG		Leader	CAR
ATO				STATIC		NR FULL ATO REQUIRED	
RACK							
EXT TANKS WEIGHT (Empty)				START ENGINES AND TAXI FUEL ALLOWANCE		NR EMPTY ATO REQUIRED	
MISCELLANEOUS							
CHAFF		TOTAL FUEL		TAKE-OFF GROSS		ATO FIRING SPEED	1520 Z T/OFF
OPERATING							

RUNWAY		
PRESSURE ALT	LENGTH	AIR TEMP
CRITICAL FIELD LENGTH		CRITICAL AIR TEMP
TAKE-OFF DISTANCE		TAKE-OFF SPEED
CRITICAL WIND COMPONENT		
1ST LEG	2ND LEG	3D LEG

PRE-FLIGHT PLAN

	FROM LORING AFB ROUTE	FLT COND	T. C.	WIND D/V DRIFT	T. H.	VAR	M. H.	TEMP ALT	IAS MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	GROSS WT
	STETTO + ACC											10	:03	10			
A	L/O START GRID 49-19N 67-22W	CL	006			+23		34M		400		132 / 142	:20 / :23				
B	FROBISHER 63-48N 68-34W	CR	G.C. 051					36M	.77	440		870 / 1012	1:58 / 2:21				
C	PT. BRAVO 74-05N 66-04W	CR	066					37M	.77	440		620 / 1632	1:25 / 3:46				
D	THULE 76-32N 68-30W	CR	049					37M	.77	440		152 / 1784	:21 / 4:07				
	ORBIT PT. S/D 78-30N 72-30W	CR	048					37M	.77	440		130 / 1914	:18 / 4:25				
	L/O 78-46N 70-15W	DS	131					15M		410		32 / 1946	:05 / 4:30				
E	RENDY. PT. 79-00N 68-00W	CR	131					15M		300		28 / 1974	:06 / 4:36				
F	COMPLETION PT. 79-52N 55-30W	AR	131					15M		250		147 / 2121	:35 / 5:11				
	ON LOAD																
	ACCEL	ACC	285									08 / 2129	:06 / 5:17				
	L/O 78-32N 60-48W	CL	285					37M		410		82 / 2211	:12 / 5:29				
G	THULE 76-32N 68-30W	CR	285					37M	.77	440		158 / 2369	:22 / 5:51				
H	FROBISHER 63[illegible]N 68-34W	CR	242					39M	.77	440		768 / 3137	1:45 / 7:36				

+4

SAC FORM 15 APR 56 1a FC: 2720

Inc 17

AF FORM SAC, OBSN O-1049(55)

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"A" Pg #2

MISSION FLIGHT PLAN – CONTINUATION SHEET

	FROM FROBISHER / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
I	SEVEN ISLANDS 50-14N 66-17W	CR	G.C. 227					41m	.77	440		820 / 3957	1:52 / 9:28				
J	LORING AFB 46-58N 67-53W	CR	T.C. 197			+23		41m	.77	440		204 / 4161	:28 / 9:56				
K	HOULTON VOR 46-02N 67-51W	CR	178			+22		35m	.77	440		56 / 4217	:08 / 10:04				
L	LORING AFB 46-58N 67-53W	DS	358			+22		20m		410		56 / 4273	:12 / 10:16				
	LAND AND TAXI												:15 / 10:31				

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SAC FORM 15 APR 56 1b FC: 2720

Air Force-SAC, Offset O-1050(56)

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MISSION FLIGHT PLAN	O. O. AND NICKNAME	UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
	BOLD BOY "B"	42 B.Wg	B-52			Pg #1

	POUNDS				POUNDS			RUNWAY		
ACFT BASIC				BOMBS		CELL	SQUAD	PRESSURE ALT	LENGTH	AIR TEMP
CREW				AMMO						
OIL				WATER AUG		LEADER	CAR	CRITICAL FIELD LENGTH		CRITICAL AIR TEMP
ATO				STATIC		NR FULL ATO REQUIRED		TAKE-OFF DISTANCE		TAKE-OFF SPEED
RACK										
EXT TANKS WEIGHT (Empty)				START ENGINES AND TAXI FUEL ALLOWANCE		NR EMPTY ATO REQUIRED	GST.	CRITICAL WIND COMPONENT		
MISCELLANEOUS								1ST LEG	2ND LEG	3D LEG
CHAFF		TOTAL FUEL		TAKE-OFF GROSS		ATO FIRING SPEED	T.O. 1357 Z			
OPERATING										

PRE-FLIGHT PLAN

	FROM LORING AFB ROUTE	FLT COND	T. C.	WIND D/V DRIFT	T. H.	VAR	M. H.	TEMP ALT	IAS MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	GROSS WT	
	STETTO & ACC.											10	03	10				
A	L/O START GRID 49-19N 67-22W	CL	006			+23		34M		400		132 / 142	20 / :23					
B	FROBISHER 63-48N 68-34W	CR	GC 051					36M	.77	440		870 / 1012	1:58 / 2:21					
C	TP 68-06N 67-48W	CR	066					37M	.77	440		260 / 1272	:35½ / 2:56½					PAC +5
	S/D 68-48N 60-50W	CR	134					37M	.77	440		157 / 1429	:26½ / 3:23					
	L/O 68-55N 59-20W	DS	134					15M		410		34 / 1463	:05 / 3:28					
D	REND. 69-00N 58-00W	CR	134					15M		300		30 / 1493	:06 / 3:34					
E	COMP PT. 69-18N 51-27W	AR	134					15M		250		142 / 1635	34 / 4:08					
	ON LOAD																	
	ACCEL.	ACC	009									08 / 1643	:02 / 4:10					
	L/O 70-30N 54-10W	CL	009					37M		410		82 / 1725	:12 / 4:22					
F	PT. BRAVO 74-05N 66-04W	CR	009					37M	.77	440		308 / 2033	:42 / 5:04					
G	THULE 76-32N 68-30W	CR	049					37M	.77	440		152 / 2185	21 / 5:25					PA +5
	ORBIT PT. S/D 78-3[illegible] 72-30W	CR	048					37M	.77	440		130 / 2315	23 / 5:48					

SAC FORM 18 APR 56 1a PC: 2720

Inc 18

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BOLD BOY "B" Pg 2

MISSION FLIGHT PLAN – CONTINUATION SHEET

	FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT	
	L/O		GC									32	:05					
	78-46N 70-15W	DS	131					15M		410		2347	5:53					
	RENO. PT											28	:06					
H	79-00N 68-00W	CR	131					15M		300		2375	5:59					
	COMR. PT.											147	:35					
I	79-52N 55-30W	AR	131					15M		250		2522	6:34					
	ON LOAD																	
												08	:06					+4
	ACCEL.	ACC	285									2530	6:40					
	L/O											82	:12					
	78-32N 60-48W	CL	285					37M		410		2612	6:52					
	THULE											158	:22					
J	76-32N 68-30W	CR	285					37M	.77	440		2770	7:14					
	FROBISHER											768	1:45					
K	63-48N 68-34W	CR	242					39M	.77	440		3538	8:59					
	SEVEN ISLANDS											820	1:52					
L	50-14N 66-17W	CR	227					41M	.77	440		4358	10:51					
	LORING AFB		TC									204	:28					
M	46-58N 67-53W	CR	197			+23		41M	.77	440		4562	11:19					
	HOULTON VOR							↘				36	08					+4
N	46-02N 67-51W	CR	178			+22		35M	.77	440		4614	11:27					
	LORING AFB											56	12					
O	46-58N 67-53W	DS	358			+22		20M		410		4674	11:39					
													15					
	LAND & TAXI												11:54					

SAC FORM 15 APR 64 1b FC: 2720

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MISSION FLIGHT PLAN | O. C. AND NICKNAME: BOLD BOY "C" | UNIT: 42 B.Wg | TYPE ACFT: B-52 | WAVE | CELL CALL SIGN | REMARKS: "C" PGL

	POUNDS				POUNDS		
ACFT BASIC				BOMBS		CELL	SQUAD
CREW				AMMO			
OIL				WATER AUG		LEADER	CAR
ATO				STATIC		NR FULL ATO REQUIRED	
RACK							
EXT TANKS WEIGHT (Empty)				START ENGINES AND TAXI FUEL ALLOWANCE		NR EMPTY ATO REQUIRED	
MISCELLANEOUS							
CHAFF			TOTAL FUEL	TAKE-OFF GROSS		ATO FIRING SPEED	T/O 1357Z
OPERATING							

RUNWAY: PRESSURE ALT | LENGTH | AIR TEMP

CRITICAL FIELD LENGTH | CRITICAL AIR TEMP

TAKE-OFF DISTANCE | TAKE-OFF SPEED

CRITICAL WIND COMPONENT: 1ST LEG | 2ND LEG | 3D LEG

PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT	
	LORING AFB																	
	STETTO + ACCEL											10	03					
	L/O ST. GAW											132	20					
A	49-19N 67-22W	CL	006			+23		34M		400		142	23					
	FROBISHER		GC									870	1:58					
B	63-43N 68-34W	CR	051					36M	.77	440		1012	2:21					
	TP											260	35½					
C	68-04N 67-48W	CR	066					37M	.77	440		1272	2:56½					
	SID											157	26¾					+5
D	68-45N 60-50W	CR	134						.77	440		1429	3:23					
	T/O											34	05					
	68-52N 59-29W	DS	134							410		1463	3:28					
	REND											30	06					
E	69-00N 58-02W	CR	134					15M		300		1493	3:34					
	COMP PT.											142	34					
F	69-18N 51-27W	AR	134							250		1635	4:08					
	ON LOAD					-												
												08	06					+4
	ACCEL	ACC	290									1643	4:14					
	L/O											82	12					
G	68-07N 54-32W	CL	290					37M		410		1725	4:26					
	TP											190	26					
H	66-22N 61-23	CR	290					37M	.77	440		1915	4:52					
	FROBISHER											239	33					
I	63-43N 68-34W	CR	289					39M	.77	440		2154	5:25					
	SEVEN ISLANDS											870	1:52					
J	50-[illegible]N 66-17W	CR	271					41M	.77	440		2974	7:17					

SAC FORM 15 APR 56 1a FC: 2720

June 19

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"BOLD BOY" PLAN "C"

MISSION FLIGHT PLAN – CONTINUATION SHEET

19 2

	FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	FUEL FLIGHT PLAN GROSS WT
	50-14N 66-17W																
	LORING AFB		TC									204	:28				
K	46-58N 67-53W	CR	197			+23		41M	.77	440		3178	7:45				
	HOULTON VOR											56	:08				
L	46-02N 67-51W	CR	178			+22		↘35M	.77	440		3234	7:53				
	LORING AFB											56	:12				
M	46-58N 67-53W	DS	358			+22		20M		410		3290	8:05				
													:15				
	LAND & TAXI												8:20				

+4

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Air Force - SAC, Offutt O-1050(58)

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42ND AIR REFUELING SQUADRON
THULE TASK FORCE
APO 23, NEW YORK, NEW YORK

42DOT 7 JAN 57

SUBJECT: (Unclassified) Refueling Air Training Report for December 1957
RCS: 9-SAC- T12

TO: Commander
Eighth Air Force
Westover Air Force Base
Massachusetts

1. Submitted herewith in accordance with Annex 1X, SAC Regulation 50-23, dated 1 May 1956, is Air Refueling Training Report, RCS , 9-SAC-T12

2. If inclosures are withdrawn or not attached, the classification of CONFIDENTIAL on this correspondence may be cancelled in accordance with Air Force Regulation 205-1.

FOR THE COMMANDER:

ROBERT W. O'KEEFE
1/Lt USAF
Adjutant

3 Incls
1. SAC Form 36 (4 pgs)
2. SAC Form 36A (4 pgs)
3. Comdrs Remarks (5 pgs)

cc: CINCSAC
ATTN: DOTRS (T12) (1 cy Incl 1, Incl 2, and Incl 3)
COA (T12) (1 cy Incl 1, Incl 2, and Incl 3)
D/Pers (1 cy Incl 3 only)
D/Mat (1 cy Incl 3 only)

COMDR 8 AF

ATTN: ODT4 (1 cy Incl 1, Incl 2, 10 cys Incl 3)
COM (1cy Incl 1, Incl 2, 5 cys Incl 3)

COMDR NEAC (1 cy Incl 1, Incl 2, Incl 3)

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A CERTIFIED TRUE COPY.
for EDWARD V. JOHNSON
1st Lt., USAF
Information Services Officer

W-1084c

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42ND AIR REFUELING SQUADRON
DECEMBER 1956

PART III - SQUADRON COMMANDER'S REMARKS

1. Hours flown performing missions ordered by:

a. Higher Headquarters:

COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1) "Devil Fish" 8 AF OPS	200:00	105:00
(2) Flyover (Toronto Exposition)	00:00	29:20
(3) Propellar Modification (OGAMA)	152:00	260:30
(4) "Hell Fire" 8 AF OPS ORDER 245-56	174:00	187:25
(5) "Power House" 8 AF OPS ORDER 112-56	00:00	229:25
(6) "Cold Wave"	200:00	62:25
	726:00	874:05

(a) Reference Commitment (5): Requirement was not received until the day of implementation.

(b) Reference Commitment (6): Only six (6) of seventeen scheduled aircraft could be deployed in December.

b. Eighth Air Force Training Priorities:

(1) Programmed and Accomplished for Current Months:

PRIORITY	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
1	AFR 60-2	00:00	Note (a)
2	Non-Ready Crew	35:00	35:00
3	Non-Ready Individual (35hrs ea, included in priority 6)	00:00	00:00
4	Stand Board	45:00	42:25
5	Combat Ready Training	245:00	7:20
6	Test Hops	5:00	5:00
	HIGHER HEADQUARTERS	200:00	224:15
	TOTAL	530:00	314:00

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42nd AIR REFUELING SQUADRON
DECEMBER 1956

(a) Reference priority 1: Proportional share of AFR 60-2 completed within other priorities

(b) Reference priority 5: Excepting standardization flights, all combat ready flying time was devoted to "Coldwave and "Power House", which is reported as being directed by higher headquarters.

(2) Flying time programmed for the following months:

PRIORITY	COMMITMENT	HOURS PROGRAMMED
1	AFR 60-2	00:00
2	Non-Ready Crew	35:00
3	Non-Ready Individual (35 hrs ea included in Priority 4	
4	Combat Ready Training	565:00
		600:00

2. Weather or local conditions:

a. Two missions cancelled due to weather in November
b. "Power House" cancelled prior to completion because of WX 100 hours lost.
c. "Coldwave" delayed because of weather. 116 hours lost.

3. Air Traffic Control Delay Information:

a.

TYPE	TOTAL NUMBER	TOTAL TIME
DEPARTURE	3	:35

4. Restrictive directives.

a. SAC TWX NO 1842, Restricting all KC-97 Aircraft to 155,000 pounds gross weight at take-off.

5. Combat Crew Member Gains and Losses:

(1) 0 Aircraft Commanders
(2) 0 Pilots
(3) 4 Observers
(4) 1 Radio Operator
(5) 1 Engineers 0 Boom Operators

W-1084e

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b. Crew members lost

(1) Two Aircraft Commanders; one (1) 42nd Wing Hqs Sq; one (1) 2349th Per. Proc. Center

(2) Two Pilots; One (1) 2235th Pre Proc Center; One (1) Discharged

(3) Two Engineers; One (1) Discharged, One (1) Reassigned 57th AD Westover AFB.

(4) Five Radio Operators; Three (3) Discharged; Two (2) PCS.

(5) One Boom Operator ; Discharged

(6) TWO Navigators; One Reassigned 75th BS, 42nd BW: One (1) Reassigned HDQ 42nd BW.

6. Crew Member Changes

a. 5 aircraft commander/s

b. 5 pilots

c. 3 engineers

d. 2 boom operators

7. NEW CREWS

a. Not Applicable for This Reporting Period

8. Crew Status Changes:

a. T-12 Regressed 14 Dec - Aircraft Commander & Boom Operator placed on T- Crews, Flight Engineer Discharged.

9. Standardization Crews

a. T-02 Assigned 1955

b. T-08 Assigned 1956

c. T-18 Assigned 1956

W-1084c

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10. Additional Material and Personnel Problems:

a. Not Applicable This Reporting Period

11. Refueling Data:

a. Number of Refueling Sorties Scheduled and Confirmed:

(1) Scheduled - 262

(2) Confirmed - 262

b. Number of Sorties:

(1) Airborne - 251

(2) Effecting Complete Electronic Rendezvous - 190

(3) Transferring Required Fuel - 212

c. Number of Aborts Due To:

(1) Adverse Weather - 1

(2) Aircraft Malfunction - 20

(3) Electronic Rendezvous Equipment Malfunction: 20

(4) Refueling Equipment Malfunction - 1

(5) Other Causes - Receiver Aborts - 28

d. Mass Night Cell Refueling:
(1) Confirmed Sorties - 87
(2) Airborne Sorties - 87
(3) Sorties Effecting Complete Rendezvous - 82
(4) Sorties Transferring required Fuel - 79
(0) Ref. 11D(3); Only One Receiver for three (3) Tankers

3. Fuel Transferred:

(1) Gallons: - 862,445
(2) POUNDS - 5,421,520

12. Comments And Recommendations Of The Squadron Commander:

a. Several factors delayed the planned deployment of 17 aircraft to Thule commencing 28 Dec 56. These factors were: One; Inspection of all landing gear drag brake assemblies. Two; Weather at Loring and Goose Bay, and Three; One aircraft was AOCP for a landing gear strut.
b. The above delay, coupled with deployment in two (2) increments,

W-1084c

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as well as stragling of MATS support aircraft, impeded the unit's turn-around capability and ability to resume normal training at Thule. This was due to non-availability of key personnel and essential equipment. Every last minute effort was made to preclude the above prior to departure.

C. The extended period required in support of operation Power House resulted in additional stand down of the aircraft. This prevented completion of all desired training prior to deployment. However, non-completion of this training did not significantly affect deployment.

d. Ample time was available to instruct personnel on the use of the Solar APU and associated ground heating modification prior to deployment. However, sufficient time was not available to thoroughly indoctrinate all flight and ground crews in the practical use of the equipment, formulate check lists, etc. for standard operating procedures. This was due to the airplanes being tied up in actual modification just prior to deployment.

e. The unit accomplished 100% of 50-8 training prior to 1 DEC 56

13. Ground Training

a. Combat ready crews attending SAC Reg 50-24 requirement - 24

b. Combat ready crews completing SAC Reg 50-24 requirement - 24

c. Combat ready crews scheduled to attned block trainin g in accordance with SAC Reg 50-24 during January 1957 - 6

d. Factors precluding crews from completing ground training requirements - None

/t/s/ Mr H Pillmar for

WILLIE H. SONNTAG
MAJOR USAF
COMMANDER

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AIR REFUELING AIR TRAINING REPORT – PART I

UNIT: 42D Air Refueling Sq | MONTH: Dec 56 | PAGE NO: 3 | NO. OF PAGES: 4 | REPORTS CONTROL SYMBOL: 9-SAC-T12

A. GENERAL 1 CREW NUMBER	2 TYPE AND MODEL AIRCRAFT	3 NUMBER OF SORTIES	4 FLYING TIME	5 USCM	B. AIR REFUELING 6 TOTAL REFUELINGS ATT.	6 SUCC.	7 DAY REFUELINGS ATT.	7 SUCC.	8 NIGHT REFUELINGS ATT.	8 SUCC.	9 IN HAND SILENCE ATT.	9 SUCC.	10 NO-OF FIGHTER REFUELINGS BLIND LOG ATT.	10 SUCC.	C. RADAR RENDEZVOUS 11 TOTAL RENDEZVOUS ATT.	11 SUCC.	12 MULTIPLE RENDEZVOUS PATTERN ATT.	12 SUCC.	13 AN/APN-12-70 ATT.	13 SUCC.	14 NO. OF DAY CELESTIAL NAVIGATION LEGS	D. NAVIGATION 15 NIGHT CELESTIAL TOTAL LEGS	15 CIRCULAR ERROR 1	15 2	15 3	16 NUMBER OF RADAR NAVIGATION LEGS	17 NO. OF PRESS. PATTERN LEGS (NCR-70)	18 NUMBER OF LORAN NAVIGATION LEGS
6-10	11-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	55-56	59-62	63-65	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-52	53-54	56-58	59-62	63-65
																						002	012	018	–			
T23	KC976	016	089	02	007	007	002	002	005	005	003	003			004	004	003	003	002	002	003	002	002	008	–	005	001	–
T24	KC976	013	075	01	008	008	005	005	003	003	003	003			009	009	004	004	005	005	002	003	006	008	010	003	003	003
																						002	010	011	–			
CK TOTALS	–	342	1980	36	196	196	098	098	098	098	127	127			191	191	085	085	086	086	045	072	277	231	193	094	035	045
M24	KC976	001	004	–	001	001	001	001	–	–	–	–			001	001	–	–	001	001	–	–	–	–	–	001	–	–
M25	KC976	006	042	–	001	001	001	001	–	–	–	–			–	–	–	–	–	–	–	–	–	–	–	003	–	–
NCK TOTALS	–	007	046	–	002	002	002	002	–	–	–	–			001	001	–	–	001	001	–	–	–	–	–	004	–	–
Wing TOTAL		378	2026	41	214	214	109	109	105	105	137	137			207	207	095	095	092	092	046	074	282	242	193	108	036	047
5X TRNG	KC976	005	025	–	003	003	003	003	–	–	003	003			008	008	–	–	007	007	003	003	–	–	–	005	003	003
PRACT TRNG	–	–	–	–	012	012	012	012	–	–	012	012	012	012	–	–	–	–	–	–	004	–	–	–	–	–	–	–

IM25 A/C Emerg. Leave 1 Oct-31 Oct 56; 1 Nov-6 Nov 56; Co-Pilot Emerg. Leave 13 Nov-15 Nov 56.

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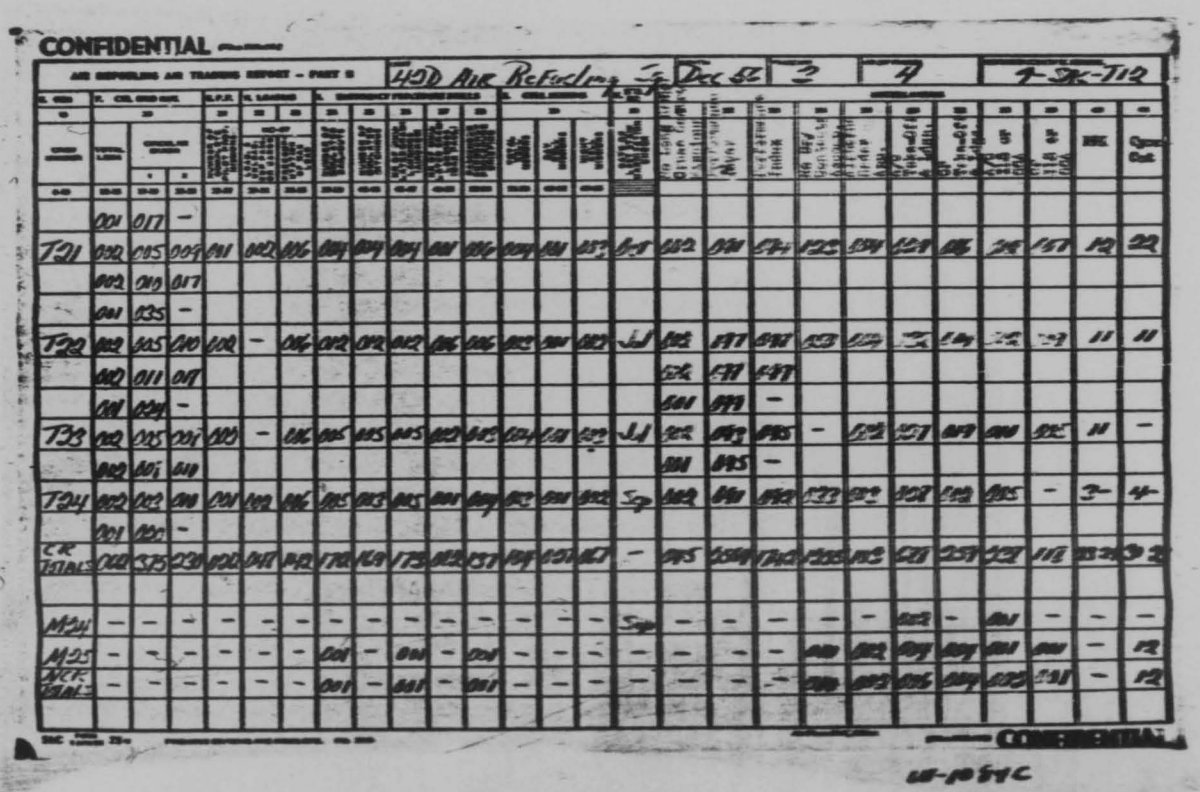

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AIR REFUELING AIR TRAINING REPORT - PART I

UNIT: 4OD Air Refueling Sq | MONTH: Dec 56 | PAGE NO: 4 | NR OF PAGES: 4 | REPORTS CONTROL SYMBOL: 9-SAC-TR

A. GENERAL					B. AIR REFUELING										C. RADAR INTERCEPTS						D.									
1	2	3	4	5	6		7		8		9		10		11		12		13		14	15				16	17	18
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	PILOT TIME	NAVIGATOR TIME	TOTAL REFUELINGS		DAY REFUELINGS		NIGHT REFUELINGS		IN RADIO PLENCE		SCOUT FIGHTER REFUELINGS (SUBSONIC)		TOTAL RENDEZVOUS		MULTIPLE RENDEZVOUS PATTERN		AIR/APPROACH		AIR GUNNERY TOTAL SCORE	NIGHT CELESTIAL				NUMBER OF RADAR INTERCEPTS	NR OF VISUAL SIGHTINGS	NUMBER OF AIR TO AIR RADIO CONTACTS
																						TOTAL LEGS	CIRCULAR ERROR					
					ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.			1	2	3			
9-10	11-15	23-25	26-29	30-33	39-41	42-44	45-47	48-50	51-53	54-56	57-59	60-62	63-65	66-68	69-71	72-74	75-77	78-80	81-83	84-86	87-89	41-43	44-46	47-49	50-52	53-55	56-58	59-61	62-64	65-67	68-70
MO6	4K975		CREW	Formed	30	Dec	56																								
MO7	4K976		CREW	Formed	30	Dec	56																								
MO8	4K978		CREW	Formed	30	Dec	56																								

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AIR REFUELING AIR TRAINING REPORT – PART I

UNIT: HSD Air Refueling Sq | MONTH: Dec 52 | PAGE NR: 2 | NR OF PAGES: 4 | REPORTS CONTROL SYMBOL: G-TAC-712

A. GENERAL					B. AIR REFUELING										C. RADAR RENDEZVOUS						D. NAVIGATION								
1	2	3	4	5	6		7		8		9		10		11		12		13		14	15				16	17	18
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCW	TOTAL REFUELINGS		DAY REFUELINGS		NIGHT REFUELINGS		IN RADIO SILENCE		KC-97 FIGHTER REFUELINGS 30,000 LBS		TOTAL RENDEZVOUS		MULTIPLE RENDEZVOUS PATTERN		AN/APN-70-78		NO. OF DAY CELESTIAL NAVIGATION LEGS	NIGHT CELESTIAL			NUMBER OF RADAR NAVIGATION LEGS	NO. OF DAY PILOTAGE OR DEAD RECKONING LEGS	NUMBER OF RADIO NAVIGATION LEGS	
					ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		TOTAL LEGS	CIRCULAR ERROR 1	2	3				
1-10	11-15	17-19	21-23	24-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	56-58	60-62	63-65	67-69	71-73	75-77	79-81	83-85	87-89	91-93	95-97	99-101	103-105	107-109	111-113	115-117	119-121	123-125
T10	KC97G	012	073	01	004	004	002	002	002	002	002	002			004	004	002	002	001	001	001	001	001	—	—	002	001	001	001
T11	KC97G	016	090	02	011	011	004	004	007	007	006	006			009	009	003	003	001	001	001	001	002	001	001	002	002	002	002
																						001	002	—	—				
T12	KC97G	014	111	01	007	007	005	005	003	003	003	003			009	009	004	004	005	005	002	002	005	005	005	004	002	002	002
																						003	003	001	001				
T13	KC97G	010	059	01	007	007	004	004	003	003	004	004			010	010	003	003	003	003	001	002	004	002	003	004	001	—	001
T14	KC97G	021	127	01	006	006	003	003	005	005	006	006			013	013	004	004	007	007	001	003	002	003	002	001	001	001	002
																						001	003	—	—				
T15	KC97G	011	065	01	007	007	003	002	005	005	005	005	NOT	NOT	005	005	004	003	—	—	001	003	003	003	003	003	—	003	003
T16	KC97G	017	077	02	003	003	003	003	006	006	006	006	REQUIRED	REQUIRED	007	007	005	005	001	001	005	002	002	002	002	002	001	001	002
T17	KC97G	017	104	01	010	010	006	006	006	006	005	005			001	001	003	003	004	004	003	003	002	002	002	002	001	001	002
																						001	001	—	—				
T19	KC97G	017	107	02	007	007	004	004	003	003	007	007			012	012	001	001	004	004	004	003	003	003	003	003	001	001	002
																						001	001	—	—				
T20	KC97G	021	112	03	013	013	007	007	006	006	007	007			011	011	006	006	005	005	002	001	001	—	—	002	—	—	002
T21	KC97G	021	117	01	012	012	007	007	005	005	006	006			007	007	004	004	005	005	001	002	001	005	—	004	001	003	003
T22	KC97G	017	110	02	008	008	003	003	005	005	004	004			008	008	004	004	004	004	004	003	003	004	002	002	002	002	002

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AIR REFUELING AIR TRAINING REPORT - PART II

Unit: HQD Air Refueling Sq | Month: Dec 56 | Page No.: 2 | No. of Pages: 4 | Reports Control Symbol: 9-SAC-T12

Crew Number	Total Lock	Circular Error 1	Circular Error 2	21	22	23	24	25	26	27	28	Total Cell Missions	Day Cell Missions	Night Cell Missions		No. Close Contacts	Performance Index	Performance Index	No Dry Contacts	Airborne Radar App.	T/O & Ldgs.	CP Take-Off & Ldgs.	A/C ILS or GCA	CP ILS or GCA	PPI	Gyro Out
																002	097	097								
																001	097	-								
T10	002	013	015	001	004	007	011	011	011	034	025	003	001	002	Nov	002	095	100	074	004	015	006	006	-	-	1-
T11	002	005	013	-	003	006	007	007	007	004	025	004	001	003	Nov	-	-	-	040	006	027	006	004	002	11	12
	001	015																								
T12	002	004	004	001	002	007	003	003	003	002	004	004	002	002	Jul	002	[illegible]	097	110	004	019	007	007	003	11	11
	002	007	007													002	097	097								
	002	007	012													001	100	-								
	001	013	-																							
T13	002	002	004	001	003	007	013	013	013	005	009	004	003	001	Dec	-	-	-	041	005	035	015	007	005	21	11
T14	002	015	-	002	002	007	017	017	017	005	006	004	001	003	Sep	002	092	091	052	004	040	015	021	007	1-	11
T15	002	008	012	-	001	006	002	002	002	001	001	003	-	003	Jul	002	092	096	043	004	011	007	005	007	11	11
T16	001	007	-	001	004	006	005	005	005	003	005	005	003	002	Aug	001	100	-	037	002	024	010	011	004	-1	11
T17	002	005	005	-	002	006	004	003	002	001	007	[illegible]	-	004	Sep	002	099	099	040	018	026	016	012	011	-2	21
	001	014																								
T19	002	007	007	001	001	006	010	010	010	034	007	003	001	002	Jun	002	095	095	072	004	023	009	017	004	-	11
T20	002	007	012	001	002	006	006	007	007	004	005	007	003	004	Sep	-	-	-	087	002	026	011	013	007	12	21

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AIR REFUELING AIR TRAINING REPORT - PART II

UNIT: H&D Air Refueling Sq | MONTH: Dec 56 | PAGE NR: 1 | NR OF PAGES: 4 | REPORTS CONTROL SYMBOL: 9-AK-712

Crew Number	Total Legs	Circular Error 1	Circular Error 2	Number of Completed Pilot Prob. Missions	KC-97 Load & Unload	KC-97 Precomputation of Max Load	Number of Simulated Bail-outs	Number of Simulated Ditchings	Nr of Simulated Crash Landings (Aircrew)	Nr of Simulated Crash Landings (Max Pass.)	Passenger Emergency Procedure Briefing	Total Cell Missions	Day Cell Missions	Night Cell Missions	Date of Last Standardization Check	No Long Range Cruise Control Problems	Performance Index	Performance Index	No Dry Contacts	Radar App.	A/C Take-Offs & Ldgs.	CP Take-Offs & Ldgs.	A/C ILS or GCA	CP ILS or GCA	PPI	Gyro Out
T02	-	-	-	-	-	-	004	004	005	003	002	003	001	002	Jun	-	-	-	-	-	014	-	005	001	-1	-
T08	001	012	-	-	001	-	001	001	001	-	-	005	001	004	Sep	001	094	-	005	001	040	-	011	004	-	-
T18	-	-	-	-	-	-	003	003	003	001	-	005	004	001	Jul	001	094	-	009	-	036	-	004	-	-	-
STBD TOTALS	001	012	-	-	001	-	007	008	007	004	002	013	006	007	-	002	187	-	014	001	090	-	020	005	-1	-
T01	002	004	005	-	002	007	005	003	004	001	007	006	[illegible]	005	Aug	002	092	096	071	003	031	027	014	008	-1	-1
	002	007	014																							
	001	015	-																							
T03	-	-	-	001	002	[illegible]	[illegible]	004	004	[illegible]	005	006	004	[illegible]	Dec	002	092	098	059	005	019	013	009	006	12	11
T04	002	006	[illegible]	001	003	006	007	007	007	002	005	005	002	003	Oct	-	-	-	012	004	027	002	012	003	11	11
	001	013	-																							
T05	002	001	007	-	002	[illegible]	010	011	011	[illegible]	[illegible]	006	002	004	Aug	001	099	-	057	014	036	022	010	009	1-	32
T06	002	[illegible]	016	002	[illegible]	007	011	011	011	009	005	005	001	004	Dec	002	091	092	126	005	025	019	007	007	11	22
																001	096	-								
T07	002	004	005	003	004	011	020	020	018	012	024	005	002	003	Jul	002	094	099	022	010	061	004	023	002	54	2-
	001	021	-																							
T09	002	001	[illegible]	001	002	010	004	004	006	006	010	005	002	003	Sep	002	096	096	061	003	040	014	015	006	11	11

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AIR REFUELING AIR TRAINING REPORT – PART I

UNIT	MONTH	PAGE NO.	NO. OF PAGES	REPORTS CONTROL SYMBOL
HSD Air Refueling Sq	Dec 52	1	4	9-SAC-T-12

A. GENERAL					B. AIR REFUELING										C. RADAR RENDEZVOUS						D. NAVIGATION							
1	2	3	4	5	6		7		8		9		10		11		12		13		14	15				16	17	18
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USER	TOTAL REFUELINGS		DAY REFUELINGS		NIGHT REFUELINGS		IN RADIO SILENCE		NO-OF-FIGHTER REFUELINGS 20,000 LBS		TOTAL RENDEZVOUS		MULTIPLE RENDEZVOUS PATTERN		AN/APN-10-70		NO. OF DAY CELESTIAL NAVIGATION LEGS	NIGHT CELESTIAL				NUMBER OF RADAR NAVIGATION LEGS	NO. OF FIRST PATTERN LEGS (SCRATCH)	NUMBER OF LORAN NAVIGATION LEGS
					ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		TOTAL LEGS	CIRCULAR ERROR 1	2	3			
1-10	11-15	16-19	20-23	24-27	28-31	32-35	33-39	40-43	44-47	48-51	52-54	55-58	59-61	62-65	13-15	16-19	21-23	25-27	28-31	32-35	33-39	41-43	44-47	48-52	53-54	55-58	59-62	63-65
T-02	HC97G	006	035	02	004	004	002	002	002	002	004	004			003	003	003	003	–	–	–	–	–	–	–	004	–	001
T-08	HC97G	012	085	01	005	005	002	002	003	003	001	001			007	007	004	004	004	004	001	002	005	011	–	006	001	001
T16	HC97G	011	060	02	007	007	005	005	002	002	005	005			004	004	003	003	001	001	–	–	–	–	–	–	–	–
[illegible]	–	029	180	05	016	016	009	009	007	007	010	010			015	015	010	010	005	005	001	002	005	011	–	010	001	002
T01	HC97G	016	092	02	011	011	005	005	006	006	007	007	Not Applicable	Not Applicable	014	014	007	007	007	007	002	003	008	011	019	005	002	002
																						003	015	017	018			
																						001	026	–	–			
T03	HC97G	015	077	02	007	007	005	005	003	003	006	006			010	010	007	007	002	002	–	–	–	–	–	001	–	–
T04	HC97G	016	090	01	009	009	006	006	003	003	006	006			006	006	004	004	–	–	001	003	001	008	009	005	001	002
T05	HC97G	019	115	03	014	014	008	008	006	006	011	011			011	011	005	005	004	004	005	003	005	005	013	004	002	002
																						001	020	–	–			
T06	HC97G	020	112	02	014	014	006	006	008	008	003	003			011	011	004	004	006	006	001	002	007	010	–	002	–	003
T07	HC97G	023	110	03	013	013	007	007	005	005	007	007			012	012	006	006	006	006	001	003	007	007	010	004	001	003
																						001	019	–	–			
T09	HC97G	018	092	02	006	006	003	003	003	003	004	004			006	006	003	003	002	002	004	003	006	009	010	007	003	004
																						003	011	015	012			

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AIR REFUELING AIR TRAINING REPORT - PART II

Unit: 42D Air ReFueling Sq | Month: Dec 56 | Page Nr: 4 | Nr of Pages: 4 | Reports Control Symbol: 9-SAC-T1Q

Crew Number	Total Lobs	Circular Error 1	Circular Error 2	Number of Complete Pilot Prof. Missions	Load & Unload	Precomp Station	Number of Simulated Bail-outs	Number of Simulated Ditchings	Nr of Simulated Crash Landings	Nr of Simulated Crash Landings	Passenger Procedures	Total Cell Missions	Day Cell Missions	Night Cell Missions	Date of Last Standardization Check	No Long Range Cruise Control Missions	Performance Index	Performance Index	No Dry Contacts	Airborne Radar App.	A/C Take-Off & Ldgs.	CP Take-Off & Ldgs.	A/C ILS or GCA	CP ILS or GCA	PPI	Gyro Out
Wing TOTALS	063	387	230	022	047	142	181	178	173	026	140	117	033	074	-	047	2757	1742	1949	106	784	263	260	124	23 25	42 23
5X TRNG	004	-	-	-	-	-	002	001	001	001	001	-	-	-	-	001	-	-	080	004	070	041	024	016	-2	-2
PRAC TRNG	003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	002	-	-	-	-	-	-	-	-	-	-

1. Average number of Combat ready and higher Category crews assigned (including Stand. Crews) - 23.7
2. Average number of Combat ready and higher Category crews available - 20.1
3. Average number of non-Combat ready crews assigned - 1.3
4. Average number of non-Combat ready crews available - 0.6
5. Average number of Standardization crews assigned by crew category - 3 Combat ready crews

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B-52

PAGE 1. PILOTS DEBRIEFING QUESTIONNAIRE

1. SUPPORT:

a. Transportation

b. Acft Ground Support

c. Misc.

2. TAXI & LINE UP:

3. COMM:

a. Taxi

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b. Bomber Stream

c. Cell

d. RBS

e. Refueling

f. Descent & Landing

4. PERFORMANCE :

a. T.O.

b. Fuel Management

c. Other

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B-52

PAGE 3. PILOTS DEBRIEFING QUESTIONNAIRE

5. JOIN UP IN ORBIT:

a. When Did They Get Into Cell:

b. At What Point

c. Instrument Errors:

Altimeter

A/S

MACH

6. BOMBER STREAM:

a. Maintain 12 Min Sep.

7. REFUELING (STATE AREA - PRIM OR ALT.)

a. Descent Rg.

b. Descent OK or

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PAGE 4. PILOTS DEBRIEFING QUESTIONNAIRE

c. Rend Troubles

d. Join Up After Refueling

e. Hook Ups & Duration

8. RAPCON & LET DOWN:

9. WEATHER

10. REMARKS

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B-52

PAGE 1. OBSERVER DEBRIEFING QUESTIONNAIRE

1. SUPPORT:

   a. Pre-Flt

   b. A&E Assist

2. REND:

   a. How Was Rend Accomp

   b. Range Of APN/69

   c. Remarks Concerning Rend. Equip

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d. Was 190 Submitted

3. CELL:

a. Did You Use Beacon In Cell

b. Remarks

4. NAV:

a. Spacing

b. Remarks

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B-52

PAGE 3. OBSERVER DEBRIEFING QUESTIONNAIRE

5. BOMBING:

a. Spacing

b. Remarks

6. PHOTOGRAPHY

7. BNS POLAR PERFORMANCE

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8. MONITOR APPROACH

9. GROUND BEACON RECP.

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SUBJECT: Beta Mechanism Damage [redacted]

To prevent possible damage to the Beta mechanism when Rg is slewed into the lower limit during a Radar Altitude check, the following precautions should be adhered to: Do not switch radar altitude on unless altitude in the Polar Converter (as read in Ballistic Control) is greater than 20,000 feet.

If altitude is less than 20,000 feet, Beta in the Polar Converter should be driven to 60^{0} with the Forward Sighting switch before radar altitude is switched on.

The same damaging conditions could occur if the Xe and/or Xn fix dials were slewed through the zero range point at the same instant. All of the above mentioned cautions and procedures should be adhered to on the ground as well as airborne.

In the doubled range M6A system, when Rg is slewed into the lower limit, the angular velocity of the Polar Converter Beta mechanism has been doubled. If the Beta arm strikes the low limit stop at the doubled velocity, serious damage is likely. When the Polar Converter altitude is above 20,000 feet the angular velocity of the Beta arm is reduced in such a manner as to lessen the possibility of damage when reaching the low limit. In a similar manner if Xe and Xn are slewed through zero, the Beta arm will strike the low limit with considerable force. If the fix dials are not slewed through the zero range condition the damage potential is greatly reduced.

You will notice that in the "Query Corner" Column we mentioned the value of 15,000 feet and above as being a safe altitude in operating the radar altitude switch. Even though we at Loring haven't experienced to much trouble with this problem it was felt that to be the safe side we should tack on another 5,000 feet and call out the value of 20,000 feet instead of 15,000 feet.

OBSERVER HANDOUT #9
42nd BW 31 Oct 56
A C SPARK PLUG TECH REP

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B-52 OBSERVERS

THE ATTACHED BOMB BAY DOOR AND RELEASE SYSTEM INSTRUCTIONAL CHECKOUT IS PRESENTLY IN USE BY THE 4017TH CCTS AT CASTLE AFB. IT IS PUBLISHED HERE FOR FAMILIARIZATION PURPOSES ONLY AND NOT INTENDED TO BE A CHECK SHEET TO FOLLOW IN OPERATING THE SYSTEM IN THE AIR.

OBSERVER HANDOUT #10
42D BW 15 Nov 56
Wg Bomb Nav Section

Doc 23

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BOMB BAY DOOR AND RELEASE SYSTEM INSTRUCTIONAL CHECKOUT

(For familiarization with bomb doors release system)

1. Accomplish the first RBS run or camera attack utilizing the checklist as it is written. This will demonstrate the proper and normal method for re-lease and automatic door operation.

2. On the second RBS run or camera attack utilize the checklist until approximately 60 seconds TG. Instruct the RA to turn the master bomb control and indicator light switches to the "OFF" position, and to observe the bomb door position lights at release. It will be noted that the bomb doors open and close normally. This occurs because the source of power for automatic door operation originates in the BNS, and the hydraulic packs were started when the door open relays were energized by the BNS door open signal. Be certain that it is pointed out to the student that while the master bomb control switch and the indicator light switch do not have to be on for BNS automatic door operation, they BOTH MUST BE ON in order to get a release from the bomb rack (any type). It should be noted that the tone signal broke normally, since it is only necessary that the BRIC be ON for a tone interruption.

NOTE :

The remainder of the instruction should be accomplished during the portion of the mission scheduled for bomb door instruction. It is preferable that it be near the end of the mission and at altitude while the aircraft is coldsoaked. Coordinate with the IP and the student crew members. It is best that all instruction be given over interphone so that all crew members know what is taking place. You will also find that the instruction will be beneficial to the pilots.

3. Position switches at the RA position as follows:

a.	Master bomb control switch	- OFF
b.	Indicator light switch	- ON
c.	K-3A manual switch	- MANUAL
d.	BRIC	- TRAIN & ZERO
e.	BNS	- NAV

4. Instruct the RA to turn the master bomb control switch ON. It will be noted that the low pressure warning light comes ON for several seconds. This is a normal condition. You will also note that this light comes ON when the gear is extended. This also normal. Unless the master bomb control switch is ON, or the gear is in a not up and locked position, power is not available to low pressure warning circuit. It should also be

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noted that all four hydraulic packs must be low in order to give the low pressure warning. If any one of the utility packs is above approximately 1500 psi, the light will be OFF. This is true because all four pressure switches for the RA's low pressure warning circuit are in series.

5. Instruct the RA to turn the master bomb control switch OFF, and to attempt to open the bomb doors with his door control switch. Note that nothing happens. Instruct the AC to OPEN the bomb doors with his door control switch. Note that the AC has door control regardless of the position of the RA's master bomb control switch. It should also be pointed out that whenever either door control switch is used, it should be held in the OPEN or CLOSE position, whichever is desired, until the desired door position is indicated on the door position lights. The door control switch is not a momentary type.

6. Instruct the RA to CLOSE the bomb doors with his door control switch. This is possible with the master bomb control switch OFF anytime the bomb doors are full open (indicated by a door open light) and TR power is available. TR power is only available when there is a source of AC on the airplane. If the RA fails to hold his door control switch in the CLOSE position until the door not latched light goes out the master bomb control switch will have to be turned ON to complete door closure, or it may be completed with the AC door control switch.

7. Instruct the RA to place the K-3A manual switch in the K-3A position. With the BNS in NAV, TRACK, or BOMB position a door close signal is supplied to door close circuit, but is not being utilized due to circuit being broken by the door close relay limit switches actuated by the bomb doors. If a door close relay limit switch is defective you will note that the four bomb door control valve lights are ON. To check for this condition, switch the K-3A manual switch to the MANUAL position. If the bomb door control valve lights go OUT it is safe to go back to the K-3A position and use automatic door operation through the BNS even though the control valve lights are ON. THIS IS ONLY TRUE IF ALL FOUR LIGHTS ARE ON - if only one light is ON, the procedure outlined in paragraph 14 should be used.

8. With the K-3A manual switch still in the K-3A position, instruct the AC to momenterily press his door control switch to the OPEN position. A door not latched light will come ON and immediately go OUT. This occurs because when the doors unlatched, the close relay limit switches closed and the BNS door close signal energized the door close relays, breaking the open signal from the AC's door control switch, and closed the bomb doors. If the AC were to hold his switch in the OPEN position the bomb doors would continue to OPEN and CLOSE until the switch was released to the neutral position or the K-3A manual switch placed in the MANUAL position with the switch still in K-3A have the RA attempt to OPEN the bomb doors with his control switch. It will be noted that nothing happens. Place the master bomb control in the ON position and have the RA try to OPEN the bomb doors. Again nothing happens. This is because the K-3A position cuts the RA's door control switch completely out of the door control circuit. Return the master bomb control switch to the OFF position and leave the K-3A manual switch in the K-3A position.

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9. Instruct the RA to pull the alternate weapon emergency release, and, as he does so, to watch the bomb door position lights. As he pulls the cable it will be noted that the bomb door not latched light, low pressure warning light, and the four bomb door control valve lights come ON. At this time the RA will note that he is unable to pull the cable any further, even though he will not have pulled it the 18 inches required for an emergency release of the rack. This is a normal position. As the bomb doors were unlatched the door close relay limit switches closed and the door close signal furnished by the BNS energized the door close relays, which caused the utility packs to commence operation and furnish door close pressure to bomb door actuators. Since the closing pressure on the actuators is greater than the manual unlatching pressure exerted by the RA, the bomb doors will move back into a closed position. If the observer continues to pull on the release, the above sequence will be repeated. It may be noted after this demonstration that the door not latched lights and the four control valve lights remain ON, if so switch to MANUAL and then back to K-3A and they should go out.

NOTE

If the alternate weapon emergency release cable is pulled with a fast steady pull, at a time when the utility hydraulic packs are at minimum pressure, a door unlatching and a manual release may result. If the utility packs are running or the pressure is up, the doors will unlatch and close immediately, effectively blocking the manual release.

10. With the K-3A manual switch in the K-3A position, switch the BNS to STAB and pull the alternate weapon emergency release. It will be noted that the bomb door not latched light ILLUMINATES and that it is possible to pull the emergency release the full 18 inches. It will also be noted that the door open light never comes ON. This is normal because the doors never go to full open position when unlatched by the emergency release, but are positioned to a semi-open position by air stream loads and gravity. Any emergency release of a weapon will likely cause the damage to the bomb doors. Now switch the BNS to NAV and the bomb doors will CLOSE automatically.

11. With the K-3A manual switch in the K-3A position momentarily switch the RA's salvo switch to SALVO. The salvo lights, door not latched light, and door open light should ILLUMINATE. The BNS door close signal is now blocked by a relay in the salvo circuit. Instruct the AC to momentarily press his salvo switch to the salvo position. It will be noted the salvo lights go OUT and the bomb doors close normally by means of the BNS door close signal. Return the K-3A manual to the MANUAL.

12. Instruct the AC to press his salvo switch to the SALVO position. The salvo lights, door not latched and the door open light should ILLUMINATE. Instruct the AC to press his salvo switch to SALVO again. It will be noted that the salvo lights go OUT and that the door not latched and door open lights remain ON. (Door open light will not remain ON if there is no AC power on the airplane). Now instruct the AC to CLOSE the bomb doors with his door control switch.

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13. Instruct the RA to press his salvo switch to the SALVO position. The salvo lights, door not latched and door open light should ILLUMINATE. Now instruct the RA to hold his door close switch in the CLOSE position until the door not latched light is OUT. It will be noted that the salvo lights also go out.

14. We will now simulate the failure of a bomb bay door control valve and assume that one of the bomb door control valve lights remains illuminated after door closing. If door opening were attempted under such an actual condition, it is very likely that the bomb doors would be badly damaged. For purposes of this simulated condition, we will assume that it was the AFT EMERG light or the left aft #3 control valve which malfunctioned. Instruct the RA to turn ON the master bomb control switch so the utility packs will commence operation. Now instruct the AC to position the left aft #3 hydraulic package control switch to the OFF & RESET position, and to position the selector switch so that he reads the pressure of the same pack. Now instruct the AC to pump the brake pedal until the pressure on the pack reads approximately 1000 psi. When he informs the RA of this condition check the bomb door control valve light. If the light is OUT it indicates that there was a control valve failure; if the light is still illuminated it indicates that there is a failure of the pressure switch monitorint the door close pressure line. In either event the AC should be instructed to continue pumping the brake pedals until the pressure reads ZERO. This is necessary because the bomb bay door shuttle valve positions on approximately 600 psi, and even though we have an indication of a pressure switch failure we have also lost our monitor system for the control valve. When the pressure is reported at ZERO; instruct the RA to OPEN the bomb doors with his door control. A normal door opening should follow. Now instruct the RA to watch the door control valve lights and close the bomb doors, and as he will notice that the control valve light for the AFT EMERG system does not light up. The doors should close normal. Instruct the AC to place left aft #3 hydaulic package control switch in the ON position.

15. You are now ready for questions from the crew. If they do not understand any part of the demonstration, either repeat it,or explain it to their satisfaction.

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HEADQUARTERS EIGHTH AIR FORCE
United States Air Force
Westover Air Force Base
Massachusetts

DMM4E 9 November 1956

SUBJECT: Utilization of the APS-64 with the APN-69

TO: B-52 Observers

1. This headquarters has received a number of reports concerning inability to successfully utilize the APS-64 in beacon operation when interrogating the APN-69. The following information should be disseminated to all observers as an aid to obtaining successful rendezvous.

a. The initial APN-69 beacon presentation received on the scope of the APS-64 radar will depend largely on the settings or the adjustments when the set is first turned to the "Beacon" mode of operation. Once in this position, the observer will receive the usual type of interference expected in the other modes of operation, plus a few more confusing signals. However, with the proper scope adjustments, the presentation can be made acceptable.

b. The usual presentation at long ranges is a steady or broken ribbon-like presentation around the periphery of the scope. This may extend from approximately three (3) degrees of the scope's face to perhaps three hundred sixty (360) degrees. In any event, the first attemp should be to reduce the extent of this azimuth smear. If the range to the tanker is over one hundred (100) miles, the receiver gain adjustment may reduce the smearing. If this is not effective, turn the "Lin-Log" switch to "Log" and, if necessary, the "FTC" switch to "ON". The azimuth smear will then be reduced so that the azimuth to the tanker can be determined. An increase of video gain and receiver gain adjustment may be necessary if the signal is no longer present. If the signal is present, but cannot be identified, the use of sweep delay will expand the viewed area so that recognition can be made. Then, the "Bias" control should be slowly adjusted to obtain a good presentation. If the beacon signal strength still appears too strong on the face of the scope, the antenna tilt may be changed to reduce the amount of energy being reflected by the antenna into the receiver.

c. Sweep delay may also be used to advantage while searching for the tanker when the observer has the approximate range of the tanker.

d. Another situation which may be encountered by a lone receiver and is certain to be encountered on a multi-cell refueling

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DMM4E, SUBJ: Utilization of the APS-64 with the APN-69

mission, is the problem of non-synchronized returns. Since the beacon has no internal synchronization, its reply is synchronized with the radar set of the interrogating aircraft. A non-synchronized return is one which is not synchronized with the sweep of the interrogating radar, thereby giving a false range reading on the scope. For instance, if two (2) aircraft are interrogating the beacon simultaneously, pulse for pulse, the beacon reply can only be synchronized with one (1) aircraft at a time, giving the other a false signal. The only time when this would not occur is when the trigger pulses of both radar sets in the receiver aircraft are synchronized. This condition would be an unlikely exception. However, this problem is not as serious as it sounds. The pulse repetition rate of the interrogating radar is three hundred (300) pulses per second in the beacon mode. This PRF will afford a good percentage of true position data to several receiver aircraft. The non-synchronized signals will move along the azimuth line, but the true signals will fall at relatively the same spots each time. The true signal will then cause a greater phosphorescent action on the scope's face and will appear to the observer as a more intense signal.

BY ORDER OF THE COMMANDER:

S/John W. Hoblitzel Jr.
T/JOHN W HOBLITZEL JR
Captain, USAF
Assistant Adjutant

OBSERVER HANDOUT #11
42d BW 16 Nov 56
Wg Bomb Nav Section

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B-52 OBSERVER-APS-64 BEACON FUNCTION

DATE_____

OBSERVER_____

AIRCRAFT TAIL NUMBER_____

TANKER CALL SIGN_____

WAS A RENDEZVOUS ATTEMPTED?_____

MAXIMUM RANGE ATTEMPTED. _____ N. M.

DID YOU RECEIVE ANY SIGNAL AT THIS RANGE _____

WHAT RANGE DID YOU FINALLY PICK UP TANKER. _____

HOW CLOSE IN WERE YOU ABLE TO FOLLOW SIGNAL. _____

DID BEACON SIGNAL SMEAR SCOPE_____ HOW MUCH? _____

_____

COULD YOU ESTIMATE RANGE BY BEACON RETURN. _____

COULD YOU READ AZIMUTH FROM BEACON RETURN. _____

COULD YOU RECEIVE GROUND BEACON _____ AT WHAT RANGE _____

IF YOU RECEIVED BEACON FROM TANKER, WHAT SETTINGS GOT BEST RESULTS:

FTC _____

LIN-LOG _____

TILT _____

SWEEP RELAY _____

SCAN SLOW OR FAST _____

VIDEO GAIN _____

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RECEIVER GAIN IS CRITICAL IT WILL HAVE TO BE DECREASED AS YOU GET CLOSER TO TANKER.

IF BEACON RECEPTION DIFFICULTIES ARE EXPERIENCED REFER TO OBSERVER HANDOUT #1 - - - - "BEACON SET-UP PROCEDURES".

REMARKS: _____

_____

_____

_____

_____
OBSERVER SIGNATURE

_____
A&E DEBRIEFING REPRESENTATIVES SIGNATURE.

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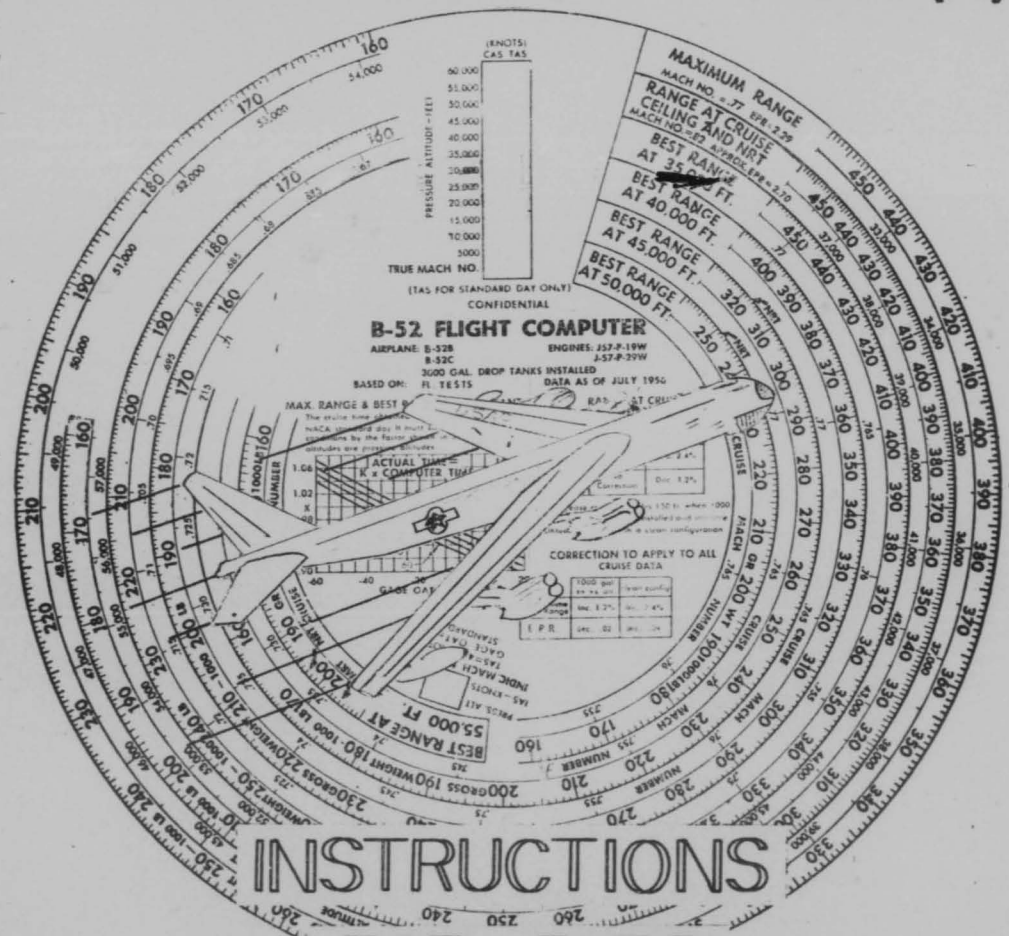
42D BOMBARDMENT WING(H)



INSTRUCTIONS FOR B-52 FLIGHT COMPUTER

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

INSTRUCTIONS FOR B-52 FLIGHT COMPUTER
(For airplanes with J57-P-19W and -29W engines)

INDEX

ITEM:		PAGE NO:
1.	COVER LETTER	1
2.	INTRODUCTION	2
3.	DESCRIPTION	3
	a. Figure 1, Front side of computer.	4
	b. Figure 2, Rear side of computer.	5
4.	OPERATING INSTRUCTIONS	
	a. Front side of computer	6
	b. Rear side of computer	12

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOT4 14 November 1956

SUBJECT: Instructions for B-52 Flight Computer.

TO: B-52 Aircraft Commanders and Pilots.

1. The information and instructions contained under this cover are intended to serve as the operating manual for the B-52 Flight Computer, on airplanes equipped with J57-P-19W and -29W engines.

2. This pamphlet has been reproduced directly from Boeing Aircraft Company document. number D-15189 and has been paraphrased only as required in reference to color scheme utilized on the locally manufactured computer, page numbers, etc.

3. It is expected that the flight computer will be revised occasionally for such possible reasons as:

a. Changes in external configuration.

b. Variation (increase) in thrust output, and/or improved thrust specific fuel consumption.

c. Improved methods of data presentation on present type flight computers.

4. When such changes occur, this organization will obtain revised master data plates from the Boeing Aircraft Company, reproduce these plates in quantity locally, and rework the existing computers to bring them up-to-date.

5. This pamphlet will be revised as necessary (added to, or completely reissued) depending on the extent and complexity of the changes in the computer data, or method of presentation.

BY ORDER OF THE COMMANDER:

Frank L Wrigglesworth
FRANK L. WRIGGLESWORTH
Major, USAF
Adjutant

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INTROLUCTION

1. The B-52 Flight Computer has been designed to provide the pilot with a compact reference source of the performance data which are most frequently consulted in flight. The information on the computer has been extracted from appendix II, or the performance portion of the B-52 Flight Handbook, Technical Order 1B-52-1A, revised as of 30 September 1956.

2. It will be noted that the range data contained in the 30 September 1956 revision of appendix II and the present B-52 Flight Computer data plates have been based in flight test data compiled as of July 1956. This data degrades the previous range capability (as contained in 30 March 1956 revision of T.O. 1B-52B-1A) by 1.3%. A cross check may be made between the computer and the 30 September 1956 revision of T.O. 1B-52B-1A to verify the computer validity. It is intended that the Flight Handbook remain the fundamental reference source.

3. The color scheme used on the present issue of locally manufactured computers is intended to:

a. Identify the data associated with specific modes of performance.

b. Serve as a visual aid in guiding the eye to a specific item which will be located among other performance figures.

c. Provide an easily retained visual reference so that the user can quickly return to the problem at hand, after being momentarily diverted from the computer by other cockpit duty.

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DESCRIPTION

The computer consists of two movable discs and two interconnected index arms which will rotate about the center of the base. Various range problems can be solved by rotating the discs and index arms to appropriate positions and using the scales on the front and back discs. Climb, endurance, descent and landing data, as well as TAS, IAS and Mach number relationships are provided as tabulated data which appears through windows in the sliding discs. Additional performance data are given as curves and correction tables provided on the rear sliding disc.

Front and rear views of the B-52 Flight Computer are shown in figures 1 and 2 Figure 1 shows the front side of the computer and identifies the following data: (A) Time Scale; (B) Maximum Range Scale; (C) Range at Cruise Ceiling and NRT; (D) Best Range at Constant Altitudes; (E) IAS Variation with Altitude at .77 Mach Number; (F) CAS & TAS Variation with Altitude and Mach Number; (G) Corrections for Maximum Range and Best Range at Constant altitudes; (H) Corrections for Range at Cruise Ceiling and NRT; (I) Corrections to apply to all Cruise Conditions. Figure 2 shows the rear side of the computer and identifies the following data: (J) Endurance Correction Chart; (K) Nautical Miles Scale; (L) Best Endurance (M) NRT Climb; (N) Range at Cruise Ceiling and NRT; (O) Maximum Range Cruise; (P) Landing Speeds; (Q) Climb Correction Chart; (R) Maximum Range-Off-Altitude Cruise Chart; (S) Normal and Alternate Descent; (T) Short Distance Cruise Chart; (U) Gross Weights; (V) Maximum Range (Loss of Engine) Chart; and (W) Level Flight Refueling at 15,000 and 20,000 Feet Chart.

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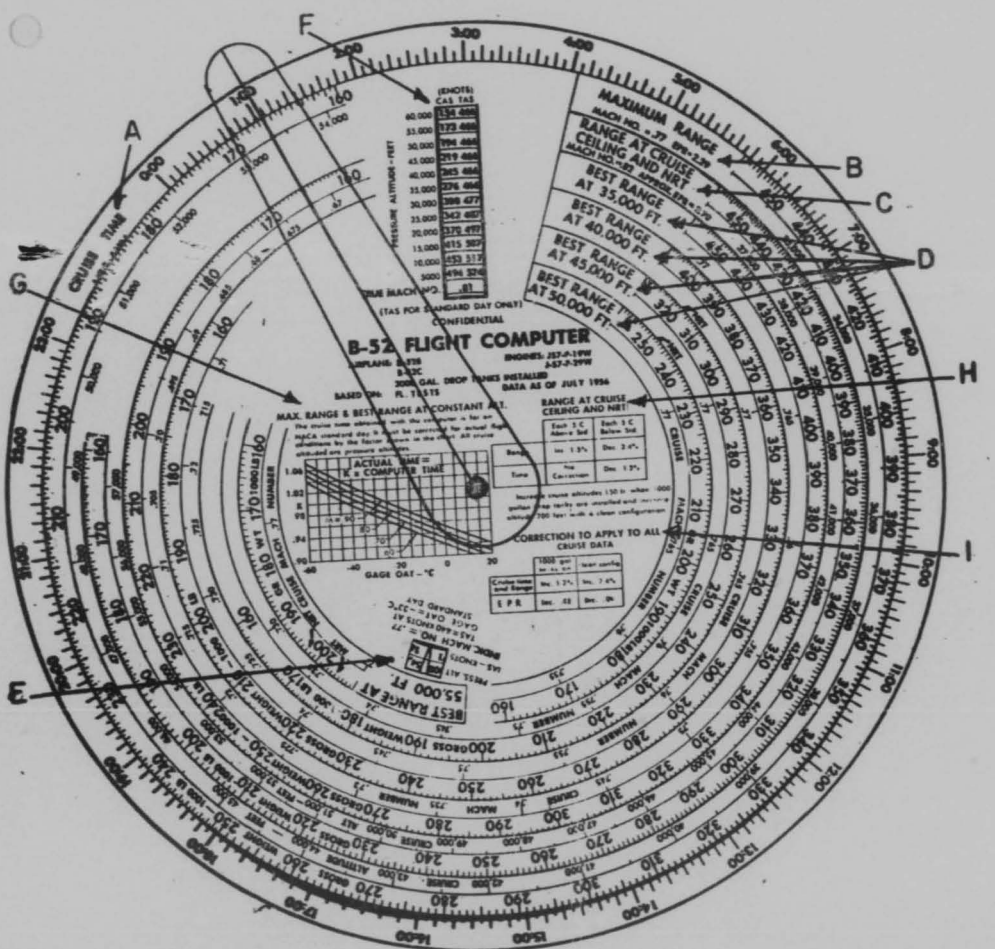

Front Side
Computer for Airplanes with
J57-P19W & -29W Engines.

NOTE: For purposes of illustrating arrangement only.

Figure 1

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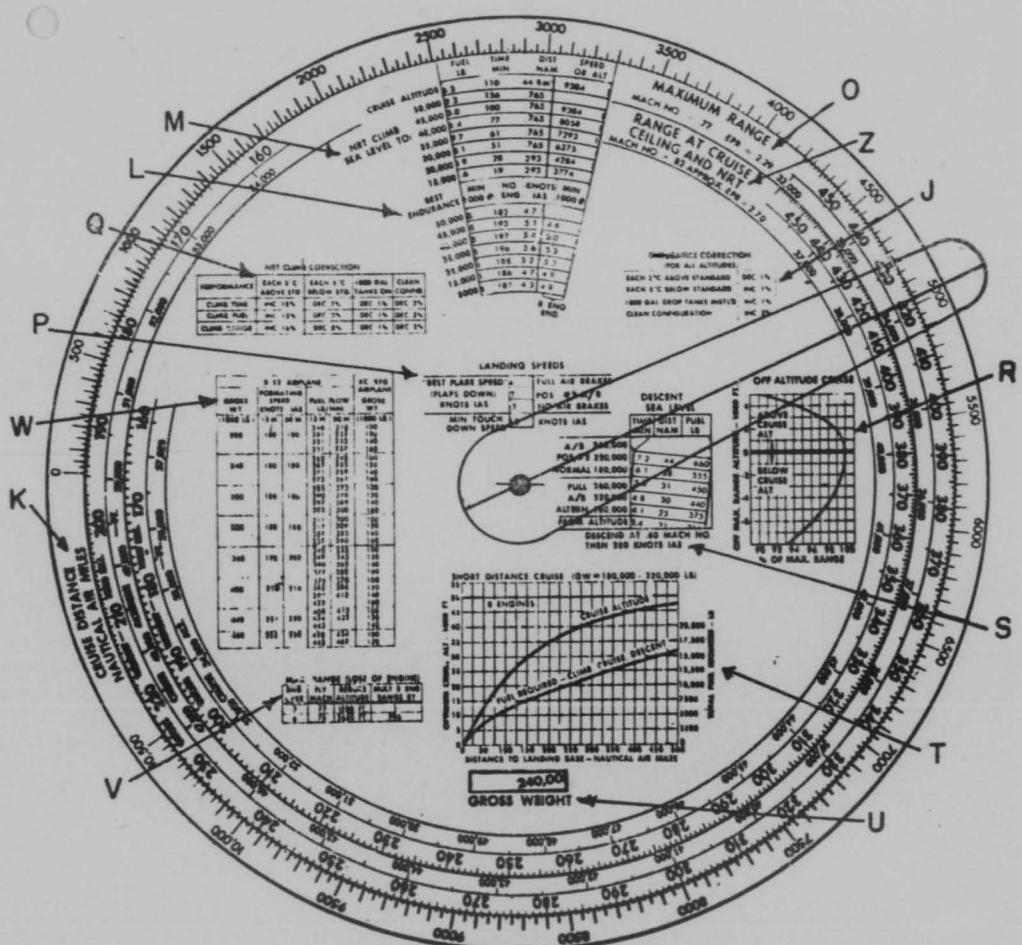

Rear Side
Computer for Airplanes
With J57-P19W & -29 W Engines.

NOTE: For purposes of illustrating arrangement only.

Figure 2

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OPERATING INSTRUCTIONS

FRONT SIDE OF COMPUTER (Figure 1)

Range information is provided on the front side of the computer for two different cruising procedures. The first and most important type is for a climbing flight path cruise which is flown at a constant Mach Number. Both Maximum Range and Range at Cruise Ceiling and NRT are climbing flight path and constant Mach number operations. The second type of data is for constant altitude cruise using a variable speed schedule. This is provided for best range at constant altitudes of 35,000, 40,000, 45,000, 50,000, and 55,000 feet. The Maximum Range scales are colored green and the Range at Cruise Ceiling and NRT scales are colored yellow to distinguish between the two types of climbing flight path cruise. The Best Range at Constant Altitude Scales are colored blue and purple to make it easy to distinguish between the different altitudes. All data are applicable for airplanes with 3000 gallon drop tanks installed. Corrections are supplied for flying without drop tanks or with 1000 gallon tanks installed.

Maximum Range is attained by flying a climbing flight path and a constant Mach number of .77 with an Engine Pressure Ratio of 2.29. Range at Cruise Ceiling and NRT data are supplied for use in determining performance during the run into the target where maximum practical altitude and speed are desired. This cruise condition is attained by flying a climbing flight path and constant Mach number of .82 with an approximate Engine Pressure Ratio of 2.70 Best Range at Constant Altitude is attained by flying at a variable speed and Engine Pressure Ratio setting as weight decreases. Less range is realized for the same quantity of fuel when cruising in level flight than that obtainable when flying maximum range cruise.

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Refer to the B-52 Flight Handbook for more detailed discussion of these items.

The Engine Pressure Ratio (EPR) settings included on the range scales must be established on the EPR indicators in order to maintain the desired cruise conditions. These settings are valid when operating with 8 engines under standard or non-standard day conditions.

The data for best range at 40,000, 45,000, 50,000, and 55,000 feet have the points marked at which Normal Rated Thrust is reached on a standard day. If the OAT is warmer than that for a standard day, NRT and MRT will be reached at lower gross weights than those shown. (On a standard day, MRT is reached at approximately the maximum gross weights shown on the weight scales for range at 45,000 and 50,000 ft.)

A correction must be applied to the range data when the OAT is non-standard since they are given in time units rather than distance units. This correction is required because the TAS varies with temperature when cruising at a given indicated speed schedule. The data are computed on the basis of the standard day true air speeds for the given speed schedules. For instance, while cruising at 40,000 feet and .80 Mach number on a standard day, the TAS = 460 knots and on a 10°C below standard day TAS = 449 knots. The time correction chart is located in the center of the computer (G in figure1) (The time corrections to apply to Range at Cruise Ceiling and NRT are in location "H" in figure1)

All range scales on the front side of the computer are used in the same way. The following example illustrates the use of the Maximum Range data, but the method is applicable to the other types of cruise.

EXAMPLE

Given: 1. Fuel in tanks available for cruise = 80,000 pounds

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2. 3000 gallon drop tanks installed
3. Weight at start of cruise = 260,000 pounds
4. OAT gage = -20°C

Find: 1. Maximum cruise time available
2. Cruise speed
3. Engine pressure ratio setting for maximum range
4. Altitudes for maximum range

Solution: 1. Align the starting weight of 260,000 pounds on the maximum range scale opposite 0:00 time. Move the index hairline to an end gross weight of 260,000 - 80,000 = 180,000 pounds and read a time of 7 hours 2 minutes. Since the OAT is non-standard (-20°C gage) a correction of K = .974 must be applied. These factors are obtained from the data located near the center of the computer. Therefore actual time is (7:02) (.974) = (7.0333)(.974) = 6.85 or 6 hours 51 minutes.
2. Cruise speed = .77 Mach Number
3. EPR = 2.29
4. Altitude at start of cruise = 44,020 feet and at end = 51,720 feet.

The following example illustrates how the time K factor will normally be used.

EXAMPLE

Given: The navigator tells the pilot that it will require an actual time of 3 hours (corrected for temperature) to

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complete the next leg of the mission. The airplane is flying at maximum range conditions and the starting gross weight is 320,000 pounds. The OAT gage reading is -10°C.

Find:

1. The computer time
2. Total fuel required
3. Starting and ending altitude
4. Cruise speed and EPR

Solution:

1. Computer Time - Read K = .955 from the time correction chart at location "G". Since Actual Time = K x Computer Time; then Computer Time = $\frac{\text{Actual Time}}{K} = \frac{3.0}{.955}$ = 3.14 Hours or 3 hours 8 minutes.
2. Total Fuel Consumption - Align the starting gross weight of 320,000 pounds on the Maximum Range scale opposite 0:00 time. Move index hairline to a computer time of 3:08 and read an ending gross weight of 273,000 pounds. Total fuel consumption then is 320,000 - 273,000 = 47,000 pounds.
3. Starting and Ending Altitude -

   starting altitude = 39,660 feet

   ending altitude = 42,990 feet
4. Cruise Speed and EPR

   Speed = .77 Mach Number

   EPR = 2.29

W-0077L

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IAS VARIATION WITH ALTITUDE AT .77 MACH NUMBER

The tabulated data in the window located at "E" provides the indicated airspeed at altitudes from 35,000 to 60,000 feet for cruising at an indicated Mach Number of .77. This scale is provided because the Mach meter does not have sufficient sensitivity to accurately fly the airplane by reference to this instrument alone. The normal way to cruise the airplane would be to fly at a nominal .77 Mach number making small adjustments in speed using the airspeed indicator. The true airspeed on a standard day corresponding to an indicated Mach Number of .77 is 444 knots. The true airspeed corresponding to a true Mach number of .77 is 443 knots as shown in scale "F".

EXAMPLE

Given: You are flying on a maximum range cruise schedule at .77 Mach Number and 47,000 feet and you desire to cross check the Mach meter with the airspeed indicator.

Find: The correct indicated airspeed.

Solution: Align the window so that a pressure altitude of 47,000 feet is in view. Read IAS = 197 knots.

CAS AND TAS VARIATION WITH ALTITUDE AND MACH NUMBER

The tabulated data in the window at location "F" provides calibrated and true airspeeds at pressure altitudes from 5,000 to 60,000 feet in 5,000 foot increments and for speeds from .50 to .90 Mach Numbers. The calibrated airspeeds shown are correct for all conditions but the true airspeeds shown are only correct for a standard day.

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EXAMPLE

Given: You are cruising at a speed of .77 Mach Number and a pressure altitude of 43,000 feet on a standard day.

Find: The CAS and TAS.

Solution: Align the window so that a speed of .77 Mach Number is in view. Since there are no data given for an altitude of 43,000 feet, determine the data for 40,000 and 45,000 feet and then interpolate. CAS = $232 - \frac{3}{5}(232 - 208) = 218$ knots. TAS = 443 knots.

W-0077L

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REAR SIDE OF COMPUTER (Figure

RANGE

The range information provided on the rear side of the computer for maximum range and range at cruise ceiling and normal rated thrust corresponds to the data shown on the front side, except that range in nautical air miles is shown, rather than time units. No temperature correction is necessary for maximum range since temperature variations from the NACA standard day have a negligible effect on range, except when cruising at a thrust rating. (NOTE: Range corrections are provided on the front of the computer for cruise on non-standard days at cruise ceiling and NRT.)

EXAMPLE (same conditions as example on pages 7 and 8.

Given: 1. Fuel in tanks available for cruise = 80,000 pounds
2. 3000 gallon drop tanks installed
3. Weight at start of cruise = 260,000 pounds
4. OAT gage = -20°C

Find: 1. Maximum cruise range available
2. Cruise speed
3. Engine pressure ratio setting for maximum range
4. Altitudes for maximum range

Solution: 1. Align the starting weight of 260,000 pounds on the m maximum range scale opposite 0 nautical miles. Move the index hairline to an end gross weight of 260,000 - 80,000 = 180,000 pounds, and read a range of 3100 nautical air miles. (This corresponds to a time of 7 hours

W-0077C

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02 minutes as read on the front side of the computer.)

No correction is necessary for the non-standard OAT.

Therefore, the actual range is 3120 nautical air miles.

2. Cruise speed = .77 Mach Number

3. EPR = 2.29

4. Altitude at start of cruise = 44,020 feet and at end = 51,720 feet.

CLIMB

Normal rated thrust climb data are included in the upper window at location "M". These data are applicable only when the climb is accomplished with 3000 gallon drop tanks installed, is made under NACA standard day conditions, and is begun at sea level at the starting gross weight shown in window "U". Climb correction factors for days other than standard, with 1000 gallon drop tanks on and with no tanks on are provided in the table located to the left to the window at location "Q". If a climb is started at some altitude other than sea level, a small error will be introduced because the starting gross weight will be incorrect. However, by using the difference in values between the starting and ending altitude, the fuel consumption will be fairly accurate at high gross weights but slightly high at low weights, while the climb time and distance will be slightly high for all weights.

EXAMPLE

Given: Starting gross weight = 380,000 lbs.

OAT is 5°C above standard.

3000 gallon drop tanks installed

Start climb at sea level and level off at cruise altitude.

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Find: 1. Fuel consumed

2. Climb time

3. Distance covered during climb

4. Cruise altitude

5. Speed schedule

Solution: Move circular disc so that a gross weight of 380,000 lbs is centered in the gross weight window, location "U", as shown in figure and read the following opposite "cruise

" altitude" in the climb window:

Climb fuel = 12,597 lbs.

Time = 19.0 minutes

Distance = 125 NAM

Correct for non-standard day by applying factors shown in correction table.

Fuel consumed = 12,597 (1.12) = 14100 lbs.

Time = 19.0 (1.15) = 21.8 minutes

Distance = 125 (1.16) = 145 NAM

Cruise Altitude = 36,800 ft.

Speed schedule = start at 310 knots IAS then .765 Mach Number

ENDURANCE

Best endurance at constant altitude data are provided in the window at location "L". The speed schedule shown applies regardless of whether 4, 6, or 8 engines are operating. The minutes per 1000 pounds of fuel data in the left column

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plies for the number of engines specified while the right column applies for 8 engines only. These data are accurate only for flight with NACA standard day conditions and with 3000 gallon drop tanks installed. Endurance correction factors for days other than standard, with 1000 gallon drop tanks installed and with no tanks installed are provided at location "J". The window should always be aligned with the average gross weight centered in the window, location "U", for any e[redacted]ce schedule.

EXAMPLE

Given: While flying at maximum range cruise it becomes necessary to hold over a check point for 20 minutes. The gross weight at start of endurance is 330,000 pounds and the cruise altitude is 40,200 feet. Establish best endurance schedule at a constant altitude of 40,000 feet. OAT is 10°C below standard. 3000 gallon drop tanks installed.

Find: 1. Fuel expended during endurance.
2. Gross weight at completion of endurance schedule.
3. The optimum number of operating engines.
4. Airspeed schedule.

Solution: 1. Move circular disc so that a gross weight of 340,000 pounds is centered in the gross weight window, location "U" and in the endurance window read 3.6 minutes per 1000 lbs. of fuel at an altitude of 40,000 feet. Read 3.9 minutes per 1000 lb at a gross weight of 320,000 pounds or an average of 3.75 minutes per 1000 lbs at a starting gross weight of 330,000 pounds. Since the endurance

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schedule is to last for 20 minutes, $\frac{20 \text{ min}}{3.75 \text{ min/1000 lb}}$ = 5340 lbs of fuel consumed. The first approximation of the average gross weight would then be 330,000 - $\frac{5340}{2}$ = 327,330 pounds. Since it is not possible to obtain exact information from tabulated data, the value of 3.75 minutes per 1000 pounds is within tolerance limits. A correction must be applied when the OAT is other than standard as shown by the correction table at location "J"; therefore, the endurance is increased by 2% or (3.75) (1.02) = 3.83 minutes per 1000 pounds, then $\frac{20 \text{ min}}{3.83 \text{ min/1000 lb}}$ = 522 lb of fuel will be consumed.

2. Gross weight at completion of endurance schedule = 330,000 - 5220 324.780 pounds.
3. Optimum number of operating engines = 8.
4. Airspeed schedule = 221 knots IAS.

DESCENT

Normal descent (gear down and airbrakes position No. 2) and alternate descent (gear down and airbrakes fully extended) data are provided in the window at location "8" for the three different gross weights of 260,000, 220,000 and 180,000 pounds. Since the descent occurs so rapidly, the effect of operating at conditions other than standard is very small and may be neglected. The descent data are accurate only when the descent is made from the altitude shown to sea level and only if the prescribed speed schedule is flown. The speed schedule instructions are located directly below the descent window and are as follows: "Descend at .80 Mach Number then 280 knots IAS".

W-0077L

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EXAMPLE

Given: The gross weight at the start of descent is 220,000 pounds. It is desired to descend from cruise altitude to a landing base at sea level. 3000 gallon drop tanks installed.

Find: Descent time, distance and fuel consumed for a normal and alternate descent.

Solution: Align the descent window at location "S", to "Cruise altitude, and read the following:

1. Normal
   - Time = 7.4 minutes
   - Distance = 48 NAM
   - Fuel Consumed = 670 pounds
2. Alternate
   - Time = 4.9 minutes
   - Distance = 32 NAM
   - Fuel Consumed = 450 pounds

LANDING SPEEDS

Flaps down landing speeds are provided in the window at location "P". The speeds included are "best flare" speeds for full airbrakes, airbrakes position No. 2, and no airbrakes, and the minimum touchdown speed. All speeds shown are given in knots IAS as the position correction and ground effect correction have been applied as applicable. After the airplane landing gross weight has been determined, align the landing speed window with the gross weight window,

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location "U", and read the landing speeds desired. Any additional landing data, such as ground run distances or flaps up landing speeds must be obtained from the B-52 Flight Handbook.

EXAMPLE

Given: Landing gross weight = 200,000 lbs. Accomplish a normal flaps down landing.

Find: 1. "Best flare" speeds with the airbrakes fully extended, at the No. 2 position and fully retracted.

2. Minimum touchdown speed.

Solution: Align the landing speeds window, so that the gross weight of 200,000 pounds is centered in the gross weight window and read the following:

1. "Best flare" speeds

Full airbrakes = 122 knots IAS

Airbrakes Position No. 2 = 116 knots IAS

No airbrakes = 107 knots

2. Minimum touchdown speed = 103 knots IAS

MAXIMUM RANGE (LOSS OF ENGINES)

Tabulated data is provided which gives the speed and altitude to fly and the range loss resulting when maximum range is desired after losing one or two engines. These data are shown at location "V" and provide factors to be applied to data obtained from the front and rear sides of the computer.

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EXAMPLE

Given: While conducting maximum range cruise 700 NAM from the home base at a gross weight of 220,000 pounds, two engines fail. The flight plan shows that the airplane would have normally been over the home base in 1 hour 35 minutes had all 8 engines continued to function normally. 3,000 gallon drop tanks installed.

Find:
1. Speed to fly
2. Altitude to fly
3. Effect on range
4. Total fuel required to fly the 700 NAM

Solution: By referring to the Maximum Range (Loss of Engine) table, location "V", for 6 engine operation, find the following:

1. Cruise at .76 Mach number.
2. Reduce cruise altitude 2650 feet.
3. The range which will be covered for the same quantity of fuel consumed is 98.6% or 700 (.986) = 690 NAM.
4. The actual time to fly the 700 NAM is now greater due to the loss in speed. Actual time to cover the 700 NAM with 6 engines operating is equal to 8 engines time X 8 engines TAS /6 eng. TAS or 1:35 (1.016) =(1.583)(1.016) = 1 hour 36.5 minutes. The total fuel required to fly the 700 NAM on 8 engines is 17,440 pounds. The total fuel required to fly the 700 NAM on 6 engines is 17,440 $\frac{1}{.986}$ = 17,690 pounds.

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OFF ALTITUDE CRUISE

Occasionally it may be desirable to cruise at some altitude different from that designated for maximum range. A chart showing such effects is provided at location "R" and shows the effect of flying at a constant increment off the altitude schedule for maximum range while maintaining the speed for maximum range.

These factors are to be applied to the range data obtained from the front or rear sides of the computer.

EXAMPLE

Given: It is desired to continue to cruise on the maximum range schedule but to decrease altitude 6000 feet. The range to be covered is 700 NAM and the time to cover this distance using maximum range cruise is 1:35. Starting gross weight = 220,000 pounds. 3000 gallon drop tanks installed.

Find: 1. The effect on range

2. Total fuel required to fly the 700 NAM.

Solution: By referring to the Maximum Range Cruise - Off Altitude chart find the correction to be applied = 96.2%.

1. Actual range made good for the same fuel consumption = .962 (700) = 673 NAM.

2. The computer time = $\frac{1:35}{.962}$ or $\frac{1.583}{.962}$ = 1.646 Hours or 1:39. Turning over to the front side of the computer align a starting gross weight of 220,000 pounds on the maximum

W-0077C

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range scale opposite 0:00 time. Move the hairline index to 1:39 and read an ending gross weight of 201,850 pounds The total fuel required then is 220,000 - 201,850 = 18,150 pounds.

The total fuel required to fly the 700 NAM may also be obtained using the Maximum Range and Nautical Air Miles scales on the rear side. The "computer range" is $\frac{700}{.962}$ = 728 NAM. Align the starting gross weight of 220,000 pounds on the maximum range scale opposite zero nautical air miles. Move the hairline index to 728 NAM and read an ending gross weight of 201,850 pounds. The total fuel required then is 220,000 - 201,850 = 18,150 pounds.

SHORT DISTANCE CRUISE

Occasionally it may be desirable or necessary to descend early and then continue to a more distant point. The Short Distance Cruise Chart provided at location "[illegible]" shows the cruise altitude to climb to which will result in the least amount of fuel used when cruising over a short distance. The fuel used during a NRT climb from sea level to the cruise altitude, cruise at the best range speed schedule, and a normal descent back to sea level is included in the chart values. In case the climb is started at some altitude above sea level, the cruise altitude should be increased by an amount equal to the difference between the altitude at the beginning of the climb and sea level. However, in no case should the altitude exceed the altitude for maximum range.

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This chart is accurate only when the gross weight is between 180,000 and 220,000 pounds.

EXAMPLE

Given: A descent is made to 3,000 feet at an airplane gross weight of 210,000 pounds. Landing conditions are not favorable and it is decided to continue to another field located 170 NAM away. All 8 engines are operating.

Find: 1. Optimum cruise altitude.

2. Total fuel required to accomplish a MRT climb, best range constant altitude cruise and a normal descent.

Solution: 1. Entering the chart at 170 NAM, find the cruise altitude = 32,000 feet. Since the climb was started at 3,000 feet rather than sea level, the cruise altitude should be increased to 35,000 feet. (Max. range cruise altitude at a gross weight of 210,000 pounds is 48,500 feet. Therefore, altitude determined does not exceed maximum range cruise altitude.)

2. The total fuel required to climb, cruise and descend is found to be 8300 pounds.

LEVEL FLIGHT REFUELING AT 15,000 AND 20,000 FEET

The refueling chart provided at location "H" shows the minimum speeds which should be observed for different B-52 gross weights along with the fuel flows for different KC-97G tanker airplane gross weights. These data are accurate only when the refueling is accomplished in level flight and at an altitude

W-0077L

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of 15,000 or 20,000 feet. If a level flight refueling is to be conducted above 20,000 feet, some error results if the data in the table is used. The refueling speed should be increased above those shown by approximately 4 knots IAS when operating at 25,000 feet. If the refueling operation is started at a gross weight of 300,000 or above, the error resulting by using the data in the table is very small even though the refueling operation is conducted at 25,000 feet. At lower gross weights the error in fuel consumption gets as high as 9% and, therefore, should be used with caution. Refer to the B-52 Flight Handbook for more exact information at altitudes other than 15,000 or 20,000 feet.

EXAMPLE

Given: A level flight air refueling mission is to be accomplished at 20,000 feet altitude with a KC-97G tanker airplane. The B-52 starting gross weight is 360,000 pounds and the ending weight is 440,000 pounds. The tanker gross weight at start is 155,000 pounds.

Find: 1. Formating speeds

2. B-52 Fuel consumption at start of refueling.

Solution: Using the Level Flight Refueling at 20,000 feet tabular data chart, find the following:

1. Formating speed at a gross weight of 360,000 pounds is 202 knots IAS and 220 knots IAS at 440,000 pounds.
2. The B-52 fuel consumption at start of refueling at gross weights of 360,000 pounds for the B-52 and 155,000

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pounds for the KC-97G is $362 + \frac{15}{20}(388-362 = 302)$

pounds per minute.

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

SUBJECT: B-52 Cruise Control, #1 Examination (Closed Book) 15 NOV 1956

TO: Aircraft Commanders and Pilots.

I. INSTRUCTIONS:

1. The following questions will be answered without further consulting text material.

2. Each of the following 25 questions answered correctly will be credited with 4 points. A total score of 100 points indicates a perfectly accomplished examination.

II. QUESTIONS:

1. For a given MACH number and pressure altitude, IASK will vary with changes in temperature.

TRUE FALSE

2. For a given MACH number, IASK remains constant regardless of pressure altitude.

TRUE FALSE

3. For a given IASK and pressure altitude, TASK will (increase) (decrease) with a temperature rise above NACA.

4. Temperature variations from NACA Standard Day have a negligible effect on range and no corrections to range charts are necessary.

TRUE FALSE

5. At .77 above 35,000' pressure altitude on a NACA day, does true airspeed vary with increase in altitude?

YES NO

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6. When flying a maximum range condition, at an OAT higher than NACA, how will the fuel flow compare with that indicated on an NACA day?

   a. Higher than_____
   b. Lower than _____
   c. Equal to_____

7. When flying a maximum range condition, at an OAT higher than NACA, how will the total fuel used over a given distance compare with that used under NACA conditions?

   a. Greater than_____
   b. Less than_____
   c. Equal to_____

8. When flying "off altitude" for a maximum range condition, what causes the greatest range loss:

   a. Flying above optimum_____
   b. Flying below optimum_____

9. When flying maximum range the basic factors which must be controlled are:

   a. Altitude and exhaust gas temperature_____
   b. Exhaust gas temperature and engine RPM_____
   c. EPR and fuel flow_____
   d. Altitude and airspeed_____

10. When flying constant altitude cruise, the basic factor that must be controlled is:

    a. Fuel flow_____
    b. Airspeed_____
    c. Fuel sequencing_____
    d. Elevator trim_____

11. The EPP indicator is similar in its purpose to the torquemeter on a reciprocating engine.

    TRUE_____ FALSE_____

W-0069C

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12. In establishing the desired cruise airspeed at a selected cruise altitude, what basic charted engine factor is controlled? answer_____.

13. Engines will be operated at constant EPR when operating at:

a. Maximum range @ constant MACH._____
b. Maximum range @ NRT or MRT regardless of CAT._____
c. Best range at constant altitude._____
d. Constant MACH at constant altitude._____.

14. NRT or MRT cruise above a climbing flight path should be used when it is desired to fly at maximum practical:

a. Altitude and fuel flow._____
b. Fuel flow and airspeed._____
c. Fuel flow and exhaust gas temperature._____
d. Altitude and airspeed. _____

15. The charted range values for NRT and MRT cruise are directly applicable only for what temperature condition ? answer_____
_____.

16. NRT and MRT EPR values vary with _____and _____
_____.

17. When flying NRT or MRT on a climbing flight path, cruise altitude should be (increased) (decreased) to maintain a desired MACH on a hotter than NACA condition.

18. Best range for a constant altitude is obtained by flying:

a. Constant MACH_____
b. Continuously decreasing MACH._____
c. Constant TASK._____
d. Constant EPR_____

19. Maximum endurance at high altitude is normally achieved by using:

a. 8 Engines_____
b. 6 Engines_____
c. 4 Engines_____

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20. During maximum endurance at low altitudes, it may be more desirable to use either six or four engines, than to operate eight engines (in terms of MINUTES ENDURANCE PER 1000 LBS fuel).

TRUE_____ FALSE_____

21. All out maximum endurance is achieved by flying:

a. Constant EPR._____
b. Constant IASK_____
c. Climbing Flight Path_____
d. Constant altitudes_____

22. For practical purposes, unless endurance time is to be in excess of approximately thirty minutes, no endurance time can be gained by flying a climbing flight path.

TRUE_____ FALSE_____

23. Alternate descent is accomplished with gear down and full airbrakes, and results in a higher rate of descent, less descent range and time over that obtained using normal descent.

TRUE_____ FALSE_____

24. What is the recommended descent airspeed as stated in Appendix II, for normal and alternate descent procedure?

a. 0.8 MACH to 34,000 feet, then 250 IASK.
b. 0.77 MACH to 34,000 feet, then 280 IASK.
c. 0.8 MACH to 34,000 feet, then 280 IASK.
d. 0.8 MACH to 26,800 feet, then 280 IASK.
e. None of the above.

25. What are the basic steps required in initiating a maximum range cruise?

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

15 NOV 1956

SUBJECT: B-52 Cruise Control, #2 Examination. (Open book)

TO: Airplane Commanders and Pilots.

I. Instructions:

1. The following questions will be answered by referring to data contained in Appendix II, T.O. 1B-52B-1A.

2. Each of the following 10 problems answered correctly will be credited with 10 points. A total score of 100 points is a perfect examination.

II. Questions:

1. During climb, for the following CONDITIONS, FIND the required answers:

CONDITIONS:
Gr.Wt. at best cl IASK = 405,000 Lbs.
Field P/A = 1000 feet
Cl Temp Factor = +5° C
Start CR. P/A = 35,000 feet
External tanks installed.
8 Engines NRT.

FIND:

Cl time _____ TASK in Cl_____
Cl distance _____ EPR at:
Cl fuel required _____ 10,000' P/A _____
Speed schedule _____ 20,000' P/A _____
30,000' P/A _____

2. During test hop climb, for the following CONDITIONS, FIND the required answers:

CONDITIONS:
Gr.Wt. at best Cl IASK = 300,000 Lbs.
OAT gage at 10,000' P/A = +10° C
OAT gage at 20,000' P/A = -7° C
OAT gage at 30,000' P/A = -24° C
External tanks installed
8 Engines NRT

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FIND:
IASK during Cl to 28,000' P/A _____
MACH IND above 28,000' P/A _____
EPR at 10,000' P/A _____
EPR at 20,000' P/A _____
EPR at 30,000' P/A _____

3. During cruise at MAXIMUM range, for the following CONDITIONS, FIND the required answers:

CONDITIONS:
Beginning gross weight = 426,000 Lbs.
OAT during cruise = NACA +5° C
Cruise distance = 245 N.M.
Effective headwind = 10 knots
External tanks installed
8 Engines.

FIND:
Aveage NM/1000 lb fuel _____
Ibs. fuel used during cruise _____
Starting cruise press. alt. _____
End cruise press. alt. _____
MACH indicated _____
Start cruise IASK _____
End Cruise IASK _____
TASK during cruise _____
Ground speed during cr _____
Time during cruise _____

4. During a SHORT DISTANCE CRUISE, for the following CONDITIONS, FIND the required answers:

CONDITIONS:
Initial altitude = 10,000' P/A
Gross weight = 220,000 Lbs.
Distance to landing base = 350 NM
8 Engines
NACA

FIND:
Fuel required - climb, cruise, descent _____
Optimum cruise altitude _____
Starting MACH & IASK _____&_____
Ending MACH & IASK _____&_____

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5. During a MAXIMUM RANGE operations on 6 or 7 engines, for the following CONDITIONS, FIND is required answers:

CONDITIONS:
Gross Weight = 360,000 lbs.
External tanks installed
NACA

FIND — 6 ENG. 7 ENG. 8 ENG.
NM/1000 lb fuel
Pressure altitude
EPR
MACH.

6. During a NORMAL RATED THRUST cruise for the following CONDITIONS, FIND the required answers:

CONDITIONS:
Gross Weight = 320,000 lbs.
MACH, required = .82
Distance = 210 NM
Temperature = NACA +10° C
No external tanks
8 Engines @ NRT

FIND:
Fuel required _____
EPR _____

7. During a CONSTANT ALTITUDE cruise for the following CONDITIONS, FIND the required answers:

CONDITIONS:
Gross Weight. = 360,000 lbs.
Pressure altitude = 40,000'
Distance = 1,200 N.M.
"BEST RANGE" MACH required
External tanks installed
8 Engines
NACA

FIND:
Total fuel required _____
Starting MACH & IASK _____ & _____
Ending MACH & IASK _____ & _____
Starting EPR _____
Ending EPR _____

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8. During a MAXIMUM endurance operation under the following CONDITIONS, FIND the required answers:

CONDITIONS:
Gross Weight = 310,000 lbs.
Endurance time required = 3:00
External tanks installed
NACA
6 engines

FIND:
Fuel required _____
Ending gross weight _____
Starting altitude _____
Ending altitude _____
Starting IASK & EPR _____&_____
Ending IASK & EPR _____&_____

9. During an endurance operation under the following CONDITIONS, FIND the "best endurance" criteria:

CONDITIONS:
Gross Weight = 280,000 lbs.
Assigned orbit altitude = 38,000' P/A
Endurance time required = :45
8 Engines
NACA

FIND:
Best endurance IASK _____
Fuel required _____

10. During an in-flight refueling operation under the following CONDITIONS, FIND the required answers:

CONDITIONS:
Differential altitude between B-52, KC-97 = 20,000'
Rate descent = 4,000'
Closure speed = 200 Knots.
IFR altitude = 16,000' P/A
Amount to be transferred = 30,000 lbs.
Gr.Wt., B-52 Start IFR = 360,000 lbs.
Gr.Wt., KC-97 Start IFR = 140,000 lbs.
Level flight IFR
NACA
8 Engines

W-0070C

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FIND:

B-52 Descent time _____

B-52 Descent range _____

B-52 Descent fuel used _____

Optimum B-52 formating IASK at start IFR. _____

Maximum KC-97 IASK at NR power at start IFR. _____

B-52 fuel used during IFR. _____

B-52 fuel used in acceleration to best climb IASK. _____

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W-0070C

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOT4 15 November 1956

SUBJECT: Center of Gravity Computation

TO: B-52 Airplane Commanders and Pilots

1. An alternate method of center of gravity computation recently devised by Capt Gulas, 42D Bomb Wing Standardization Board, is presented in the form of 5" x 8" cards which may be incorporated into the pilot's "flipcard" file. The three cards, attached as inclosures 1, 2, and 3 are titled:

a. B-52 Center of Gravity, Miscellaneous Items.

b. B-52 Center of Gravity, Fuel Loading.

c. B-52 Center of Gravity, Percent MAC.

2. In application, a Form F may be computed from this data, in lieu of using the load adjuster, (plate number E-1092) by adding successively and algebraically the index affect caused by certain classes of items posted on the Form F. In working the Form F from these flipcards, a running index must be posted opposite each item entered in the Form F, in the same manner as when using the load adjuster. Summary instructions are printed on the bottom of the first card "B-52 Center of Gravity, Miscellaneous Items".

3. With minimum of practice, personnel can accomplish a completed Form F with accuracy equal to, or greater than that obtained in using the slide rule type load adjuster.

BY ORDER OF THE COMMANDER:

Frank L Wrigglesworth

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

3 Inclosures:
1 B-52 C.G. Misc. Item
2 B-52 C.G. Fuel Loading
3 B-52 C.G. Percent MAC.

DISTRIBUTION:
69th BS (1 cy ea ACEP) 30 cys
70th BS (1 cy ea ACEP) 70 cys
75th BS (1 cy ea ACEP) 70 cys
42D BW Stand Board 30 cys

Incl 5

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B-52 CENTER OF GRAVITY INDEX

MISCELLANEOUS ITEMS

OIL	
LBS	INDEX
986	-0.8

CREW	
POS	INDEX
P(2)	-1.6
I.P.	-0.7
ECM	-0.6
V.O.	-0.7
NAV.	-0.7
G	+1.1

DROP TANKS	
LBS	INDEX
2550	+3.4

AMMO	
RDS.	INDEX
600	+0.9
1200	+1.8
1800	+2.6
2400	+3.5

H_2O INJ.	
LBS.	INDEX
2500	-3.6

CHAFF	
LBS	INDEX
500	+1.5
1000	+2.9
1500	+4.4

SPECIAL PURPOSE BOMB			
LBS	INDEX FWD	INDEX AFT
1000	-0.4	+0.3
2000	0.9	0.7
3000	1.3	1.0
4000	1.8	1.3
5000	2.2	1.7
6000	2.6	2.0
7000	3.1	2.4
8000	3.5	2.7
9000	3.9	3.0
10,000	4.4	3.4
11,000	4.8	3.7
12,000	5.3	4.0
13,000	5.7	4.4
14,000	6.1	4.7
15,000	6.6	5.1
16,000	7.0	5.4
17,000	7.5	5.7
18,000	7.9	6.1
19,000	8.3	6.4
20,000	8.8	6.7

PRACTICE BOMBS (LOAD ON CENTER RACK)			
LBS.	500	750	1000
INDEX	(NO INDEX CHANGE)		

CARGO*					
LBS	COMPARTMENT -A	-B	-D	+F	+G
500	-0.2	-0.1	-0.1	+1.6	+2.4
1000	0.3	0.2	0.1	3.1	4.9
1150					5.6
1500	0.5	0.3	0.1	4.7	
1770				5.5	
2000	0.6	0.4	0.2		
2500	0.8	0.5	0.2		
2800		0.6			
3000	0.9		0.3		
3500	1.1		0.3		
4000	1.2		0.4		
4500	1.4		0.4		
5000	1.5		0.5		
5500	1.7		0.5		
6000	1.8		0.6		
6100	1.9				
7000			0.7		
8000			0.7		
9000			0.8		
10000			0.9		
20000			1.9		
30000			2.8		
40000			3.7		
50000			7.4		

INSTRUCTIONS FOR COMPUTING INDEX:

1. Operating weight empty. Add weight of all items aboard to basic weight, except ammo, bombs, fuel, H_2O.
2. Operating index empty. Add indices under + or − signs algebraically, for items which comprise operating weight empty, to the aircraft basic index.
3. Static gross weight. Add weight of ammo, bombs, fuel and H_2O to operating weight empty.
4. Static index. Add index of ammo, bombs, fuel and H_2O algebraically to operating index empty.
5. Take-off condition. Deduct weight and index of fuel used for start engines, taxi, and run-up. Change sign of index indicated under fuel index table for this small amount of fuel and add algebraically.
6. Landing condition. Add weight and algebraically add indices of remaining expendables to operating weight and index empty.

* See compartment structural capacity chart, page 19, T.O. 1-1B-40.

42D B.W. STANDBOARD 15 NOV 1956

Incl 6

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B-52 CENTER OF GRAVITY INDEX

FUEL LOAD POUNDS	INDEX CHANGE									FUEL LOAD POUNDS
	+	+	−	−	−	−	−	+	+	
	DROP	OUT'B	MAINS 1 & 4	MAINS 2 & 3	CTR WING	FWD #1	FWD #2	MID	AFT	
1000	1.3	.4	.1	.7	1.0	2.1	.5	.2	1.3	1000
2000	2.3	.7	.1	1.4	1.9	4.2	1.0	.6	2.7	2000
3000	3.3	1.1	.2	2.1	2.9	6.4	1.4	.9	4.1	3000
4000	4.3	1.4	.4	2.8	4.0	8.5	1.9	1.2	5.4	4000
5000	5.4	1.9	.5	3.5	5.0	10.6	2.4	1.5	6.8	5000
6000	6.5	2.3	.6	4.2	6.1	12.7	2.9	1.8	8.2	6000
7000	7.8	3.1	.8	5.0	7.2	14.8	3.3	2.1	9.6	7000
8000	9.0	3.7	.9	5.7	8.3	16.9	3.8	2.4	10.9	8000
9000	10.2	4.4	1.1	6.5	9.4	19.1	4.3	2.7	12.4	9000
10000	11.4	5.0	1.3	7.2	10.6	21.2	4.8	3.0	13.8	10000
11000	12.7	5.6	1.5	8.0	11.7	23.3	5.3	3.3	15.1	11000
12000	14.0	6.3	1.7	8.7	12.9	25.4	5.7	3.6	16.5	12000
13000	15.3	6.8	1.8	9.5	14.1	27.6	6.2	3.9	17.9	13000
14000	16.6	7.4	2.1	10.3	15.2	29.6		4.2	19.3	14000
15000	17.9	8.1	2.2	11.0	16.4	31.8		4.5	20.8	15000
16000	19.2	9.0	2.5	11.8	17.6	33.9		4.8	22.2	16000
17000	20.5	9.6	2.6	12.6	18.7			5.1	23.5	17000
18000	21.8	10.4	2.9	13.3	19.9			5.4	24.9	18000
19000	23.1	11.1	3.1	14.0	21.0			5.7	26.3	19000
20000	24.4	11.8	3.3	14.8	22.2			6.0	27.7	20000
21000	25.7	12.6	3.5	15.6	23.4			6.3	29.1	21000
22000	27.0	13.3	3.7	16.3	24.5			6.6	30.5	22000
23000	28.4	14.2	3.9	17.1	25.6			6.9	31.8	23000
24000	29.7	15.1	4.1	17.8	26.8			7.2	33.2	24000
25000	31.1	16.2	4.4	18.6	28.0			7.5	34.6	25000
26000	32.3	17.3	4.6	19.4	29.2			7.8	36.0	26000
27000	33.7	18.5	4.8	20.2	30.4			8.1	37.4	27000
28000	35.1	19.8	5.0	20.9	31.4			8.4	38.8	28000
29000	36.4	21.0	5.3	21.7	32.6			8.7	40.2	29000
30000	37.8	22.2	5.5	22.5	33.8			9.0	41.5	30000
31000	39.2		5.8	23.3	35.0			9.4	43.0	31000
32000	40.6			24.1	36.2			9.7	44.3	32000
33000	42.0			24.8	37.5			10.0	45.7	33000
34000	43.5			25.6	38.8			10.3	47.1	34000
35000	44.9			26.5	40.1				48.5	35000
36000	46.4			27.3	41.4				49.9	36000
37000	47.9								51.2	37000
38000	49.3								52.6	38000
39000	50.9								54.0	39000
40000	52.4									40000

42D B.W. STANDBOARD 15 NOV 1956

Incl 7

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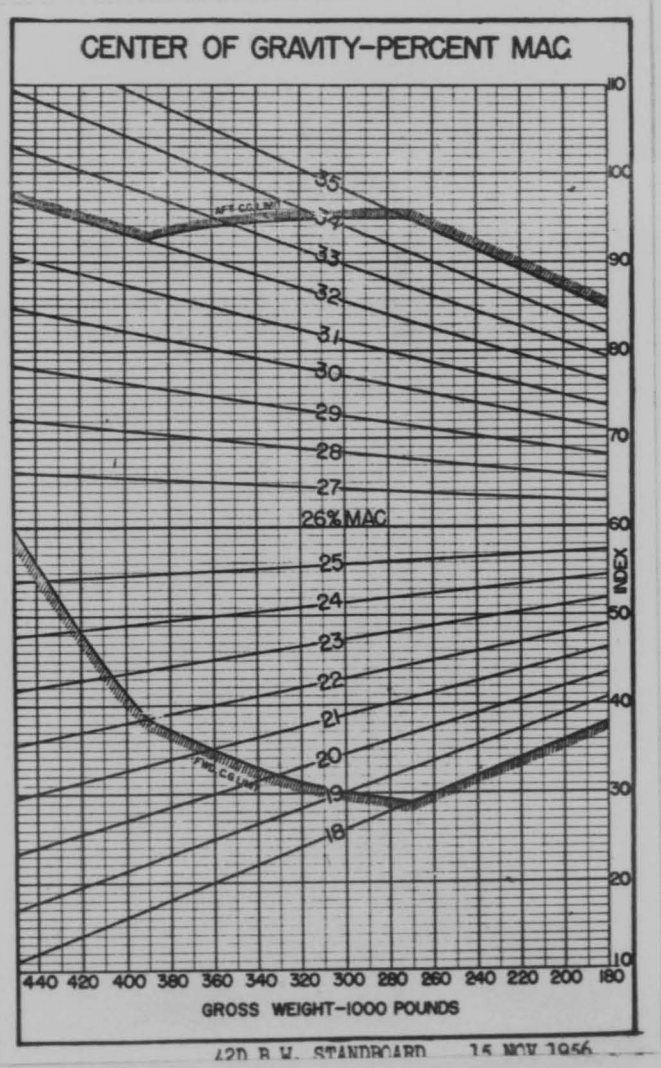

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOT4 28 November 1956

SUBJECT: Fuel Tank Gages

TO: B-52 Airplane Commanders and Pilots

1. A program is being established at the direction of the Chief of Maintenance, 42D Bomb Wing to recalibrate erroneous fuel gages.

2. Possible error in tank gage calibration may be detected by the gage indication after the fuel tank has been pumped empty. With the tank containing only residual fuel, optimum gage indication for any tank is zero to plus 50 pounds.

3. It is requested that pilot personnel make an entry in DD Form 791, part 2 whenever a fuel gage on an empty tank indicates other than zero to plus 50 pounds, on completion of fuel transfer.

4. Monitoring of calibration accuracy on the part of pilots and correction of errors by specialists from Base Instrument Shop will be conducted on a continuing basis. This organization will maintain the accuracy of the fuel indicating system to within 3% of actual fuel serviced as indicated by the pit gages.

5. A copy of this letter will become a part of each B-52 Aircraft Commander's and Pilots book of SOP.

BY ORDER OF THE COMMANDER:

Frank L. Wrigglesworth

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

DISTRIBUTION:
69th BS _____ 70 cys
70th BS _____ 70 cys
75th BS _____ 70 cys
42nd BW Stand Board 30 cys

2 of 13

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Fuel Sequencing for "Quick Kick Bravo"

1st Method (Variation of Normal)

1.	8% MAINS		
2.	DROPS (1000 lbs ea) #1	to	MAINS 1,2,3,4
3.	AFT (even with Fwd)	to	MAINS 1,2,3,4
4.	FWD	to	MAINS 3 and 4
	AFT (empty FWD and AFT)	to	MAINS 1 and 2
5.	MID	to	MAINS 1,2,3,4
6.	OUT'B	to	MAINS 1 and 4
	C.W. (empty C.W.)	to	MAINS 2 and 3
7.	C.W. (empty C.W.)	to	MAINS 2 and 3
	DROPS (leave 14,000 lbs ea drop) #2	to	MAINS 1 and 4
8.	MAINS (down to approx 52,000 lbs)		

NOTES:

#1. Do not use more than 1000 lbs from each drop tank as noted in step #2; otherwise aircraft will be subject to flutter limitation of 260 IASK. This step is to provide in-flight operational test of drop tanks.

#2. 14,000 lbs in each drop, in step 7, prepares the aircraft for a 428,000 gross weight condition after IFR. This step is recommended in case drop tank IFR rates are found to be low.

3. Step 9 may be added, in which MAINS could be pumped to approx 33,000 lbs without exceeding aft C.G. limits.

CONFIDENTIAL

Inclosure 1
W-10015-

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Fuel Sequencing for "Quick Kick Bravo"

2nd Method (Variation of Alternate)

1.	8% MAINS		
2.	DROPS (4500 lbs ea) *1	to	MAINS 1 and 4
	C.W. (9000 lbs)	to	MAINS 2 and 3
3.	CUT'B (6250 lbs ea)	to	MAINS 1 and 4
	MID BODY (12,500 lbs)	to	MAINS 2 and 3
4.	CUT'B (empty out'b) *2	to	MAINS 1 and 4
	C.W. (empty C.W.)	to	MAINS 2 and 3
5.	FWD (empty FWD)	to	MAINS 3 and 4
	AFT (same quantity as FWD)	to	MAINS 1 and 2
6.	AFT (empty aft)	to	MAINS 1,2
	MID (same quantity as aft	to	MAINS 3,4
7.	MID (empty mid)	to	MAINS 1,2,3,4
8.	MAINS (seum to approx 52,000 lbs.)		

NOTES:

*1. Leave 14,000 lbs in each drop, after step 7, to prepare the aircraft for a 428,000 lbs gross weight condition after IFR at Okinawa. This step is recommended in case drop tank IFR rates are found to be low.

*2. 280 IASK speed restriction thru step 4.

3. Step 9 may be added, in which MAINS could be pumped to approx 33,000 lbs without exceeding aft C.G. limits.

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Enclosure 2
W-11015

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Calibration of B-52 Fuel Tank Gages

Chief of Maintenance 42DO 21 Dec 56
THRU: 42DM

1. It is requested that a calibration of fuel tank gages be performed on the aircraft assigned to participate in mission "Quick Kick, Bravo".

2. In addition to the in-flight importance of this activity, accurate and reliable post flight analysis of the aircraft's performance (in relation to charted data) is basically derived by the pilot's logged "fuel remaining".

3. This DF confirms conversation between Major Newman, Wing Staff APE, and Mr. Wood, Avion Technical Representative.

DON W. BAILEY
Colonel, USAF
Director of Operations

Enclosure 3

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DO

SUBJECT: Individual Check-out on In-Flight Alternator Lubrication, B-52

TO: See Distribution

1. On 17, 18, 19 and 20 December 1956, Boeing Technical Representatives conducted an orientation on the subject of in-flight alternator lubrication for AC, P, and gunners who are to be utilized on "Quick Kick, Bravo."

2. To assure that proper alternator lubrication can be actually accomplished by designated personnel, it is requested that the following crew members individually perform the required alternator lubrication within the squadron maintenance section:

60th Bomb Squadron

Pilots (Lubricate FWD alts.)	ECM and Gunner (Lubricate Aft Alts.)

70th Bomb Squadron

Pilots (Lubricate FWD Alt.)	ECM and Gunners (Lubricate Aft Alts.)

75th Bomb Squadron

Pilots (Lubricate FWD Alts.)	ECM and Gunner (Lubricate AFT Alts.)

3. Suggested procedure:

a. When an organizational aircraft requires an alternator lubrication, the squadron maintenance section will notify an appointed project officer within the squadron operations section.

b. Project officer will direct the affected crew member (pilot-fwd alternators, ECM and Gunner-aft alternators) to proceed to the aircraft and accomplish all the details involved in changing alternator grease cups, under the direction of the crew chief.

Enclosure 4

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c. Project officer will check that crew member has actually performed the lubrication function and notify the Squadron Operations Officer when all individuals have completed this requirement.

4. Previous communications on this subject may not have been sufficiently specific in requiring the training of those crew members who will actually perform the in-flight lubrication function. Training emphasis will be placed on the above designated crewmen; others (AC's and IP's) may be trained at their convenience if they deem necessary.

BY ORDER OF THE COMMANDER:

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

DISTRIBUTION:
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70BSC
75BSC

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PAGE 1 OF 2 PAGES

ENGINEER'S FLIGHT PLAN

DATE OF MISSION: FEB 1956 | TYPE(S) OF MISSION: COUNTRY CLUB #1

WING: 42D B.W. | SQUADRON: 42D ARFES | AIRCRAFT: TYPE-MODEL-SERIES: KC-97G | COMPLETE SERIAL NO.: ALL

FIRST ENGINEER (Name & Grade) | SECOND ENGINEER (Name and Grade)

1. WEIGHT COMPUTATIONS

a. ACFT BASIC WT	90000
b. OIL, ENG (On Hd)	635
c. OIL, JET	
d. CREW 10 @ 350	3500
e. AMMO (50%)	
f. CARGO	1000
g. MISC	300
h. FUEL RESERVE	6990
i. MIN LANDING WT	102425
j. OFF-LOAD FUEL	25000
k. AMMO (50%)	
l. BOMBS	
m. CHAFF	
n. OIL USED	635
o. FUEL EXPENDABLE	26940
p. TAKE-OFF GROSS WT	155060

FUEL DATA: a. DENSITY (Lbs) 6.43 per Gal; b. TOTAL LOAD (Lbs) 33930; c. REQUIRED (Lbs) 26940; d. RESERVE (Lbs) 6990 NO WIND; e. OFF-LOAD (Lbs) 25000 NO WIND

2. TAKE-OFF DATA

3. REMARKS
1. START ENG. 1:60 BEFORE T.O.
2. TEMP 6° COLDER THAN NACA
3. F/E 47% OF CHARTED.
4. FUEL RESERVES BASED ON TIME AT CUT ENGINES.
5. ASTERISK (*) IN R.H. MARGIN & OVER THULE

A CONDITION / ALT	B Hp / OAT / VT	C BHP / RPM / ENG F.F	D TOTAL FUEL FLOW	NO WIND PLAN E Δ TIME TOTAL	F Δ FUEL USED TOTAL USED	G GROSS WEIGHT	H EAS Vt (K) / GS	I AIR DIST TOTAL	WIND PLAN J Δ TIME TOTAL	K Δ FUEL USED TOTAL USED	L GND DIST TOTAL
1. RTTO	100 / 3500 / 2700	720°/15 MIN 23.5 MIN		(100) + 1920	- 1920				(1:00) + 1920		
	- 4			:03	1920	153080			:03	1920	
2. CL"1	12340 / 2650		AR	:30 + 3750	- 3750		167 / 198	99	:30 + 3750		88
	- 5 / 2550										
	1.1879 / 1875		7500	:33	5670	149330	176	99	:33	5670	88
3. ORBIT CR"1	17000 / 2625			:15 + 920	- 920		182 / 234	59	:15 + 920		-
	-25 / 2340		AL								
	1.2879 / 920		3680	:48	6540	148410	212	158	:48	6590	-
4. RENDZ CR"2	17000 / 2625			:15 + 920	- 920		182 / 234	64	:18 + 1105		64
	-25 / 2340		AL								
	1.2879 / 920		3680	1:03	7510	147490	212	222	1:06	7695	152
5. REFUEL CR"3	17000 / 2660			:38 + 4750	- 4750		205 / 264	166	:41 + 5120		166
	-25 / 2550		AR								
	1.2879 / 1875		7500	1:41	12260	142740	242	388	1:47	12815	318
6.	OFF LOAD		(INCLUDE OIL)			-25635					
			- 635 LBS			117105					
7. DS #1	15500 / 785			:06 + 200	- 200		170 / 219	21	:06 + 200		21
	-22 / 1900		AL								
	1.2546 / 500		2000	1:47	12460	116905	191	409	1:53	13015	339
8. CR"4	14000 / 1380			:47 + 1950	- 1950		167 / 204	161	:53 + 2160		167
	-19 / 1900		AL								
	1.2245 / 620		2440	2:34	14410	114955	182	570	2:46	15175	500
9. CR"5	14000 / 1350			1:04 + 2580	- 2580		167 / 204	217	1:12 + 2900		217
	-19 / 1900		AL								
	1.2245 / 605		2420	3:38	16990	112375	182	787	3:58	18075	717
10. CR"6	14000 / 1330			:51 + 2020	- 2020		166 / 203	172	:57 + 2260		172
	-19 / 1900		AL								
	1.2245 / 595		2380	4:29	19010	110355	181	959	4:55	20335	889 *
11. CR"7	14000 / 1300			:45 + 1740	- 1740		165 / 202	152	:51 + 1970		152
	-19 / 1900		AL								
	1.2245 / 580		2320	5:14	20750	108615	180	1111	5:46	22305	1041
12. CR"8	14000 / 1260			:47 + 1750	- 1750		163 / 199	155	:53 + 1980		155
	-19 / 1900		AL								
	1.2245 / 560		2240	6:01	22500	106865	177	1266	6:39	24285	1196
13. CR"9	14000 / 1270			1:29 + 3240	- 3240		167 / 198	295	2:04 + 4510		363
	-19 / 1900		AL								
	1.2245 / 545		2180	7:30	25740	103625	176	1559	8:43	28795	1559
14. DS #2	7500 / 795			:15 + 450	- 450		170 / 188	47	:15 + 450		
	-6 / 1900		AL								
	1.1073 / 450		1800	7:45	26190	103175	186	1606	8:58	29245	1559

70214S

SAC FORM 316 (15 MAY 56) REPLACES SAC FORM 88-14, 1 AUG 51, WHICH IS OBSOLETE. Air Force-SAC, Offset O-123836

INCL #7 ANNEX A LIZ OPORD 214-56 W-0733

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PAGE 2 OF 2 PAGES
COUNTRY CLUB #1

A	B	C	D	E	F	G	H	I	J	K	L
				NO WIND PLAN					WIND PLAN		
CONDITION J AT %	H_p OAT $\sqrt{\theta}$	BHP RPM ENG F/F	TOTAL FUEL FLOW	Δ TIME TOTAL	Δ FUEL USED TOTAL USED	GROSS WEIGHT	EAS V_T (K) GS	AIR DIST TOTAL	Δ TIME TOTAL	Δ FUEL USED TOTAL USED	GND DIST TOTAL
15.			R		+	-				+	
			J								
			T	7:45	26190	103175		1606	8:55	29245	1559
16.	3000/100		R	:10	+ 500	- 500			10	+ 500	
LD	-5	2350	J 150#/MIN								
			T	7:55	26690	102675		1606	9:08	29745	1559
17.	100		R	:10	+ 250	- 250			:10	+ 250	
RET	-4		J 125#/MIN								
			T	8:05	26440	102425			9:18	29995	1559
18.			R		+	-				+	
			J								
			T								
19.			R		+	-				+	
			J								
			T								
20.			R		+	-				+	
			J								
			T								
21.			R		+	-				+	
			J								
			T								
22.			R		+	-				+	
			J								
			T								
23.			R		+	-				+	
			J								
			T								
24.			R		+	-				+	
			J								
			T								
25.			R		+	-				+	
			J								
			T								
26.			R		+	-				+	
			J								
			T								
27.			R		+	-				+	
			J								
			T								
28.			R		+	-				+	
			J								
			T								
29.			R		+	-				+	
			J								
			T								
30.			R		+	-				+	
			J								
			T								
31.			R		+	-				+	
			J								
			T								
32.			R		+	-				+	
			J								
			T								
33.			R		+	-				+	
			J								
			T								
34.			R		+	-				+	
			J								
			T								
35.			R		+	-				+	
			J								
			T								
36.			R		+	-				+	
			J								
			T								

INCL #7 ANNEX A LIZ OPORD 214-56 W-07335

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PAGE 1 OF 2 PAGES.

ENGINEER'S FLIGHT PLAN

DATE OF MISSION: FEB 1956 | TYPE(S) OF MISSION: COUNTRY CLUB #1 (ALT)

WING: 42D B.W. | SQUADRON: 420 AFRES | AIRCRAFT: TYPE-MODEL-SERIES: KC-97G | COMPLETE SERIAL NO.: ALL

FIRST ENGINEER (Name and Grade) | SECOND ENGINEER (Name and Grade)

1. WEIGHT COMPUTATIONS

a. ACFT BASIC WT	90000
b. OIL, ENG (70 Lbs)	635
c. OIL, JET	
d. CREW 100 @ 350	3500
e. AMMO (30%)	
f. CARGO	10000
g. MISC	300
h. FUEL RESERVE	6510
i. ACM LANDING WT	101445
j. OFF-LOAD FUEL	25000
k. AMMO (50%)	
l. BOMBS	
m. CHAFF	
n. OIL USED	635
o. FUEL EXPENDABLE	74420
p. TAKE-OFF GROSS WT	155000

FUEL DATA

a. DENSITY (Lbs): 6.8 per Gal

b. TOTAL LOAD (Lbs): 33930

c. REQUIRED (Lbs): 27470

d. RESERVE (Lbs): 6510 — NO CHANGE

e. OFF-LOAD (Lbs): 25000 — NO CHANGE

3. TAKE-OFF DATA

4. REMARKS: 1. START ENGS 1:00 BEFORE T.O.
2. TEMP 6° COLDER THAN NACA
3. F/F 97% OF CHARTED.
4. FUEL RESERVE BASED ON TIME AT CUT ENGS.
5. ASTERISK (*) IN ΔH MARGIN = OVER THRE.

	A CONDITION	B Hp / OAT / V	C BHP / RPM / ENG F/F	D TOTAL FUEL FLOW	NO WIND PLAN E Δ TIME / TOTAL	F Δ FUEL USED / TOTAL USED	G GROSS WEIGHT	H EAS Vi (K) / GS	I AIR DIST TOTAL	WIND PLAN J Δ TIME / TOTAL	K Δ FUEL USED / TOTAL USED	L GND DIST TOTAL
1.	RTTO	100 / -1	3500 / 2700	R 720/115 T 25#/MIN	(1:00)	* 1920	- 1920			(1:00)	* 1920	
					:03	1920	153080			:03	1920	
2.	Ce #1	120 / -1	2150 / 2550	R AR	:30	* 3750	- 3750	167 / 188	99	:30	* 3750	88
		1.18	1875	T 7500	:33	5670	149330	176	99	:33	5670	88
3.	Ce #1	17000 / -25	2025 / 2340	R AL	:38	* 2330	- 2330	182 / 234	147	:45	* 2760	158
		1.2879	920	T 3680	1:11	8000	147000	212	246	1:18	8430	246
	DESERT Ce #2	17000 / -25	2025 / 2340	R AL	:15	* 920	- 920	182 / 234	59	:15	* 920	—
		1.2879	920	T 3680	1:26	8970	146080	212	305	1:33	9350	246
4.	CLOUDE Ce #3	17000 / -25	2025 / 2310	R AL	:15	* 920	- 920	182 / 234	64	118	* 1105	64
		1.2879	920	T 3680	1:41	9840	145160	213	369	1:57	10455	310
	DEFUEL Ce #4	17000 / -25	2650 / 2550	R AR	:38	* 4750	- 4750	205 / 264	166	:41	* 5120	166
		1.2879	1875	T 7500	2:19	14590	140410	242	535	2:32	15575	476
5.		OFF LOAD		R (INCLUDE OIL 635 LBS) T			-25635 / 114775				+	
6.	DS #1	15500 / -22	995 / 1900	R AL	:06	* 200	- 200	170 / 213	21	:06	* 200	19
		1.2546	500	T 2000	2:25	14790	114575	191	556	2:38	15775	495
7.	Ce #5	14000 / -18	1360 / 1900	R AL	:57	* 2300	- 2300	167 / 204	189	1:03	* 2540	191
		1.2245	605	T 2420	3:22	17090	112275	182	745	3:41	18295	686
8.	Ce #6	14000 / -18	1330 / 1900	R AL	:51	* 2020	- 2020	166 / 203	172	:57	* 2250	172
		1.2245	590	T 2360	4:13	19110	110255	181	917	4:38	20545	858
9.	Ce #7	14000 / -18	1300 / 1900	AL	1:32	* 3560	- 3560	165 / 202	307	1:42	* 3950	307
		1.2245	580	2320	5:45	22670	106695	180	1224	6:20	24495	1165
10.	Ce #8	14000 / -18	1285 / 1900	AL	1:31	* 3500	- 3500	164 / 201	304	2:02	* 4690	363
		1.2245	575	T 2300	7:16	26170	103195	179	1528	8:22	29185	1528
11.	DS #2	7500 / -6	995 / 1900	R AL	:15	* 500	- 500	170 / 188	47	:15	* 500	—
		1.1073	500	T 2000	7:31	26670	102695	166	1575	8:37	29685	—
12.	LD	Zero/20 / -5	2950	R 50#/MIN T	:10	* 500	- 500			:10	* 500	—
					7:41	27170	102195		1575	8:47	30185	1528

BAC FORM 316 10 MAY 54 REPLACES BAC FORM 60-16, 1 AUG 51, WHICH IS OBSOLETE.

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INCL #8 ANNEX A HQ OPORD 214-56 W-07335

Enclosure 6

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PAGE 2 OF 2 PAGES

COUNTRY CLUB #1 (ALT)

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A	B	C	D	E	F	G	H	I	J	K	L
CONDITION	H_p	BHP	TOTAL FUEL FLOW	WIND PLAN: Δ TIME	WIND PLAN: Δ FUEL USED	WIND PLAN: GROSS WEIGHT	KAS $V_{T(K)}$	AIR DIST	WIND PLAN: Δ TIME	WIND PLAN: Δ FUEL USED	GND DIST
ALT'S	OAT	RPM		TOTAL	TOTAL USED		GS	TOTAL	TOTAL	TOTAL USED	TOTAL
15.			R		+	-				+	
			J								
			T	7:41	27170	102495		1575	8:47	30185	1528
16. RET	100 -4		R	:10	+ 250	- 250			:10	+ 250	
			75#/MIN								
			T	7:51	27420	101945		1575	8:57	30435	1528
17.			R		+	-				+	
			J								
			T								
18.			R		+	-				+	
			J								
			T								
19.			R		+	-				+	
			J								
			T								
20.			R		+	-				+	
			J								
			T								
21.			R		+	-				+	
			J								
			T								
22.			R		+	-				+	
			J								
			T								
23.			R		+	-				+	
			J								
			T								
24.			R		+	-				+	
			J								
			T								
25.			R		+	-				+	
			J								
			T								
26.			R		+	-				+	
			J								
			T								
27.			R		+	-				+	
			J								
			T								
28.			R		+	-				+	
			J								
			T								
29.			R		+	-				+	
			J								
			T								
30.			R		+	-				+	
			J								
			T								
31.			R		+	-				+	
			J								
			T								
32.			R		+	-				+	
			J								
			T								
33.			R		+	-				+	
			J								
			T								
34.			R		+	-				+	
			J								
			T								
35.			R		+	-				+	
			J								
			T								
36.			R		SECRET					+	
			J								
			T								

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ENGINEER'S FLIGHT PLAN

DATE OF MISSION: FEB 1956 | TYPE(S) OF MISSION: COUNTRY CLUB #2

WING: 42D BW | SQUADRON: 42D ARFES | AIRCRAFT: TYPE-MODEL-SERIES: KC97G | COMPLETE SERIAL NO.: ALL

FIRST ENGINEER (Name and Grade) | SECOND ENGINEER (Name and Grade)

1. WEIGHT COMPUTATIONS

a. ACFT BASIC WT	90000
b. OIL, ENG (On Leg)	635
c. OIL, JET	
d. CREW 10 @ 350	3500
e. AMMO (50%)	
f. CARGO	10000
g. MISC	300
h. FUEL RESERVE	5965
i. MEN LANDING WT	101400
j. OFF-LOAD FUEL	32345
k. AMMO (50%)	
l. BOMBS	
m. CHAFF	
n. OIL USED	635
o. FUEL EXPENDABLE	206220
p. TAKE-OFF GROSS WT	155000

a. DENSITY (Lbs): 6.49 per Gal

b. TOTAL LOAD (Lbs): 26585

c. REQUIRED (Lbs): 20620

d. RESERVE (Lbs): 5965 — NO WIND

e. OFF-LOAD (Lbs): 32345 — NO WIND

2. TAKE-OFF DATA

4. REMARKS

1. START ENGS. 1:00 BEFORE T.O.
2. TEMP 6° COLDER THAN NACA
3. F/E 97% OF CHARTED.
4. FUEL RESERVES BASED ON TIME AT OUT ENGS.

A CONDITION / ALT	B Hp / OAT / IAS	C BNP / RPM / ENG F/F	D TOTAL FUEL FLOW	NO WIND PLAN E Δ TIME / TOTAL	F Δ FUEL USED / TOTAL USED	G GROSS WEIGHT	H EAS Vt (K) / GS	I AIR DIST / TOTAL	WIND PLAN J Δ TIME / TOTAL	K Δ FUEL USED / TOTAL USED	L GND DIST / TOTAL
1. RTTO	100	3800 R	730 @ 15	(1:00)+	1920 -	1920			1:00 +	1920	
	-4	2700 T	75 #/MIN	:03	1920	153080			:03	1920	
2. CL #1	12041	2650 R	AR	:30 +	3750 -	3750	167 198	49	:30 +	3750	88
	-15	2550 T	7500	:33	5670	149330	176	99	:33	5670	88
3. DRIFT CL #1	17000	2025 R	AL	:15 +	920 -	920	182 234	57	:15 +	920	-
	-25	2340 T	3680	:48	6590	148410	212	158	:48	6570	-
4. LANDE CL #2	17000	2025 R	AL	:15 +	920 -	920	182 236	64	:18 +	1105	64
	1.2879	920 T	3680	1:03	7510	147490	212	222	1:06	7695	152
5. DENVER CL #3	17000	2650 R	AR	:38 +	4750 -	4750	205 264	166	:41 +	5120	166
	-25	2550 T	7500	1:41	12760	142740	242	388	1:47	12875	318
6.	OFF LOAD		R (INCLUDE OIL)	635 LBS		-32975				+	
			T			109765					
7. DS #1	15500	995 R	AL	:06 +	200 -	200		21	:06 +	200	19
	-22	1900 T	2000	1:47	12460	109565		409	1:53	13015	337
8. CR #4	14000	R	AL	1:04 +	2350 -	2350	161 197	207	1:11 +	2600	207
	-19			2:51	14810	107215	175	616	3:04	15615	544
9. CR #5	14000	1200 R	AL	1:20 +	2850 -	2850	160 196	260	1:30 +	3200	260
	-19	1900 T	2140	4:11	17660	104360	174	876	4:34	18815	804
10. CR #6	14000	1160 R	AL	:50 +	1760 -	1760	158 193	159	1:22 +	2880	231
	-19	1900 T	2100	5:01	19420	102600	171	1035	5:56	21695	1035
11. DS #2	7500	995 R	AL	:15 +	450 -	450			:15 +	450	
	-6	1900 T	1800	5:16	19870	102150			6:11	22145	
12. LD	3000	R	50 #/MIN	:10 +	500 -	500			:10 +	500	
	-5	2350 T		5:26	20370	101650			6:21	22645	
13. RET	100	R	35 #/MIN	:10 +	250 -	250			:10 +	250	
	-4	T		5:36	20620	101400			6:31	22895	
14.		R		+	-					+	
		T									

SAC FORM 316 REPLACES SAC FORM 69-14, 1 AUG 51, WHICH IS OBSOLETE.

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INCL #9 ANNEX A HQ OPORD 214-56 W-07855

Incl Figure 7

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ENGINEER'S FLIGHT PLAN

DATE OF MISSION: FEB 1956 | TYPE(S) OF MISSION: COUNTRY CLUB # 2 (ALT.)

WING: 42D BW | SQUADRON: 42D AREFS | AIRCRAFT — TYPE-MODEL-SERIES: KC-97G | COMPLETE SERIAL NO.: ALL

FIRST ENGINEER (Name and Grade) | SECOND ENGINEER (Name and Grade)

1. WEIGHT COMPUTATIONS

a. ACFT BASIC WT	90000
b. OIL, ENG (On Leg)	635
c. OIL, JET	
d. CREW 10 @ 350	3500
e. AMMO (50 %)	
f. CARGO	1000
g. MISC	300
h. FUEL RESERVE	6000
i. MEN LANDING WT	101435
j. OFF-LOAD FUEL	28285
k. AMMO (50 %)	
l. BOMBS	
m. CHAFF	
n. OIL USED	
o. FUEL EXPENDABLE	252280
p. TAKE-OFF GROSS WT	155000

FUEL DATA

a. DENSITY (Lbs): 6.8 per Gal
b. TOTAL LOAD (Lbs): 31280
c. REQUIRED (Lbs): 25280
d. RESERVE (Lbs): 6000 — No Wind
e. OFF-LOAD (Lbs): 27650 — No Wind

2. TAKE-OFF DATA

3. REMARKS

1. START ENGS 1:00 BEFORE T.O.
2. TEMP 6° COLDER THAN NACA.
3. F/E 97% OF CHARTED.
4. FUEL RESERVE BASED ON TIME AT CUT ENGS.
5. ASTERISK (*) IN RH MARGIN = OVER FRONISHER.

A	B	C	D	NO WIND PLAN E	F	G	H	I	WIND PLAN J	K	L
CONDITION / AT $	°C / OAT / VT	BHP / RPM / ENG F/F	TOTAL FUEL FLOW	Δ TIME / TOTAL	Δ FUEL USED / TOTAL USED	GROSS WEIGHT	EAS Vt (K) / GS	AIR DIST / TOTAL	Δ TIME / TOTAL	Δ FUEL USED / TOTAL USED	GND DIST / TOTAL
1. RTTO	100	3500 R		(1:00)	+ 1920	- 1920		—	(1:00)	+ 1920	—
	-4	2700		:03	1920	153080		—	:03	1920	—
		← T									
2. CL #1	12040	2650 R	AR	:30	+ 3750	- 3750	167 / 168	49	:30	+ 3750	81
	-15	2550		:33	5670	149330	176	99	:33	5670	88
	1.1879	1875 T	7500								
3. CR #1	17000	2025 R	AL	:38	+ 2380	- 2380	182 / 234	147	:45	+ 2760	158
	-25	2340		1:11	8000	147000	212	246	1:18	8430	246
	1.2879	920 T	3680								
4. CR #2	17000	2025 R	AL	:15	+ 920	- 920	182 / 234	59	:15	+ 920	—
	-25	2340		1:26	8920	146080	212	305	1:33	9350	246
	1.2879	920 T	3680								
5. CR #3	17000	2025 R	AL	:15	+ 920	- 920	182 / 234	64	:18	+ 1105	64
	-25	2340		1:41	9840	145160	212	369	1:51	10455	310
	1.2879	920 T	3680								
6. CR #4	17000	2650 R	AR	:38	+ 4750	- 4750	205 / 264	166	:41	+ 5120	166
	-25	2550		2:19	14590	140410	242	535	2:32	15575	476
	1.2879	1875 T	7500								
7.		R				-28285				+	
	OFF LOAD (INCLUDE 635 LBS OIL)					112125					
8. DS #1	15500	995 R	AL	:06	+ 200	- 200	170 / 215	21	:06	+ 200	19
	-22	1900		2:25	14790	111925	191	556	2:38	15775	495
	1.2546	500 T	2000								
9. CR #5	14000	1280 R	AL	1:00	+ 2280	- 2280	163 / 200	200	1:07	+ 2540	200
	-19	1900		3:25	17070	109645	177	756	3:45	18315	695
	1.2245	570 T	2280								
10. CR #6	14000	1280 R	AL	1:05	2360	- 2360	162 / 198	207	1:12	+ 2640	207
	-19	1900		4:30	19430	107285	176	963	4:57	20925	902
	1.2245	545 T	2180								
11. CR #7	14000	1280 R	AL	1:17	+ 2650	- 2650	160 / 196	250	1:26	+ 3060	249
	-19	1900		5:47	22080	104635	179	1213	6:23	23985	1151
	1.2245	535 T	2140								
12. CR #8	14000	1165 R	AL	:56	+ 1950	- 1950	159 / 185	180	1:25	+ 2940	242
	-19	1900		6:43	24030	102685	173	1393	7:48	26925	1393
	1.2245	520 T	2080								
13. DS #2	2500	995 R	AL	:15	+ 500	- 500	110 / 188	47	:15	+ 500	
	-6	1900		6:58	24530	102185	166	1440	8:03	27425	
	1.1075	500 T	2000								
14. LD	3000	R	50° MIN	:10	+ 500	- 500			:10	+ 500	
	-6	2350		7:08	25030	101685			8:13	27925	

SAC FORM 314 REPLACES SAC FORM 60-14, 1 AUG 51, WHICH IS OBSOLETE.

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INCL #10 ANNEX A LTR ORORD 214-56 W07335

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PAGE 2 OF 2 PAGES
COUNTRY CLUB #2 (ALT)

A CONDITION J AT %	B H_p OAT $\sqrt{\theta}$	C BHP RPM ENG F/F	D TOTAL FUEL FLOW	NO WIND PLAN E Δ TIME TOTAL	F Δ FUEL USED TOTAL USED	G GROSS WEIGHT	H EAS V_T (K) GS	I AIR DIST TOTAL	WIND PLAN J Δ TIME TOTAL	K Δ FUEL USED TOTAL USED	L GND DIST TOTAL
15.			R		+	-				+	
			J								
			T	7:08	24535	94035			8:16	27880	
16. RET	100		R 25#/MIN	:10	+ 250	- 250			:10	+ 250	
	-4		J								
			T	7:18	24785	93785			8:26	27630	
17.			R		+	-				+	
			J								
			T								
18.			R		+	-				+	
			J								
			T								
19.			R		+	-				+	
			J								
			T								
20.			R		+	-				+	
			J								
			T								
21.			R		+	-				+	
			J								
			T								
22.			R		+	-				+	
			J								
			T								
23.			R		+	-				+	
			J								
			T								
24.			R		+	-				+	
			J								
			T								
25.			R		+	-				+	
			J								
			T								
26.			R		+	-				+	
			J								
			T								
27.			R		+	-				+	
			J								
			T								
28.			R		+	-				+	
			J								
			T								
29.			R		+	-				+	
			J								
			T								
30.			R		+	-				+	
			J								
			T								
31.			R		+	-				+	
			J								
			T								
32.			R		+	-				+	
			J								
			T								
33.			R		+	-				+	
			J								
			T								
34.			R		+	-				+	
			J								
			T								
35.			R		+	-				+	
			J								
			T								
36.			R		+	-				+	
			J								
			T								

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INCL #10 ANNEXALIZ OPORD 214-56 W 07335

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base
Maine

42XOT4

13 DEC 1956

SUBJECT: Revision of DD Form 365F, For Tactical Aircraft

TO: Commander
Eighth Air Force
ATTN: Directorate of Operations
Westover Air Force Base
Massachusetts

1. It is the opinion of this organization that the present format of DD Form 365F, Tactical version, revised 1 September 1954, is inadequate for current jet bombardment needs.

2. Specific complaints registered against the current Form F, by B-52 pilot personnel are:

a. Excessive space allocated under Reference 3, "Distribution of Load" (compartment loading of crew, baggage, cargo, etc.) This section can be decreased by five spaces, in consideration of the actual number of compartments loaded on current jet aircraft.

b. Excessive space allocated under Reference 5, "Ammunition". This section can be reduced by two spaces, at least. Of the three spaces remaining, one can be utilized to record the ammo loading of the tail turret on current jet bombardment aircraft and another space can be utilized to record the chaff loading.

c. Insufficient space allocated under Reference 7, "Fuel" to record, in detail, the distribution of fuel aboard. Because of the large number of fuel cells contained in current jet aircraft and their widely dispersed locations, accurate record of individual tank fuel content and its effect on the center of gravity must be subject to careful computation. With the present Form F, the record of fuel loading must be pasted in the "Remarks" section. With the space saved by decreasing the number of line entries in References 3 and 5, Reference 7 can be expanded to an eleven line section, which will permit recording of the fuel loading in detail.

d. Reference II "Corrections" on the present Form F requires detailed listing of items to be added and deducted prior to take-off. Of the 13 lines contained in the correction section, on the left hand side of the present Form F, personnel of this organization very seldom use more than three for listing items which will correct the static loaded condition to a corrected take-off condition.

Enclosure 4

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42DOT4, 45 AD, Subj: Revision of DD Form 365F, For Tactical Aircraft

If the static loaded condition requires adjustment by more than four or five such corrections, pilot personnel of this organization consider it a more safe procedure to re-examine the complete loading problem and compute a new Form F. With this direct approach in mind, it is recommended that a five line section for listing corrections to the static condition, be incorporated on the right hand side of the Form F. These few adjustments can be handled mentally in most cases (regarding affect on take-off gross weight) and the index effect can be posted as a continuation of the running index, as listed under the column headed "Index or Moment".

e. Reference 14 "Less Expendables". This section on the present Form F requires a subtraction procedure regarding weight or index of items used during flight to arrive at the landing condition; subtraction is made from the final take-off gross weight. It is suggested that the section be moved to the left hand side of the form and that the method of computing landing gross weight be completely reversed. Since the items comprising the operating weight and index, Reference 4, remain constant throughout flight, they can be considered as the basis for computing the landing condition. Pilot personnel of this organization consider it a more direct procedure (as they have been taught at Castle AFB) to add the unused expendables to the operating weight and index and proceed in a forward manner in adding weight of items and computing index with the load adjusters. This method will be recognized as being in direct contrast to the present method of subtracting weight of items and working the load adjuster backwards.

3. This organization submits a proposed revision of the current DD Form 365F, as inclosure 1 and requests permission to conduct local evaluation of this proposed format for a period of 60 days, or as deemed necessary by your Headquarters.

4. If this proposal is approved, the revised Form F will be reproduced locally and appropriate instructions regarding its accomplishment will be disseminated to our tactical organizations. If this proposal is successful locally, this organization will expect to forward to your Headquarters suggestions for revision paragraph 3-18, Technical Order 1-1B-40, dated 1 September 1954.

FOR THE COMMANDER:

1 Incl
42D Bomb Wing revision
of DD Form 365F.

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WEIGHT AND BALANCE FORM F
TACTICAL
(USE REVERSE FOR TRANSPORT MISSIONS)

FOR USE IN T.O. 1-1B-40 & A.N. 01-1B-40

DATE	AIRPLANE TYPE	FROM	HOME STATION
MISSION / TRIP / FLIGHT NO.	SERIAL NO.	TO	PILOT

REMARKS

REF	ITEM	WEIGHT	INDEX OR MOM.
1.	BASIC AIRPLANE (From chart C)		
2	OIL (Gal.)		
3.	COMPARTMENT LOADING		

COMPT.	CREW NO.	CREW WEIGHT	BAGGAGE	CARGO & MISC.

4	OPERATING WEIGHT			
5	COMPT	QUANTITY	CAL. / SPEC.	
AMMO CHAFF				
6	FORWARD			
BOMBS ROCKETS	AFT			
	EXTERNAL			
	ROCKETS			
7	TANKS			
INITIAL FUEL LOAD				

Pertinent instructions to the pilot for shifting load and crew during take off and landing should be noted above.

METHOD OF COMPUTATION
(Computer plate no., moment tables)

14	OPERATING WT. (Ref. 4.)		8	WATER INJ. (Gal.)	
ADD UNUSED EXPENDABLES	JATO, RATO, WATER INJ.		9	JATO OR RATO	
	BOMB		10	STATIC CONDITION	
	AMMO		11	CORRECTIONS (If req'd)[2]	
	CHAFF			COMPT. / ITEM	
	FUEL		CHANGES (+ OR -)		
15	EST. LANDING COND.		12	TAKE-OFF CONDITION	
16	ESTIMATED LANDING C.G. % MAC OR IN.		13	TAKE-OFF C.G. % MAC OR IN.	

LIMITATIONS

LANDING			TAKE OFF		
GROSS WEIGHT LBS. [2]	PERMISSABLE C.G. [4] FROM	TO	GROSS WEIGHT LBS. [2]	PERMISSABLE C.G. [4] FROM	TO

1. Enter constant used.
2. Enter values from current applicable T.O.
3. Applicable to gross weight. (Ref. 12.)
4. Applicable to gross weight. (Ref. 15.)

COMPUTED BY (Signature)

WEIGHT AND BALANCE AUTHORITY (Signature)

PILOT (Signature)

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base
Maine

42DOT4 13 DEC 1958

SUBJECT: B-52 Flight Computers

TO: Commander
Eighth Air Force
ATTN: Director of Operations
Westover Air Force Base
Massachusetts

1. This headquarters has been informed that B-52 Flight Computers, which are being procured under contractural arrangements with a civilian manufacturer, will cost the Air Force approximately one hundred dollars ($100.00) each.

2. It is felt that this organization has been successful in locally fabricating this type of computer by utilizing the following procedures:

a. Obtain a complete set of computer data plates (4 plates) from the Boeing Aircraft Company. These excellent plates, serving as master copies, have been locally reproduced, using the xerox process, in sufficient quantity to assemble the required number of computers.

b. Obtain, through Base Supply, sufficient quantity of plastic (transparent sheet acrylate) to make transparent computer discs, and indicator fingers.

c. Coordinate, with Base Machine Shop, the fabrication of transparent discs, indicator fingers, and metal discs. Metal discs have been fabricated from rejected sheet dural.

d. Utilize the services of available personnel in assembling the component parts of the computers.

3. This organization estimates the material cost of seventy locally fabricated B-52 Flight Computers to be $135.71, or $1.94 per computer. The total material cost is detailed, as follows:

a. Paper, Bristol, White, 8½ x 10½ "card stock" S.N. 8700-476860-339 (500 sheets required) ---------- @3.00

Inclosure 10

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42EOT4, 45 AD, Subj: B-52 Flight Computers

b. Plastic, Sheet Transparent ---------- $120.96
Acrylate, .060" x 36" x 48"
S.N. 7000-775000
(7 sheets required)

c. Aluminum, Sheet Alclad, ---------- $ 16.10
.030" x 48" x 96"
S.N. 6800-141960
(approx 70 sq. ft. required

d. Screw-post binders, ---------- $ 0.65
brass
(70 required)
TOTAL MATERIAL COST $135.71

4. In view of the results obtained in this organization, the following suggestions are offered in the interest of expediting the units possession of computers and to promote economy in the Air Force:

a. The using organizations be furnished master data plates by the Boeing Aircraft Company and locally fabricate their initial requirement for B-52 Flight Computers.

b. In the event of subsequent revisions to the computer data, the Boeing Aircraft Company furnish the using organizations with new master plates reflecting the changes; then, the revised plates can be printed locally and the computers be brought up to date.

FOR THE COMMANDER:

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WING REGULATION)
NUMBER 55-4)

HEADQUARTERS 42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base, Maine
20 December 1956

OPERATIONS

Procedure for Ground Refueling B-52 Aircraft

(This regulation will supercede 42D Bomb Wing Regulation 55-4 dated 25 July 1956)

1. PURPOSE: To standardize B-52 fuel loading procedures and to prevent error in mission planning and computation of center of gravity for take-off.

2. SCOPE: The provisions of this regulation are applicable to personnel of the following organizations who may be utilized during (or concerned with) the ground refueling of B-52 aircraft:

a. Hq. Sq. 42D Bomb Wing
b. 69th Bomb Squadron
c. 70th Bomb Squadron
d. 75th Bomb Squadron
e. 42nd Periodic Maintenance Squadron
f. 42nd Field Maintenance Squadron

3. RESPONSIBILITY: It will be the responsibility of each squadron commander to insure compliance with the provisions of this regulation.

4. GENERAL:

a. Unsafe flight conditions may be created on B-52 aircraft by incorrect fuel loading procedures because of:

(1) Large number of fuel tanks.
(2) Diversified location of these tanks.
(3) Large fuel capacity of each tank.

b. For reasons stated above, preplanning of fuel loads and accurate checking (visual inspection and dip stick) of quantities aboard and in each tank are mandatory requirements to assure safety of flight.

c. Visual and dip stick checks of fuel loaded in individual tanks are necessary to confirm accuracy of gage indications. Fuel tank gage malfunction could result in error during the refueling process and create several unfavorable conditions:

(1) Overload or underload of fuel
(2) Unplanned fuel distribution tanks

Enclosure 11

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5. PROCEDURE:

a. The squadron or Wing Operations Officer will determine, as soon as possible, the required fuel load necessary to complete their planned accomplishments.

b. The heaviest fuel load closest to this requirement (barring runway restrictions) will be selected from inclosure #1 and given to the engineering office of the organization to which the aircraft belongs. The ground refueling/defueling Officer of the Day will initiate SAC Form 320A (inclosure #2) in duplicate. This information can be taken from the organizations refueling notebook, located in the engineering office. In the event of nonstandard load requirements, the using organization will determine the fuel distribution in the aircraft.

c. SAC Form 320A, along with the refueling notebook, will be carried to the aircraft at the time of refueling by the officer in charge of refueling for the day. Instructions for accomplishing the fuel loading section of the SAC Form 320A are contained in the detailed procedure and checklist inclosure #3.

d. The ground safety checks prior to refueling will be accomplished in accordance with instructions on the reverse side of SAC Form 320A. The ground refueling/defueling officer's signature on this form is his certification that all safety precautions have been observed prior to and during ground refueling.

e. The refueling operation will be accomplished in accordance with the detailed procedure and check list, "B-52 Ground Refueling Check List", inclosure #3.

f. At the completion of the refueling operation the two copies os SAC Form 320A will be completed by the officer in charge. One copy will go to engineering where it will be picked up by the crew chief and attached to AF Form 781 and forwarded to Maintenance Control. The second copy will go to squadron operations where the aircraft is assigned. There it will be checked by the Aircraft Performance Engineer and made available to the aircrews for mission planning.

g. The completed SAC Form 320A will be used by the crew members in preparing DD Form 365F (Form F). In no case should an attempt be made to estimate the actual condition, based on desired loadings, from inclosure #1. Operations copy of SAC Form 320A will be filed in tactical squadron operations for 15 days after which time they may be destroyed.

h. During pre-flight inspection the flight crew will recheck the fuel gages against SAC Form 320A, Column 3, "Actual Gage Reading, Lbs" to determine if redistribution of fuel has been made during maintenance of the aircraft.

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Wg Reg 55-4

i. Commanders of tactical squadrons will appoint officers, who will be responsible as Ground Refueling Officers in accordance with 42D Bomb Wing Regulation 55-6.

j. A copy of this Regulation will be a part of each:

(1) Tactical squadrons ground refueling/defueling notebook.

(2) B-52 officer crew member's book of SOP's.

k. A copy of this regulation will be given to each B-52 crew chief.

6. SUPPLY OF FORMS: SAC Form 320A may be obtained from Base Publications through Squadron Supply.

BY ORDER OF THE COMMANDER:

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

3 Incls
1. Standard Fuel Loads, B-52 G and D acft.
2. B-52 Fuel Loading, and Ground Safety Certificate. (SAC Form 320A)
3. Detailed "B-52 Ground Refueling Check List".

OFFICIAL

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

DISTRIBUTION:
69th BS- 150 cys (Crew B-52 Crew Mem & Crew Chief)
70th BS- 150 cys (" " " " " ")
75th BS- 150 cys (" " " " " ")
42DOS- 40 cys
42ADJ- 20 cys
COMDR 8AF 5 cys
BA 1 cy
1 ea sq & staff sec.

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STANDARD FUEL LOADS, B-52 C & D AIRCRAFT

150,000 Lbs *4			200,000 Lbs	
Dipstick Inches * 1	Fuel Load Lbs	Tanks	Fuel Load Lbs	Dipstick Inches *1
28.4	18500	L.H. Drop	18500	28.4
*2	5000	L.H. Out'B	F-15000	
	F-15000	# 1 Main	F-15000	
	F-17900	# 2 Main	F-17900	
24.9	18500* 3	Cen Wing	F-36560	
19.6	5300	Fwd Body #1	2150	8.7
21.7	5300	Fwd Body #2	2150	9.3
5.1	3300	Mid Body	22040	35.1
9.2	4800	Aft Body	4300	8.3
	F-17900	#3 Main	F-17900	
	F-15000	#4 Main	F-15000	
*2	5000	R.H. Out'B	F-15000	
28.4	18500	R.H. Drop	18500	28.4

210,000 Lbs			220,000 Lbs	
Dipstick Inches * 1	Fuel Load Lbs	Tanks	Fuel Load Lbs	Dipstick Inches *1
28.4	18500	L.H. Drop	18500	28.4
	F-15000	L.H. Out'B	F-15000	
	F-15000	#1 Main	F-15000	
	F-17900	#2 Main	F-17900	
	F-36560	Cen Wing	F-36560	
8.7	2150	Fwd Body #1	4500	17.1
9.3	2150	Fwd Body #2	4500	18.6
[illegible]	32040	Mid Body	F-32500	
8.3	4300	Aft Body	9140	16.8
	F-17900	#3 Main	F-17900	
	F-15000	#4 Main	F-15000	
	F-15000	R.H. Out'B	F-15000	
28.4	18500	R.H. Drop	18500	28.4

230,000 Lbs			257,600 Lbs	
Dipstick Inches *1	Fuel Load Lbs	Tanks	Fuel Load Lbs	Dipstick Inches *1
28.4	18500	L.H. Drop	18500	28.4
	F-15000	L.H. Drop	F-15000	
	F-15000	#1 Main	F-15000	
	F-17900	#2 Main	F-17900	
	F-36560	Cen Wing	F-36560	
25.0	7000	Fwd Body #1	F-15550	57.4
28.8	7000	Fwd Body #2	F-12950	58.0
	F-32500	Mid Body	F-32500	
25.8	14140	Aft Body	27240	49.2
	F-17900	#3 Main	F-17900	
	F-15000	#4 Main	F-15000	
	F-15000	R.H. Out'B	F-15000	
28.4	18500	R.H. Drop	18500	28.4

See Footnotes on the reverse side

Inclosure #1, 42d BW Reg 55-4, dated 20 Dec 56

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"F" = Full, shut-off by weight. Check filler neck visually for full condition.

Fuel load in external tanks has been decreased from 19,500 pounds to 18,500 pounds. This is to provide adequate expansion space in these tanks during winter operations, when cold fuel will be loaded and the aircraft subsequently moved to a warm hangar. Expansion difficulties with other tanks is not anticipated due to their having more empty space above the "full" levels. Also, more insulation from differential temperature affect is provided by the surrounding aircraft structure.

*1 Fuel density of 6.5 lbs/gal used to convert "Fuel Load, Lbs." to gallons for determining above "Dipstick-Inches" from dipstick tables, T.O. 1B-52B-2-5, revised 14 September 1956. Increase or decrease in actual fuel density will inversely change above "Dipstick - Inches" for fuel weights shown in partially filled tanks.

*2 Fill outboard, tanks to 770 gallons, as indicated by pit hydrantmeter. This quantity is too small for dipping.

*3 Of the 18,500 pounds initially loaded in the center wing tanks, it is estimated that 15,000 pounds will be transferred to MAINS 1, 2, 3, and 4 to replenish those tanks to the "full, shut-off by weight" level on completion of post dock engine trimming and miscellaneous engine trouble shooting. Therefore, the amount of fuel in the center wing prior to starting engines for the test flight should be approximately 3500 pounds.

*4 After the last flight, prior to periodic dock inspection, the aircraft will be serviced with a fuel load of 150,000 pounds. For reasons stated in *3 above, the total fuel load aboard immediately prior to that flight will be approximately 335,000 pounds.

Inclosure 1, 42D BW, Reg 55-4, dated 20 Dec 56

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AIRCRAFT NO_____ DATE:_____ TIME START_____ TIME COMPLETE_____

REFUELING OFFICER_____ FUEL DENSITY LBS GALS_____ UNIT 26267

Fuel Tank Dip Check Accomplished & Recorded by_____ RAMP PIT NUMBER_____

TANKS	Col 1 Gage Reading Prior to Service	Col 2 Required Fuel Distribution	Col 3 Actual Gage Reading Lbs	Col 4 Dip Stick Reading Inches	Col 5 Dipstick Reading Converted to Gals.	Col 6 Dipstick Reading Converted to Lbs.
LH DROP						
LH OUTBD						
#1 MAIN						
#2 MAIN						
CENTER WING						
FWD BODY						
#1 CELL						
#2 CELL						
MID BODY						
AFT BODY						
#3 MAIN						
#4 MAIN						
RH OUTBD						
RH DROP						
TOTAL						
TOTALIZER						

FUEL SERVICED (HYDRANT READING)_____ Gals

FUEL IN ACFT BEFORE REFUELING_____ Gals_____ LBS

MATHEMATICAL COMPUTATIONS AND REMARKS:

NOTES:

1. The Maximum Authorized Difference between individual Guage Reading in Col 3 and respective Fuel Dip Figures in Col. 5 is 500 lbs. When 500 lbs is exceeded the tank will be re-dipped to determine if the guage is defective.

2. If the Total Fuel Serviced in Gallons (Col. 3 - Col 1) does not agree within 3% of the refueling system meter, enter this fact in Col. 26, Part [illegible] of DD Form 250-1. Also notify the Base Petroleum Officer.

I Certify that Check List is complete and Fuel entries are correct.

_____
SIGNATURE BCIC

SAC Form 320A (Reproduced 42D BW per auth. SAC Reg 67-18 as amended)
Inclosure #2, 42D BW Reg 55-4, dated 20 Dec 56

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B-52 REFUELING OFFICER AIRCRAFT REFUELING AND DEFUELING CHECK LIST

ITEM NO	ITEM	CHECK
1.	Required equipment available - Headsets, Ground Cord and Fuel Dip Stick	
2.	Aircraft checked and brakes set.	
3.	Fire truck standing by for Refueling and Defueling Operations	
4.	All maintenance operation prohibited and aircraft cleared of maintenance standsand unnecessary personnel.	
5.	Operation of any open flame device, heating unit, or outside electrical equipment is prohibited.	
6.	Tow tractors engine shut off	
7.	Area cleared of any objects which would delay evacuation of aircraft and/or equipment in the event of fire.	
8.	Fifty-pound CO2 Fire Extinguishers (3 ea) that have been inspected within the past 30 days positioned up-wind of aircraft.	
9.	Aircraft grounded in accordance with T.O.'s 36A-1-4 and 36-1-21 in the following grounding sequence; A. Cable from hose cart to ground.B. Two (2) aircraft points to single ground. C. Refueling nozzle connection to acft.	
10.	Insure that personnel discharge their static electricity and that refueling nozzle Static Ground Cable is connected to aircraft prior to nozzle connection to aircraft.	
11.	Servicing stands used for over the wing refueling or topping off of fuel tanks will be cleared of all tools and grounded.	
12.	No lighters, matches, ferrous materials in pockets, and only explosive proof flashlights and/or floodlights will be used.	
13.	Ground Power Equipment, positioned upwind of aircraft with cable fully extended (60 ft) and qualified operator assigned also to act as Fire Guard	
14.	APU will be checked for adequate fuel prior to starting actual refuelings	
15.	Voice communication established between hydrant operator and fuel panel operator.	
16.	Pumphouse operator stationed in hydrant pumphouse.	
17.	Ground crew members positioned to observe aircraft overflow vents.	
18.	Hydrant operator holding remote control switch in hand and briefed to turn off refuel pumps in event of APU failure or shutdown.	
19.	If fuel leaks develope, all operations will cease until leaks are corrected and spillage disposed.	
20.	In event of excess fuel spillage, the fire department will be called.	
21.	Fuel operations will be suspended during an electrical storm, a fire in the vicinity, and aircraft crash, or a crash landing. In such cases, fuel hoses will be disconnected from aircraft.	
22.	Personnel on Squadron Aircraft Refueling Team (minimum of 5) and personnel on POL Refuel Team (minimum of 2) will be qualified and filling required positions	
	THE FOLLOWING ITEMS WILL BE ACCOMPLISHED WHEN USING GROUND REFUELING TRUCK	
1.	Refuel vehicles positioned 20 feet from aircraft	
2.	Observe the water separator on unit to determine type of fuel and that fuel does not contain water.	
3.	Refueling or Defueling unit off and brake set	
4.	Only cap of tank being serviced will be removed, cap to be replaced before opening another tank	
5.	Do not disconnect hose nozzle bond from aircraft until after tank has been capped.	
6.	Insure that driver door of refueler is left partially open during operation	
7.	Crew member assigned to standby emergency switch	

NOTE: Refueling/Defueling Operations will not commence until the above items have been physically checked

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B-52 GROUND REFUELING CHECK LIST		
ITEM NO	This Check List is intended as a standardized guide for Instructor Refueling Officers and amplified check list for newly assigned refueling officers.	CHECK
	Part A - COORDINATION AND GROUND SAFETY CHECKS PRIOR TO ENTERING AIRCRAFT.	
1.	SAC Form 320A external check list completed.	X
	Part B - INTERIOR CHECKS OF AIRCRAFT PRIOR TO REFUELING.	
1.	Radar Position - MK-1 Function Switch placed in Stab Position.	X
2.	ECM Position - Pull the three (3) APT-9 Circuit Breakers labeled COAX, AC and DC.	X
	Part C - COCKPIT CHECKS PRIOR TO REFUELING OR DEFUELING.	
1.	Parking brake set to "ON".	X
2.	Communications Selector Switch to - Normal Interphone Position.	X
3.	Procedure for supplying aircraft with external power.	
	a. Battery Switch "ON".	X
	b. Bus tie breaker switch - "CLOSE" and Guards Down.	X
	c. External power switch - Place to "OFF & Check Phase Sequence Volts and Cycles Position". NOTE: Phase sequence indicator "123 Correct" Light should illuminate, AC Voltmeter indicate 200 ± 5 volts and frequency meter indicate 400 ± 20 CPS	X
	d. External Power Switch - "ON"	X
4.	Establish ground interphone communication between cockpit and ground. NOTE: Never refuel or defuel without interphone communications.	X
5.	Fuel panel circuit breakers - "PUSH IN" at Rt rear of co-pilot.	X
6.	Fuel Tank Gage push to test switches checked to establish gage operation.	X
7.	Complete columns 1 and 2 of SAC Form 320A and notify Hydrant Operator as to number of gals. to be delivered.	X
	SINGLE POINT	
	Part D - GROUND REFUEL PANEL OPERATION.	
1.	Fuel valves - Prior to operation of refueling panel, the main fuel panel (in front of co-pilot) will be checked as follows:	
	a. Valves #26 and #28 open. (Relieve thermal expansion)	X
	b. All other fuel valves - Closed.	X
2.	Refueling panel - Master Refuel Switch - ON.	X
3.	Open refuel valves for all tanks requiring service. This will allow fuel to simultaneously fill all tanks selected. NOTE: Caution must be observed to insure that valve 46 is not OPEN at this time.	X

Inclosure #3, 42D BW Reg 55-4, dated 20 Dec 56

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ITEM NO	ITEM	CHECK
4.	Notify hydrant operator to OPEN refuel valves.	X
5.	Keep track of overall refuel process by observing the fuel totalizer. When totalizer and/or tank gages are inoperative the ground refueling NCOIC or crew chief will be consulted to determine the best course of action. NOTE: Concentrate first on turning off control switches for those tanks to be filled to a specified load, (Not Full).	X
6.	As each tank is filled, turn the refuel secondary control valve switch to the CLOSED position.	X
7.	Record on SAC Form 320A, Column 3, the fuel gage radings as they occur NOTE: When tanks shut-off by "volume" prior to gage reading at full, the additional fuel still required will be distributed evenly between the forward and Aft body tanks.	X X
8.	Record on SAC Form 320A, the total gallons refueled as obtained from the pit hydrant meter.	X
9.	Record fuel totalizer reading on SAC Form 320A upon completion of the refueling operation.	X
10.	Upon completion of refueling, CLOSE all refuel valves.	X
11.	Notify the hydrant operator IMMEDIATELY as soon as the last tank is filled. (This prevents hose rupture and/or leakage at the ramp hydrant hose.)	X
12.	Master refuel switch on the refueling panel OFF.	X
13.	Radar position MK-1 function stab switch OFF.	X
14.	Aircraft external power switch OFF.	X
15.	Battery switch OFF.	X
16.	The Ground Refueling/Defueling Officer will make the following two (2) entries in column 26, part 2, DD Form 781 upon completion of refueling. a. "Aircraft was not dipstick checked upon completion of ground refueling." (See Part F) b. "The refuel manifold was not scavenged upon completion of ground refueling." (See 42D BW TMI "41	X X
	Part E - GROUND DEFUELING PANEL OPERATION	
1.	Read and comply with the check list instructions contained in Parts A, B, and C above before starting the defueling operation.	X
2.	Supply external power to the airplane.	X
3.	Check that all fuel system control valve switches on the co-pilots instrument panel are in the closed position.	X
4.	Check that all fuel system circuit breaker are pulled in.	X
5.	Master "Refuel Control Switch" on the refuel panel to "ON".	X
6.	Check that all refuel switches are in the "Closed" Position.	X
7.	Check that all secondary valve indicator lights are on.	X
8.	Move the "Master Refuel Control Switch" to "OFF".	X
9.	Route fuel from tanks to be defueled from tank to refuel man'fold.	X
10.	Open valve 46 on refuel panel labeled, "to Fuel Feed manifold".	X
11.	Direct hydrant operator to open ground refuel valve for defuel operation.	X

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ITEM NO	ITEM	CHECK
12.	Defueling tank sequence - Fuel is normally removed from the fuel system in the following sequence:	
	a. Simultaneously, from the drop tanks and out board wing tanks.	X
	b. Individually, from the center wing tank, aft, mid, forward body tanks, No 1 Main, No 4 Main, No 2 Main and No 3 Main.	X
	NOTE: Following this sequence avoids transferring fuel from the drop tanks, or outboard wing tanks, to the main tanks which would occur if the main tanks were defueled prior to the outboard or drop tanks.	
	Part F - CREW CHIEF DIPSTICK ENTRIES AND FINAL SAC FORM 320A FUEL COMPUTATIONS.	
	Dipstick check of fuel tanks - Fuel tank and fuel gage calibration to date has not become sufficiently accurate to be relied upon. For this reason, dipsticks have been provided for use by the Ground Refueling crew. Fuel gage errors are approximately 6% while proper use of the dipstick will reduce this error to less than 1%. Accordingly, a designated member from the ground refueling crew should ascertain that all tanks have been measured by the dipstick method and the results recorded on the applicable columns of SAC Form 320A.	
1.	Crew Chief Responsibilities: a. When an aircraft has been refueling or defueled during hours of darkness, the respective crew chief will see that the aircraft is dipstick checked the following morning. The crew chief or his delegated representative will record dipstick entries on SAC Form 320A as follows: (1) Visually check all tanks that are not full and enter the letter "F" in Column 4 for those tanks found to be full	X
	(2) Dipstick check all tanks that are not full and enter the dipstick reading (inches) in column 4	X
	(3) Convert Column 4 dipstick readings in inches to gallons and record results in column 5	X
	(4) Convert column 5 fuel figures to pounds by multiplying the fuel in gallons by the available fuel density figure. The resultant fuel in pounds will be recorded in column 6	X
	(5) The crew chief or his representative, will compare the converted column 6 dipstick entries with the respective fuel gage reading in column 3. Differences in excess of ± 500 lbs will necessitate a re-dip of the tank involved	X
	(6) Fuel gages found to be out of tolerance will be reported in column 26, Part 2, of DD Form 781. The entry will include the following: "No 1 gage (enter position) is ± (enter no of lbs.) out of tolerance with the dipstick reading."	
2.	Refueling officer of the day responsibilities - a. When and as necessary, the refueling officer of the day will coordinate with the maintenance officer to expedite compliance with paragraph 1 above.	X
	b. The refueling officer of the day is responsible for the accomplishment of the following:	

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ITEM NO	ITEM	CHECK
	(1) Completion of SAC Form 320A in duplicate	X
	(2) The availability of one completed copy of SAC Form 320A for operations (A & R Section) as soon as possible after completion	X
	(3 Insure that squadron operations copy of SAC Form 320A is complete in its entirety prior to forwarding.	X

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Pg #1

MISSION FLIGHT PLAN	O. D. AND NICKNAME PLAN 2	UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
	QUICK KICK BRAVO	42ND B.W.	B52		OPTIMUM	"QUICK KICK BRAVO" PLAN 2

	POUNDS				POUNDS			RUNWAY		
ACFT BASIC	167 670			BOMBS				PRESSURE ALT	LENGTH	MIN TEMP
CREW	3390			AMMO			WIND			
OIL	986			WATER AUG				CRITICAL FIELD LENGTH		CRITICAL AIR TEMP
ATO	—			STATIC	432 786	NR FULL ATO REQUIRED	PLAN	TAKE-OFF DISTANCE		TAKE-OFF SPEED
RACK	—			START ENGINES AND TAXI FUEL ALLOWANCE	4000	NR EMPTY ATO REQUIRED	EST. WIND T.O.	CRITICAL WIND COMPONENT		
EXT TANKS WEIGHT (Empty)	2 550							1ST LEG	2ND LEG	3D LEG
MISCELLANEOUS	650									
CHAFF		TOTAL FUEL	257600	TAKE-OFF GROSS	428 786	ATO FIRING SPEED	12502			
OPERATING	175 186									

PRE-FLIGHT PLAN

	FROM LORING AFB / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / PRESSURE ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	FUEL FLIGHT PLAN GROSS WT	
																257600	432786	
	STETTO ✈ ACC.											10	:03	10		248870	425 086	
	H/O 48-39N 70-23W	CL	315	265/55 -5	310	+22		34.5		400	368	134	:22	147		13400	13400	JN30
												144	:25	157		235420	410 606	
A	54-03N 80-35W	CR	311	268/58 -5	306	+21		35.7	.77	440	395	500	1:16	557		24906	24 906	JN19
												644	1:41	714		210514	385 700	
B	58-24N 93-17W	CR	302	276/45 -2	300	+9		37.1	.77	440	400	500	1:25	550		23600	23,600	JN18
												1144	2:56	1264		186914	362,100	
C	61-18N 108-48W	CR	291	290/43 0	291	-15		38.4	.77	440	397	500	1:16	557		21950	21 950	
												1644	4:12	1821		164964	340 150	
D	62-27N 126-12W	CR	278	300/40 +2	280	-32		39.7	.77	440	402	500	1:15	550		20350	20350	JN17
												2144	5:27	2371		144614	319800	
E	61-34N 143-53W	CR	266	290/33 +2	268	-32		40.9	.77	440	410	500	1:13	535		18800	18800	JN16
												2644	6:40	2906		125814	301000	
F	S/D KENAI RNG. 60-33N 151-17W	CR	255	266/22 +1	256	-27		41.5	.77	440	420	273	:32	225		8000	8000	
												2867	7:12	3141		117814	293000	
	H/O 60-20N 152-20W	DS	246	250/20 0	246	-24				410	390	32	:05	34		550	550	
												2899	7:17	3175		117264	292450	
G	REND. 60-10N 153-13W	CR	246	200/10 -2	244	-24		15.		300	293	28	:06	30		1550	1550	
												2927	7:23	3205		115714	290900	
H	Comp PT. 58-2N 160-35W	AR	246	200/10 -2	244	-21		15.		250	243	250	1:01	254		22045	22045	
												3177	8:24	3459		93669	268855	
	ON LOAD							15.								160000	160000	
																253669	428855	
	ACC 58-17N 160-48W	ACC	246	200/10 -2	244	-18		15.				8	:02	8		1250	1250	
												3185	8:26	3467		252419	427605	
I	H/O 57-0N 163-05W	CL	240	250/20 +1	241	-18		34		410	390	82	:13	89		7960	7960	
												3267	8:39	3556		244459	1695	

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"QUICK KICK - BRAVO" PLAN 2 MISSION FLIGHT PLAN – CONTINUATION SHEET 8'39 3556

	FROM TO / ROUTE	FLT COND	T.C.	WIND D/V DRIFT	T.H.	VAR	M.H.	TEMP ALT	IAS MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL PLANNED PER LEG	FUEL PLANNED ACC
	ADAK			251/24								580	1:23	608		211825	419 645
J	51-51N 176-40W	CR	234	+1	235	-14		35.4	.77	440	420	3847	10:02	4164		27645	27 645
				259/41								500	1:15	550		216814	392000
K	49-15N 170-48E	LR	252	0	252	-5		36.7	.77	440	399	4347	11:17	4714		23400	23400
				252/68								500	1:19	579		193414	368 600 33/50
L	45-15N 159-55E	CR	241	+2	243	0		38.1	.77	440	378	4847	12:36	5293		23200	23200
	TP C			260/100								545	1:34	698		170214	345 400
M	40-00N 150-00E	CR	234	+6	240	+4		39.7	77	440	350	6392	14:10	5981		25800	25800
				265/130								500	1:37	710		144014	319 600
N	38-17N 139-31E	CR	257	+2	259	+6		41.4	.77	440	310	5892	15:47	6691		25100	25100
	PUSAN-KOREA			265/130								538	1:43	755		119314	294500
O	35-07N 129-05E	CR	249	+5	254	+7		43.2	.77	440	314	6430	17:30	7447		21500	24500
	TSUSHI-SHIMA			262/110								298	:40	293		94814	270000
P	30-22N 130-52E	CR	162	+14	176	+5		43.9	.77	440	445	6728	18:10	7739		9000	9000
	S/D ORBIT			262/110								125	:21	154		85814	261000
Q	28-32N 129-43E	CR	209	+11	310	+4		44.4	.77	440	365	6853	18:31	7893		4600	4600
	H/O			265/70								32	:05	34		81214	255900
	28-07N 129-22E	DS	218	+7	225	+4				410	360	6885	18:36	7927		500	500
	RENO			265/28								28	:06	30		80714	255 900
R	27-46N 129-02E	CR	218	+4	222	+4		15.0		300	275	6913	18:42	7957		1550	1550
	END 1ST NAVE REFUEL			255/28								150	:40	167		79164	254 350
S	25-49N 127-18E	AR	218	+4	222	+3		15.0		250	225	7063	19:22	8124		12900	12900
																66264	241 450
	ON LOAD							15.0								80000	20 000
	BEGIN CHASE															146264	321 450
	21-03N 127-65E	CR						15.0		300			:04	20		1190	1190
	RENO			255/28									19:26	8147		145074	320260
T	26-27N 127-43E	CR	056	-2	054	+3		15.0		300	328	40	:09	35		2010	2010
	END REFUEL			255/28								7103	19:33	8179		143064	318 250
U	27-50N 130-02E	AR	056	-2	054	+3		15.0		250	275	150	:33	137		14715	14715
												7253	20:06	8316		128349	303 535
	ON LOAD							15.0								120000	120 000
	ACC			255/28								8	:02	8		248349	423 535
	27-54N 130-02E	ACC	056	-2	054	+4		15.0				7261	20:08	8324		1200	1200
	H/O			265/70								82	:11	95		247149	422335
V	23-39N 131-27E	CL	056	-5	051	+4		34.3		410	479	7343	20:19	8299		7950	7950
	HACHI TO JIMA			265/120								509	1:17	583		239124	414 375
W	33-07N 139-47E	CR	058	-7	051	+5		35.2	.77	440	542	7852	21:15	8709		18675	18 675 CNJ
				265/150								500	:52	592		220514	395 700 33/50
X	39-00N 148-50E	CR	062	-7	056	+5		36.1	.77	440	572	8352	22:07	9191		16600	16 600
																2039143	1100

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"QUICK KICK - GRAND" PLAN 2 MISSION FLIGHT PLAN - CONTINUATION SHEET

83552 22:07 919

	FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T.A.S.	G.S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: FREE FUEL REMAINING	GROSS WT
																203144	379 100
Y	37-53N 158-54E	CR	070	265/125 -4	066	+4		37.1	.77	440	555	500	:54	296		16800	16800
												9852	23:01	9579		186711	362200
Z	41-31N 169-40E	CR	078	260/90 0	078	0		38.0	.77	440	530	500	:59	418		17400	17400
												9352	23:58	10005		170714	345900
AA	42-00N 177-00E	CR	085	265/80 0	085	-4		38.7	.77	440	520	357	:38	379		10900	10400
												9679	24:36	10384		159814	335000
BB	42-20N 172-32W	CR	066	265/67 -3	063	-8		39.7	.77	440	505	500	:59	438		15750	15750
												12179	25:35	10717		144047	319250
CC	42-21N 160-50W	CR	075	262/50 -1	074	-13		40.8	.77	440	490	500	1:01	448		16050	16050
												10679	26:36	11165		128014	303200
DD	42-16N 148-25W	CR	084	265/45 0	084	-18		42.0	.77	440	485	500	1:02	455		15350	15350
												11179	27:38	11620		112664	287850
EE	42-37N 136-00W	CR	096	270/49 +1	097	-22		43.0	.77	440	487	500	1:02	455		14850	14850
												11679	28:40	12075		97814	273000
FF	COAST IN 42-22N 123-57W	CR	105	280/42 +1	106	-23		44.3	.77	440	487	515	1:04	470		16150	16150
												12194	29:44	12545		81664	256850
GG	REDMOND VOR S/D 44-18N 121-10W	CR	122	280/45 +2	124	-21		44.5	.77	440	483	141	:18	133		2150	2150
												12335	30:02	12678		79514	254700
	S/D 44-01N 120-25W	DS	107	280/40 +1	108	-20		15		410	450	32	:05	34		500	500
												12367	30:07	12712		79014	254200
HH	REND 44-00N 119-50W	CR	107	270/20 +2	109	-20		15		300	319	28	:06	30		1500	1500
												12395	30:13	12742		77514	252700
II	END REFUELING 43-12N 111-31W	AR	107	270/20 +2	109	-20		15		250	269	150	:33	138		9300	9300
												12545	30:46	12880		68214	243400
	ON LOAD															80000	80000
																148214	323400
	ACC 43-10N 111-21W	ACC	107	270/20 +2	109	-18		15				8	:02	8		700	700
												12553	30:48	12888		147514	322700
LL	MT HOME VOR 43-03N 115-53W	CL	107	280/40 +1	108	-18				410	450	22	:03	20			
												12575	30:51	12908			
MM	43-29N 114-29W	CL	065	280/40 -3	062	-18		40.5		410	440	60	:08	55		6480	6480
												12635	30:59	12963		140634	315820
NN	BISMARCK ND 46-50N 100-45W	CR	070	276/48 -3	067	-16		41.3	.77	440	486	621	1:17	565		19820	19820
												13256	32:16	13528		120814	296000
OO	48-02N 89-25W	CR	081	272/50 -1	080	-7		42.3	.77	440	490	466	:59	420		14100	14100
												13722	33:13	13948		106714	281900
PP	47-31N 78-00W	CR	093	262/55 +1	094	+7		43.4	.77	440	495	463	:56	410		13000	13000
												14185	34:09	14358		93714	268900
QQ	HOUSTON VOR 29-52N 67-51W	CR	102	267/64 +3	105	+18		44.2	.77	440	500	425	:51	370		11900	11900
												14610	35:00	14750		81814	257000

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14610 Pg #4

MISSION FLIGHT PLAN – CONTINUATION SHEET 35:00

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
HOULTON VOR															81814	257000
R LORING AFB 46-57N 67-53W	DS	358	260/40 -5	353	+22				400	445	56 / 14666	:08 / 35:08	:53 / 14793		600 / 81214	600 / 256400
LAND & TAXI												:15 / 35:23			7000 / 74214	7000 / 249400

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MISSION FLIGHT PLAN	O. O. AND NICKNAME	UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
	QUICK KICK ECHO	42ND B.W.	B52			

	POUNDS				POUNDS			RUNWAY		
ACFT BASIC	167 670			BOMBS				PRESSURE ALT	LENGTH	AIR TEMP
CREW	3390			AMMO						
OIL	986			WATER AUG			WIND	CRITICAL FIELD LENGTH		CRITICAL AIR TEMP
ATO	—			STATIC	432786	NR FULL ATO REQUIRED	PLAN	TAKE-OFF DISTANCE	TAKE-OFF SPEED	
RACK	—			START ENGINES AND TAXI FUEL ALLOWANCE	9000	NR EMPTY ATO REQUIRED	EST. WIND T.O.	CRITICAL WIND COMPONENT		
EXT TANKS WEIGHT (Empty)	2550							1ST LEG	2ND LEG	3D LEG
MISCELLANEOUS	650									
CHAFF		TOTAL FUEL	257600	TAKE-OFF GROSS	428786	ATO FIRING SPEED	12502			

PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / OPTIMUM ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT	
	LORING AFB															257600	432786	
	STETTO Y ACC.											10	:03	10		248820	424006	
	1/0 48-39N 70-23W	CL	315	265/50 -5	310	+22		34.5		400	368	134 / 144	:22 / :25	147 / 157		13400 / 235420	13400 / 410606	JN8
9	54-03N 80-35W	CR	311	268/58 -5	306	+21		35.7	.77	440	395	500 / 644	1:16 / 1:41	557 / 714		24906 / 210514	24906 / 385700	JN1
3	58-24N 93-17W	CR	302	276/45 -2	300	+9		37.1	.77	440	400	500 / 1144	1:15 / 2:56	550 / 1264		23600 / 186914	23600 / 362100	JN1
C	61-18N 108-48W	CR	291	290/43 0	291	-15		38.4	.77	440	377	500 / 1644	1:16 / 4:12	557 / 1821		21950 / 164964	21950 / 340150	
D	62-27N 126-12W	CR	278	300/40 +2	280	-32		39.7	.77	440	402	500 / 2144	1:15 / 5:27	550 / 2371		20350 / 144614	20350 / 319800	JN1
E	61-34N 143-53W	CR	266	290/33 +2	268	-32		40.9	.77	440	410	500 / 2644	1:13 / 6:40	535 / 2906		18800 / 125814	18800 / 301000	JN1
F	S/D KENAI RNG. 60-33N 151-17W	CR	255	266/22 +1	256	-27		41.5	.77	440	400	273 / 2867	:32 / 7:12	235 / 3141		8000 / 117814	8000 / 293000	
	4/0 60-20N 152-20W	DS	246	250/20 0	246	-24				410	390	32 / 2899	:05 / 7:17	34 / 3175		550 / 117264	550 / 292450	
3	KEND. 60-10N 153-13W	CR	246	200/10 -2	244	-24		15.		300	293	28 / 2927	:06 / 7:23	30 / 3205		1550 / 115714	1550 / 290900	
H	COMP PT. 58-21N 160-35W	AR	246	200/10 -2	244	-21		15.		350	343	250 / 3177	1:01 / 8:24	254 / 3459		22045 / 93669	22045 / 268855	
	ON LOAD							15.								160000 / 253669	160000 / 428855	
	ACC 58-17N 160-48W	ACC	246	200/10 -2	244	-18		15.				8 / 3185	:02 / 8:26	8 / 3467		1250 / 252419	1250 / 427605	
I	4/0 57-36N 163-05W	CL	240	250/20 +1	241	-18				410	390	82 / 3267	13 / 8:39	89 / 3556		7960 / 244459	7960 / 9645	

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MISSION FLIGHT PLAN – CONTINUATION SHEET 8:39 3556

	FROM 40 57-36N 163-05W / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT	
																244459	419645	
J	ADAK 51-51N 176-40W	CR	234	254/24 +1	235	-14		55.4	.77	440	420	580 / 3847	1:23 / 10:02	608 / 4164		27645 / 216814	27645 / 392000	JN
K	40-15N 170-48E	LR	252	254/41 0	252	-5		36.7	.77	440	399	500 / 4347	1:15 / 11:17	550 / 4714		23400 / 193414	23400 / 368600	JN 33
L	45-18N 159-55E	CR	241	256/68 +2	243	0		38.1	.77	440	378	500 / 4847	1:19 / 12:36	579 / 5293		23200 / 170214	23200 / 345400	
M	TP 40-00N 150-00E	CR	234	260/100 +6	240	+4		39.7	.77	440	350	545 / 5392	1:34 / 14:10	698 / 5981		25800 / 144414	25800 / 319600	JN
N	38-17N 139-31E	CR	257	265/130 +2	259	+6		41.4	.77	440	310	500 / 5892	1:37 / 15:47	710 / 6691		25100 / 119314	25100 / 294500	
O	PUSAN-KOREA 35-07N 129-05E	CR	249	265/130 +5	254	+7		43.2	.77	440	314	538 / 6430	1:43 / 17:30	755 / 7446		24500 / 94814	24500 / 270000	JN
P	TANEGA-SHIMA 30-22N 130-52E	CR	162	262/110 +14	176	+5		43.9	.77	440	445	298 / 6728	:40 / 18:10	293 / 7739		9000 / 85814	9000 / 261000	
Q	S/D ORBIT 28-32N 129-43E	CR	209	262/110 +11	310	+4		44.4	.77	440	365	125 / 6853	:21 / 18:31	154 / 7893		4600 / 81214	4600 / 256400	
	40 28-07N 129-22E	DS	218	265/70 +7	225	+4				410	360	32 / 6885	:05 / 18:36	34 / 7927		500 / 80714	500 / 255900	
R	RENO 27-46N 129-02E	CR	218	255/28 +4	222	+4		15.0		300	275	28 / 6913	:06 / 18:42	30 / 7957		1550 / 79164	1550 / 254350	
S	END 1ST NAVE REFUEL 25-49N 127-18E	AR	218	225/28 +4	222	+3		15.0		250	225	150 / 7063	:40 / 19:22	167 / 8124		12900 / 66264	12900 / 241450	
	ON LOAD							15.0								80000 / 146264	80000 / 321450	
	BEGIN CHASE 26-03N 127-05E	CR						15.0		300			:04 / 19:26	20 / 8144		1190 / 145074	1190 / 320260	
T	RENO 26-27N 127-43E	CR	056	255/28 -2	054	+3		15.0		300	323	40 / 7103	:07 / 19:33	35 / 8179		7010 / 143064	7010 / 318250	
U	END REFUEL 27-50N 130-02E	AR	056	255/28 -2	054	+3		15.0		250	275	150 / 7253	:33 / 20:06	137 / 8316		11495 / 131569	11495 / 306755	
	ON LOAD							15.0								80000 / 711569	80000 / 386755	
	ACC 27-54N 130-09E	ACC	056	255/28 -2	054	+4		15.0				8 / 7261	:02 / 20:08	8 / 8324		1000 / 210569	1000 / 285755	
V	40 28-39N 131-27E	CL	056	265/70 -5	051	+4				410	470	82 / 7343	:11 / 20:19	75 / 8399		7550 / 203019	7550 / 378205	
W	HACHIJO JIMA 33-07N 139-48E	CR	058	265/120 -7	051	+5		37.1	.77	440	542	509 / 7852	:56 / 21:15	410 / 8809		17355 / 185664	17355 / 300550	JN 33
X	37-00N 148-50E	CR	062	265/150 -7	056	+5		38.0	.77	440	578	500 / 8352	:52 / 22:07	382 / 9191		14950 / 170714	14950 / 345900	

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8352 22:07 9191

MISSION FLIGHT PLAN – CONTINUATION SHEET

	FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
																170714	345900
				265/120								500	:54	396		15200	15200
Y	37-53N 159-54E	CR	070	-4	066	+4		39	.77	440	555	8852	23:01	9587		155514	330700
				260/90								500	:57	418		15500	15500
Z	41-36N 169-40E	CR	078	0	078	0		40	.77	440	530	9352	28:58	10005		140014	315200
	TP			265/80								327	:38	279		9800	9800
AA	45-00N 179-00E	CR	085	0	085	-4		41.6	.77	440	520	9679	24:36	10284		130214	305400
				265/67								500	:59	433		15000	15000
BB	45-20N 172-32W	CR	066	-3	063	-8		41.7	.77	440	505	10179	25:35	10717		115214	290400
				262/50								500	1:01	448		14600	14600
CC	49-31N 160-50W	CR	075	-1	074	-13		42.7	.77	440	490	10679	26:36	11165		100614	275810
				265/45								500	1:02	455		14400	14400
DD	48-16N 148-35W	CR	084	0	084	-18		43.9	.77	440	485	11179	27:38	11620		86214	261400
				270/47								500	1:02	455		13400	13400
EE	47-37N 136-00W	CR	096	+1	097	-22		45	.77	440	487	11679	28:40	12075		72814	248000
	COAST IN			280/47								515	1:04	470		13700	13200
FF	45-28N 123-57W	CR	105	+1	106	-23		46.2	.77	440	487	12194	29:44	12545		59514	234800
	REDMOND VOR S/D			280/45								141	:18	133		3600	3600
GG	44-18N 121-10W	CR	122	+2	124	-21		46.5	.77	440	483	12335	30:02	12678	2014	56014	231200
	Y/O			280/40								32	:05	34		500	500
	44-06N 120-25W	DS	107	+1	108	-20		15		410	450	12367	30:07	12712		55514	230700
	REND			270/20								28	:06	30		1500	1500
HH	44-00N 119-50W	CR	107	+2	109	-20		15		300	319	12395	30:13	12742		54014	229200
	END REFUELING			270/20								150	:33	138		9300	9300
II	43-13N 116-31W	AR	107	+2	109	-20		15		250	269	12545	30:46	12880		44714	219900
																80000	80000
	ON LOAD															124714	299900
	ACC			270/20								8	:02	8		700	700
	43-10N 116-21W	ACC	107	+2	109	-18		15				12553	30:48	12888		124014	299200
	MT HOME VOR			280/40								22	:03	20			
LL	43-03N 115-53W	CL	107	+1	108	-18				410	450	12575	30:51	12908			
	Y/O			280/40								60	:08	55		6640	6640
MM	43-29N 114-39W	CL	065	-3	062	-18		41.6		410	440	12635	30:59	12963		117374	292560
	BISMARCK ND			276/48								621	1:17	565		18560	18560
NN	46-50N 100-45W	CR	070	-3	067	-16		42.9	.77	440	486	13256	32:16	13528		98814	274000
				272/50								466	:57	420		13150	13150
OO	48-02N 89-28W	CR	081	-1	080	-7		43.9	.77	440	490	13722	33:13	13948		85664	260850
				269/55								463	:56	410		12250	12250
PP	47-31N 78-00W	CR	093	+1	094	+7		45	.77	440	495	14185	34:09	14358		73414	248600
	HOULTON VOR			263/64								425	:51	382		11000	11000
QQ	02N 67-51W	CR	102	+3	105	+18		45.9	.77	440	500	14610	35:00	14740		624	237600

SAC FORM 15 APR 56 1b FC: 2720

Air Force-SAC, Offutt O-1850(36)

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MISSION FLIGHT PLAN – CONTINUATION SHEET 35:00

	FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
	HOULTON VOR															62414	237600
	LORING AFB			260/40								56	:08	:53		600	600
RR	46-57N 67-53W	DS	358	-5	353	+22				400	445	14666	35:08	14793		61814	237000
													:15			7000	7000
	LAND & TAXI												35:23			54814	230000

SAC FORM 15 APR 58 1b FC: 2720

Air Force – SAC, Offutt O-1050(58)

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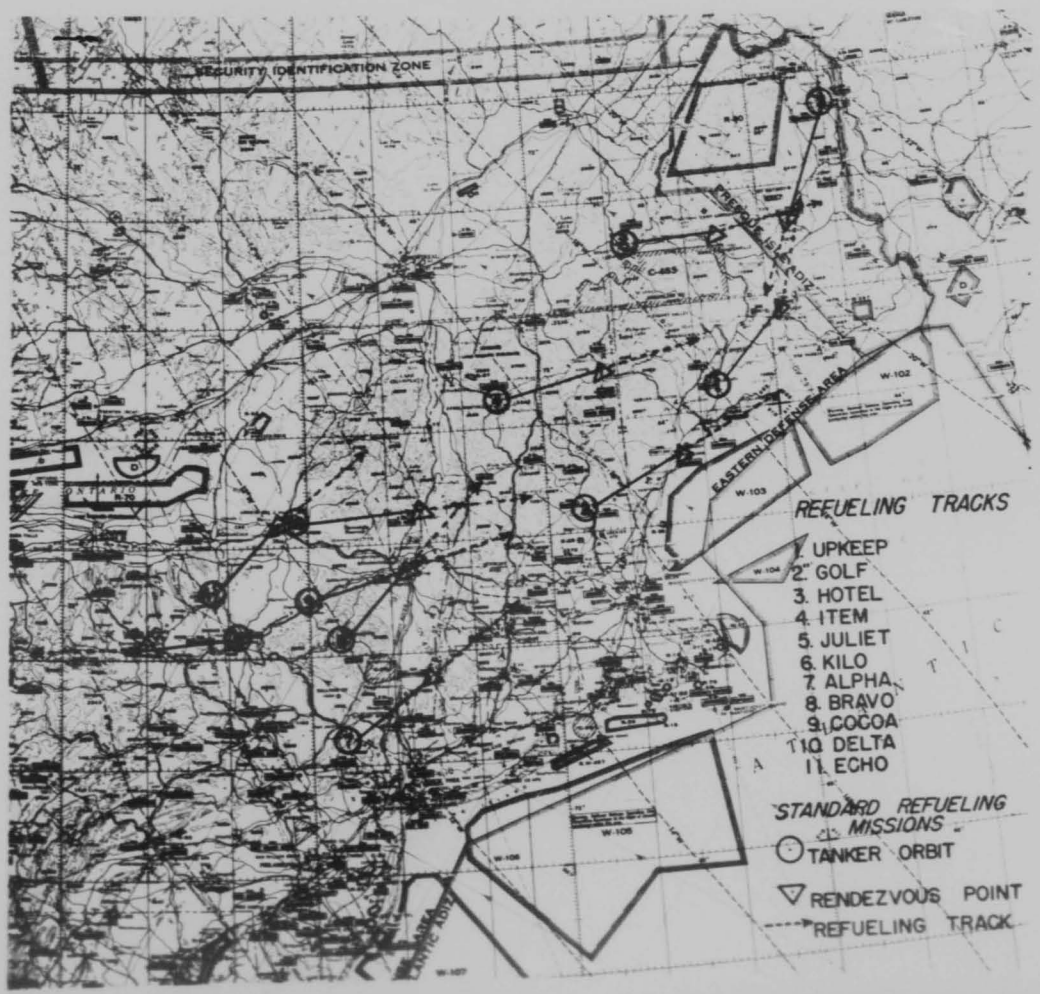

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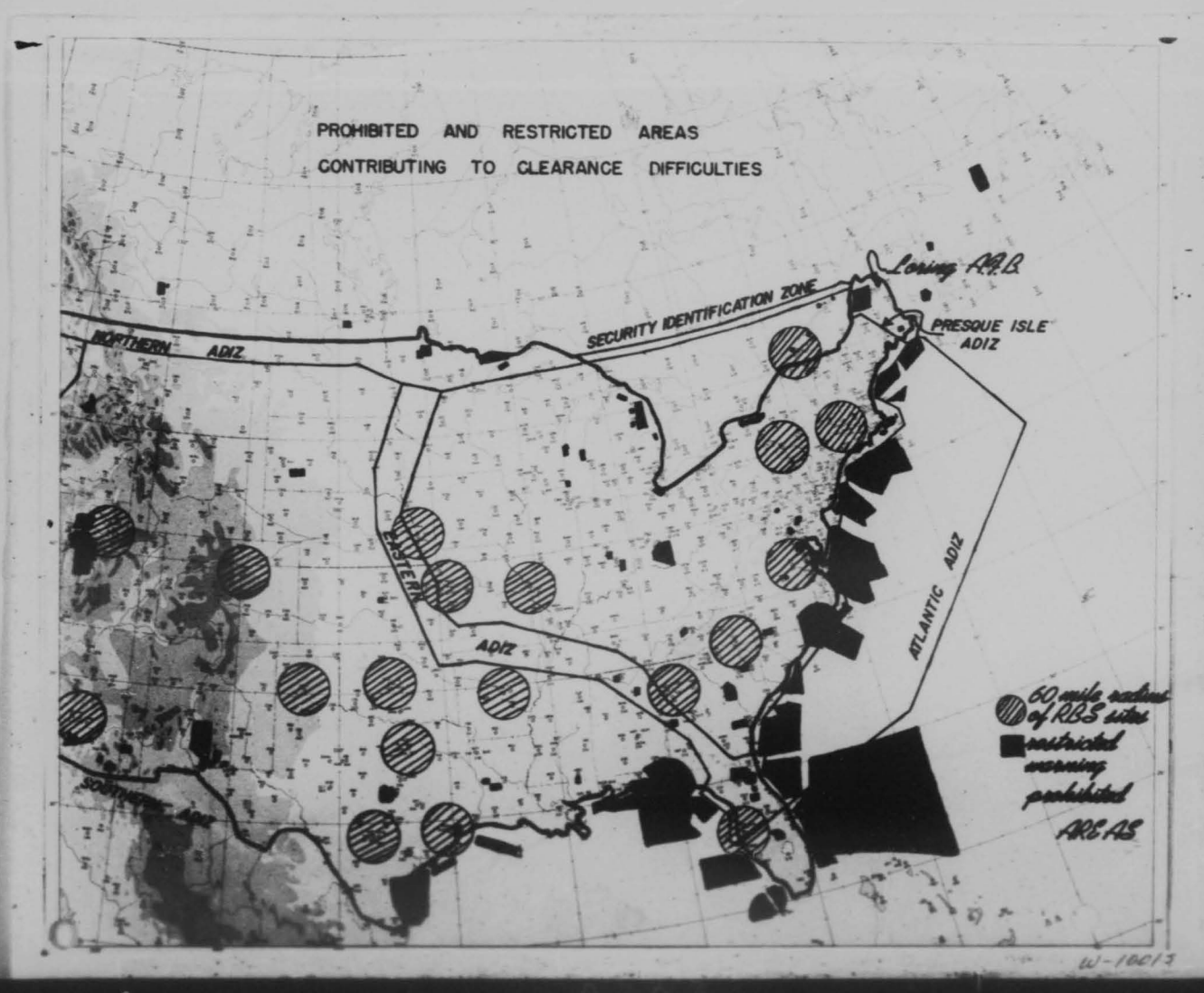

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SURVEY OF SECOND STATION AUTOMATIC OPERATION

The following survey has been prepared by the Sperry Gyroscope Company Field Engineers for the purpose of determining your outlook toward the A-12 Automatic Pilot, X-system tie-in. Feel free to answer the questions in any manner you see fit.

Name _____ Aircraft Commander ____
Observer ____

What is your opinion of second station automatic operation in the B-52 as compared to the operation in the B-47 and/or the B-36?

During a normal bomb run how soon before bombs away is the manual-automatic switch on the remote turn controller placed in "AUTOMATIC"?

Do you think the B-52 aircraft responds rapidly enough for best bombing results to large PDI errors (about 5° or 10°) when in automatic?

Do you think the automatic pilot response is rapid enough for small PDI errors (about $\frac{1}{2}$° or 1°) when in automatic?

For a normal bomb run what is the PDI error when going into automatic operation?

Would you go into automatic operation if the PDI error is 8° or larger?

Any other comments you may wish to include concerning second station automatic operation.

Please return this questionaire to your operations officer, squadron observer, or the Sperry Gyroscope Co. Field Engineers.

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B-52 OBSERVERS

IMPORTANT

SUBJECT: Changes to be made to Grid Gyro Log and Graph.

TWX from Eighth Air Force is quoted as follows:

/UNCLASSIFIED/DOT3 52611 SUBJECT: SAC FORM 521, GRID GYRO LOG AND GRAPH. SAC MESSAGE DOTRPO 32097, 19 OCTOBER 1956, SUBJECT AS ABOVE, IS QUOTED FOR YOUR INFORMATION: "THIS MESSAGE IN TWO PARTS. PART I. MINOR CORRECTIONS ARE BEING MADE TO THE PRESENT ISSUE OF SAC FORM 521. IN THE INTEREST OF ECONOMY PRESENT FORM WILL BE USED WITH THE FOLLOWING INK CORRECTIONS: A. LINE 15 OF INSTRUCTIONS, CHANGE TO READ 'SUBTRACT LINE 13 FROM LINE 14 ALGEBRAICALLY'. B. HEADING OF SECONDARY GYRO GRAPH (GYRO 2) CHANGED TO READ PLOT INITIAL AND FINAL BNS HEADINGS'. TITLE OF CENTER AT BOTTOM OF SECONDARY GYRO GRAPH CHANGED TO READ 'DESIRED BNS HEADING'. PART II. CORRECTED FORM IS BEING PRINTED; HOWEVER, EXISTING FORMS WILL BE USED UNTIL STOCKS ARE EXHAUSTED'.

24 OCT 56

OBSERVER HANDOUT #12
42D BW 29 NOV 56
OIC-BOMB-NAV. SECTION

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CONFIDENTIAL

MA-6A System Problems and Limitations

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CONFIDENTIAL

A. SYSTEM LIMITATION

1. APS-64 AFC Operation

An apparent malfunction of the APS-64 radar is occasionally encountered when the radar AFC will not lock in at some frequencies of the magnetron. The frequencies at which the AFC may unlock are the frequencies of high VSWR of antenna. The AFC may unlock at values of VSWR which are within equipment manufacturer's test specifications. Revision of Air Force Exhibit WCL-743, MA-6A Functional Test Requirements, was recommended in June 1956 to recognize this Radar AFC problem and confirmation of WCL-743 revision was forwarded to Boeing in AMC TWX MCPHBC dated 9-14-56.

The requirement for AFC operation per latest revision are as follows:

The AFC must track the magnetron and remain locked in over the Transmitter Control Frequency range as indicated by the presence of targets for all pulse lengths and repetition rates.

Note: (1) The radar AFC may unlock for certain discrete frequencies of a few megacycles width in 5 Bands of not more than 50 MC width. When in manual load, the AFC must remain locked as evidenced by the presence of a butterfly type signal at the radar video Jack-5301 on the AFC chassis in any frequency across the band.

(2) The AFC may unlock, but when it unlocks by means other than the frequency being on a point as noted in (1) above, the AFC must lock in within 8 seconds.

Boeing functional test document is being revised to allow acceptance of APS-64 radar which meet above requirements.

2. APS-64 Radar Sweep Length

Due to loading effects on the CU-365 Line Balance Network and sweep generator in the Synchronizer when two Indicators (IP-284 and IP-135 in B-52 airplane) are used, the amplitude of the sweep voltage to the IP-284 Indicator is not always sufficient to provide a full nine inch sweep. The available gain in some IP-284 sweep amplifiers cannot compensate for the decreased sweep input voltage. By component selection and careful adjustment procedures, it is possible to meet Air Force Exhibit WCL-743 requirements for sweep length but there is insufficient adjustment to allow the operator to position the radar crosshairs to the outer portion

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of the scope and thereby expanding target presentation.

Motorola ECP-CGG-118 proposes changes to provide an increased sweep amplitude in the IP-284/APS Indicator.

3. APS-64 Radar Sweep Delay Operation

When sweep delay plus range (sweep time) is approximately 270 miles in Radar or Beacon mode of operation, multiple and erratic range marks are encountered. At 270 mile range plus sweep delay the time from transmitter pulse to the end of the sweep is 3333 micro seconds. When range is over 80 miles and/or the sweep delay is pulled out to apply the delay, the PRF is 300 pulses/sec, and the time between transmitter pulses is 3,333 microseconds. When a transmitted pulse occurs before sweep of preceding pulse is completed erratic operation of the range mark generator will occur.

The limitation on sweep delay operation was not encountered with APS-23 Radar Systems since the APS-23 PRF was 200 pulses/sec.

4. LD-6 Camera Control Problems

Some of the LD-6 Camera Controls received for installation in B-52 airplane were modified per T.O. 10A5-5-5-501 dated July 1955. The photographs taken, when using the modified LD-6 control, showed normal operation when the System was functioning in NAV and TRACK and in BOMB mode after bomb door open pulse; however, PMG marks were only on one side of the sector when the Function Switch is in BOMB and prior to door open pulse. Information was forwarded to Air Force concerning this problem in letter OCRSQ-11-12 480-9-39925 dated 7 December 1955. The Contractor was authorized to install the modified LD-6 camera control and a waiver on requirements of Air Force Exhibit WCL-743, Paragraph 4.3.4.2.c. was granted.

A MOD I J-568/AWA-2 Junction Box is required when a modified LD-6 Camera Control is installed to provide for O-15 camera operation in the TRACK mode.

5. Adjustments for Optimum Radar Presentation

It is not possible to adjust the APS-64 radar for optimum presentation in one mode of operation and have a satisfactory picture when switching to another mode. It is necessary to adjust Receiver Gain, Video Gain and Bias whenever switching from LIN to LOG, and to a lesser degree adjustments are often required when switching from Hi Gain to Hi Res. and when changing Range.

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BTL is investigating these problems but it is not known when equipment changes will be made that reduce the amount of adjustments required when switching mode of operation.

6. IP-284 Power Supply Stability

Unsatisfactory operation of IP-284 Indicator due to indicator power supply falling out of regulation has frequently been encountered. Fluctuations of the indicator power supply will cause intensity modulation of video, wavy range marks and indicator spoking.

This problem was discussed with Air Force and equipment manufacturers at referenced meeting and during Wavy Range mark tests at Seattle. Changes have been made in airplane and airplane operating procedures to assure that 115 VAC is available at input to MA-6A System. Motorola ECP CG-117 has been initiated to provide improved regulation of IP-284 power supply.

Reference: Wavy Range Mark meeting in Seattle April 1956.

7. Wide Heading Mark

The presentation of the heading mark on the radar scope is unsatisfactory because of it excessive width. There is no means of adjusting the width of the heading mark. Western Electric ECP CW-2107 proposing modification in SN-158 Synchronizer to eliminate problem has been initiated. Effectivity of the ECP is not known.

8. WRM Due to Amplitude Modification of Power Source

Wavy Range Marks are caused by amplitude modulation of the 400 cycle power source. The amount of voltage modulation which will cause Wavy Range Marks is less than the maximum modulation allowed by airplane power supply specifications. Carefully controlled tests show that objectionable wavy range marks are caused by a .5 percent amplitude modulation of the AC power at a 2 to 8 cps frequency. Frequency modulation of the AC power has no apparent effect on the MA-6A System.

The Air Force was notified of the harmful effects of amplitude modulation by progress reports of EPT-80, Wavy Range Mark Investigation and the Wavy Range Mark Meeting held in Seattle on August 1, 1956. These will be supplemented by a Joint Boeing-BTL report on EPT-80.

BTL is investigating possible equipment changes to eliminate susceptibility to voltage modulation.

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B. SYSTEM OPERATION PROBLEM

1. Drifting of Latitude and Longitude Counters

Several instances have been encountered when the latitude and longitude dials on the MF-2 Navigation Control will change 1° - 3° when the ME-5 Computer is turned on or when switching from STAB to NAV mode of operation.

This drifting of the Nav counters during the "warm-up" period is objectionable when they do not return to their original setting. Since this change in latitude and longitude dial reading is considered unsatisfactory by Air Force personnel it has been necessary to replace Navigation Control Units, or servo motors in Nav Control Unit. This drifting of dials is usually not encountered on components with low operating hours. This problem has been coordinated with the equipment manufacturer and is being investigated.

2. APS-64 Radar AFC Instability

The setting of the -300 VDC supply in the PP-259 is very critical to provide satisfactory AFC operation as the RT-324 AFC is sensitive to fluctuations in the -300 VDC supply.

If the -300 VDC output of the PP-259 installed in an airplane is not set at the same value as the -300 VDC which was used to align the RT-324, AFC difficulties will in all probability be encountered. Therefore, it is necessary to adjust the PP-259 -300 VDC supply in the airplane for the particular RT-324 Unit which is installed in the airplane. This can be accomplished by setting PP-259 -300 VDC output with an accurate meter on bench and airplane or by peaking of crystal currents in the airplane by varying the -300 VDC.

Western Electric ECP's 2128 and 2141 have been initiated to improve regulation of PP-259 power supply and Philco ECP CPR-64-46 proposes regulation of -300 VDC in the RI-324. Production effectivity of Western Electric or Philco ECP's is not known. Functional test procedures have been revised to provide closer control of the -300 VDC to reduce AFC problems.

3. Synchro Slippage Due to Loose Collets

Slippage of gears on synchro shafts in the ME-5 Computer where tapered hub and collet nut design is used is a problem of long standing. Loose collet's are often found in components when received by the airplane

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manufacturer. Synchros on which collets have repeatedly been found loose are Polar Converter and Bomb Release Computer resolver rack synchros and Azimuth Computer synchros. These collets are checked for tightness during Functional checks by the Contractor but there is no assurance that the collets will stay tight after a period of time.

Although Sperry ECP-SPE-262 was initiated to alleviate this problem and collet tightening procedures have been revised by equipment manufacturers, Units are still being received from equipment manufacturer and Air Force Depots with excessively loose collets. Both A.C. Sparkplug and Sperry have been made aware of this problem and report on details of a recent investigation at Seattle is being prepared for transmittal to AMC.

4. Stab Unit Gear Train Backlash

During investigation of Synchronization troubles at Loring excessive backlash in synchro gear trains on top of Stab Unit was encountered. The amount of backlash encountered on gear trains for synchros SD-3515, SD-3511, and SD-3513 on Stab Units checked at Loring averaged approximately 200 Millivolts. A.C. Sparkplug Factory test Specs specify 40 Millivolts allowable backlash for these gear trains. Backlash on all A.C. Sparkplug Stab Units which have been checked at Seattle to date has been satisfactory.

This problem has been coordinated with the AMC and equipment manufacturers and action initiated at Boeing to check all Sperry Units for backlash during bench tests and to check for backlash during System Functional Test.

5. Offset Operation

Due to circuitry changes in the ground range and azimuth loops during offset operation, the characteristics of the voltages fed to the limiters of the fine-coarse system are varied in phase and magnitude. This change in the voltage results in a lowering of loop sensitivity during offset operation and the loop may drive to the wrong synchro null.

Sperry has initiated ECP SPE-382 to eliminate this offset operation problem and as an interim measure it may be necessary to select limiters to provide proper operation. Effectivity of ECP SPE-382 is not known.

6. ME-5 Computer Indicating Type Fuses

There is not indication of a blown fuse when fuse F-8605 fails until the Bomb Bay Door open signal is present. F-8605 protects the Bomb Bay Door Open circuits and the Bomb Release circuits. The operator has no indication of the Bomb Bay Door Control or Bomb Release circuits being inoperative until approximately three seconds prior to bomb release.

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There is no indication of fuses F-8810 and F-8810 being open unless there is an actual short in their circuits. These fuses protect the ground leg of 11.8 volt winding Synchro Excitation Transformers.

The problems associated with these three fuses were presented at the Air Force K-Action Group meeting in July 1955. Sperry ECP SPE-286-344 has been initiated to correct these problems.

7. MD-1 Polar Converter Fine Beta Synchro

When ground range is driven at a slew rate, and the Sighting Angle Mechanism in the Polar Converter is driven into its lower limit, the force of impact is sufficient to slip the sighting angle spur gear on the fine beta synchro shaft or bend the shaft.

This problem was reported to Sperry Gyroscope Company in April 1955 and ECP-287-331 was initiated to replace existing rudder bumper with soft rubber bumper designed to absorb the high velocity impact.

Incorporation of ECP-331 improved conditions but slippage of the fine beta synchro is still encountered. A second modification in the Polar Converter proposed by Sperry was incorporated in airplane AF52-007 and appears to be effective in eliminating the subject problem during radar altitude operation but does not eliminate the difficulty when slewing with the tracking handle.

It is understood that Sperry has determined a "fix" to eliminate this problem but it is not known when changes will be reflected in the equipment.

8. Y-7 Periscopic Bombsight Design Suitability

Several features of the Y-7 Sight make the sight awkward to use. The headrest and eye guard assemblies interfere with operators vision. The Transfer Lever Knob, Power Change Knob, and Azimuth Manual Control Knob are difficult to reach and combersome to operate.

These undesirable features of the Y-7 Sight were reported to Air Force at July 1955 K-Action Group Meeting and in the letter 480-9-31273 dated 19 October 1955. No known action has been initiated on any of these undesirable features of the sight.

9. IP-284 Servo Operation

Unstable operation of the indicator servo in the IP-284/APS Indicator was encountered when the MA-6A System was first installed in the B-52 airplane. The operation of the radar was unsatisfactory due to smearing of targets and non-coincidence of target during sector scan operation

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on the IP-284 Indicator. The indicator was modified per Motorola ECP CGG-135 and improved operation of the indicator was experienced, however, adjustment of the indicator servo was very critical and indicator "backlash" problems were often encountered. Motorola ECP CGG-162 has been initiated to utilize the output of the antenna rate generator as the source of backlash correction and should result in improved indicator servo operation

10. Ballistic Control Type MG-1

The method of inserting OFFSET information in the Ballistics Control has proven unsatisfactory because of slow rate at which offset values may be inserted and the interference encountered between crank assembly and retaining chain. The difficulties encountered when using the offset cranks on the Ballistics Control were first reported to Air Force at referenced meeting. Reference (b) granted a waiver to flight function 1 Test procedures for offset checks, since it was not possible to make the offset checks as specified in WCL-743 with the crank and chain arrangement. Two proposals to modify the method of inserting offset information in Ballistics control have been made:

1. Sperry ECP-380 proposes a change in gear ratio of cranks.

2. A&C Sparkplug ECP-178A proposes a motor driven method of inserting offset information.

The second proposal appears to have greater merit as the existing crank arrangement has proven very cumbersome to manipulate.

Reference (a) Air Force K-System Action Group meeting at Boeing-Seattle July 1955.

(b) MCPHBC/WCN/rs/R&D 2-5-1 dated 30 November 1956.

11. Fuzzy Pictures and Wavy Range Marks

Severe Wavy Range Marks are usually accompanied by fuzzy pictures due to sweep modulation. The EPT-80 investigation of Wavy Range marks has been completed at Seattle. One major source of severe "daisy chain" range marks was traced to sweep and video cable AC pickup from MA-6A cables carrying the Y-7 Slight heater circuits. An effective fix by rerouting Cable 20 and 21A is being accomplished by MRA-30434 and PRR-14411 effective on Seattle 7, 67, 79, 85 and on, Wichita 7 and on. This should alleviate other troubles as well, since the operators have been forced to turn off the optical sight heaters in many cases. There is no assurance that the optics will perform within spec limits without the heater.

The other sources of Wavy Range marks are primarily system design problems and/or susceptibility to small amounts of voltage amplitude modulation of AC power system, susceptibility to AC magnetic fields and just "built-in" Wavy Range marks. The vendor is working out fixes on an expedited basis.

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C. SYSTEM DEFICIENCY

1. Frost Formation of Y-7 Sight

Formation of frost in the Y-7 periscopic sight has been a continual problem. In many instances the frost has been sufficient to make the sight unusable.

This problem was presented to the Air Force K-System Action Group in July 1955 and reported to AMC by references (a) and (b). Frosting of the Y-7 Sight is listed as a "below the line" deficiency for each airplane at time of airplane delivery.

The following Farrand Optical Company ECP's have been initiated to eliminate the frosting problem:

FOA-415-1 Installation of Defrosting Unit in Y-7 Sight. (BLOWER)

FOA-415-3 Removal of breather in MA-1 Desiccator.

FOA-415-4 Reduce air flow and remove pressure switch and light in MA-1 Desiccator.

It is understood that ECP FOA-415-1 will incorporated in sight serial No. 325. It is not known when modified sights will be available for installation. New type desiccators (type MA-1A) incorporating ECP's FOA-415-3 and -4 are expected to be available in near future and will be installed with Y-7 Sights as soon as they are available.

References: (a) Letter to AMC 480-9-31624-460 dated 9-29-55.

(b) Letter to AMC 480-9-31822 dated 10-4-55.

2. APS-64 Video Blanking

The presentation of radar targets is unsatisfactory because of an area of dim or no targets beyond computer range marks. This condition does not exist on all APS-64 systems when the system is adjusted for optimun presentation. It is understood that Motorola is working on a fix for this problem. This item is listed as a FGAE equipment deficiency for B-52 airplanes and was reported to AMC in letter 480-9-33172 dated 11-15-55.

3. Gap in Azimuth Mark

The presentation of the Azimuth mark on the radar scope is deficient because of a gap in the mark immediately beyond the computer range mark

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when crosshair intensity is adjusted for optimun presentation. This problem was reported to AMC by reference (a). A proposed fix was tested on one airplane with satisfactory results. ECP-CW-2125 proposes a resistor change in SN-158 Synchronizer to eliminate Azimuth mark gap but to date the change has not been incorporated in production equipment received for installation in B-52 airplanes. This item is carried as a GFAE deficiency for B-52 airplanes. T.O. 11B43-2-1-508 has been issued for field modification of ECP-2125.
Reference: (a) Letter to AMC 480-9-33172 dated 11-15-56.

4. APS-64 Radar - A-3A FCS Radar Interference

Interference between the APS-64 Radar and A-3A FCS Radar Systems in the B-52 airplane may be encountered when APS-64 is in Beacon Mode and may also be encountered when APS-64 is in search and operating at same or image frequency of A-3A Radar. If interference is encountered when APS-64 Radar is on search mode of operation it can be eliminated by changing APS-64 frequency.

Interference is encountered during beacon mode of operation since the difference between Beacon Receiver frequency and A-3A Fire Control frequency is double the frequency difference between Beacon Receiver frequency and beacon Local Oscillator frequency.

The problem is under investigation by Contractor at present time and the interference problem is listed as a deficiency for the B-52 airplane.

5. PMG Mark Presentation

When PMG marks are adjusted per T.O. 11B19-5-3-2 to meet requirements of Air Force exhibit WCL-173 it was not possible to adjust intensity of computer crosshairs without causing blooming of PMG marks and loss of contrast between 6000 foot and 1500 foot marks. An additional problem associated with PMG marks presentation is a bright line, resembling an azimuth mark, displayed along the edge of sector during PMG operation which tends to obscure the PMG marks.

Details of this problem and possible fixes were forwarded to Air Force in referenced letter (a). Approval was granted by AMC to install a P-902 terminator pad in series with Cable 95 as an interim fix for the PMG deficiencies. P-902 pads are being installed in B-52 airplanes 54-2668 and on and Wichita 55-049 and on. PMG mark presentation is listed as a system deficiency on airplanes which were delivered without P-902 pads installed.

Western Electric ECP CW-2134 proposes modification of PMG to improve the PMG marks display.

Reference: (a) Letter to AMC 480-9-33172 dated 11-15-55.

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D. LOW VOLTAGE PROBLEM

1. Low Voltage Problem

The operation of the MA-6A Radar has been adversely affected by low A.C. voltage input to the system. It was found that in order to supply 115 VAC to the radar it was necessary to set airplane voltage at 205 volts (as read at co-pilots station) because of load unbalance and voltage drops between point of regulation and bombardiers circuit breaker panel (input to MA-6A System) and because of voltage drops in system wiring.

To assure that proper voltage is supplied to system the fqllowing action has been taken:

(a) Revised airplane operating procedures to allow voltage be set between 200-205 volts.

(b) Calibrate co-pilots voltmeter.

(c) Redistribution of A.C. loads ECP-469 effective on airplane 116 and on.

An investigation of voltage drops in MA-6( ) System wiring was made in conjunction with Wavy Range Mark investigation. The data obtained was forwarded to equipment manufacturers and WADC for evaluation.

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HEADQUARTERS 45TH AIR DIVISION
LORING AIR FORCE BASE, MAINE
10 DECEMBER 1956

B-52 CONVERSION PROGRESS REPORT #13

FOR

45TH AIR DIVISION (SAC)

This Report Contains /8 Pages

When the Foreword Section of this report is withdrawn or not attached, the classification of this report will be downgraded to CONFIDENTIAL.

45AD OPLAN 1-55
67392S
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DETAILED COMMAND ACTIONS

PERTAINING TO

PROGRESS REPORT #13

45TH AIR DIVISION PROGRAMMING PLAN 1-55

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FOREWARD TO PROGRESS REPORT #13

SECTION I - GENERAL

1. To reflect a more comprehensive presentation of the problem area, this report has combined the problem areas and the overall evaluation in Section II of this report.

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SECTION II - PROGRESS EVALUATION

1. Overall: The progress of the B-52 Conversion during November 1956 was affected by the Higher Headquarters directed mission, supply shortage, and the current SAC Alert.

2. Supply:

a. Present shortage of aircraft spares indicated as shipped on "Routine Requisition" by the depot is 39%. The remaining 61% have been back-ordered, extracted to other depots or contractors, or indorsed. Of the "Priority Requisition" 74% were indicated as shipped. The remaining 26% have been back-ordered, extracted to other depots or contractors, or indorsed. The above is for the period of 15 October 1956 to 15 November 1956.

b. Alternator drive consumption figures of 72 flying hours versus a planned figure of 140 flying hours has increased the replacement of drives approximately 50%. Reference 45th Air Division message BMAPA 13485, dated 29 November 1956.

3. Training:

a. Flying time - 89 sorties and 966:50 hours were flown in November 1956 of which 294:35 hours were higher headquarters directed missions and 28:25 hours were test hops.

b. Crew Status

(1) 47 crews assigned.

(2) 42 crews arrived from 4017th.

(3) 34 crews 51-19 qualified.

(4) 11 crews combat ready.

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c. Of the 42 crews which have arrived from the 4017th:

(1) 6 crews are 0-20% complete on 50-43 requirements.

(2) 7 " " 20-40% " " " "

(3) 8 " " 40-60% " " " "

(4) 7 " " 60-80% " " " "

(5) 3 " " 80-100% " " " "

(6) 11 " " combat ready.

Total 42

d. At present the authorization of one periscopic sextant per aireraft (B-52 and/or KC-97) with a stand-by level, in Base Supply, of nine sextants is inadequate. Navigational training missions have been lost due to malfunctions of the periscopic sextant, and had a spare periscopic sextant been available, these missions would not have been lost. Therefore, the 42nd Bombardment Wing is preparing a request for a change in the MEAL which will be forwarded to the Equipment Evaluation and Audit Team (B-52 Castle AFB and KC-97 Westover AFB) recommending authorization of one additional periscopic sextant per B-52 and KC-97.

4. Project "Spic and Span" - Plans have been completed and were forwarded to Headquarters Eighth Air Force for approval.

W. K. MARTIN
Brigadier General, USAF
Commander

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REPORT OF DIRECTOR OF MATERIEL

SUBJECT	NECESSARY ACTION	DEVELOPMENT AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
1. Rehabilitation of Existing Facilities		a. JP-4 Seal Coat: LOR 145-56	100%	10
		Complete and accepted LOR 67-57	100%	10
		b. Taxiway Lights: LOR 78-57. Project to modify Taxiway Lights has been submitted to Hq 8AF for technical review.	10%	1
		c. Luria Docks: Number 1 priority on FY 59 MCP. A new control tower across the runway, also on the FY 59 MCP, would eliminate the line of sight trouble	0%	0
		d. Multi-purpose Docks: Actual construction has not started because of material difficulties.	10%	1
		e. Modify D.C. Hangar for B-52 Operations: Construction has just started on air pipes. Manufacturer will not begin production of six door inserts until late in November. These will be delivered about 1 Jan 57 with installation scheduled to begin as soon as they arrive. Still awaiting funds for relocation of doors to accommodate B-52s. Funding situation has been submitted to USAFIR in Boston. Estimated cost is $22,400.	15%	1
		f. Power and Lights to Maintenance Stands: Construction has started and is now awaiting arrival of special power boards. These have been ordered. Engineering is	100%	10
		Construction is	10%	1

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SUBJECT	NECESSARY ACTION	DEVELOPMENT AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
1. Cont'd		g. Stand for Refueling Doors: Curb for aircraft parking ramps for outrigger gear. Outrigger gear platforms complete. Curbs are installed. Plans are in 8AF awaiting funds for stands for refueling doors	70%	7
		h. Flight Simulator: Conversion of bakery to house flight simulators is The only things remaining in the construction phase are cutting a door in the building to allow installation of the simulators and closing the door after installation. These cannot be accomplished until the simulators arrive and the size of the door needed is determined.	97.3%	10
		i. Replace South Asphaltic Concrete Holding Pad with Portland Cement Concrete: Design will begin with AFIR in Boston. Item firm in 58 MCP	0%	0
		j. JP-4 to Hydrants: 13 of the 15 filter conversion kits have been installed. These are the ones for jet fuel. Two kits for avgas are on order, but have not been received. Jet fuel hydrants Avgas hydrants	100% 82%	10 8
2. New Construction	Coordinate with AIO on programs of new construction items.	a. Jet Engine Test Stand: Phase I and II complete. Portable test stand is operational. Expected date of completion is 1 Dec 56	90%	9

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SUBJECT	NECESSARY ACTION	DEVELOPMENT AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
2. Cont'd		b. (1) Liquid Oxygen Plant: LOR 156-56. Original project LOR 156-56 is complete. However, additional work has been imposed by receipt of skid-mounted diesel-powered LOX generator, and will be completed in December. This generator has been installed and operationally checked. Water, heating, lighting and sewage have been installed. Insulation of building is 75% complete. Project completion date is 15 December.		
		b. (2) LOX Equip, Instal, Oper and Spare Support: LOX equipment spare parts are as follows: 105 line items ordered on Local Purchase requests, 74line items received, 31 line items on back order.----- The figure 205 line items ordered on Local Purchase requests reported recently incorrect. Figure should have been 105. Remaining figures were also incorrect as they were based on the figure 205. The generator on loan is working satisfactorily. Parts for Loring trailer mounted generator on LP since Sept. Repeated calls to depots located partial supply of parts required. Factory advised 7 Nov 56 that remaining items will be available for shipment by 15 Nov. Portion of progress report dated Sept 56 concerning second LOX 500 Gallon Tank applies to this report. Both storage and production at the moment insufficient to meet EWP requirements. With additional aircraft this will be aggravated until second tank is received.	70.4%	7

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SUBJECT	NECESSARY ACTION	DEVELOPMENT AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
2. Cont'd		c. MA-6A Bomb Nav System Flyaway Benches: Three production benches on hand. Until we exceed 30 aircraft, this bench set-up is adequate. Estimated delivery date on remaining benches is November 56.	75%	7
4. Z-Accounts (Supply)	Take necessary action for maintenance of accurate B-52 Supply Status data on the following:			
	a. Equipment items "Z" Account	a. 881 line items in account 710 line items on hand 171 line items with partial issue or no supply action 4 line items critically required	80%	8
	b. Non "Z" Account	b. 2156 line items in account 1579 line items received	73%	7
	c. Local Purchase	c. 877 line items in account 595 line items received	68%	7
	d. Table II support for 15 aircraft on automatic AFSD	d. Table II Support for 15 Aircraft for Jet Engine Field Maintenance Parts for J-57-29W Engines: AFSD 5601430 has been received. 515 line items in account. 8 line items received.	0%	0

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SUBJECT	NECESSARY ACTION	DEVELOPMENT AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
4. Cont'd	e. Initial support of Flyaway Kit Spares for B-52 aircraft.	e. Pre-Strike Auth: 10,496 On Hand: 287 % Comp: 27.4 Post-Strike Auth: 5,536 On Hand: 1,648 % Comp: 19.7 Base-Strike Auth: 27,511 On Hand: 4,605 % Comp: 16.7		
	f. Disposition of excess B-36 Spares	f. B-36 spares are being processed thru Packing and Crating for shipment off base. There is still a backlog of equipment in Packing and Crating.		
5. Engine Build-Up	AFSD for J-57 Spare Parts	AFSD has been received. 515 line items in account. 8 line items received. ----------	2%	0
25. Safety Guard for Exposed Switches & Panels in Aircraft	Install additional guards	TMI has been published. Requirements are being accomplished in Periodic Inspections. Estimated date of completion is 31 December 56. ----------	75%	7
26. Painting of Maint. Selector Switches & Guard on Fuel Panel	Set up procedures to assure painting of those items upon receipt of aircraft.	See paragraph 25.		

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REPORT OF THE DIRECTOR OF OPERATIONS

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
2-40 Gunnery Training	Establish a program to develop and/or procure equipment to improve gunnery training and fire-out rate.	ANFE items, in general, have curtailed gunnery training. An estimated 65% of gunnery training has been lost due to the shortage of Fire Control spares. The low fire-out rate (currently averaging 82%) has resulted from freezing of old type gun chargers at altitude. A heated gun charger should be available in the near future. Fire-out rate will not show significant improvement, however, until continuing procurement action reduces the number of ANFE items.	55%	5
49. Personal Equipment Requirements for B-52	Secure necessary personal equipment.	There has been some improvement, however, the following items remain critical: Large P-4 Helmets - EDD 1 Jan 57 6-Man Life Rafts - 13 received. No difficulty expected in obtaining balance. F-1A Automatic Release - no EDD. PK-2 Life Rafts - 90 now available. MD-1 Container - SAC Reg. No EDD. A-17 Flying Boots - 274 received. No difficulty expected in obtaining balance.	80%	8

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
49. cont'd		Flying Gloves - No EDD. Small quantity received in November. No EDD. 67-3 letters have been submitted on Non-SAC regulation items. The B-5 parachute is no longer critical. Supply assistance letters have been submitted.		
58. Airborne Radar Instrument Let-Down Procedure	Establish and test fly airborne radar instrument let-down procedures.	A satisfactory airborne radar instrument let-down procedure has been published. Action complete.	100%	10

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
77. Training Bombs	Establish a capability to drop practice bombs from the B-52.	The procurement, during November, of the required electrical components has established the capability to drop 500- and 750-lb practice bombs. No further plans are being made to utilize 250-lb practice bombs until and unless higher authority so directs. Action complete.	100%	10
97. Operation of Training Aids.	Report periodically on the status of procurement and operation of: a. Ultrasonic Trainers. c. Periscopic Sextant Mock-up.	a. Neither the T-2A nor the T-3 trainer is of the B-52 configuration, although some local, physical modification has been accomplished, and therefore, neither is suitable for MA-6A training. A modification kit for the T-3 should arrive in May or June 1957. The present trainer, however, has been out of commission for more than a month. Depot maintenance has been requested and should be accomplished during December. The T-2A modification kit, supposedly shipped in October, has not arrived as a kit, but about 1/6 of the required items have arrived piecemeal. The depot has been queried, arrival date of the complete kit is not yet known. c. This item has been requisitioned and has been back-ordered. Delivery date is still uncertain.	50%	5

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
101. Training	A. Monitor the delivery of Synthetic Trainers.	A. No A-3A trainer is now available, and gunnery training on the A&E maintenance mockup, while helpful, is inadequate. An A-3A trainer is due to arrive in March 1957. The B-52 Simulator should be delivered in March 1957. Housing facilities for the simulator are ready except for minor installation work to be done when the trainer arrives.	50%	5
		(1) B-52 Flight Simulator was scheduled to be delivered in Nov. 56. Informal information indicated that January or March is a more realistic time to expect delivery.	50%	5
		Modification of building to house trainer.		
		a. Civilian Contractor.	80%	8
		b. AIO work orders:		
		(1) Air Conditioning	0%	0
		(2) Removal of a wall.	75%	7
		(3) Partitions and doors.	0%	0
		(4) Lighting fixtures.	0%	0
	B. Periscope Sextant Mock-Up.	B. Set charts and H1 Projector are needed.	0%	0

END OF REPORT OF THE DIRECTOR OF OPERATIONS

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
102. Communications	(a) Monitor the administrative telephone system to assure adequate communications are provided.	(a) Base Administrative System: Present 1000 lines are 99.8% loaded and cannot take any additional loading. All equipment on hand for 400 line addition; team scheduled to commence installation 19 Nov. Estimate completion in 45 to 60 days.		
	(b) Monitor the outside cable plant project to assure cable distribution to aircraft stub and nose dock areas is accomplished at earliest possible date.	(b) Outside Cable Plant: Underground cable construction is ——————100% Underground cable splicing is ——100% Aerial cable construction ————100% Aerial cable splicing——————100% Project accepted 3 December. Phones being installed. Estimated completion date is 20 December.		10 10 10 10
103. Fund (42ABG Comptroller)	Insure that fund requirements for conversion of the 42BW are included in financial plan, and that funds made available in accordance therewith are allotted to support schedule buildup.	Funds required for B-52 conversion were included in FY 57 Annual Financial Plan and revised and submitted 10 Sep. Tentative Annual Budget Authorization and First Quarter Allotments represent 81% of estimated requirements.		
104. Public Relations Office of Information.	Prepare in coordination with Hq 45AD and Hq 42BW news releases concerning this plan.	Stories on the B-52 and Loring are appearing in the current issue of the BOEING MAGAZINE. The jet noise problem appears not to exist in this area to any great extent, other than within the base itself. Tours and talks are continuing as usual and more B-52 features will appear in the LIMELITE and other publications as stories with news are uncovered.		

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REPORT OF THE DIRECTOR OF PERSONNEL

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS
106. Manning of B-52 T.O. or UMD's	Projected assignment of presently assigned personnel in duties authorized by B-52 T.O. and UMD's. This must include personnel input of "Hard Core" type, plus retained assigned personnel. Requisition personnel shortages sufficiently early to insure procurement when needed as determined by overall timing of the 42BW Conversion.	Projection of presently assigned personnel of the 42BW has been made against current SAC Unit Manning Documents.

a. Officer Manning:

Auth	% Assigned	% Effective	1 Apr 57 % Projected Assigned
600	82.8	78.8	81.6

Reduction in percentage assigned and percentage effective since last report is due to additional crew authorization as of 15 November to provide 1.6 crew aircraft manning ratio.

Greatest requirement for additional officer input to increase effective manning and alleviate shortages is as follows:

AFSC	Title	Auth	Asgd	% Assigned Projected 1 Apr 57
3216	Armament Staff Off	3	2	67
3234	Armament Sys Off	5	3	40
3244	Armament Opns Off	4	3	50
4316	A/C Maint Staff Off	6	5	83*
4334	Flt Test Maint Off	4	1	25
4355	Production Cont Off	3	2	67
6424	Supply Off	11	10	82**
7024	Admin Off	5	5	80
9356	Med Off Avn Med	5	4	80
9446	Otolaryngologist	1	0	0
9636	Radiologist	1	0	0
9734	Nurse, Oper Rm	1	1	0
9754	Nurse, General	12	12	91
9836	Oral Surgeon	1	0	0
9856	Prosthodentist	1	0	0
73000	Personnel Supt	1	0	0

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106. cont'd

* UMD Position requested for one additional AFSC 4316 on 28 Sep 56. If authorized, % manned will be 71.

** AFSC 6424 critical because two of assigned officers are at entry level and no assistance can be had from Air Base Group. Air 42d Air Base Group has a similar projected shortage of two officers AFSC 6424 and four of the eight prescribed assigned officers will be at entry level.

b. Airmen Manning:

(1) Direct Support Areas:

Career Field	% Assigned	% Assigned Projected 1 Apr 57
30 Radio Radar Systems	100+	100+
32 Armament Sys Maint	100+	100+
42 A/C Access Maint	100+	100+
43 A/C & Engine Maint	88.1	86.4
472X0 Grnd Power & Support Equip Technician	100+	98.4
534X0 Airframe Repair Tech	100+	100+

Shortages in the 43 Career Field are primarily due to the following AFSC's:

AFSC	Auth	% Assigned	% Assigned Projected 1 Apr 57
431X1B	86	93.0	48.8*
431X1E	630	78.6	83.8**

Above is computed to include personnel being cross-trained into AFSC's indicated.

* 45AD message 9609, dated 20 Sep 56, requested expeditious action to assign additional personnel in this AFSC to this command. In reply, 8th AF message DPAIB 23389, dated 27 Sep 56,

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106. cont'd

stated that due to overall command shortages, further inputs could not be made at this time. This message authorized as a temporary measure the utilization of Reciprocating Engine Mechanics, AFSC 432X1 in this field. With OJT this measure will partially alleviate a critical manning situation; however, manning in Required Specialty (MIRS) will be adversely affected.

** This includes 60 personnel 43131E's projected under "Project Get Well" in accordance with 8th AF Radnote, dated 14 Nov 56.

(2) Overall Airmen Manning:

	Auth	Asgd	MIRS	% Body Manned	% MIRS	% Prjd Asgd
Direct Support	1894	1980	1604	104.5	84.7	102.3
Indirect Support	613	632	418	103.1	68.1	101.8

111. SAC Resource crews — Monitor assignment of B-52 Combat Crews trained from SAC resources.

To date 54 crews of all types have completed B-52 crew training at Castle AFB: 83%

Staff crews	6
Former B-36 crews	18
Former B-47 crews	30*

* Of the 30 former B-47 crews trained from SAC resources, 25 have been reassigned to Loring AFB. 5 have completed TDY training at Castle and have returned to home stations for subsequent PCS assignment to Loring. Reassignment should be completed by 10 Dec 56.

2 remaining B-52 crews, programmed for Loring AFB have entered training and will graduate on dates indicated:

2 Former B-36 Crews 5 Dec 56.

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B150-9

HEADQUARTERS 45TH AIR DIVISION
LORING AIR FORCE BASE, MAINE
7 JANUARY 1957

B-52 CONVERSION PROGRESS REPORT #14

FOR

45TH AIR DIVISION (SAC)

This Report Contains 16 Pages

When the Foreword Section of this report is withdrawn or not attached, the classification of this report will be downgraded to CONFIDENTIAL.

45AD OPLAN 1-55
7#0047
7 Jan 57

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FOREWORD TO PROGRESS REPORT #14

SECTION I - GENERAL

1. To reflect a more comprehensive presentation of the problem area, this report has combined the problem areas and the overall evaluation in Section II of this report.

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SECTION II - PROGRESS EVALUATION

1. Overall: The conversion of the 42nd Bombardment Wing has proceeded satisfactorily in most respects. The primary deficiencies have been related to systems malfunctions in the aircraft which have caused major delays in aircraft deliveries and excessive maintenance requirements. The delivery of aircraft at the end of December is back on schedule with 44 aircraft assigned but has already prevented the orderly upgrading of crews to combat-ready status. In order to meet the original program of 32 combat-ready crews by 1 February 1957, a program has been established to upgrade a minimum of 16 crews during the month of January. This program will require maximum utilization of available tanker support and the delivery of "D" Model aircraft as presently assigned "C" Models are transferred to the Third Wing. (SECRET)

2. Supply:

a. Aircraft Spares - Procurement of aircraft spares continues to present a problem. During the period 15 November to 31 December only 65% of routine requisitions and 57% of priority requisitions were shipped by the depot on initial action. (UNCL)

b. The shortage of 41 alternator drives still exists. The experience replacement factor has been approximately one alternator per 70 flying hours as compared to the programming factor of one alternator per 140 flying hours. In addition, a high alternator failure rate has been experienced since the average temperature lowered with the beginning of winter. The following table shows the various failure rates under different conditions.

ALTERNATOR TRIP-OFF RATE

Period	Condition	Sorties X4=Potential	Trip-Offs	Rate
1-25 Nov	Warm-Parallel	70 X 4 = 280	12	4.3%
26 Nov-2 Dec	Cold-Parallel	30 X 4 = 120	8	6.7%
3-16 Dec	Cold-Isolated	30 X 4 = 120	18	15.0%
3-16 Dec	Cold-Parallel	16 X 4 = 64	10	15.6%
17 Dec-2 Jan	PreHeat-Isolated	24 X 4 = 96	5	5.2%
17 Dec-2 Jan	PreHeat-Parallel	18 X 4 = 72	2	2.8%

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Initially, little difference in failure rate was noted with the temperature drop. At the time it became necessary to operate the alternators in isolated, an extremely high failure rate was noted; however, an equally high failure rate was experienced with those alternators operating in parallel. On 17 December, a procedure was established utilizing ground heaters to pre-heat the alternators. This action immediately lowered the failure rate to approximately the same as it had been prior to the onset of cold weather. It should also be noted that the failure rate of alternators operating in isolated condition is approximately double the rate of those operating in parallel. (CONFIDENTIAL)

c. Personal Equipment - The availability of certain items of equipment remains critical with little indication of improvement. Large size P-4 helmets, PK-2 Life Rafts, MD-1 Containers and Flying Gloves are particularly critical. Reference item 49. (UNCLASSIFIED)

3. Training:

a. Flying Time: 105 sorties and 946 hours were flown in December. 24 sorties and 110 hours of the flying time were accomplished on test hops and ferry flights. (UNCLASSIFIED)

b. Crew Status: (CONFIDENTIAL)

(1) 50 crews assigned.

(2) 46 crews have arrived from 4017th.

(3) 39 crews 51-19 Qualified.

(4) 16 crews combat-ready or higher.

c. Of the 46 crews which have arrived from the 4017th: (CONFIDENTIAL)

(1) 6 crews are 0 - 20% complete on 50-43 requirements.
(2) 5 " " 20 - 40% " " " "
(3) 7 " " 40 - 60% " " " "
(4) 10 " " 60 - 80% " " " "
(5) 2 " " 80 -100% " " " "
(6) 16 crews are combat ready.

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d. In addition to the crews that have been upgraded, 8 have completed portions of the upgrading standboard requirements, including 3 which have completed the heavy-weight refueling. (CONFIDENTIAL)

e. RBS Activity - 119 Radar RBS runs were accomplished in December with a CEA of 2011 feet and 87% reliability. (CONFIDENTIAL)

f. Navigation - During the month of December, 50 Grid Navigation legs were accomplished with a CEA 10.7 miles and a reliability of 100%. 31 Night Celestial legs were accomplished with a CEA of 14.9 miles and a reliability of 94%. (CONFIDENTIAL)

g. Electronics Counter Measures - The restriction on the use of the ALT-6 is limiting the accomplishment of ECM training. In addition, the evaluation of the quality of ECM jamming is being hampered by the use of two different scoring systems by Air Defense Command sites. Apparently some sites have not received instructions on the new scoring system. (UNCLASSIFIED)

4. Personnel: A critical shortage of 121 Jet Aircraft mechanics (AFSC 431X1E) exists which will not be alleviated by Operation "Get Well". In addition, the skill level will be materially reduced by the loss of 89 airmen in this career ladder during the next 120 days. 77 of these losses are from the 5 skill level. (UNCLASSIFIED)

5. Project "Spic and Span". Drawings and recommendations for Armament & Electronics Model Shops were submitted to Eighth Air Force in November 1956. Review and approval by Eighth Air Force will be necessary before further action can be taken. Action that can be accomplished at Loring has been initiated, such as manufacture of signs and clean-up. (UNCLASSIFIED)

W. K. MARTIN
Brigadier General, USAF
Commander

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DETAILED COMMAND ACTIONS

PERTAINING TO

PROGRESS REPORT #14

45TH AIR DIVISION PROGRAMMING PLAN 1-55

SECTION III

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REPORT OF DIRECTOR OF MATERIEL

SUBJECT	NECESSARY ACTION	DEVELOPMENT AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
1. Rehabilitation of existing facilities		a. Taxiway Lights: LOR 76-57. Project to modify Taxiway Lights has been submitted to Hq 8AF for technical review. No change.	10%	1
		b. Luria Docks: Command assistance requested to reinsert modification as emergency item in FY 57 MCP. UAL Change Request submitted for TV Equipment as temporary solution for line of site problem. Relocation of control tower FY 59 MCP.	0%	0
		c. Multi-purpose Docks: Actual construction has not started because of material difficulties. Corps of Engineers recommends deferral until spring.	10%	1
		d. Modify D.C. Hangar for B-52 Operations: Door inserts installed. Funds have been received for relocation of doors to accommodate 6 B-52's. Estimate completion 1 May 1957.	15%	1
		e. Power and Lights to Maintenance Stands: Construction has started.	20%	2
		f. Stand for Refueling Doors: Curb for aircraft parking ramps for outrigger gear. Outrigger gear platforms complete. Curbs installed. Plans are completed for local fabrication of refueling door stands.	70%	7

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SUBJECT	NECESSARY ACTION	DEVELOPMENT AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
1. Cont'd		g. Flight Simulators: Conversion of bakery to house flight simulators is ---------- The only things remaining in the construction phase are cutting a door in the building to allow installation of the simulators and closing the door after installation. These cannot be accomplished until the simulators arrive and the size of the door needed is determined. The flight simulator building has been deleted from the FY 57 MCP.	97.3%	1
		h. Replace South Asphaltic Concrete Holding Pad with Portland Cement Concrete: The phase A drawings have been received for review. Comments will be forwarded to AFIR in Boston.	10%	1
		i. JP-4 to Hydrants: 27 of the 29 filter kits have been received. JP-4 lines are complete.	93%	9
2. New Construction	Coordinate with AIO on programs of new construction items.	a. Jet Engine Test Stand: Complete	100%	10
		b. (1) Liquid Oxygen Plant: LOR 156-56. Original project LOR 156-56 is complete. All work orders complete except moving transformers closer to building and connection of power.	100%	10

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SUBJECT	NECESSARY ACTION	DEVELOPMENT AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
2. Cont'd		c. (2) LOX Equip, Instal, Oper and Spare Support: One LOX plant non-operational pending contract for repair of cylinders. Project being prepared to provide a permament facility with greater output to replace present temporary facility considered inadequate.	70.4%	7
		d. MA-6A Bomb Nav System Flyaway Benches: Three production benches on hand. Estimated delivery date on remaining benches is Jan 57.	75%	7
4. Z-Accounts (Supply)	Take necessary action for maintenance of accurate B-52 Supply Status data on the following:			
	a. Equipment items "Z" Account	a. 902 line items in account 710 line items on hand 154 line items with partial issue or no supply action. 13 line items critically required	82%	8
	b. Non -"Z" Account	b. 2156 line items in account 1590 line items received	74%	7
	c. Local Purchase	c. 877 line items in account 626 line items received	71%	7
	d. Initial support of Flyaway Kit Spares for B-52 aircraft.	d. 69BOMRON Auth: 41,928(d) On Hand: 3,745 % Comp: 10% 70BOMRON Auth: 41,928(d) On Hand: 1,774 % Comp: 5% 75BOMRON Auth: 44,068(c) On Hand: 7,695 % Comp: 18%		

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SUBJECT	NECESSARY ACTION	DEVELOPMENT AND PROBLEMS	PERCENT COMPLETE	V-2 INDEX
4. Cont'd	f. Disposition of Excess B-36 Spares	f. B-36 spares and equipment are being processed through Packing and Crating for shipment off base.		
5. Engine Build-Up	AFSD for J-57 Spare Parts	AFSD has been received. 515 line items in account. 495 line items received.	96%	10
25. Safety Guard for Exposed Switches and Panels in Acft	Install additional guards	TMI has been published. Requirements are being accomplished in Periodic Inspections. This item will not be completed until all "D" model aircraft receive a periodic inspection.	75%	7
26. Painting of Main Selector Switches and Guard on Fuel Panel	Set up procedures to assure painting of items upon receipt of aircraft.	See Paragraph 25		

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10

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REPORT OF THE DIRECTOR OF OPERATIONS

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
2-40 Gunnery	Establish a program to develop and/or procure equipment to improve gunnery training and fire-out rate.	ANFE items, in general, have curtailed gunnery training. An estimated 65% of gunnery training has been lost due to the shortage of Fire Control spares. The low general fire-out rate has resulted from freezing of unheated old type gun chargers at altitude. A heated gun charger should be available in the near future. Fire-out rate will not show significant improvement, however, until continuing procurement action reduces the number of ANFE items.	55%	5
49. Personal Equipment Requirements for B-52	Secure necessary personal equipment.	There has been some improvement, however, the following items remain critical: Large P-4 Helmets. No EDD. 6-Man Life Rafts - 13 received. No difficulty expected in obtaining balance. F-1A Automatic Release - no EDD. PK-2 Life Rafts - 90 now available. MD-1 Container - No EDD. Flying Gloves - no EDD. Small quantity received in November. No EDD. 67-3 letters have been submitted on non-SAC regulated items.	80%	8

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
97. Operation of Training Aids.	Report periodically on the status of procurement and operation of: a. Ultrasonic trainers c. Periscopic sextant Mock-up.	a. Neither the T-2A nor the T-3 Ultrasonic trainers is of the B-52 configuration, (although some local physical modification has been accomplished) and therefore, neither is suitable for MA-6A training. The T-3 modification kit should arrive in May or June 1957. At present, due to recurrent malfunctioning, the T-3 has been out of commission for over two months. Depot maintenance, requested in November 1956, should be accomplished during January 1957. The T-2A Modification Kit is now expected to arrive during January 1957. MA-6 conversion equipment for the T-21 is arriving piecemeal; six items (13% of the required equipment) have arrived. The depot is unable to forecast shipment of the remaining items. c. Item back-ordered; delivery date uncertain.	50%	5
101. Training	A. Monitor the delivery of Synthetic Trainers.	A. An A-3A gunnery trainer is due to arrive in March 1957. Interim training on the maintenance mock-up is inadequate. The B-52 Simulator should arrive during March 1957. Housing facilities for the simulator are ready except for minor installation work.	50%	5

END OF REPORT: DIRECTOR OF OPERATIONS

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE	V-2 INDEX
102. Communications	(a) Monitor the administrative telephone system to assure adequate communications are provided.	(a) 600 additional lines have been cut over, alleviating the previously reported condition (Final report on this item.)	100%	10
	(b) Monitor the outside cable plant project to assure cable distribution to aircraft stub and nose dock areas is accomplished at earliest possible date.	(b) Outside Cable Plant is 100% installed. Service is now available in the North Stub Area.	100%	10
103. Fund (42ABG Comptroller)	Insure that fund requirements for conversion of 42BW are included in financial plan, and that funds made available in accordance therewith are allotted to support schedule buildup.	Funds required for B-52 conversion were included in FY 57 Annual Financial Plan and revised and submitted 10 Dec. Tentative Annual Budget Authorization and First Quarter Allotments represent 81% of estimated requirements.	100%	10
104. Public Relations Office of Information.	Prepare in coordination with Hq 45AD and Hq 42BW news releases concerning this plan.	Stories on the B-52 and Loring are appearing in the POPULAR MECHANICS and SATURDAY EVENING POST. The jet noise problem appears not to exist in this area to any great extent, other than within the base itself. Tours and talks are continuing as usual and more B-52 features will appear in the LIME-LITE and other publications as stories with news are uncovered.	100%	10

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REPORT OF THE DIRECTOR OF PERSONNEL

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS
106. Manning of B-52 T.O. or UMD's	Projected assignment of presently assigned personnel in duties authorized by B-52 T.O. and UMD's. This must include personnel input of "Hard Core" type, plus retained assigned personnel. Requisition personnel shortages sufficiently early to insure procurement when needed as determined by overall timing of the 42BW Conversion.	Projection of presently assignei personnel of the 42BW has been made against current SAC Unit Manning Documents.

a. Officer Manning:

Auth	% Assigned	% Effective	1 May 57 % Projected Assigned
600	83.3	81.2	81.0

Greatest requirement for additional officer input to increase effective manning and alleviate shortages is as follows:

AFSC	Title	Auth	Asgd	% Assigned Projected 1 May 57
3216	Armament Staff Off	3	2	67
3234	Armament Sys Off	5	2	60
3244	Armament Opns Off	4	3	75
4316	A/C Maint Staff Off	6	5	83*
4334	Flt Test Maint Off	4	1	25
6424	Supply Officer	11	9	64
7024	Admin Off	5	5	80
9356	Med Off Avn Med	5	4	80
9446	Otolaryngologist	1	0	0
9636	Radiologist	1	0	0
9737	Nurse, Oper Rm	1	1	0
9754	Nurse, General	12	11	83
9836	Oral Surgeon	1	0	0
9856	Prosthodentist	1	0	0
73000	Personnel Supt	1	0	0
4355	Production Cont Off	3	2	67

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14

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SUBJECT NECESSARY ACTION PROBLEMS & DEVELOPMENTS

106. (Cont'd)

*UMD Position requested for one additional AFSC 4316 on 28 Sep 56. If authorized, % Manned will be 71.

b. Airmen Manning:

(1) Direct Support Areas:

Career Field	% Assigned	% Assigned Projected 1 May 57
30 Radio Radar Systems	134.0	122.3
32 Armament Sys Maint	137.9	137.4
42 A/C Access Maint	125.3	122.6
43 A/C & Engine Maint	89.0	85.4
472X0 Grnd Power & Support Equip Technician	112.7	106.3
534X0 Airframe Repair Tech	104.2	98.6

Shortages in the 43 Career Field are primarily due to the following AFSC's:

AFSC	Auth	% Assigned	% Assigned Projected 1 May 57
431X1B	86	76.7	75.6
431X1E	630	82.4	80.0**

Above is computed to include personnel being cross-trained into AFSC's indicated.

**This includes 60 personnel 43131E's projected under "Project Get Well" in accordance with 8th AF Radnote, dated 14 Nov 56.

(2) Overall Airmen Manning:

	Auth	Asgd	MIRS	% Body Manned	% MIRS	% Prjd Asgd
Direct Support	1894	1993	1653	105.2	87.3	96.7
Indirect Support	613	617	421	100.7	68.7	103.4

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
111. SAC Resource Crews	Monitor assignment of B-52 Combat Crews trained from SAC resources.	To date all 56 crews to be trained have completed B-52 training at Castle AFB: Staff crews 6 Former B-36 crews 20 Former B-47 crews 30* * Of the 30 former B-47 crews trained from SAC resources, all have been reassigned to Loring AFB.	100%

END OF REPORT OF DIRECTOR OF PERSONNEL

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base
Maine

42DOT 6 December 1956

SUBJECT: (Unclassified) Heavy Jet Bombardment Air Training Report for November 1956, RCS: 2-SAC-T12

TO: Commander
Eighth Air Force
Westover Air Force Base
Massachusetts

1. Submitted herewith in accordance with Annex II, SAC Regulation 50-23, dated 1 May 1956, is the Heavy Jet Bombardment Air Training Report, RCS: 2-SAC-T12.

2. If inclosures are withdrawn or not attached, the classification of CONFIDENTIAL on this correspondence may be cancelled in accordance with Air Force Regulation 205-1.

FOR THE COMMANDER:

for JOSEPH H. JACOBY
Major, USAF
Adjutant

5 Incls
1. SAC Form 493 (6 pgs)
2. SAC Form 493a (4 pgs)
3. SAC Form 493b (4 pgs)
4. SAC Form 493c (5 pgs)
5. Comdrs Remarks (15 pgs)

cc: CINCSAC
ATTN: DOTRS (T12) (1 cy Incl 1 thru 5)
COA (T12) (1 cy Incl 1 thru 5)
D/Pers (1 cy Incl 5 only)
D/Mat (1 cy Incl 5 only)

COMDR 8AF
ATTN: ODT4 (1 cy Incl 1 thru 4, 10 cys Incl 5)
COM (1 cy Incl 1 thru 4, 5 cys Incl 5)

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42D BOMBARDMENT WING (H) (SAC)
NOVEMBER 1956

PART V - WING COMMANDER'S REMARKS FOR NOVEMBER 1956:

1. Hours flown performing missions ordered by:

a. Higher headquarters:

	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1)	Ferrying Aircraft	00:00	86:55
(2)	Operation "QUICK KICK"	00:00	123:00
(3)	Support of 99th B.W.	00:00	9:20
(4)	Operation "BOLD BOY" (Support of Thule Tankers)	00:00	64:35
(5)	"BENCH WARMER" - 8AF OPS ORD 225-56	50:00	51:30
	TOTAL	50:00	294:35

(a) Reference commitment (1): Due to indefinite delivery schedule it was impractical to program specific times for this item.

(b) Reference commitment (2): This requirement was received after the monthly flying training program was established.

(c) Reference commitment (3): This requirement was received after the monthly flying training program was established. (Current flight for Instructor Personnel)

(d) Reference commitment (4): Same as (b) above.

b. Eighth Air Force Training Priorities:

(1) Programmed and accomplished for current month:

W-0459C

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42D BOMBARDMENT WING (H) (SAC)
NOVEMBER 1956

PRIORITY	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
1	AFR 60-2	00:00	Note (a)
2	Non Ready Crew Training	672:00	609:40
3	Combat Ready Training and Above	140:00	85:30
4	Test Hops	28:00	28:25
	TOTAL	840:00	723:35
	HIGH[redacted]EADQUARTERS		243:05
		840:00	966:50

(a) Reference commitment 1: A proportionate share of requirements under AFR 60-2 was accomplished on all flights.

(b) Reference commitment 2: The programmed time for this item was not attained due to flying training time diverted to "Bold Boy". The chief requirements needed by our non-ready crews are RBS activity, gunnery, and practice in air refueling and this exercise did not provide adequate training in these items.

(c) Reference commitment 3: The programmed time for combat ready crews was not reached due to participation in "Quick Kick". Although training in cell tactics, mass refueling and polar navigation was received, the individual items accomplished in RBS, gunner, and ECM work was not commensurate with the hours expended.

W-0459C

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(2) Flying time programmed for the following month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED
1	AFR 60-2	00:00
2	"BOLD BOY"	180:00
3	"RED SCRAMBLE"	20:00
4	Support of 99th B.W.	20:00
5	"JACK POT" (Local Bomber Stream)	50:00
6	Non Ready	578:00
7	Combat Ready and Above	289:00
		1137:00

(a) Standboard checks and qualifications in Hi Jinks tactics and Air Refueling procedures will be accomplished to maximum extent under priorities six (6) and seven (7) above.

2. Weather or local conditions:

a. Two B-52's landed early due to weather. Three B-52's training missions cancelled due to weather. Five B-52's were diverted to alternate bases due to weather.

3. Air Traffic Control Delay Information:

a. ARTC Delay:

TYPE	TOTAL NUMBER	TOTAL TIME
Departure	1	:07

4. Restrictive Directives:

a. SAC Message DOTRPP 25461, dated 28 September 1956, restricted seventeen (17) B-52's from wet air refuelings. The directed TOC's were completed with the last one accomplished on 20 October 1956.

W-0459C

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5. Combat Crew Member Gains and Losses:

a. Crew members gained:

(1) 17 Aircraft Commanders

(2) 19 Co-Pilots

(3) 17 Observers

(4) 5 ECM Officers

(5) 1 Gunner

b. Crew members lost:

(1) 2 Aircraft Commanders - one 42 OPRON; one 42d Wg. Hq. Sq.

(2) 4 Co-Pilots - three 42d OPRON; one 42d Wg. Hq. Sq.

(3) 3 Observers - two 42d Wg. Hq. Sq.; one 45th ADiv.

(4) 3 Gunners - Discharged

6. Crew Member Changes:

a. 1 Aircraft Commander

b. 2 Co-Pilots

c. 2 Observers

d. 2 Gunners

7. New Crews:

a. N-23 through N-28 inclusive received from B-52 training.

b. N-45 through N-50 inclusive received from B-52 training.

c. N-30, N-53, N-56 and N-59 received from B-52 training.

8. Crew Status Changes:

a. N-72 upgraded to Lead, 22 October 1956

b. N-75 upgraded to Lead, 22 October 1956

c. N-84 upgraded to Lead 22 October 1956

d. N-85 upgraded to Lead 22 October 1956

W-0459C

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e. N-77 upgraded to Lead 2 November 1956

f. N-78 upgraded to Lead 2 November 1956

g. N-20 upgraded to Lead 2 November 1956

h. N-55 upgraded to Lead 21 November 1956

i. N-80 upgraded to Lead 21 November 1956

j. N-76 upgraded to Lead 30 November 1956

k. N-74 upgraded to Combat Ready 30 November 1956

9. Standardization Crews:

a. L-75 assigned July 1956

b. L-85 assigned July 1956

c. L-20 assigned October 1956

10. Additional Material and Personnel Problems:

a. Shortage of aircraft spares continue to present a problem. During the period 15 October to 15 November on routine requisitions, only 39% were indicated as shipped by the depot so far as initial action on the requisitions were concerned. The balance of 61% were back ordered, extracted to other depots or contractors, or indorsed. On priority requisitions during the same period only 74% were indicated as shipped by the depot so far as initial action on the requisitions are concerned. The balance of 26% were back ordered, extracted to other depots or contractors, or indorsed. No figures are available as to receipts from subsequent action of contractors or depots.

b. Consumption figures on alternator drives show an average of 72 hours of flying time per drive. Present allocations are on the basis of one drive per 140 hours of flying which is approximately 50% of the replacement required. Our message, 45th ADiv., BMAPA 13485, dated 29 November 1956, to Eighth Air Force, Info SAC, lists our requirements based on projected flying

w-0459C

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time as 51 each Dash 46 and 15 each Dash 41 drives for December, 55 each Dash 24 each Dash 46 drives for January and 80 each Dash 41 drives for February.

c. After extensive follow-up, engine trim gages (7CAD335879-5) were received on amended shipping instructions from manufacturer. After receipt these gages were found to be unsatisfactory due to improper calibration and lack of a tachometer. Gages were found to be easily damaged and not reparable. This item was deleted from ECLs 20-00-36,45 and 58 at the ECL Review at Castle AFB, 16-26 October 1956 and a new gage, absolute pressure (7CAD-343485) was added. This item was coded as local purchase but representatives of Gentile AF Depot agreed to try to get it coded as a centrally procurred item. On 28 November 1956 our message 42DMS 13426 was forwarded to Gentile, Info SAC, and 8AF, requisitioning stock listing action. No local purchase action is being taken by Loring AFB pending decision of requested stock listing.

d. Seventy two (72) Bomb Bay door spreaders are presently authorized to the A&E Squadron with 44 on hand. AUAL change request has been forwarded to the appropriate area team requesting an increase to 104 each or 13 sets. This represents the minimum quantity required for this base to meet the timing required by EWP operations. Attempts to have the 13 sets authorized during the October ECL conference at Castle were unsuccessful.

e. Personal equipment continues to present problems. The following items are short at the base:

(1) P-4 Helmets - Large size. EDD is now 1 January 1957.

(2) F1A Automatic releases. No EDD on replacements for damaged items. SAC Reg.

(3) PK2 Life Rafts. 305 required, 90 on hand. EDD on balance

K-0459C

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(4) MD-1 container for life raft. SAC Regulated item no EDD.

(5) Flying Gloves. Small quantity received in November. No EDD on balance.

67-3 supply assistance letters have been submitted on all items except SAC Regulated items.

f. Towing tractors have presented a problem with the advent of snow and ice. On time take-offs are compromised due to inability of presently assigned equipment to move aircraft on snow and ice. WADC has requested a service test at Loring of an Aircraft Towing Vehicle in their letter dated 15 October 1956. The reply to this letter requesting the service test be conducted at Loring was forwarded by indorsement to Eighth Air Force. It is recommended that this service test be conducted as quickly as possible. It is also recommended that appropriate action be taken to have Consolidated Deisel and Electric Corporation develop a proto-type unit for applying power to the main gear as outlined in letter dated 15 November 1956 from 45 ADiv. to Eighth Air Force, Subject: Aircraft Towing Vehicles for B-52 Aircraft.

g. The following are shortages of Airman Direct Support Skills under the 45 B-52 UMD:

AFSC	AUTH	ASGD
321X0K	6	0
323X0G	58	27
431X1E	630	495
432X0	205	195

W-0459C

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h. Overages in B-36 Direct Support Skills. Action being taken on these personnel is as listed below.

AFSC	AUTH	ASGD	ACTION
323X0A	0	31	Airman are projected for cross-training to AFSC 323X0G shortages. Project Guidance waivers are being placed in training immediately.
323X0B	0	38	

11. Refueling Data:

a. Number of refueling sorties scheduled and confirmed: 138

b. Number of sorties:

(1) Airborne - 128

(2) Effecting complete electronic rendezvous - 69

(3) Transferring required fuel - 73

c. Number of aborts due to:

(1) Adverse weather - 3

(2) Aircraft malfunction - 16

(3) Electronic rendezvous equipment malfunction - 0

(4) Refueling equipment malfunction - 6

(5) Other causes - 28 sorties scheduled for dry hook-ups due to restrictive directives.

8 tankers cancelled. 4 tankers aborted.

d. Mass night cell refueling:

(1) Confirmed - 8

w-0459C

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(2) Airborne - 8

(3) Sorties effecting complete rendezvous - 8

(4) Sorties transferring required fuel - 8

12. Comments and Recommendations of the Wing Commander:

a. At the present time B-52 and KC-97 aircraft are authorized one periscopic sextant per aircraft as DO Form 780 property (263). The Base Supply standby level is nine (9) sextants. This authorization plus the limited standby level is inadequate to meet normal and directed operational requirements. During routine training missions there has been some loss of celestial navigational training due to malfunctions and sextants. In view of our recent northern flights it is imperative that each aircraft be equipped with two operational sextants, as this is the primary means of navigation. Upon investigation we find the procedure for securing additional sextants is by a request for change to the MEAL, accomplished by submission of SAC Form 144 or other authorization documents with detailed justification for change. The 42d Bomb Wing is now preparing this request for change in the MEAL which will be forwarded to the appropriate Equipment Evaluation and Audit Team. (B-52 Castle A.F.B, KC-97 Westover A.F.B.) as soon as possible. It is felt that this problem of insufficient authorization will affect all other Wings converting to B-52 aircraft. Accordingly, it is strongly recommended that this problem be brought to the attention of the SAC COMMAND EQUIPMENT REVIEW BOARD with a view toward early amendment to the MEAL for increased authorization. Loring's recommendations to be forwarded to Equipping Teams will be: (1) One additional periscopic sextant per B-52, KC-97 assigned.

W-0459C

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b. It has been necessary to change projected crew upgrading schedule as previously reported due to circumstances and events as noted below.

As of Date	Previously Reported	Present Program
(1) 1 November 1956	4	4
(2) 1 December 1956	14	11
(3) 1 January 1957	24	18
(4) 1 February 1957	32	24
(5) 1 March 1957		32
(6) 1 April 1957		41
(7) 1 May 1957		42

The largest factor contributing to the change in original plan is the curtailment of air refueling training brought about by conditions existing during November 1956 (SECRET) and missions directed by higher headquarters. These conditions cancelled seven (7) sorties on 15 November 1956 and three (3) sorties on 16 November 1956, resulting in a loss of one hundred hours flying time. In addition, the alert status and subsequent limited number of sorties alloted to 42d AREFS seriously curtailed the number of tanker aircraft available for refueling training. Operation "QUICK KICK" and "BOLD BOY", although delivering valuable training, did not fulfill our requirements in proportion to the amount of time utilized on these operations due to the category of crews that participated.

(Only combat ready or non-combat ready crews with instructors are scheduled for these missions). The number of tankers available for our use at Thule AFB in support of "Bold Boy" will not satisfy the requirements of heavyweight

W-0459C

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refueling. The missions most urgently needed are those for crews not checked out in air refueling and for crews requiring standardization board checks. Checkout missions require tankers in the ZI where day and night refueling practice may be accomplished. Standardization board checks require two (2) tankers shortly after take off in order to reach the required weight. The present upgrading program is based on the availability of tanker support for the 42d Bomb Wing in the following amounts: December - 89 sorties; January - 95 sorties; February - 100 sorties. The above requirement is based on the need for two (2) tankers on standardization checks and one (1) each tanker to be utilized on 75% of our remaining sorties. This is considered the minimum requirement to maintain crew proficiency in air refueling and to provide training for non-ready crews. The above tanker support will be provided in its entirety from other wings due to the curtailed flying program of the 42d AREFS and the planned rotation in December.

c. Gunnery training has been seriously curtailed due to ANFE items. An estimated 65% of gunnery training has been lost due to the low fire out rate. This has resulted from various defects. The most common failures have been in search antennas, track antennas, precision power supplies, pulse sweep generators, track modulators, and numerous feed restrictions. There have been many cases of freezing at altitude because of the use of old type gun chargers. A heated gun charger should be available in the near future. Fire out rate will not show significant improvement; however, until continuing procurement action reduces the ANFE items.

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Personnel training in maintenance has also been hampered by lack of parts. On this station the tech representatives OJT training program has suffered due to lack of sufficient ANFE items to enable systems to be put into operation. At present A&E is requesting 16 additional quotas from Eighth Air Force for either technical schools or for direct factory courses. The following offers a resume of the in-commission rate of the A-3A Fire Control System from August up to the present date. In August the in-commission rate averaged 83% with a total of 79 days out of commission. September in-commission rate was 37% with 299 days out. October in-commission rate was 36% with 305 days out. November - 61% with 327 days out.

d. This wing has, in the past two months, planned bomber stream missions immediately following EWP "walk thru" exercises. Each mission has been planned at least one month ahead, and RBS bomber stream time has been secured in the Eighth Air Force monthly RBS conference. These missions have been planned during the conversion program to prepare this wing for future "Pace Setter" and "graduation" exercises. On one occasion, 7 November, numerous traffic conflicts existed just prior to take off. It appeared that this mission would require a complete change a few hours prior to take off, due to a conflict with a single B-47 returning from the U.K. On 5 December a local bomber stream was cancelled due to traffic conflicts which could not be resolved with ARTC due to higher priority missions. It is realized that numerous problems exist in Air Traffic Control, and it is even more aggravated in the North East area, since many bomber units overfly the Loring AFB area, in deployment overseas. Help is needed from higher headquarters to determine what conflicts exist in sufficient time to enable the wing to plan missions to avoid possible conflicts or delays in clearances.

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The number of ARTC agencies requiring coordination should be limited. Recommend that the 42d Bomb Wing coordinate all action through Boston ARTC and that coordination for clearances through other centers be effected by Boston ARTC.

e. Operations of the APS-64 radar in beacon mode was discontinued approximately 15 November 1956 due to the deficiency existing in the RT 324 concerning beacon operation in cold weather. This deficiency mentioned in the previous month's commander's remarks was reported by Western Electric Engineers and WADC personnel as per Motorola Field Engineering News Letter #27, dated 27 August 1956. The fix for this difficulty is a modification kit. This kit was to be shipped to Loring AFB on about 10 November 1956 from Warner Robins AFB but has not been received to date.

13. Ground Training:

a. Not applicable for this reporting period.

14. Hi Jinks Tactic:

a	b	c	d	e	f	g	h
R-74	Yes	Yes	Yes	No	0	4	August 1956
L-76	Yes	Yes	Yes	No	0	4	July 1956
L-77	Yes	Yes	Yes	No	0	4	August 1956
L-78	Yes	Yes	Yes	No	0	3	July 1956
L-84	Yes	Yes	Yes	No	0	4	August 1956
L-80	Yes	Yes	Yes	No	2	3	November 1956

15. Incomplete Combat Maintenance Crews:

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42D BOMBARDMENT WING (H) (SAC)
NOVEMBER 1956

Crew Number	Name	Position	Secondary Duty AFSC	Standboard Date	Fly Time Tactical AC
ICM-31	Gregg	AC	4331	27 August 56	41:40
ICM-31	Hedin *	CP	4351	None	None
ICM-31	Fisher	N	3231	November 56	56:30
ICM-61	Brofft	AC	4311	20 November 56	22:35
ICM-61	Estes *	CP	3216	None	None
ICM-89	Classon *	AC	4311	None	31:20
ICM-89	Brown *	CP	3231	None	None

* The above listed officers are not yet fully qualified but have completed varying phases of SAC Regulation 51-19.

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42D BOMBARDMENT WING (H) (SAC)
NOVEMBER 1956

DONALD E. HILLMAN
Colonel, USAF
Commander

PART VI - DIVISION COMMANDER'S REMARKS, 45TH AIR DIVISION (SAC)

I concur with the remarks and the recommendations of the Wing Commander.

W. K. MARTIN
Brigadier General, USAF
Commander

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I

UNIT: 42d Bombardment Wing (H) (SAC)

ROUTE: Nov 56 | PAGE NR: | NR OF PAGES: 5 | REPORTS CONTROL SYMBOL: 2-SAC-T12

A. GENERAL						B.		BOMBING									C. NAVIGATION								
							8 RADAR ATTACK - CAMERA SCORES				9	10				11 NIGHT CELESTIAL				12	13		14	15
							RADAR OBS.		NAVIGATION		VISUAL ATKS CAMERA SCORES MACH.84	VISUAL RELEASES - MACH.84				CIRCULAR ERROR					CELESTIAL GRID			
												RADAR OBSERVER			NAVIGATOR									
1 CREW NUMBER	2 TYPE AND MODEL AIRCRAFT	3 NUMBER OF SORTIES	4 FLYING TIME	5 USCH	6 BOMBER STREAM	7 RELEASE MACH.84	8 RADAR OBS. MACH.84 IBDA	8 RADAR OBS. FIXED ANGLE	8 NAVIGATION MACH.84 IBDA	8 NAVIGATION FIXED ANGLE	9 RADAR OBS.	9 NAVIGATION	10 TOTAL	10 NR OF REL.	10 C. E.	TOTAL	NR OF REL.	C. E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	CIRC. ERROR 1	CIRC. ERROR 2	NUMBER OF RADAR NAV. LEGS	NR OF PASS RATTRICH NAV. LEGS
6-10	11-16	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	13-35	32-39	40-43	44-47	48-51	52-54	55-56	57-59	60-62	13-15	17-19	21-23	25-27	29-31	31-35	37-39	41-43	45-47	49-51	52-54
L60	B52C	001	012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	002	029	031	--	--
L70	B52C	001	010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	001	002	009	023	--	--
L20	B52C	004	042	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	001	004	038	054	--	--
Squad Totals	--	006	064	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
L55	B52C	001	026	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	001	020	--	--	--	--	001	014	--	--	--
L72	B52C	001	011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
L76	B52C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	001	017	--	--	--	--	002	007	009	--	--
L77	B52C	003	029	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	001	004	--	--	--	--	--	--	--	--	--
L72	B52C	002	037	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	002	008	010	--	--
L80	B52C	001	011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	001	020	--	--	--	--	002	004	013	001	--
L84	B52C	002	024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	002	019	020		
[illegible] Totals	--	010	138	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	004	070	--	--	--	--	009	052	052	001	--
[illegible]	B52C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
[illegible] Totals	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SAC [illegible] 485 PO 3789

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART 1

UNIT: 42d Bombardment Wing (H)

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.BS		VISUAL RELEASES – MACH.BS						HIGHT CELESTIAL						CELESTIAL GRID				
							RADAR ATKS		NAV. ATKS				RADAR OBSERVER			NAVIGATION				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	DECK	BOMBER STREAM	AREA AT MACH.BS	IBDA	FIXED ANGLE	MACH.BS IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M.B. AIR OF REL.	M.B. C.E.	TOTAL	M.B. AIR OF REL.	M.B. C.E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	25-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	48-51	52-54	57-59	59-63	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54
N22	B52C	006	055	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N23	B52C	001	010	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N24	B52C	003	032	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N25	B52C	003	029	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N26	B52C	005	073	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N27	B52C	002	021	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N28	B52C	003	024	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N29	B52C	006	052	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N45	B52C	003	026	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N46	B52C	002	020	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N47	B52C	004	041	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N48	B52C	002	024	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N49	B52C	001	005	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N50	B52C	005	039	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N51	B52C	004	042	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N52	B52C	005	050	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N54	B52C	008	073	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I	UNIT: 42d Bombardment Wing (H)	MONTH: Nov 56	PAGE NR: 4	PAGES: 6	REPORTS CONTROL SYMBOL: 2-SAC-T12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
														M-15			M-15												
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	NR OF REL.	C.E.	TOTAL	NR OF REL.	C.E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	49-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54
N60	B52C	006	059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N73	B52C	008	078	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N79	B52C	005	059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N81	B52C	007	070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N82	B52C	001	010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N86	B52C	006	059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NCR Totals	-	186	1792	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wing Totals	-	202	1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	004	070	-	-	-	001	013	090	106	001	-
5X Trng	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	001	-	-	-	-
Pract Trng	-	-	-	-	-	-	-	-	-	-	002	-	002	002	-	-	-	-	035	-	-	-	-	046	109	-	-	015	011

IN14 Plt. TDY 1-5 Nov.; VO Surv. 14-30 Nov.

IN15 Plt. TDY 1-5 Nov.;

IN16 TG TDY 1-5 Nov.; TG TDY 26-28 Nov.

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I	UNIT: 42d Bombardment Wing (H)	MONTH: Nov. 1956	PAGE NR: 5	NR OF PAGES: 6	REPORTS CONTROL SYMBOL: 2-SAC-T12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-19 NR OF REL.	M-19 C.E.	TOTAL	M-19 NR OF REL.	M-19 C.E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
5-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54
IN17	Plt. TDY 1-16 Nov. A/C TDY 19-21 Nov. TG DNIF 27-30 Nov.																												
IN20	VO TDY 1-2 Nov.																												
IN21	Plt. TDY 14-16 Nov. A/C DNIF 26-28 Nov.																												
IN22	ECM Hospital 5-13 Nov. A/C TDY 13-16 Nov.																												
IN23	ECM TDY 1-5 Nov. TG DNIF 14-30 Nov.																												
IN24	VO TDY 13-16 Nov.																												
IN25	TG TDY 13-15 Nov. Plt. Emerg. Leave 16-30 Nov.																												
IN26	VO DNIF 5-12 Nov. TG Surv. 13-30 Nov.																												
IN28	ECM TDY 1-4 Nov. A/C TDY 5-8 Nov. TG Surv. 13-30 Nov.																												
IN29	A/C TDY 13-16 Nov.																												
IN30	A/C TDY 11-30 Nov.																												
IN45	ECM Surv. 14-30 Nov.																												
IN47	ECM Surv. 1-15 Nov. TG Surv. 16-30 Nov.																												
IN48	Nav. Surv. 1-12 Nov. ECM Surv. 16-30 Nov.																												
IN49	Nav. Surv. 1-6 Nov. ECM Surv. 14-30 Nov.																												
IN50	Nav. Surv. 1-12 Nov.																												
[illegible]1	ECM Surv. 1-15 Nov. A/C TDY 16-18 Nov. Nav. DNIF 21-22 Nov. A/C TDY 26-30 Nov.																												

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I	UNIT: 42d Bombardment Wing (H)	MONTH: Nov. 1956	PAGE NR: 6	NR OF PAGES: 6	REPORTS CONTROL SYMBOL: 2-SAC-T12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54

IN52	Nav. TDY 1-5 Nov.
IN53	Crew TDY B-52 School 1-30 Nov.
IN56	A/C TDY 22-30 Nov.
IN59	Crew TDY B-52 School 1-30 Nov.
IN82	A/C TDY 5-13 Nov, VO TDY 14-16 Nov. Plt. TDY 28-30 Nov.
IN86	A/C TDY 16-18 Nov. No Plt. Assigned 23-27 Nov. A/C TDY 28-30 Nov.
IN88	A/C TDY 5- 17 Nov. Nav. TDY 26-30 Nov.

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42d Bombardment Wing (H)	Nov. 1956	1	4	2-SAC-T12

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		300,000 LBS		DRY CONTACTS 5 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-13-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHT ATTA MISSIO
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-5
L85	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	001	084	-		-
L75	002	002	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-	-		-
L20	011	011	002	002	001	001	-	-							-	004	004	002	002	004	004	-	-	-		-
Stdbd Totals	013	013	002	002	001	001	-	-							-	004	004	002	002	004	004	001	084	-		-
L55	005	005	002	002	001	001	-	-							-	-	-	-	-	-	-	-	-	-		-
L72	-	-	-	-	-	-	-	-	Not Applicable					Not Applicable	-	-	-	-	-	-	-	001	082	-	Not Applicable	-
L76	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-	-		-
L77	005	005	-	-	-	-	001	001							005	001	001	-	-	-	-	-	-	-		-
L78	004	004	002	002	001	001	-	-							-	003	003	002	002	-	-	-	-	-		-
L80	004	004	-	-	-	-	-	-							003	001	001	001	001	001	-	-	-	-		-
L84	-	-	-	-	-	-	-	-							-	001	001	001	001	001	001	001	100	-		-
S-L Total	018	018	004	004	002	002	001	001							008	006	006	004	004	002	002	002	182	-		-
R74	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-	-		-
CR Total	-	-	-	-	-	-	-	-							-	-	-	-	-	-	-	-	-	-		-

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART II	UNIT: 42d Bombardment Wing (H)	MONTH: Nov. 1956	PAGE NR: 2	NR OF PAGES: 4	REPORTS CONTROL SYMBOL: 2-SAC-T12

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS					H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27			28		29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		195,000 LBS		DRY CONTACTS 5 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
N20									See Part I																	
N55									See Part I																	
N72									See Part I																	
N74									See Part I																	
N75									See Part I																	
N76	Not Applicable							Not Applicable	See Part I																	
N77									See Part I																	
N78									See Part I																	
N80									See Part I																	
N84									See Part I																	
N85									See Part I																	
N14									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N15									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N16									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N17									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N18									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N21									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-

Not Applicable

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CONFIDENTIAL (When Filled In)

HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II

UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
42d Bombardment Wing (H)	Nov. 1956	3	4	2-SAC-T12

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-20 MINUTE CONTACT		385,000 LBS		DRY CONTACTS 8 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-13-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	53-54
N22									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N23									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N24									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N 25									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N26									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N27	Not Applicable							Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Not Applicable	-
N28									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N29									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N45									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N46									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N47									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N48									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N49									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N50									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N51									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N52									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
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CONFIDENTIAL (When Filled In)

HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II	UNIT: 42d Bombardment Wing (H)	MONTH: Nov. 1956	PAGE NR: 4	NR OF PAGES: 4	REPORTS CONTROL SYMBOL: 2-SAC-T12

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 8 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-13-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
N60									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N73									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N79									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N81									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N82	Not Applicable							Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Not Applicable	-
N86									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
NCR Totals									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Wing Totals	031	031	006	006	003	003	001	001	-	-	-	-	-	-	008	010	010	006	006	006	006	003	266	-		-
5X Trng	-	-	-	-	-	-	-	-	053	053	-	-	001	001	104	002	002	-	-	-	-	-	-	-		-
Pract Trng	-	-	002	002	-	-	-	-	213	213	001	001	015	015	580	103	103	045	045	064	064	026	-	-		141

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CONFIDENTIAL (When Filled In)

HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART III

UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
42d Bombardment Wing (H)	Nov. 1956	1	4	2-SAC-T12

I. GENERAL — ECM

31	32				33				34		35		36								37		38		39	
CREW NUMBER	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
	ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)		ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)						T-464/ALT-7		T-468/ALT-7		ALT - 6 OR 8 (S-BAND)		APT-9 (C) ALT - 6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	56-58	60-62	63-65
L85	001	027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L75	003	036	002	012	002	010	004	005	-	-	-	-	015	084	-	-	-	-	002	000	-	-	-	-	-	-
L20	-	-	-	-	001	002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stbd Totals	004	063	002	012	003	012	004	005	-	-	-	-	015	084	-	-	-	-	002	000	-	-	-	-	-	-
L55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L72	002	015	-	-	002	009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L77	002	010	001	009	-	-	001	003	-	-	-	-	002	009	-	-	-	-	-	-	-	-	-	-	-	-
L78	-	-	-	-	002	010	-	-	-	-	-	-	002	006	-	-	-	-	-	-	-	-	-	-	-	-
L80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-L Totals	004	025	001	009	004	019	001	003	-	-	-	-	004	015	-	-	-	-	-	-	-	-	-	-	-	-
R74	001	020	002	019	001	027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GR Totals	001	020	002	019	001	027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART III	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42d Bombardment Wing (H)	Nov. 1956	2	4	2-SAC-T12

I. GENERAL J. ECM

31	32				33				34		35		36								37		38		39	
CREW NUMBER	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
	ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)		ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)						T-464/ALT-7		T-465/ALT-7		ALT - 6 OR 8 (S-BAND)		APT-9 (C) ALT - 6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65
N20	See	Part I																								
N55	See	Part I																								
N72	See	Part I																								
N74	See	Part I																								
N75	See	Part I																								
N76	See	Part I																								
N77	See	Part I																								
N78	See	Part I																								
N80	See	Part I																								
N84	See	Part I																								
N85	See	Part I																								
N14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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CONFIDENTIAL (When Filled In)

HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART III	UNIT: 42d Bombardment Wing (H)	MONTH: Nov. 1956	PAGE NR: 3	NR OF PAGES: 4	REPORTS CONTROL SYMBOL: 2-SAC-T12

I. GENERAL J. ECM

31	32				33				34		35		36								37		38		39	
CREW NUMBER	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
	ALT - 8 OR 8		APT-3 ALT - 8 OR 8 (L-BAND)		ALT - 8 OR 8		APT-3 ALT - 8 OR 8 (L-BAND)						T-464/ALT-7		T-465/ALT-7		ALT - 8 OR 8 (S-BAND)		APT-3 (C) ALT - 8 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65
N22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N[illegible]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART III

I. GENERAL	J.	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
		2d Bombardmt Wing (H)	Nov. 1956	4	4	2-SAC-T12

31	32				33				ECM 34		35		36								37		38		39	
CREW NUMBER	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
	ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)		ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)						T-464/ALT-7		T-465/ALT-7		ALT - 6 OR 8 (S-BAND)		APT-9 (C) ALT - 6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65
N60	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N73	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N79	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N81	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N82	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N86	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Wing Total	009	108	005	040	008	058	005	008	–	–	–	–	019	099	–	–	–	–	002	000	–	–	–	–	–	–
5X Trng	004	–	–	–	006	–	–	–	–	–	–	–	007	–	014	–	–	–	006	–	–	–	–	–	–	–
Pract. Trng	111	–	036	–	078	–	033	–	–	–	–	–	054	–	061	–	077	–	027	–	–	–	–	–	–	–

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART IV

UNIT: 42d Bombardment Wing (H) | MONTH: Nov. 1956 | PAGE NR: 1 | NR OF PAGES: 5 | REPORTS CONTROL SYMBOL: 2-SAC-T12

K. GEN	L. FORMATION			M. P.P.	H. CREW REQUIREMENTS								O. MISCELLANEOUS															
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL. PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR NAV-RADAR OBSERVER	RADAR NAV-NAVIGATOR	RBS VISUAL ATTACK-RADAR OBSERVER	RBS VISUAL ATTACK-NAVIGATOR	Sp Weapon Sim Mission	A/C Takeoffs	CP Takeoffs&Ldgs	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro Out	CP Gyro Out				
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	57-58	61-62	64-65	67-68													
L85	-	-	-	-	-	-	Sep	-	-	-	-	-	003	-	-	-	001	004	004	001	-	-	-	-	-				
L75	-	-	-	-	-	-	Sep	-	-	-	-	-	004	-	-	-	001	008	-	-	-	-	-	-	-				
L20	-	-	-	-	-	-	Nov	-	-	002	-	-	002	-	-	-	001	008	-	001	-	-	-	-	-				
Stdbd Totals	-	-	-	-	-	-	-	-	-	002	-	-	009	-	-	-	003	020	004	002	-	-	-	-	-				
L55	001	001	-	-	-	-	Nov	-	-	001	-	-	-	-	-	-	001	001	-	-	-	-	-	-	-				
L72	-	-	-	-	001	-	Oct	-	-	-	-	-	-	-	-	-	001	002	012	-	002	-	-	-	-				
L76	-	-	-	-	-	-	Nov	-	-	-	-	-	-	-	-	-	001	-	-	-	-	-	-	-	-				
L77	002	002	-	-	003	120	Oct	006	-	001	-	-	003	-	-	-	001	005	-	005	004	-	-	-	-				
L78	-	-	-	-	001	-	Sep	-	-	-	-	-	004	-	-	-	001	006	002	-	003	-	-	-	-				
L80	-	-	-	-	-	-	Oct	-	-	-	-	-	-	-	-	-	001	002	-	001	-	-	-	-	-				
L84	-	-	-	-	-	-	Oct	-	-	-	-	-	003	-	-	-	001	006	002	002	001	-	-	-	-				
S-L Totals	003	003	-	-	005	120	-	006	-	002	-	-	010	-	-	-	007	022	016	008	010	-	-	-	-				
R74	-	-	-	-	-	-	Oct	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
CR Totals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART IV

UNIT: 42d Bombardment Wing (H) | MONTH: Nov. 1956 | PAGE NR: 2 | NR OF PAGES: 5 | REPORTS CONTROL SYMBOL: 2-SAC-T12

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O.					MISCELLANEOUS											
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACKS-RADAR OBSERVER	RBS VISUAL ATTACKS-NAVIGATOR	Sp Weapons Sim Missions	A/C Take-Offs&Ldgs	CP Take-Offs&Ldgs	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro Out	CP Gyro Out				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	53-54	57-58	61-62	64-65	67-68													
N20	-	-	-	-	-	-	Nov	002	-	-	-	-	024	-	005	-	-	025	008	007	003	-	-	-	-				
N55	-	-	-	-	-	060	Nov	006	004	-	-	-	-	-	-	-	-	014	004	005	003	-	-	-	-				
N72	-	-	-	-	001	-	Oct	-	-	-	-	-	007	-	-	-	-	002	012	-	002	-	-	-	-				
N74	-	-	-	-	004	-	Oct	004	-	-	-	001	008	-	-	-	-	023	010	005	006	-	-	-	-				
N75	-	-	-	-	001	-	Sep	-	-	-	-	-	003	-	-	-	-	-12	002	005	003	-	-	001	-				
N76	-	-	-	-	-	-	NOv	002	-	-	-	-	015	-	-	-	-	022	010	005	003	-	-	-	-				
N77	-	-	-	-	005	120	Oct	013	-	-	-	001	017	-	001	-	-	016	010	005	003	-	-	-	-				
N78	-	-	-	-	003	-	Sep	002	-	-	-	001	003	-	-	003	-	010	003	004	003	-	-	-	-				
N80	-	-	-	-	-	-	Oct	002	-	-	-	-	005	004	-	-	-	014	006	005	002	-	-	-	-				
N84	-	-	-	-	-	-	Oct	-	-	-	-	001	014	-	004	-	-	027	013	005	004	-	-	-	-				
N85	-	-	-	-	-	-	Sep	001	-	-	-	-	004	-	-	-	-	005	003	001	-	-	-	-	-				
N14	-	-	-	-	001	-	-	001	-	-	-	-	005	0	001	-	-	026	006	002	002	-	-	-	-				
N15	-	-	-	-	001	-	-	004	-	-	-	-	015	-	002	-	-	016	-	005	003	-	-	-	-				
N16	-	-	-	-	002	-	-	-	-	-	-	-	015	-	-	-	-	030	-	004	-	-	-	-	-				
N17	-	-	-	-	002	-	-	-	-	-	-	-	017	-	-	-	-	010	-	004	-	-	-	-	-				
N18	-	-	-	-	005	-	-	003	001	-	-	-	012	-	-	-	-	012	004	006	002	-	-	-	-				
N21	-	-	-	-	006	120	-	003	001	-	-	-	009	-	-	-	-	020	004	00[illegible]	004	-	-	-	-				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART IV	UNIT: 42d Bombardment Wing (H)	MONTH: Nov. 1956	PAGE NR: 3	NR OF PAGES: 5	REPORTS CONTROL SYMBOL: 2-SAC-T12

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O. MISCELLANEOUS																
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL. PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACKS-RADAR OBSERVER	RBS VISUAL ATTACKS-NAVIGATOR	Sp Weapons Sim Missions	A/C Take Offs&Ldgs	CP Take Offs&Ldgs	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro Out	CP Gyro Out				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	53-54	57-58	61-62	64-65	67-68													
N22	–	–	–	–	007	–	–	001	–	–	–	–	021	–	–	–	–	024	010	005	002	–	–	–	–				
N23	–	–	–	–	001	–	–	001	–	–	–	–	006	–	–	–	–	010	–	003	–	–	–	–	–				
N24	–	–	–	–	004	–	–	–	–	–	–	–	015	–	–	–	–	020	002	004	001	–	–	–	–				
N25	–	–	–	–	002	–	–	–	–	–	–	–	007	–	–	–	–	010	008	005	003	–	002	001	–				
N26	–	–	–	–	–	–	Nov	–	–	001	–	–	011	–	–	–	–	026	012	004	003	–	–	–	–				
N27	–	–	–	–	–	–	–	–	–	–	–	–	003	–	–	–	–	013	–	002	001	–	–	–	–				
N28	–	–	–	–	001	–	–	–	–	001	–	–	003	–	–	–	–	024	–	003	004	–	–	–	–				
N29	–	–	–	–	001	–	–	003	–	–	–	–	022	–	001	–	–	016	009	004	002	–	–	–	–				
N45	–	–	–	–	001	–	–	–	–	–	–	–	002	001	–	–	–	036	–	003	001	–	–	–	–				
N46	–	–	–	–	–	–	–	001	–	–	–	–	003	–	–	–	–	020	–	003	–	–	–	–	–				
N47	–	–	–	–	001	–	–	–	–	–	–	–	004	–	–	–	–	022	–	004	001	–	–	–	–				
N48	–	–	–	–	001	–	–	001	–	–	–	–	006	003	001	–	–	010	–	002	001	–	–	–	–				
N49	–	–	–	–	–	–	–	–	–	–	–	–	004	–	–	–	–	014	–	004	–	–	–	–	–				
N50	–	–	–	–	003	–	–	004	–	–	–	–	012	–	–	–	–	016	–	004	–	–	–	–	–				
N51	–	–	–	–	002	–	–	002	–	–	–	–	017	001	–	–	–	023	–	006	002	–	–	–	–				
N52	–	–	–	–	–	–	–	–	–	–	–	–	006	–	001	–	–	018	008	005	002	–	–	–	–				
54	–	–	–	–	003	–	–	001	–	–	–	–	014	–	001	–	–	019	004	005	002	–	–	–	–				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART IV

UNIT: 42d Bombardment Wing (H) | MONTH: Nov. 1956 | PAGE NR: 4 | NR OF PAGES: 5 | REPORTS CONTROL SYMBOL: 2-SAC-T12

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O. MISCELLANEOUS																
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL. PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACKS-RADAR OBSERVER	RBS VISUAL ATTACKS-NAVIGATOR	Sp Weapons Sim Missions	A/C Take Offs&Ldgs	CP Take Offs&Ldgs	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro Out	CP Gyro Out				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	67-68													
N60	–	–	–	–	005	–	–	005	–	–	–	–	014	–	–	–	–	021	004	008	–	–	–	–	–				
N73	–	–	–	–	005	–	–	–	–	–	–	–	023	–	–	–	–	031	016	005	002	–	–	–	–				
N79	–	–	–	–	004	–	–	003	–	–	–	–	013	–	–	–	–	015	008	006	003	–	–	–	–				
N81	–	–	–	–	001	–	–	001	–	–	–	–	018	–	–	–	–	025	004	007	002	–	–	001	–				
N82	–	–	–	–	–	–	–	001	–	–	–	–	–	–	–	–	–	002	–	001	–	–	–	–	–				
N86	–	–	–	–	003	–	–	003	–	–	–	–	009	–	001	–	–	026	023	004	–	–	–	–	–				
NCR Total	–	–	–	–	076	300	–	070	006	002	–	004	406	009	016	003	–	725	203	170	075	–	002	003	–				
Wing Total	006	006	–	–	086	540	–	082	006	012	–	004	444	009	016	003	020	809	243	190	095	–	002	003	–				
5X Trng	–	–	–	001	–	–	–	–	–	–	–	–	028	–	–	–	–	163	131	037	015	–	–	–	–				
Pract. Trng.	045	045	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART IV

UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
42d Bombardment Wing (H)	Nov. 1956	5	5	2-SAC-T12

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O.				MISCELLANEOUS												
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
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6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	67-68													

1. Average number of combat ready and higher category crews assigned (including standarization crews) - 2.6
2. Average number of combat ready and higher category crews available - 2.1
3. Average number of non-combat ready crews assigned - 27.7
4. Average number of non-combat ready crews available - 21.9
5. Average number of standardization crews assigned by crew category - Select - 0

Lead - 1.7

Combat Ready - 0

Non Combat Ready - 1.3

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Air Force-SAC, Offutt

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base, Maine
Part I
Management Control Statement
Analysis of Points Lost
November 1956
Bombardment

A PERSONNEL

1. Manning in Required Specialties.

a. Officer Manning: The decrease in score this month was caused by the increase in UMD Strength as of 15 November to provide 1.6 crew aircraft manning ratio.

MONTH	AUTH	ASGD	% BODY MANNING	MIRS	% MIRS	% 2 MONTH CHANGE	SAC RATING SCORE
Sep	465	518	111	442	95.1		100
Oct	465	512	110	446	95.9		100
Nov	600	497	82.8	473	78.8	-16.3	30

(1) Officers not manned in Required Specialties as of 30 November 1956:

UMD POSITION	GRADE,NAME,ORGN	PAFSC	DAFSC	REASON
Air Ops Off	Maj Hume, 42BW	1416	1435	Off TDY at Intcp Contr Tng, will be rsgd to ADC, Jan 57
Nav KC-97	2Lt. Steiner, 42ARS	1531P	1521P	Directed Duty
Nav KC-97	2Lt White, 42ARS	1531P	1521P	Off sus from fly status pending final decision of FEB action, 21 Sep 56 and AFR 36-2 action, 11 Oct 56.

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UMD POSITION	GRADE,NAME,ORGN	PAFSC	DAFSC	REASON
Intell Photo-Radar Off	1Lt Chatman, 42BW 1Lt Little, 42BW	11240 2044	2041 2044	Directed Duty EDCSA 23 Dec 56
Dep Director of Materiel	Lt Col Etherington 42BW	4316	4316	Position currently unauth. Request for UMD change submitted 28 Sep 56.
Acft Maint Of Acft Maint Of	1Lt Foley, 69BHS 1Lt Peloubet,75BHS	6421 4341	4341 4341	Directed Duty EDCSA 5 Dec 56
Job Control Off	1Lt Pierson, 42BW	4351	4351	This non-rated officer is not MIRS because he is filling the rated position of UR Officer in Quality Control, AFSC 4334 (Flight Test Maintenance Officer). He has effectively performed duty in the UR section for 16 months and his DOS is in June 57; therefore it is considered advisable that he continue to fill this position until a better qualified replacement becomes available.
Personnel Off	1Lt Dickerman, 42BW	7321	7321	Off filling WO position DOS 12 Dec 56.
Gen Med Off Gen Med Off	Capt Frascati, 42TH Capt Schain, 42TH	9326 9326	9326 9326	Officers do not have prof. tng. to be asgd auth medical positions.

Crew - the following officers are former B-36 crew members (except 2ECM Officers who did not receive B-52 training for reason indicated) who cannot be effectively assigned to any authorized vacancies and whose status is indicated.

STATUS	PILOTS	OBSERVERS	ENGINEERS	ECM	TOTAL
Awaiting DOS	1		4	1	6
Pending EDCSA	2	1			3
Awaiting Assignment instruct.		1			1
Pending Board action		1		1	2
NOV	3	3	4	2	12
OCT	5	12	11	3	31
SEP	8	18	14	3	43

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SUMMARY OF NON-CREW OFFICERS NOT MIRS SEPTEMBER THRU NOVEMBER

AFSC	TITLE	SEP	OCT	NOV	
1435	Air Operations Off	1	1	1	PCS to ADC after compl of Intcp Contr Tng
1521P	Acft Obsr, KC-97	1	3	2	1 FEB Board action 1 Directed Duty
2016	Intell Staff Off		1		
2044	Intell Photo-Radar Off	2	2	2	1 Directed Duty 1 EDCSA 23 Dec 56
2054	Intell Off	1			
4316	Acft Maint Staff Off	1	1	1	UMD Position Requested 28 Sep 56
4344	Acft Maint Off	3	2	2	1 Directed Duty 1 EDCSA 5 Dec 56
4351	Job Control Off	1	1	1	Non-rated Off filling
6424	Supply Off	1			rated position, DOS
7324	Personnel Off	1	1	1	Jun 57, Off filling WO Position DOS Dec 56
9326	Gen Medical Off	2	2	2	Off's do not have professional Tng to be asgd auth position.
	TOTAL	14	14	12	

(2) Critical Officer Shortages Requiring Action by higher headquarters. The following 120 day projected critical shortages of officers are furnished higher headquarters for programming purposes to improve manning in required specialties in the most critical areas only but do not include all projected officer shortages.

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AFSC	TITLE	AUTH	(PROJECTED 120 DAYS) ASGD	GAINS	LOSSES	% MANNED
3216	Armament Staff Off	3	2			67
3234	Armament Oper Off	5	3		1	40
3244	Armament Oper Off	4	3		1	50
4316	Aircraft Maint Staff Off	6	5			83*
4334	Flight Test Maint Off	4	1			25
4355	Production Control Off	3	2			67
6424	Supply Officer	11	10		1	82**
7024	Administrative Off	5	5		1	80
9356	Med Off Aviation Med	5	4	1	1	80
9446	Otolaryngologist	1	0			0
9636	Radiologist	1	0			0
9734	Nurse, Operating Rm	1	1		1	0
9754	Nurse, General	12	12		1	91
9836	Oral Surgeon	1	0			0
9856	Prosthodontist	1	0			0
73000	Personnel Supt.	1	0			0

* UMD Position Requested for one additional AFSC 4316 on 28 Sep 56. If authorized % manned will be 71.

** AFSC 6424 critical because two of assigned officers are at entry level.

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b. Airmen Manning

MONTH	AUTH	ASGD	% BOTH MANNING	MIRS	% MIRS	% 2 MONTH CHANGE	SAC RATING SCORE
DIRECT SUPPORT							
Sep	1898	1931	101.7	1383	72.9		10
Oct	1894	2005	105.9	1587	83.8		60
Nov	1894	1980	104.5	1604	84.7	+11.8	70
INDIRECT SUPPORT							
Sep	615	609	99.0	385	62.6		10
Oct	613	624	101.8	405	66.2		10
Nov	613	632	103.1	418	68.2	+.56	10

(1) SUMMARY OF AIRMEN NOT MANNED IN REQUIRED SPECIALTIES

	SEP	OCT	NOV
010's in excess of helper level positions	25	25	24
010's training in position w/o vacancy	9	39	28
3 level airmen on OJT-C for the 5 level where no vacancy exists	106	99	127
3 level airmen on OJT-C for the 5 level where vacancy exists	248	158	88
3 level airmen on OJT-C for the 7 level (no 5 level) where vacancy exists	2	0	3
3 level airmen on OJT-D to career fields where vacancy exists at higher skill level	4	25	20
5 level airmen not on any type of OJT due to maximum manning at 7 level	110	121	149)
5 level airmen on OJT-C for 7 level where no vacancy exists at lower skill level	100	44	40
5 level airmen on OJT-D to authorized career fields where vacancies exist at 7 level	22	0	0
7 level airmen not on any type of OJT and cross training prohibited by Project Guidance	55	18	18
Airmen in unauthorized AFSC's which cannot be cross trained due to Project Guidance	91	107	93*
TOTAL AIRMEN NOT MIRS	772	636	590

* 69 of these airmen are AFSC 323X0A and 323X0B for which a waiver has been approved from higher headquarters for cross training into AFSC 323X00. Airmen are being placed in training immediately.

Amn assigned (2612) - Amn MIRS (2022) = 590 Total Amn not MIRS

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(2) Critical Airmen Shortages Requiring Action By Higher Headquarters.

The following 120 days projected critical shortages of airmen are furnished higher headquarters for programming purposes to improve manning in required specialties in the most critical areas only, but do not include all projected airmen shortages.

AFSC	AUTH	NOV UAFSC	OCT UAFSC	% OF CHANGE	PROJECTED 120 DAYS LOSSES	GAINS	% MANNED
321X0K	6	0	0	00.0	0	0	00.0
323X0G	58	28	27	401.4	0	0	48.3*

*NOTE: A waiver to train AFSC 323X0A and 323X0B into this AFSC has been approved by higher headquarters and airmen are being placed into training immediately.

431X1B	630	495	495	00.0	60	93	83.8
431X1B	86	80	86	-07.0	38	0	48.8

(3) Skill Level Distribution

DIRECT SUPPORT	42BW	7 LEVEL	5 LEVEL	3 LEVEL	010
AUTH	1894	475	1061	358	0
ASGD	1980	410	1150	416	4
PERCENTAGES	104.5	86.3	108.4	116.2	
INDIRECT SUPPORT					
AUTH	613	101	387	114	11
ASGD	632	91	278	235	28
PERCENTAGES	103.1	90.1	71.8	206.1	254.5

(4) Grade Level Distribution

DIRECT SUPPORT	42BW	MSGT	TSGT	SSGT	A/1C	A/2C	A/3C	A/B
AUTH	1894	270	205	449	612	358	0	0
ASGD	1980	153	183	266	468	662	227	21
PERCENTAGES	104.5	56.7	89.3	59.2	76.5	184.9		
INDIRECT SUPPORT								
AUTH	613	49	52	186	202	113	11	0
ASGD	632	37	38	79	87	227	150	14
PERCENTAGES	103.1	75.5	73.1	42.5	43.1	200.9	1363.6	

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(5) Losses by Primary AFSC during November 1956.

LOSSES	3 LEVEL	5 LEVEL	7 LEVEL	TOTAL
Discharged	0	27	1	28
Transferred	9	16	9	34
Total this month	9	43	10	62
Total this year	132	653	170	955
Average monthly loss	12	59	15	87
PROJECTED 120 DAYS				
LOSSES*	8	147	12	167
GAINS	96	12	8	116
NET GAINS OF LOSSES	+88	-135	-4	-51

*Projected losses include separations only. Reassignments within ZI and Overseas can not be predicted but will noticeably increase these projections.

(6) Local actions to improve manning

(a) 827 airmen on OJT of 827 eligible

(b) Test results and upgrading action

1 Air Force Job Knowledge Test

	Last Quarter	Oct	Nov	Dec
Number eligible for testing	180	47	32	
Number tested	71	2	32	
Number passing tests	58	1	23	
Number upgraded to 3 level	69	7	21	
% passing test	81.7	50.0	71.9	
% passing test to date this year		88.4	86.4	
Number passing test but not yet upgraded	6	0	2	

2 Airmen Proficiency Tests

	Last Quarter	Oct	Nov	Dec
Number eligible for testing	637	0	410	
Number tested	479	0	277	
Number passing tests	303	0	—*	
Number upgraded to 5 level	168	95	76	
Number upgraded to 7 level	24	22	11	
% passing 5 level test	67.9	00.0	—*	
% passing 7 level test	51.4	00.0	—*	
% passing 5 level to date		73.9	—*	
% passing 7 level to date		56.8	—*	
Number passing tests but not yet upgraded	240	123	36	

*No test results for November

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(c) Adequacy of OJT Program

1 The table below shows the shortages of each squadron in meeting the USAF goal of 10% upgrade training each month of all airmen in the program Cumulative shortages in Column 10 are the product of the number of months considered and the difference between Column 7 (Monthly Average Number Upgraded) and Column 8 (10% of number in training as listed in Column 2).

1	2	3	4	5	6	7	8	9	10
				NUMBER UPGRADED			USAF REQUIREMENTS		
	NO. IN PROGRAM		PERCENTAGE	THIS	TO	MONTHLY	10% OF NO	SHORTAGES	
UNIT	TOTAL	OVER 5 MOS	OVER 5 MOS	MONTH	DATE	AVERAGE	IN TRNG	MONTHLY	TO DATE
WgHqSq	48	23	47.9	18	97	8.8	4.8	0.0	0.0
69 BHS	90	18	20.0	7	34	3.0	9.0	6.0	66.0
70 BHS	58	22	37.9	15	66	6.0	5.8	0.0	0.0
75 BHS	67	15	22.4	16	51	4.6	6.7	2.1	23.1
42 ARS	58	32	55.2	6	47	4.3	5.8	1.5	16.5
42 FMS	296	129	43.6	45	319	29.0	29.6	0.6	6.6
42 PMS	69	24	34.8	15	72	6.5	6.9	0.4	4.4
42 A&E	107	38	35.5	27	209	19.0	10.7	0.0	0.0
42TACHOSP	34	24	70.6	1	86	7.8	3.4	0.0	0.0
42 BWG	827	325	39.3	150	981	89.1	WING TOTAL		116

2 The adequacy of the OJT program, in those squadrons showing a cumulative shortage in Column 10 of the above table, must be correlated with the percentage of body manning and effective manning percentage of airmen in the program over 5 months.

1	2	3	4	5	6	7	8
					% BODY	% ON OJT	% CHANGE IN COL 7
UNIT	AUTH	ASGD	MIRS	% MIRS	MANNED	OVER 5 MOS	SINCE LAST MONTH
Wg Hq Sq	164	171	108	65.9	104.3	47.9	↑ 6.4
69 BHS	163	163	126	77.3	100.0	20.0	-0.7
70 BHS	163	164	120	73.6	100.6	37.9	↑ 11.9
75 BHS	163	155	123	75.5	95.1	22.4	↑ 1.9
42 ARS	220	198	163	74.1	90.0	55.2	↑ 18.1
42 FMS	901	923	767	85.1	102.4	43.6	↑ 2.1
42 PMS	273	224	184	67.4	82.1	34.8	↑ 16.0
42 A&E	345	477	275	79.7	138.3	35.5	-11.6
42TACHOSP	115	137	94	81.7	119.1	70.6	↑ 5.9
42 BWG	2507	2612	2022	80.7	104.2	39.3	NET ↑ 2.1

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(d) Summary of Results

IN PROGRAM	AUG	SEP	OCT	NOV	
TOTAL	902	860	911	827	
1 MONTH	116	77	241	76	
TOTAL	786	783	670	751	
2 MONTHS	107	131	66	180	
TOTAL	679	652	604	571	
3 MONTHS	97	85	117	58	
TOTAL	582	567	487	513	
4 MONTHS	202	88	75	114	
TOTAL	380	479	412	399	
5 MONTHS	86	166	73	74	
OVER 5 MONTHS	294	313	339	325	DIV AVERAGE PERCENTAGES JAN-NOV
% of Total now in Program	32.1	36.4	37.2	39.3	30.54
*% Not Upgraded After 5 Months	32.9	39.7	37.0	35.3	35.55
No. Upgraded This Month	49	111	124	150	
**% Upgraded	5.5	12.1	14.4	16.5	10.70
Wg Average % Upgraded Monthly:	8.58	8.97	9.51	10.15	
Div Average % Upgraded Monthly:	9.89	9.78	10.38	10.70	

*To compute percentage divide number in program over 5 months this month by the total in program 5 months ago.

**To compute percentage divide number upgraded this month by the total in program at beginning of previous month.

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2. AWOL Rate - One hundred percent (100%) of score was earned on this item for the month of November and for the August November quarter.

3. Reenlistment Rate - 30% of score was earned on this item for the month of November as 11 airmen reenlisted out of an eligible 43. Ten of these reenlisted to fill their own vacancies. For the August November quarter 20% of score was earned as 52 airmen reenlisted out of an eligible 218 during this period. Had one more man reelisted or one less man been eligible to reenlist, 30% of score would have been earned for the quarter.

At the present time reenlistment is beginning to decline due to the approaching holiday season. Five of the men separated who did not reenlist indicated that they would reenlist after Christmas at another base. In accordance with "Operation Christmas Stocking", an intensive campaign has been started to gain additional reenlistments during the month of December. A study on separations and reenlistments is shown below.

Skill Level	Separated		Reenlisted		Rate	
	Nov	Aug-Nov	Nov	Aug-Nov	Nov	Aug-Nov
Advanced - 7 Level	5	25	4	12	80.0%	48.0%
Skilled - 5 Level	35	176	6	37	17.1%	21.0%
Semi-Skilled - 3 Level	3	15	1	3	33.3%	20.0%
Total	43	216*	11	52	25.6%	24.1%

Functional Categories	Separated		Reenlisted		Rate	
	Nov	Aug-Nov	Nov	Aug-Nov	Nov	Aug-Nov
Highly Technical	9	46	4	19	44.4%	41.3%
Tech. Maint. and Repair	25	127	6	28	24.0%	22.0%
Tech. Admin. and Cler.	1	12	0	0	0.0%	0.0%
Semi-Technical	6	23	1	4	16.7%	17.4%
Non-Technical	2	8	0	1	0.0%	12.5%
Total	43	216*	11	52	25.6%	24.1%

* Two separations of 1 level personnel not included in this study.

4. MTD Utilization - One hundred percent (100%) of score was earned on this item for the month of November and for the August-November quarter.

B Materiel

1. Flying Hours Delivered as a Percent of Required - Seventy three percent of score was earned for the quarter and eighty one percent of score was earned for the month of November. The wing flew 761 hours less than the stated operational requirement. 308 hours were lost in September because of grounding. In October 198 hours less than programmed were flown. This loss was primarily due to sorties scheduled but not flown because of the maintenance required to clear TOC's following the grounding. In addition approximately 60 hours had been programed for two aircraft which had been reported as ready for delivery and were expected to be available by the 1st of October. During the month of November the operational requirement was established at 1190 hours although the maintenance program was 840 hours. 967 hours were

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actually flown during November. In summary the primary causes for the loss of points were: Grounding of Aircraft, Excessive maintenance requirements to clear TOC's, and Operational requirements exceeding maintenance program.

C General

1. Cost per Flying Hour - The expense report was not received in time to permit completion of this computation. This item will be computed and forwarded by 17 December.

2. Safety

(a) Flying - One hundred percent (100%) of score was earned on this item for the month of November and for the August- November quarter.

(b) Ground - 80% of score was earned on this item for the month of November. The loss of points was caused by an unacceptable accident frequency rate. Six disabling injuries were incurred in the Wing in the month of November. The Field Maintenance Squadron incurred two disabling injuries; one man had his hand cut by a pocket knife resulting in the loss of seven man days. Another man was injured in a private motor vehicle accident and lost four man days. A man in the Armament and Electronics Squadron was attacked and robbed in Madawaska, Maine and lost five man days. A man in the Air Refueling Squadron slipped on the wing of an airplane on which he was performing maintenance, injured his ankle, and lost seven man days. A man in the 75th Bomb Squadron was accidently shot in the back with a revolver and lost twenty-one man days. A man in the 69th Bomb Squadron injured his wrists lifting weights and lost three man days.

For the August-November quarter, 85% of score was earned on this item. Points were lost due to high accident costs in August and September. In August one airman was killed. In September five private vehicle accidents cost $10,530.

Action is being taken to prevent recurrence of accidents. Accidents have been discussed at Commanders calls and given wide publicity. Disciplinary action was taken in the cases where it was deemed necessary. Also during the month of November, much literature on Safety was published and given dissemination. A film "Don't Skid Yourself" was shown at NCO call and a lecture on traffic procedures on the flight line was given to forty civilian employees.

3. Reports on Time - This item is not rated by this headquarters.

4. USCM Sabotage - Rating on this item is not required this month.

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: November 1956 | PAGE NR | NR OF PAGES | REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Aug	Sep	Oct	Nov	AVERAGE OR TOTAL
A Personnel							
1. MIRS							
(a) Officers	90%	60%	80%	100%	100%	30%	30%
(b) Airmen							
(1) Direct	60%	10%	10%	10%	60%	70%	70%
(2) Indirect	20%	10%	10%	10%	10%	10%	10%
2. AWOL Rate	100%	100%	100%	100%	100%	100%	100%
3. Reenlistment Rate	50%	20%	20%	30%	20%	30%	20%
4. MTD Utilization	NR	100%	100%	100%	100%	100%	100%
Personnel Total	55.6%	26.7%	28.9%	32.5%	58.4%	57.6%	56.2%
B Materiel							
1. Flying Hours Delivered	100%	85%	NR	51%	79%	81%	73%
2. M/H Utilization Aircraft	NR	NR	NR	NR	NR	NR	NR
Materiel	100%	85%	NR	51%	79%	81%	73%
C General							
1. Cost/Flying Hour	83%	50%	NA	NA	NA	NA	NA
2. Safety							
(a) Flying	100%	100%	100%	100%	100%	100%	100%
(b) Ground	100%	90%	75%	55%	100%	80%	

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
ORGANIZATION AND LOCATION Headquarters 42nd Bombardment Wing Loring Air Force Base, Maine	November 1956			

ITEM	LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)				AVERAGE OR TOTAL
	SAC UPPER QUARTILE	Wing DATA	Aug	Sep	Oct	Nov	
3. Reports on Time	79%	NR	NR	NR	NR	NR	NR
4. USCM Sabotage	NR	NR	NR	NR	NR	NR	NR
General Total	83.1%	65.6%	91.7%	85.1%	100%	93.3%	95.1%
Grand Total	84.2%	48.6%	42.9%	44.9%	69.0%	67.6%	65.8%

8AF FORM 102

THIS PAGE IS DECLASSIFIED IAW EO 13526

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR November 1956	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)				AVERAGE OR TOTAL
	SAC UPPER QUARTILE	Wing DATA	Aug	Sep	Oct	Nov	
A Personnel							
1. Manning in Required Specialties							
(a) Officer MIRS % Score	90%	60%	80%	100%	100%	30%	30%
(1) No. Required			465	465	465	600	600
(2) Number Assigned			502	518	512	497	497
(3) Number IRS			419	442	446	473	473
(4) Percent IRS			90.1%	95.1%	95.9%	78.8%	78.8%
(b) Airmen MIRS Direct Support Skills % Sc.	60%	10%	10%	10%	60%	70%	70%
(1) Number Required			1894	1898	1894	1894	1894
(2) Number Assigned			1827	1931	2005	1980	1980
(3) Number IRS			1235	1383	1587	1604	1604
(4) Percent IRS			65.2%	72.9%	83.8%	84.7%	84.7%
(c) Airmen MIRS, Indirect Support Sk. % Sc.	20%	10%	10%	10%	10%	10%	10%
(1) Number Required			611	615	613	613	613
(2) Number Assigned			666	609	624	632	632
(3) Number IRS			435	385	406	418	418
(4) Percent IRS			71.2%	62.6%	66.2%	68.2%	68.2%
2. AWOL Rate, % Score	100%	100%	100%	100%	100%	100%	100%
(a) Average Strength			2687	2753	2832	2890	162

AF FORM 102

THIS PAGE IS DECLASSIFIED IAW EO 13526

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: November 1956	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing CIPA	CURRENT PERIOD (Applicable Months): Aug	Sep	Oct	Nov	AVERAGE OR TOTAL
(b) Number Going AWOL			4	3	0	2	9
(c) Rate per 1000			1.48	1.09	00.0	.69	.81
3. Reenlistment Rate % Score	50%	20%	20%	30%	20%	30%	20%
(a) Number Eligible			77	65	33	43	218
(b) Number Reenlisting			14	20	7	11	52
(c) Percent Reenlisting			18.2%	30.8%	21.2%	25.6%	23.9%
4. MTD Utilization % Score	NR	100%	100%	100%	100%	100%	100%
a. Standard Utilization							
(1) Mech. MTD Bomber			3500	3500	3500	3500	14,000
(2) Electronics MTD Bomber			NR	NR	NR	NR	NR
(3) Total			3500	3500	3500	3500	14,000
b. Actual Utilization							
(1) Mech. MTD Bomber			9660	9207	9453	4470	32,790
(2) Electronics MTD Bomber			NR	NR	NR	NR	NR
(3) Total			9660	9207	9453	4470	32,790
Personnel Total	55.6%	26.7%	28.9%	32.5%	58.4%	57.6%	56.2%
B Materiel							
1. Flying Hours, Percent of Required % Score	100%	85%	NR	51%	79%	81%	73%
(a) Hours Required Bomber				700	942	1,190	2,832
(b) Hours Flown Bomber				360	744	967	2,071

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: November 1956	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Aug	Sep	Oct	Nov	AVERAGE OR TOTAL
C General Materiel Total	100%	85%	NR	51%	79%	81%	73%
1. Cost/Flying Hour % Score	83%	50%	NA	NA	NA	NA	NA
(a) Flying Hours Bomber			545	360	744	967	2,616
(b) Personnel Costs Bomber % Score			NA	NA	NA	NA	NA
(1) Total Cost			$511,229	$606,543	$575,101	$566,238	$2,261,565
(2) Cost/Flying Hour			$938.04	$1,684.84	$772.98	$585.56	$864.51
(3) Stand. Cost/Flying Hour			NA	NA	NA	NA	NA
(c) Aviation POL Costs Bmb. % Score			NA	NA	NA	NA	NA
(1) Total Cost			$144,893	$98,168	$205,399	$289,693	$738,153
(2) Cost/Flying Hour			$265.86	$272.69	$276.07	$299.58	$282.17
(3) Standard Cost/Flying Hour			NA	NA	NA	NA	NA
(4) Performance Index			NA	NA	NA	NA	NA
(d) All Other Supply Costs Bmb. % Score			NA	NA	NA	NA	NA
(1) Total Costs			$148,677	$552,641	$89,745	$59,197	$853,297
(2) Cost/Flying Hour			$272.80	$1,535.11	$120.62	$61.22	$326.18
(3) Standard Cost/Flying Hour			NA	NA	NA	NA	NA
(e) Cont. Services & Other Cost Bmb % Score			NA	NA	NA	NA	NA
(1) Total Cost			$57,073	$30,897	$35,916	$28,841	$152,727
(2) Cost/Flying Hour			$104.72	$85.82	$48.28	$29.82	$[illegible]38

SAF FORM 102

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: November 1956	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Aug	Sep	Oct	Nov	AVERAGE OR TOTAL
(3) Standard Cost/Flying Hour			NA	NA	NA	NA	NA
2. Safety							
a. Flying % Score	100%	100%	100%	100%	100%	100%	100%
(1) Number of Accidents			0	0	0	0	0
(2) Flying Hours			545	360	744	967	2,616
(3) Rate/100,000 Hours Flown			0	0	0	0	0
b. Ground % Score	100%	90%	75%	55%	100%	80%	85%
(1) Ground Safety Index			1.09	7.68	4.19	6.36	4.83
(a) Mil. Inj. Rate/100,000 Mandays Ex			1.09	7.68	4.19	6.36	4.83
1 No. of Mil. Disabling Injuries			1	7	4	6	18
2 No. of Mandays Exposure			91,853	91,170	95,480	94,290	372,793
(b) Gov. Mtr. Veh. Accd. RT/100,000			0	0	0	0	0
1 No. of Accidents			0	0	0	0	0
2 No. of Miles Driven			19,765	17,652	19,372	19,955	76,744
(c) Civilian Injury Rate/1,000,000 Mandays Exposed			0	0	0	0	0
1 No. of Civ. Disabling Injuries			0	0	0	0	0
2 No. Manhours of Exposure			13,607	10,860	12,016	15,928	52,411
(2) Accident Cost Index			$10.40	$3.45	$.43	$.47	3.60

AF FORM [illegible] 102

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: November 1956	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Aug	Sep	Oct	Nov	AVERAGE OR TOTAL
(a) Total Cost			$31,577	$10,718	$1,351	$1,515	$45,161
(b) Mean Strength	-		3,037	3,111	3,146	3,234	12,528
3. Reports on Time (No information Required)	79%	NR	NR	NR	NR	NR	NR
4. USCM Sabotage % Score	100%	NR	NR	NR	NR	NR	NR
(a) No. Aircraft Available							
(b) No. Aircraft Sabot.							
(c) Percent Acft. Not Sabotaged							
(d) Number Flyaway Kit Systems							
(e) No. Flyaway Kit System Sabotaged							
(f) Percent Flyaway Kit System Sab.							
(g) Ground Rules Violated (Yes or No)							
General Total	83.1%	65.6%	91.7%	85.[illegible]%	100%	93.3%	95.1%
Total	84.2%	48.6%	42.4%	44.9%	69.0%	67.6%	65.8%

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COST PER FLYING HOUR
Month Ending 30 November 1956

ITEM	Personnel		Supplies Aviation POL		All Other		Contractual Serv. and "Other"	
Direct TAC Sqdn. Costs	B-52	KC-97	B-52	KC-97	B-52	KC-97	B-52	KC-97
69th BHS	$106219		$ 92895		$ 2497			
70th BHS	101630		87943		1810			
75th BHS	102180		108855		5912			
42nd AREF		$103166		$ 62892		$ 1870		
Total TAC Sqdn.	$310029	$103166	$289693	$ 62892	$ 10219	$ 1870		
Direct Maintenance								
A & E Maint.	$ 70423	$ 12371			$ 10253	$ 3338		
Field Maint.	61586	29918			7036	812		
Periodic Maint	34372	9136			11931	2684		
Total Direct Maint	$166381	$ 51425			$ 29220	$ 6827		
Indirect Maintenance								
A & E Maint.	$ 5565	$ 975			$ 561	$ 182		
Field Maint.	13550	6584			18052	2073	$ 3374	$ 387
Periodic Maint.	3692	981			166	37		
Total Indirect Maint.	$ 22807	$ 8540			$ 18779	$ 21072	$ 3374	$ 387
TDY Costs							} 254	($ 139)
Sub Total	$499217	$163131	$289693	$ 62892	$ 58218	$ 10989	$ 28841	$ 248
Headquarters	$ 67021	$ 21866			$ 979	$ 185		
Total Cost	$566238	$184997	$289693	$ 62892	$ 59197	$ 11174	$ 28841	$ 248
1-AF-1 Total TAC Fly Hrs.	967	421	967	421	967	421	967	421
Cost/Fly Hour	$ 586	$ 439	$ 300	149	$ 61	$ 27	$ 30	$ .59
Standard Cost/Fly Hr.		$ 225	$ 293	$ 135		$ 15		$ 6
Performance Index			97.8%	90.4%				
% Maximum Score Earned		51%	100%	90%		57%		100%
Points Earned		25.5	55	49.5		11.4		25
Total Cost	$943969	$259311						
Total Actual Cost/Fly Hr.	976	616						
Total Stand. Cost/Fly Hr.		381						
Total Points Earned		111.4						
Total Points Possible		150						
Overall % of Score Earned		74%						

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COST PER FLYING HOUR
Quarter Ending 30 November 1956

ITEMS	Personnel		Aviation POL		Supplies All Other		Contractual Serv. and "Other"	
Direct TAC Sqdn Costs	B-52	KC-97	B-52	KC-97	B-52	KC-97	B-52	KC-97
69th BHS	$383809		$218564		$ 66125			
70th BHS	401435		204073		55564			
75th BHS	446038		315516		147130			
42nd ARS		$427576		$363585		$ 48168		$ 37
Total TAC Sqdns.	$1231282	$427576	$738153	$363585	$268869	$ 48168		$ 37
Direct Maintenance								
A & E Maintenance	$276488	$ 74510			$ 37347	$ 14181		
Field Maintenance	268972	182950			440677	48154		
Periodic Maint.	142379	32727			55683	10240		
Total Direct Maint.	$687839	$290187			$533707	$ 72575		
Indirect Maintenance								
A & E Maintenance	$ 19854	$ 5278			$ 2029	$ 789		
Field Maintenance	44117	29412			41636	4626	$ 4935	$ 648
Periodic Maint.	14025	3200			1027	196		
Total Indirect Maint.	$ 77996	$ 37979			$ 44652	$ 5611	$ 4935	$ 648
TDY Costs							$147792	$ 12366
Sub Total	$1997117	$755742	$738153	$363585	$847268	$126354	$152727	$ 13051
Headquarters	264448	96440			6029	901		
Total Cost	$2261565	$852183	$738153	$363585	$853297	$127255	$152727	$ 13051
1-AF-1 Total TAC Fly Hrs.	2616	2721	2616	2721	2616	2721	2616	2721
Cost/Flying Hour	$ 866	$ 313	$ 282	$ 134	$ 326	$ 47	$ 58	$ 5
Standard Cost/Fly Hour		$ 200	$ 293	$ 135		$ 15		$ 6
Performance Index			103.9%	101%				
% Maximum Score Earned		63.9%	90%	90%		32.1%		100%
Points Earned		32	49.5	49.5		6.4		25
Total Cost	$4005743	$1356073						
Total Actual Cost/Fly Hr.	1531	498						
Total Standard Cost/Fly Hr.		356						
Total Points Earned		112.9						
Total Points Possible		150						
Overall % of Score Earned		75.3%						

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LT. CLARK
42 DP

HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base, Maine
Part I
Management Control Statement
Analysis of Points Lost
December 1956
Bombardment

A PERSONNEL

1. Manning in Required Specialties.

a. Officer Manning: The decrease in score in November was caused by the increase in UMD Strength as of 15 November to provide 1.6 crew/aircraft manning ratio.

MONTH	AUTH	ASGD	% BODY MANNING	MIRS	% MIRS	% 2 MONTH CHANGE	SAC RATING SCORE
Oct	465	512	110	446	95.9		100
Nov	600	497	82.8	473	78.8		30
Dec	600	500	83.3	487	81.2	-14.7	40

(1) Officers not manned in Required Specialties as of 31 December 1956:

UMD POSITION	GRADE,NAME,ORGN	PAFSC	DAFSC	REASON
Pilot, B-36	1Lt Whitner, 69BHS	1124Q	1231A	Off is surplus B-36 Pilot and is performing duty in Base Ops. DOS is Jul 57.
Pilot, B-36	1Lt Kelsay, 75BHS	1234A	1234A	Off is surplus B-36 Pilot and has been rsgd with EDCSA 2 Jan 57.

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UMD POSITION	GRADE,NAME,ORGN	PAFSC	DAFSC	REASON
Ops Staff Off	Maj Fachetti, 42BW	1534A	1411	Off is not MIRS because he is filling position in wing plans that requires AFSC 1245 (Pilot, AOB) and cannot be assigned this duty since he has Aero Rating of Observer
Air Ops Off	Maj Hume, 42BW	1416	1435	Off is being rsgd with EDCSA 17 Jan 57.
Nav, KC-97	2Lt Steiner, 42ARS	1531P	1521P	Directed Duty
Nav, KC-97	2Lt White, 42ARS	1531P	1531P	Off permanently sus from flying status by FEB and AFR 36-2 action is pending.
Intell Photo-Radar Off	1Lt Chatman, 42BW	1124Q	2041	Directed Duty
Acft Perf Eng	1Lt LaRuffa, 69BHS	4324	4324	Surplus B-36 crew member, DOS Jun 57.
Acft Perf Eng	1Lt Mauri, 70BHS	4324	4324	Surplus B-36 crew member, DOS Apr 57.
Acft Maint Off	1Lt Foley, 69BHS	6421	4341	Directed Duty
Gen Med Off	Capt Frascati, 42TH	9326	9326	Officers do not have prof. tng. to be asgd auth medical specialists positions.
Gen Med Off	Capt Schain, 42TH	9326	9326	
Gen Med Off	Capt Malachowsky 42TH	9326	9326	

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SUMMARY OF OFFICERS NOT MIRS OCTOBER THRU DECEMBER

AFSC	TITLE	OCT	NOV	DEC	REASON
1234A	Pilot, B-36	5	3	2	1 EDCSA 2 Jan 57 1 DOS Jul 57
1416	Ops Staff Off			1	OBS filling Pilot, AOB position in wing plans.
1435	Air Ops Off	1	1	1	EDCSA 17 Jan 57.
1521P	Nav, KC-97	3	2	2	1 Perm susp by FEB 1 Directed Duty
1525A	Acft Obsr, B-36& B-52	12	3		
2016	Intell Staff Off	1			
2044	Intell Photo-Radar Off	2	2	1	Directed Duty
3024	ECM Off	3	2		
4316	Acft Maint Staff Off	1	1		
4324	Acft Perf Engr	11	4	2	Surplus B-36 crew members 1 DOS Apr 57 1 DOS Jun 57
4344	Acft Maint Off	2	2	1	Directed Duty
4351	Job Control Off	1	1		
7324	Personnel Off	1	1		
9326	Gen Med Off	2	2	3	Officers do not have prof. tng. to be asgd auth medical specialist positions.
	TOTAL	45	24	13	

(2) Critical Officer Shortages Requiring Action by higher headquarters. The following 120 day projected critical shortages of officers are furnished higher headquarters for programming purposes to improve manning in required specialties in the most critical areas only but do not include all projected officer shortages.

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AFSC	TITLE	AUTH	ASGD	GAINS	LOSSES	% MANNED
3216	Armament Staff Off	3	2			67
3234	Armament Sys Off	5	2	1		60
3244	Armament Oper Off	4	3			75
4316	Acft Maint Staff Off	6	5	1	1	83*
4334	Flight Test Maint Off	4	1			25
4355	Production Control Off	3	2			67
6424	Supply Officer	11	9		2	64**
7024	Administrative Off	5	4			80
7324	Personnel Off	4	4		1	75
9356	Med Off Aviation Med	5	4	1	1	80
9446	Otolaryngologist	1	0			0
9636	Radiologist	1	0			0
9734	Nurse Operating Rm	1	1		1	0
9754	Nurse General	12	11		1	83
9836	Oral Surgeon	1	0			0
9856	Prosthodentist	1	0			0
32000	Armament Supt	1	0			0
73000	Personnel Supt	1	0			0

* UMD Position Requested for one additional AFSC 4316 on 28 Sep 56. If authorized % manned will be 71.

**AFSC 6424 critical because two of assigned officers are at entry level.

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b. Airmen Manning

DIRECT SUPPORT MONTH	AUTH	ASGD	% BODY MANNING	MIRS	% MIRS	% 2 MONTH CHANGE	SAC RATING SCORE
Oct	1894	2005	105.9	1587	83.8		60
Nov	1894	1980	104.5	1604	84.7		70
Dec	1894	1993	105.2	1653	87.3	+03.5	80
INDIRECT SUPPORT							
Oct	613	624	101.8	405	66.1		10
Nov	613	632	103.1	418	68.2		10
Dec	613	617	100.7	421	68.7	+02.6	10

(1) SUMMARY OF AIRMEN NOT MANNED IN REQUIRED SPECIALTIES

	OCT	NOV	DEC
010's in excess of helper level positions	25	24	16
010's training in position w/0 vacancy	39	28	22
3 level airmen on OJT-C for the 5 level where no vacancy exists	99	127	164
3 level airmen on OJT-C for the 5 level where vacancy exists	158	88	76
3 level airmen on OJT -C for the 7 level (no 5 level) where vacancy exists	0	3	0
3 level airmen on OJT-D to career fields where vacancy exists at higher skill level	25	20	25
5 level airmen not on any type of OJT due to maximum manning at 7 level	121	149	156
5 level airmen on OJT-C for 7 level where no vacancy exists at lower skill level	44	40	41
5 level airmen on OJT-D to authorized career fields where vacancies exist at 7 level	0	0	0
7 level airmen not on any type of OJT and cross training prohibited by Project Guidance	18	18	14
Airmen in unauthorized AFSC's which cannot be cross trained due to Project Guidance	107	93	22
TOTAL AIRMEN NOT MIRS	636	590	536

Amn assigned (2610) - Amn MIRS (2074) = 536 Total Amn not MIRS

The basic reason for these airmen not MIRS is because of lack of proper skill levels of assigned individuals in authorized AFSCs. This wing now has only 22 men with unauthorized AFSCs. At present we are short 83 seven level, over 59-5 level direct support, and short 100-5 level indirect support, and over 208-3 level airmen.

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(2) Critical Airmen Shortages Requiring Action By Higher Headquarters.

The following 120 days projected critical shortages of airmen are furnished higher headquarters for programming purposes to improve manning in required specialties in the most critical areas only, but do not include all projected airmen shortages.

AFSC	AUTH	DEC UAFSC	NOV UAFSC	% OF CHANGE	PROJECTED 120 DAYS LOSSES	GAINS	% MANNED
431X1E	630	[redacted]	[redacted]	[redacted]	79	66	80.3
431X1B	86	66	80	-16.3	11	10	75.6

(3) Skill Level Distribution

DIRECT SUPPORT 42BW	7 Level	5 Level	3 Level	010
AUTH 1894	475	1061	358	0
ASGD 1993	409	1120	460	4
PERCENTAGES 105.2	86.1	105.6	128.5	
INDIRECT SUPPORT				
AUTH 613	101	387	114	11
ASGD 617	84	287	220	26
PERCENTAGES 100.7	83.2	74.2	193.0	236.4

(4) Grade Level Distribution

DIRECT SUPPORT 42BW	MSGT	TSGT	SSGT	A/1C	A/2C	A/3C	A/B
AUTH 1894	270	205	449	612	358	0	0
ASGD 1993	163	187	313	470	625	207	24
PERCENTAGES 105.2	60.4	91.2	69.7	76.8	175.7		
INDIRECT SUPPORT							
AUTH 613	49	52	186	202	113	11	0
ASGD 617	36	32	81	102	261	93	12
PERCENTAGES 100.7	73.5	61.5	43.5	50.5	231.0	845.4	

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(5) Losses by Primary AFSC during November 1956.

LOSSES	3LEVEL	5 LEVEL	7 LEVEL	TOTAL
Discharged	3	15	10	28
Transferred	1	20	1	22
Total this month	4	35	11	50
Total this year	140	723	192	1055
Average monthly loss	11.7	60	16	85.4
PROJECTED 120 DAYS				
LOSSES*	6	152	13	171
GAINS	78	38	14	130
NET GAINS OF LOSSES	+72	-114	+1	-41

*Projected losses include separations only. Reassignments within ZI and Overseas can not be predicted but will noticeably increase these projections.

(6) Local actions to improve manning

(a) 930 airmen on OJT of 930 eligible

(b) Test results and upgrading action

1 Air Force Job Knowledge Test

	Last Quarter	Oct	Nov	Dec
Number eligible for testing	180	47	32	6
Number tested	71	2	32	6
Number passing tests	58	1	23	4
Number upgraded to 3 level	69	7	21	5
% passing test	81.7	50.0	71.9	66.6
% passing test to date this year		88.4	86.4	85.9
Number passing test but not yet upgraded	6	0	2	1

2 Airmen Proficiency Tests

	Last Quarter	OCT	NOV	DEC
Number eligible for testing	637	0	410	72
Number tested	479	0	277	58
Number passing tests	303	0	197	___*
Number upgraded to 5 level	168	95	76	24
Number upgraded to 7 level	24	22	11	5
% passing 5 level test	67.9	00.0	75.2	___*
% passing 7 level test	51.4	00.0	46.4	___*
% passing 5 level to date		73.9	71.5	___*
% passing 7 level to date		56.8	48.1	___*
Number passing tests but not yet upgraded	240	123	36	200**

*No test results for December

**Nov test results not received in time for upgrading action.

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(c) Adequacy of OJT Program

1. The table below shows the shortages of each squadron in meeting the USAF goal of 10% upgrade training each month of all airmen in the program. Cumulative shortages in Column 10 are the product of the number of months considered and the difference between Column 7 (Monthly Average Numbe. Upgraded) and Column 8 (10% of number in training as listed in Column 2).

1	2	3	4	5	6	7	8	9	10
				NUMBER UPGRADED			USAF REQUIREMENTS		
	NO. IN PROGRAM		PERCENTAGE	THIS	TO	MONTHLY	10% OF NO.	SHORTAGES	
UNIT	TOTAL	OVER 5 MOS	OVER 5 MOS	MONTH	DATE	AVERAGE	IN TRNG	MONTHLY	TO DATE
WgHqSq	50	21	42.0	3	100	8.3	5.0	0	0
69 BHS	94	22	23.4	1	35	2.9	9.4	6.5	78
70 BHS	68	22	32.4	3	69	5.8	6.8	1.0	12
75 BHS	64	39	60.9	8	59	4.9	6.4	1.5	18
42 ARS	57	30	52.6	1	48	4.0	5.7	1.7	20.4
42 FMS	338	140	41.4	11	330	27.5	33.8	6.3	65.6
42 PMS	71	23	32.4	24	96	8.0	7.1	0	0
42 A&E	153	37	24.2	16	225	18.8	15.3	0	0
42TACHOSP	35	25	71.4	0	86	7.2	3.5	0	0
42 BWG	930	362	38.9	67	1048	87.3	93.0	5.7	68.4

2. The adequacy of the OJT program, in those squadrons showing a cumulative shortage in Column 10 of the above table, must be correlated with the percentage of body manning and effecive manning percentage of airmen in the program over 5 months.

					% BODY		% CHANGE IN COL 7
UNIT	AUTH	ASGD	MIRS	% MIRS	MANNED	OVER 5 MOS	SINCE LAST MONTH
WgHqSq	164	173	113	69.9	105.5	42.0	-05.9
69 BHS	163	160	124	76.1	98.2	23.4	+03.4
70 BHS	163	165	122	74.8	101.2	32.4	-05.5
75 BHS	163	152	123	75.8	93.3	60.9	+38.5
42 ARS	220	124	159	72.3	88.2	52.6	-02.6
42 FMS	901	966	984	87.0	107.2	41.4	-02.2
42 PMS	273	210	194	71.1	76.9	32.4	-02.4
42 A&E	345	455	308	89.2	131.8	24.2	-11.3
42TACHOSP	115	135	97	84.3	117.4	71.4	+00.8
42 BWG	2507	2610	2024	80.7	104.1	38.9	-00.4

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(d) Summary of Results

IN PROGRAM	AUG	SEP	OCT	NOV	DEC	
TOTAL	902	860	911	827	930	
1 MONTH	116	77	241	76	171	
TOTAL	786	783	670	751	759	
2 MONTHS	107	131	66	180	[illegible]	
TOTAL	679	652	604	571	690	
3 MONTHS	97	85	117	58	163	
TOTAL	582	567	487	513	527	
4 MONTHS	202	88	75	114	55	
TOTAL	380	479	412	399	472	
5 MONTHS	86	166	73	74	110	
OVER 5 MONTHS	294	313	339	325	362	DIV AVERAGE PERCENTAGES JAN-DEC
% of Total now in Program	32.1	36.4	37.2	39.3	38.9	31.78
*%Not Upgraded After 5 Months	32.9	32.7	37.0	35.3	40.3	35.95
No. Upgraded This month	49	111	124	150	67	
**% Upgraded	5.5	12.1	14.4	16.5	8.1	10.71
Wg Average % Upgraded Monthly	8.58	8.97	9.51	10.15	9.98	
Div Average % Upgraded Monthly	9.89	9.78	10.38	10.70	10.71	

* To compute percentage divide number in program over 5 months this month by the total in program 5 months ago.

**To compute percentage divide number upgraded this month by the total in program at beginning of previous month.

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2. AWOL Rate - Forty percent (40%) of score was earned on this item for the month of December. This rate resulted from 4 AWOL's during December. Following is a list of AWOL's and brief summary:

42A&E Sq. 2 AWOL- Both cases were first offense. Action taken: court martial and reduction in grade and fine imposed.

69th BHS 1 AWOL - This is the Airmen's first offense. Action Taken: Article 15.

75th BHS 1 AWOL - This is the Airmen's third offense. He is in Pretrial confinement waiting Court Martial. Special Court Martial was pending at time of last AWOL.

The AWOL Rate for December in comparison with previous months is approximately the same. The primary reason for the lower percent of score for December is due to a new scoring standard effective with this report.

3. Reenlistment Rate - 60% of score was earned on this item for the month of December as compared to 30% of score for quarter ending 30 November. A portion of this increase is attributed to operation "Christmas Stocking". 26 airmen reenlisted out of an eligible 53. Twenty four of these reenlisted to fill their own vacancies.

B MATERIEL

1. Flying hours delivered as a Percent of Required - Eighty three percent of score was earned for the month of December. There was 113 hours of test and Ferry flights flown in addition to the 1137 hours scheduled for the month. Of this 312 hours were lost due to the following reasons:

100 Hours Fuel leaks
80 Hours Hydraulic system malfunctions
40 Hours Delays in Periodic and Post flight inspections
92 Hours other Maintenance cancellations

C GENERAL ITEMS

1. Cost per Flying Hour - This item is not rated in the wing since there are no standards for B-52 Wings. However, costs can be compared to previous months.

a. Personnel Costs.- These costs rose from $566,238 to $585,541. There was a cost increase in both Direct TAC squadrons and Direct Maintenance. However, the direct maintenance costs rose the most, from $166,381 to $181,649. Cost per flying hour rose from $586 to $619. This rise was due to the loss of B-52 flying hours. Had the programmed 1137 hours been flown the personnel cost per flying hour would have been only $515.00.

b. Aviation POL Costs - The cost per flying hour of this item dropped from $300 to $281. This minor fluctuation is a result of variations in the type of flying activity.

c. "Other" Supply Costs - These costs rose from $59,197 to 89,663. The new cardatype system is slowly reducing some of the high cost items. However, more experience is still required to bring this item down to a

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more realistic figure. Some of the high cost items listed in expense are shown below:

Item	Quantity	Unit Price	Total Value
Drive	1	$ 35,000.00	$ 35,000.00
Drive	4	350.00	1,400.00
Pump	2	1,275.80	2,551.60
Tank	1	2,000.00	2,000.00
Actuator	1	376.00	376.00
Indicator	2	224.00	448.00
Indicator	1	226.00	226.00
Indicator	1	205.00	205.00
[redacted]	2	75.00	150.00
Chamber	1	298.41	298.41
Chamber	1	295.11	295.11
Generator	1	2,095.00	2,095.00

These items should normally be coded as "Inventories in Process of Exchange". The squadrons are still having some difficulty in understanding this code. Instruction pamphlets have been published and distributed to the squadrons to clarify the use of codes.

d. Contractual Services and "Other" Costs - The cost per flying hour on this item is $95 compared to $30 last month. This high cost is due to our low flying hour program and our high TDY costs for ferry flights. This cost will remain high until these programs are substantially finished.

2. Safety - a. Flying - One Hundred percent (100%) of score was earned on this item for the month of December.

b. Ground - Eighty Five percent (85%) of score was earned on this item for the month of December. Five disabling injuries were incurred in the Wing in the month of December. Military first aid injury cost was $91. Military disabling injury cost was $4,590. USAF property damage was $98 and Ground accident aircraft was $346.00.

Action is being taken to prevent recurrence of accidents. These accidents were discussed at Commanders Call and given wide publicity. Disciplinary action was taken in the cases where it was deemed necessary. In addition articles on accident prevention are continuously published in the base newspaper.

3. Reports on Time - This item is not rated by this headquarters.

4. USCM Sabotage - Rating on this item is not required this month.

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: December 1956	PAGE NR: 12	NR OF PAGES: 19	CONTROL SYMBOL: 1-SAC-T35 (8AF-1)		
ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine	LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)		AVERAGE OR TOTAL
ITEM	SAC UPPER QUARTILE	Wing DATA	Dec	Jan	
A Personnel					
1. MIRS					
(a) Officers	90%	60%	50%		
(b) Airmen					
(1) Direct	60%	10%	80%		
(2) Indirect	20%	10%	10%		
2. AWOL Rate	100%	100%	40%		
3. Reenlistment Rate	50%	20%	60%		
4. MTD Utilization					
Personnel Total	55.6%	26.7%	63.1%		
B Material					
1. Flying Hours Delivered	100%	85%	83%		
2. M/H Utilization Aircraft	NR	NR	NR		
Materiel Total	100%	85%	83%		
C General					
1. Cost/Flying Hour	83%	50%	NA		
2. Safety					
(a) Flying	100%	100%	100%		
(b) Ground	100%	90%	85%		

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	December 1956	13	19	1-SAC-T35 (AF-1)

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)				AVERAGE OR TOTAL
	SAC UPPER QUARTILE	Wing DATA	Dec	Jan			
3. Reports on Time	79%	NR	NR				
4. USCM Sabotahe	NR	NR	NR				
General Total	83.1%	65.6%	85%				
Grand Total	84.2%	48.6%	70%				

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MANAGEMENT CONTROL STATEMENT

ORGANIZATION AND LOCATION	MONTH AND YEAR	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
Headquarters 42nd Bombardment Wing Loring Air Force Base, Maine	December 1956	14	19	1-SAC-[illegible] AF-1)

ITEM	LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)				AVERAGE OR TOTAL
	SAC UPPER QUARTILE	Wing DATA	Dec	Jan			
A Personnel							
1. Manning in Required Specialties							
(a) Officer MIRS % Score	90%	60%	50%				
(1) No. Required			600				
(2) Number Assigned			500				
(3) Number IRS			487				
(4) Percent IRS			81.2%				
(b) Airmen MIRS Direct Support Skills % Score	60%	10%	80%				
(1) Number Required			1894				
(2) Number Assigned			1993				
(3) Number IRS			1653				
(4) Percent IRS			87.3%				
(c) Airmen MIRS, Indirect Support Skill % Sc.	20%	10%	10%				
(1) Number Required			613				
(2) Number Assigned			617				
(3) No. IRS			421				
(4) No. Percent IRS			68.7				
2. AWOL Rate, % Score	100%	100%	40%				
(a) Average Strength			2706				

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: December 1956	PAGE NR: 15	NR OF PAGES: 19	REPORTS CONTROL SYMBOL: 1-SAC-T3[illegible] (8AF-1)

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DAFA	CURRENT PERIOD (Applicable Months): Dec	Jan			AVERAGE OR TOTAL
(b) Number Going AWOL			4				
(c) Rate per 1000			1.48				
3. Reenlistment Rate % Score	50%	20%	60%				
(a) Number Eligible			53				
(b) Number Reenlisting			26				
(c) Percent Reenlisting			49.1%				
4. MTD Utilization % Score							
a. Standard Utilization							
(1) Mech. MTD Bomber							
(2) Electronics MTD Bomber							
(3) Total							
b. Actual Utilization							
(1) Mech. MTD Bomber							
(2) Electronics MTD Bomber							
(3) Total							
Personnel Total	55.1%	26.7%	63.1%				
B Materiel							
1. Flying Hours, Percent of Req. % Score	100%	85%	83%				
(a) Hours Required Bomber			1137				

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR December 1956	PAGE NR 16	NR OF PAGES 19	REPORTS CONTROL SYMBOL 1-SAC-T35 AF-1)

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan			AVERAGE OR TOTAL
(b) Hours Flown Bomber			946				
Materiel Total	100%	85%	83%				
C General							
1. Cost/Flying Hour % Score	83%	50%	NA				
(a) Flying Hours Bomber			946				
(b) Personnel Costs Bomber % Score			NA				
(1) Total Cost			585,541				
(2) Cost/Flying Hour			618.97				
(3) Standard Cost/Flying Hour			NA				
(c) Aviation POL Costs Bomber % Score			NA				
(1) Total Cost			265,453				
(2) Cost/Flying Hour			280.61				
(3) Standard Cost/Flying Hour			NA				
(4) Performance Index			NA				
(d) All Other Sup. Costs Bomber % Score			NA				
(1) Total Costs			89,663				
(2) Cost/Flying Hour			94.78				
(3) Standard Cost/Flying Hour			NA				
(e) Cont. Services & Other Cost Bmb % Score			NA				

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
December 1956	17	19	1-SAC-T36 (AF-1)

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan			AVERAGE OR TOTAL
(1) Total Cost			25,688				
(2) Cost/Flying Hour			27.15				
(3) Standard Cost/Flying Hour			NA				
2. Safety							
a. Flying % Score	100%	100%	100%				
(1) Number of Accidents			0				
(2) Flying Hours			946				
(3) Rate/100,000 Hours Flown			0				
b. Ground % Score	100%	90%	85%				
(1) Ground Saf. Index			5.21				
(a) Mil. Inj. Rate/100,000 Mandays Exp			5.21				
1 Number of Mil. Disabling Injuries			5				
2 Number of Mandays Exposure			96,007				
(b) Gov. Mtr. Veh. Accd. Rt/100,000 Miles Driven			0				
1 No. of Accidents			0				
2 No. of Miles Driven			15,229				
c. Civilian Injury Rate/1,000,000 Mandys Exp.			0				
1 No. of Civ. Disabling Injuries			0				

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: December 1956	PAGE NR: 18	NR OF PAGES: 19	REPORTS CONTROL SYMBOL: 1-SAC-T3[illegible] (SAF-1)

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine	LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)				AVERAGE OR TOTAL
ITEM	SAC UPPER QUARTILE	Wing DATA	Dec	Jan			
2 No. Manhours of Exposure			11,575				
(2) Accident Cost Index			$1.93				
(1) Total Cost			$6,125				
(2) Mean Strength			3,166				
3. Reports on Time	79%	NR	NR				
4. USCM Sabotage % Score	100%	NR	NR				
General Total							
Total							

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COST PER FLYING HOUR
Month Ending 31 December 1956

ITEMS	Personnel B-52	Personnel KC-97	Supplies Aviation POL B-52	Supplies Aviation POL KC-97	All Other B-52	All Other KC-97	Contractual Serv. & Others B-52	Contractual Serv. & Others KC-97
Direct TAC Squdn. Costs								
69th BHS	$106585		$ 80540		$ 2940			
70th BHS	104508		73547		6316			
75th BHS	104593		111367		3376			
42nd ARS		103045		44421		7843		$ 138
Total TAC Sqdn	$315686	$103045	$265453	$ 44421	$12632	$ 7843		$ 138
Direct Maintenance								
A&E Maint.	$ 70498	$ 13337			$11511	$ 1366		
Field Maint.	77219	39360			14355	8482		
Periodic Maint.	33932	9020			42512	2681		
Total Direct Maint.	$181649	$ 61717			$68378	$ 12529		
Indirect Maintenance								
A&E Maint.	$ 5192	$ 982			$ 2571	$ 308		
Field Maint.	13958	7126			4898	2901	$3081	
Periodic Maint.	3687	986			305	19		
Total Indirect Maint.	$ 22837	$ 9094			$ 7774	$ 3228	$3081	
TDY Costs							$22607	$ 1620
Sub Total	$520172	$173856	$265453	$ 44421	$ 8870	$ 23600	$25688	$ 1758
Headquarters	$ 65369	$ 21906			$ 878	$ 233		
Total Costs	$585541	$195762	$265453	$ 44421	$ 8966	$ 23833	$25588	$ 1758
1-AF-A1 Tot. TAC. Fly Hrs.	946	351	946	351	946	351	946	351
Cost/Flying Hour	619	558	281	127	95	68	27	5
Standard Cost/Fly Hour		230	293	135		15		6
Performance Index			104%	107%				
% of Max. Score Earned		41%	90%	90%		22%		120%
Points Earned		20.5	49.5	49.5		4.4		25
Total Cost	$966344	$265774						
Total Actual Cost/Fly Hr.	$ 1022	757						
Total Standard Cost/Fly Hr..		386						
Total Points Earned		99.4						
Total Points Possible		150						
Overall % of Score Earned		66.3%						

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REPORT OF AIRCRAFT STATUS AND PURPOSE OF FLIGHT

REPORTS CONTROL SYMBOL: 1-AF-A1

MAJOR AIR COMMAND	SUBCOMMAND	WING	GROUP
Strategic Air Command	Eighth Air Force	42d Bombardment Wing (H)	N/A
SQUADRON	**DETACHMENT**	**INSTALLATION**	**DATE OF REPORT**
N/A	N/A	Loring Air Force Base, Me.	1 Thru 30 Nov. 1956

PART I

LINE NO.	TYPE, MODEL, AND SERIES (A)	ASSIGNMENT OR STATUS CODE (B)	TOTAL NUMBER ACFT ON HAND (C)	TOTAL HOURS: ON HAND (D)	TOTAL HOURS: OPERATIONALLY READY (E)	NOT OPERATIONALLY READY: SUPPLY (F)	NOT OPERATIONALLY READY: TECHNICAL ORDER COMPLIANCE (G)	NOT OPERATIONALLY READY: PERIODIC MAINT INSP (H)	NOT OPERATIONALLY READY: MAL-FUNCTION MECH DEFECTS, OPR DAM (I)	NOT OPERATIONALLY READY: OTHER REASONS (J)	NOT OPERATIONALLY READY FLYABLE (K)	NUMBER OF LANDINGS, LAUNCHINGS, OR FLIGHTS (L)	HQ USAF/CMD HQ USE (M)	HQ USAF/CMD HQ USE (N)
1	KC-97G	CC	20	14746	11462	381	283	929	1691		457	86		
2														
69th 3	B-52C	CC	10	6047	3184	625	92	972	1174		732	36		
4														
70th 5	B-52C	CC	9	5654	3033	428	52	948	1193		478	31		
6														
75th 7	B-52C	CC	8	5286	2461	779	49	429	1568		814	31		
8														
9														
10														

PART II

LINE NO.	TYPE, MODEL, AND SERIES (A)	ASSIGNMENT OR STATUS CODE (B)	HOURS FLOWN: SPECIAL FERRIED BY MATS FERRY PILOTS (C)	TRAINING: COMBAT CREW AND OPERATIONAL (D)	TRAINING: STUDENT (E)	ADMIN-ISTRA-TIVE (F)	COMBAT READINESS TNG: TRAINING (G)	COMBAT READINESS TNG: DUAL PURPOSE (H)	COMBAT READINESS TNG: SPECIAL MISSIONS (I)	OTHER (J)	TOTAL (K)	HQ USAF/CMD HQ USE (L)	HQ USAF/CMD HQ USE (M)	HQ USAF/CMD HQ USE (N)
1	KC-97G	CC		413						8	421			
2														
69th 3	B-52C	CC		346						9	355			
4														
70th 5	B-52C	CC		286						14	300			
6														
75th 7	B-52C	CC		307						5	312			
8														
9														
10														

TYPED NAME, GRADE AND TITLE OF COMMANDING OFFICER: ROBERT A ST PIERRE A/2C USAF

SIGNATURE OF COMMANDING OFFICER: Robert A St Pierre

67

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REPORT OF AIRCRAFT STATUS AND PURPOSE OF FLIGHT

REPORTS CONTROL SYMBOL: ~~1-AF-A1~~

MAJOR AIR COMMAND	SUBCOMMAND	WING	GROUP
Strategic Air Command	Eighth Air Force	42d Bomb Wing (H)	

SQUADRON	DETACHMENT	INSTALLATION	DATE OF REPORT
N/A	N/A	Loring AFB, Maine	1-31 December 1956

PART I

LINE NO.	TYPE, MODEL, AND SERIES	ASSIGNMENT OR STATUS CODE	TOTAL NUMBER ACFT ON HAND	TOTAL HOURS: ON HAND	TOTAL HOURS: OPERATIONALLY READY	NOT OPERATIONALLY READY: SUPPLY	NOT OPERATIONALLY READY: TECHNICAL ORDER COMPLIANCE	NOT OPERATIONALLY READY: PERIODIC MAINT INSP	NOT OPERATIONALLY READY: MAL-FUNCTION MECH DEFECTS, OPR DAM	NOT OPERATIONALLY READY: OTHER REASONS	NOT OPERATIONALLY READY FLYABLE	NUMBER OF LANDINGS, LAUNCHINGS, OR FLIGHTS	HQ USAF/CMD HQ USE M	HQ USAF/CMD HQ USE N
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
69th	B-52C	CC	10	7449	3135	1992		1274	1148		1373	32		
69th	B-52D	CC	6	1069	740	24			305		200	6		
70th	B-52C	CC	9	6696	1960	793	39	462	3442		575	26		
70th	B-52D	CC	6	1564	1075				489		79	7		
75th	B-52C	CC	8	5952	2171	1284		235	2262		1115	23		
75th	B-52D	CC	5	1740	1280	228			232		252	10		
42BS	KC-97G	CC	13	14451	7403	886	1782	895	3485		1264	75		
8														
9														
10														

PART II

LINE NO.	TYPE, MODEL, AND SERIES	ASSIGNMENT OR STATUS CODE	HOURS FLOWN: SPECIAL FERRIED BY MATS FERRY PILOTS	TRAINING: COMBAT CREW AND OPERATIONAL	TRAINING: STUDENT	ADMINISTRATIVE	COMBAT READINESS TNG: TRAINING	COMBAT READINESS TNG: DUAL PURPOSE	COMBAT READINESS TNG: SPECIAL MISSIONS	OTHER	TOTAL	HQ USAF/CMD HQ USE L	HQ USAF/CMD HQ USE M	HQ USAF/CMD HQ USE N
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
69th	B-52C	CC		315							315			
69th	B-52D	CC		34							34			
70th	B-52C	CC		288							248			
70th	B-52D	CC		44							44			
75th	B-52C	CC		221							221			
75th	B-52D	CC		85							85			
42BS	KC-97G	CC		271						26	297			
8														
9														
10														

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TYPED NAME, GRADE AND TITLE OF COMMANDING OFFICER

SIGNATURE OF COMMANDING OFFICER

William V. Champlin, Jr.
1st Lt., USAF

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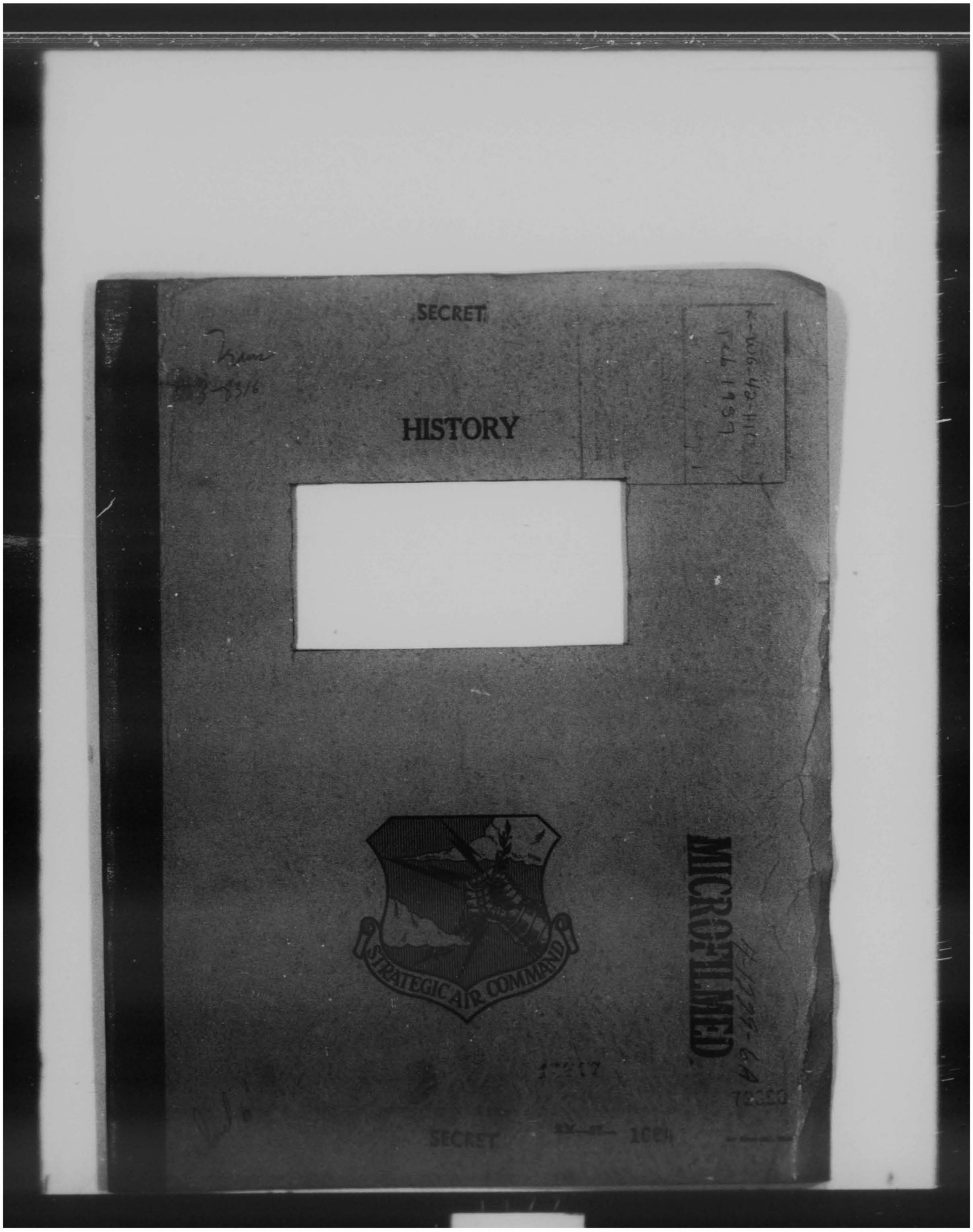

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SECRET

42D BOMBARDMENT WING, HEAVY

1-28 February 1957
(Unclassified Title)

MICROFILMED.

RM—57— 1684

SECRET

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HISTORY OF
THE 42D BOMBARDMENT WING, HEAVY
1 FEBRUARY TO 28 FEBRUARY 1957
(Unclassified Title)
Loring Air Force Base, Maine

Prepared for the Historical Section of the Information Services Office, 42d Air Base Group, by S/Sgt John J. Houlihan, AF 3224 6878, under the supervision of 1st Lt. Edward V. Johnson, Jr., Historical Officer.

(45th Air Division, Eighth Air Force, Strategic Air Command)

DONALD E. HILLMAN
Colonel, USAF
Commander

EDWARD V. JOHNSON, JR.
1st Lt., USAF
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FOREWORD

This report contains the History of the 42d Heavy Bombardment Wing for the period 1 through 28 February 1957. The origin and organization of this bomb wing are recounted along with important activities--mission and mission implementation, operations and training, maintenance and materiel, and personnel--being emphasized for the reporting period.

The information contained herein, relative to the History of the 42d Heavy Bombardment Wing at Loring Air Force Base, Maine, a unit of the 45th Air Division (SAC) covers activities of the wing and assigned organizations. It is related to previous monthly histories of the wing since its activation.

The present report was supervised by 1st Lt. Edward V. Johnson Jr., USAF, Historical Officer (Information Services Staff Officer) and written by S/Sgt John J. Houlihan, Historian.

Like other month's reports, this history is subject to change, and additional information or suggested corrections will be welcomed.

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TABLE OF CONTENTS

	PAGE
FRONTISPIECE	
FOREWORD	
ORGANIZATION, ADMINISTRATION AND PERSONNEL	1
Brief Unit History	1
THE MISSION AND ITS IMPLEMENTATION	6
OVER-ALL MISSION	6
OPERATIONS AND TRAINING	7
FLYING TRAINING	7
GROUND TRAINING	9
MISSION PLANNING	10
OTHER WING ACCOMPLISHMENTS	10
CONVERSION TO KC-135 TANKER AIRCRAFT	12
MAINTENANCE AND MATERIEL	13
MA-6 BOMB/NAV SYSTEM	13
B-52 GUNNERY SYSTEM	22
SUPPLY	22
ECM CAPABILITY	22
MAINTENANCE DIFFICULTIES AND DEFICIENCIES	23
STATUS OF WING AIRCRAFT	23
PERSONNEL	24
OFFICER MANNING	24
AIRMAN MANNING	24
ROSTER OF KEY PERSONNEL	25
LIST OF EXHIBITS	26

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ORGANIZATION, ADMINISTRATION AND PERSONNEL

Brief Unit History

The 42d Heavy Bombardment Wing was activated at Limestone Air Force Base, Maine, on 25 November 1953 and was assigned to the Eighth Air Force.[1] Actually, the 42d was "re-activated". The parent unit to the 42d Bomb Wing was the 42d Bombardment Group, Medium, Army Air Forces, which had served in the South Pacific during World War II.[2]

The three primary squadrons of the World War II bomb groups--the 69th, 70th and 75th[3] -- were again "re-activated" with the 42d Bomb Wing.[4] During the war these bomb squadrons flew the B-25 "Billy Mitchell" bombers and were designated "Medium."[5] When activated again in 1953, the squadrons were re-designated "Heavy"[6] and the B-36 "Peacemaker" became the primary aircraft.

During the fighting in the Pacific, the 42d Medium Bomb Group distinguished themselves by winning many battle credits and a Distinguished Unit Citation.[7]

---

1. SAC GO 10, 25 Feb 1953 per DAF Ltr 322 (AFOMO 410h), 24 Mar 1953.
2. USAF Hist Div Study, Sep 1955: "Hist Data per 42d Bomb Group (M) 1941-1946".
3. Ibid., also "Hist Data per 69th, 70th and 75th Bomb Sqdns (H).
4. SAC GO 10.
5. WD Ltr, AG 320.2 (10-17-40), M (Ret) M-C, 20 Nov 1940.
6. DAF Ltr, 322 (AFOMO 410h), 24 Mar 1953.
7. Battle credits awarded group for China Defensive and Offensive (Cir 1, Hq 13th AF, 10 Jun 1946), and for action in the Bismarck Archipelago, Luzon, New Guinea, Northern Solomons (WD GO 12, 12 Feb 1946) and Southern Philippines (DA GO 29, 21 Apr 1948). For a mission near Balikpapan on the Isle of Borneo, Netherlands East Indies from 23-30 Jun 1945, the group received a Distinguished Unit Citation (WD GO 44, 13 May 1946).

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In 1946, while stationed in Japan, the 42d Bomb Group was de-activated.[8]

In this same year, 1946, a seemingly unrelated event was taking place back in the United States; the construction of a small airstrip in the northern part of Maine.[9] Seven years later, at Limestone Air Force Base, the 42d was re-activated.

Original construction of the base itself was begun in the winter of 1946-47. During the initial construction period, up to the winter of 1952-53, Limestone AFB was garrisoned by a small group of Air Force personnel.[10] The base did not come under the jurisdiction of Strategic Air Command until February 1953.[11]

When the 42d Bomb Wing was activated, the construction program went into high gear, hangars, docks, an extension to the runway, barracks--- many important facilities were initiated.

The first B-36 aircraft arrived during the latter part of March, 1953, just a few weeks after the wing had been activated. In April 1953 the wing launched its first training missions. By October 1953 not quite nine months after the wing was activated, the B-36 crews were flying more than 1,000 hours a month.[12]

---

8. GO # 60, Hq 5th AF, 20 Apr 1946, pursuant to instructions in WD Ltr AG 322 (26 Mar 1946), OB-I-E-M, 26 Mar 1946.
9. Named after Limestone Village, 7 miles from the base.
10. When first assigned , Jun 1950, this group was designated a base detachment; Later re-designated 4215th Base Svc. Sqdn., then 4215th Air Base Sqdn (the latter discontinued per SAC GO 10 when the wing was activated).
11. SAC GO 18, 21 Apr 1953.
12. Inscribed on plaque awarded WCO by Convair, 5 Dec 1955.

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At the time of activation, Brigadier General (then Colonel) Bertram C. Harrison, United States Air Force, was named commander. When the 45th Air Division was activated on 8 October 1954,[13] General Harrison became the new division commander and Colonel Jerome Tarter, USAF, took over as the wing commander.[14]

The 45th Air Division became the highest base echelon on activation in October 1954.[15] Another important change ocurred in October 1954 when the base was officially dedicated and re-named "Loring" on the first day of that month in honor of Major Charles J. Loring Jr., a Maine jet hero, who was awarded the Congressional Medal of Honor, posthumously, for action in Korea.[16]

Before the air division came into being, the 42d Bomb Wing Headquarters had been the highest base echelon. The supporting units to the wing, the 42d Air Base Group, had been activated with the wing in 1953.[17] Under the division setup, the wing and air base group received equal status, ie. lateral communication with each other.[18]

The primary squadrons previously mentioned, were augmented in February of 1955, with the activation of the 42d Heavy Air Refueling Squadron.[19] The KC-97 tanker aircraft took its place on the flight line along with the bomb squadron's B-36s.

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13. SAC GO 69, 8 Oct 1954 (Sec I).
14. Officers Roster, 45th AD, 1-31 Oct 1954 (RCS: 8AF-PI). Brig. Gen. W. K. Martin, USAF, became Div Comdr 18 Jun 1955 and Brig. Gen. Harrison was reasgd Ramey AFB, P. I.
15. See 45th AD Organ. Chart, Exhibit # 1.
16. DAF GO 34, 15 Sep 1954 (par 6).
17. SAC GO 10, actually re-activated", WW II parent was 42d Svc Gp., AAF, disbanded in Belgium 1945, Ltr Hq IX AF Svc Comd, 22 May 1945 pursuant to WD Ltr, AG 322 CB-1-AFRPG-M, 4 Apr 1945.
18. SAC GO 10, See also Exhibit # 1.
19. SAC GO 79, 8 Dec 1954.

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Activated with the wing to render maintenance support were the 42d Armaments & Electronics Maintenance Squadron. 42d Periodic Maintenance Squadron and 42d Field Mainetenance Squadron.[20] A medical group was also activated (see below).[21] Necessary base support was made possible by the actiavtion of the air base group squadrons,[22] and special attached units to group headquarters.[23]

Organizationally, the 42d Wing Headquarters was set up in two sections--the coordinating staff and the personal-specialist staff--which are directly responsible to the wing commander.[24] The wing coordinating staff--the directorates of personnel, materiel and operations--work on equal status with personnel, materiel and operations directorates of 42d Air Base Group Headquarters, and both staffs are responsible to the higher division directorates.[25] The wing personal-specialist staff includes[26] the comptroller, adjutant, air inspector, office of safety and[27] headquarters squadron.

The 42d Medical Group, activated as a wing unit in February 1953[28] had been operating the base function since activation. In February 1954, after being activated for one year, the 42d Medical Group was re-designated the 42d Tactical Hospital.[29]

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20. SAC GO 10.
21. Ibid.
22. See Exhibit # 1.
23. Ibid.
24. See Exhibit # 1. Hq Agencies function IAW SAC Man 20-1. Dec 1954.
25. Ibid.
26. See Exhibit # 1.
27. Est. 1 Apr 1955 per SAC Directive (8th AF Msg. CS 186, 8 Mar 1955.)
28 SAC GO 10.
29. SAC GO 3, 27 Jan 1954.

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20. SAC GO 10.
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THE MISSION AND ITS IMPLEMENTATION

OVER-ALL MISSION

The 42d Heavy Bombardment Wing was activated primarily to administer a force capable of flying strategic bombarment operations to any part of the globe.[1] In performing this task the latest technical knowledge and advanced weapons are utilized.[2]

In addition to long-range bombardment, air-to-air refueling is part of the wing mission.[3] Other tasks of the wing secondary in nature, are the training of assigned United States Air Reserve Personnel and/ or units, and the participation by the wing in civilian emergencies, such as the assistance which might be rendered during a time of disaster.[4]

Aircrews and ground support units are constantly being tested in their work in order to maintain the highest possible degree of efficiency.[5]

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1. 8th AF Reg 23-9, 1 Apr 1954, as amended.
2. Ibid.
3. 8th AF Reg 23-9A, 2 Feb 1955.
4. As outlined in AF Reg 23-9.
5. IAW B-52 Tng Commitments and as dir by opns orders fr higher hq.

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OPERATIONS AND TRAINING

FLYING TRAINING

During the month of February 1957 the Directorate of Operations, 42d Bombardment Wing (H) (SAC), planned higher headquarters and unit directed missions for execution in the ensuing months and supported the training and upgrading of B-52 crews. On February 15th the wing attained combat-ready status, with thirty-two flight crews assigned to Combat-Ready or above.[1]

Photographs depicting the operational status of the wing for the February period are included in this history.[2]

During the month of February the wing flew a total of 1,217 hours and 50 minutes as against a programmed total of 1,020 hours. Following is a breakdown of flying time as accrued by the wing for the month of February.[3]

HOURS FLOWN PERFORMING MISSIONS ORDERED BY HIGHER HEADQUARTERS

	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1)	Ferrying Aircraft	00:00	112:30
(2)	Static Display at McDill AFB, Florida	17:00	17:20
(3)	"Country Club"	150:00	169:45
	Total	167:00	299:35

HOURS FLOWN PERFORMING MISSIONS ORDERED BY EIGHTH AIR FORCE PRIORITIES

PRIORITY	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
1	AFR 60-2	00:00	-----
2	FUR COLLAR III	180:00	124:35
3	NON-Ready Training	420:00	452:45
4	Combat Ready and Above	270:00	395:10
5	Test Hops		7:50
	Total	870:00	

1. See Exhibit # 2, Heavy Jet Bomb Tng Rep for February 57, RCS: 2-SAC-T12. Hq 45 AD 6 March 57.
2. See Exhibit # 3, Operational Photos 42 BW for February 57.
3. See Exhhibit # 2.

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In connection with Operation "Fur Collar III" noted in the preceding paragraph, severe weather conditions at this station and at tanker support stations cancelled one wave of aircraft scheduled on this mission.[4]

During the month of February the 42d Air Refueling Squadron flew a total of 765 hours and 10 minutes in performing missions ordered by higher headquarters, this was in contrast to a total of 350 hours programmed. Shown below is the breakdown[5] of hours of flight time accomplished per individual mission commitment:

COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1) Cold Wave	00:00	130:50
(2) Busy Bee	00:00	157:50
(3) Sun Dog	120:00	168:50
(4) Ferry (Thule Task Force)	00:00	21:45
(5) Country Club	230:00	268:40
(6) AACS Comm. Test	00:00	17:55
TOTAL	350:00	765:10

The refueling squadron accomplished eighty-one percent of the quarter's 50-8 requirements during their TDY period at Thule Air Base, Greenland. However, the unit was only able to accomplish approximately 40% of training in connection with day/night refuelings and rendezvous. This was due to an insufficient number of air refueling sorties scheduled and/or made available to the unit at Thule. It was recommended that a minimum of 75 refueling sorties be made available each month in the Thule area. This insufficient number of refueling sorties along with the nature of those refueling sorties flown caused the unit to have a non-existent standboard program at Thule. It also precluded the upgrading of additional boom operators[6], flight engineers and complete IM crews.

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4. Ibid.
5. See Exhibit # 4 , Refueling Air Tng Rept for February 57, RCS: 9-SAC-T12.
6. Ibid. par 12.

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GROUND TRAINING

Ground training within the 42d Bomb Wing during the month of February progressed at a relatively normal rate. The tempo of activity is largely due to the fact that the wing has been declared Combat-Ready which means that in addition to SAC Regulation 50-43 training all combat-ready crews are now subject to SAC Regulation 50-24 training as outlined in Annexes I and VII. The subject schedule has been completed outlining the required phase I training. Judo and physical conditioning has been included in the master schedule in order to further facilitate the completion of this training during the time the crew is pulled from the squadron for the purposes of attending ground school. The completion of Survival Training for B-52 combat crew members has been considerably hampered due to the fact that Refresher Survival Training was postponed until the first of July 1957, whihc means the backlog of those personnel delinquent in this training will be further increased instead of depleted. More than 50 combat crew members are now delinquent in survival training.

Ground training in accordance with SAC Regulation 50-43 has decreased in tempo due to the relatively small number of personnel remaining to receive this training. A series of classes were scheduled for requirements concerning 50-43 Tactical Doctrine and Combat Reporting lectures but they were relatively smalldue to flying commitments, other ground school, officer details and the like.[7]

The mechanical section of the MTD (Mobile Training Detachment) entered 67 crew members and graduated 67 during the month of February, while 75 maintenance personnel entered training and 87 were graduated including holdovers from the previous month.[8]

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7. From Dirctorate of Opns Hist Rept Hq 42 BW, 1-28 February 57 on file ISC-H.
8. Ibid.

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Aircrew members completed a total of 498 hours of MTD training and maintenance personnel completed 511 man hours of training.[9]

Special training has continued as deemed necessary by various requirements whether determined locally or directed by higher headquarters. A daily specialized IFM course for B-52 obeservers was stiâl in operation and will be designed to include the requirements under SAC Regulation 50-24. A special course on "Hi Jinks" maneuvers was conducted and will continue in progress until all B-52 Bomb Team Crew Members have accomplished this training.[10]

MISSION PLANNING

During the month of February 1957 the wing planned a number of missions, some of which were accomplished during the month, while others were scheduled for execution at later dates. Among these missions were: Cannon Ball[11]; Last Stand, a SAC Evaluation mission[12]; Pace Setter VII[13]; a wing bomber stream mission titled "Fur Collar III", which was executed on 26 and 28 February[14]; and "Fur Collar IV, another bomber stream mission[15].

OTHER WING ACCOMPLISHMENTS

During February the Observers Section of the Wing Directorate of Operations presented a group of lectures covering the type of operation known as "Hi Jinks". This is the code name or identifierused by B-52 aircraft whenever they employ a Breakaway (turn) procedure in conjunction with various types of runs on RBS (Radar Bomb Scoring) site.[16]

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9. Ibid.
10. See Exhibit # 5, SUBJECT: Lecture Outline for Gnd Tng in "Hi Jinks".
11. See Exhibit # 6, Mission Flight Plan "Cannon Ball" 42BW.
12. See Exhbit # 7, Mission Flight Plan "Last Stand" 42BW.
13. See Exhibit # 8, Mission Flight Plan "Pace Setter VII" 42BW.
14. SEE Exhibit # 9, Mission Flight Plan "Fur Collar III" 42BW.
15. See Exhibit # 10, Flight Crew Flimsy Opn "Fur Collar IV" 42BW.
16. See Exhibit # 5.

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Twelve "Pilots Airspeed Computers", type E-11 were received and issued to crew pilots of B-52 aircraft for evaluation. This computer will be procured for all B-52 pilots if local tests prove it to be helpful in solving pilot's airspeed problems.

The wing issued a revision of the 42d Bomb Wing B-52 Center of Gravity Index Card, entitled miscellaneous items. This was necessary due to the fact that the original card contained errors.[17]

The wing also received approval from Hq Eighth Air Force and SAC to conduct a sixty day test in the proposed change in the format of DD Form 365F, "Weight and Balance Form F". In connection with this approval the wing issued a letter, Subject: "Propsed Revision of Air Force DD Form 365F", which directs B-52 Aircraft Commanders and pilots to participate in the evaluation to the proposed change.[18]

A revision to the 42d Bomb Wing "Angle of Bank" charts was issued. The new chart is entitled "Turn Characteristics for Maximum Recommended Buffet", and now includes the turn rate and radius of turn associated with the previously charted bank angles. This data may be helpful in determining aircraft positions (no wind) on completion of a turn, which was held for a specific time and airspeed and during which a constant bank angle was executed.[19]

To Eliminate the problem of getting information to the Wing Gunnery Officer for fighter intercepts, a "request for intercept" form was drawn up. These forms were distributed to the squadron gunnery sections where they are fille out and submitted 24 hours in advance.[20]

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17. See Exhibit # 11, Revision of B-52 C.G. Index Cards "Misc Items" Hq 42BW.
18. See Exhibit # 12, Propsed Revision of AF Form DD 365F, 42BW,22 February 57.
19. See Exhibit # 13, Revision of Angle of Bank Charts, 42BW, 28 February 57
20. See Exhibit # 14, Request For Intercept Form.

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During February it was decided a more suitable system for preflighting and ammunition loading was needed. The gunner who is concerned with firing a particular mission is now required to fill out a completed "Gunnery Preflight and Ammunition Loading" form. This form has enabled the wing to determine and correct the problem areas encountered during the preparation stages of a gunnery mission.[21]

CONVERSION TO KC-135 TANKER AIRCRAFT

The 42d Air Refueling Squadron of the 42d Bombardment Wing was preparing to convert from the KC-97 to the KC-135 Jet Tanker during February. In connection with this conversion there were numerous problems to be solved. These problems and the methods set up to solve them were covered in a "KC-135 Conversion Progress Report # 1".[22]

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21. See Exhibit # 15, "Gunnery Preflight and Ammunition Loading" form.

22. See Exhibit # 16, KC-135 Progress Report # 1 for 45th Air Division, Hq 45 AD, Program Plan 101-56A.

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MAINTENANCE AND MATERIEL
(Problem Areas)

MA-6 BOMB/NAV SYSTEM

The major problems as regards the B-52 have been those encountered in the MA-6 System. In an attempt to find solutions to these problems an MA-6 Quality Control Conference was convened at the Boeing-Seattle Plant in February. This was attended by personnel from Loring who presented the problems they had encountered.[1]

It was the opinion of the Loring delegation to the conference that the MA-6 problems could be generally categorized as design/operational and quality control, and that many of these problems, if encountered at an operational base, could be greatly reduced if these two basic deficiencies were resolved. In this connection it was also felt that by initiating an aggressive program at all echelons of Air Force and civilian facilities, the problem could be reduced to a minimum or every-day maintenance.[2]

Examples of the deficiencies encountered at Loring as regards the MA-6 system were cited.[3]

The Loring representative at the meeting suggested in summary that the following items be considered for discussion purposes of the committee meeting: Quality Control; scored RBS runs be accomplished before the aircraft are delivered; be sure action is taken to insure the equipment discrepancies are corrected prior to the delivery of aircraft and an aggressive modification program be established to incorporate reliability and operational fixes.[4]

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1. See Exhibit # 17 , p. 1. Results of Qual. Cont. Conf. Boeing-Seattle Feb 57
2. Ibid.
3. Ibid., pp 2-4
4. Ibid., p 4.

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Discussion by members of the various organizations represented at the conference produced a number of highlights. Following is a synopsis of these highlights:

a. Air Force Quality Control people at Boeing-Seattle do not actually review the rework or recheck system performance as a result of the work accomplished to correct a flight squawk.

b. Air Materiel Command Navigator-Observers are continually fighting a production battle with Boeing.

c. It is felt that a better Autopilot is needed. Poor synchronization could very well be attributed to the autopilot - bombing computer marriage.

d. When airplane power is set up to obtain 115 volts on the MA-6, noise problems are encountered with the MD-9 radar.

e. The document procedures at Boeing-Seattle need to be overhauled or corrected to make the checks on the bench and in the aircraft a little more explicit - particularly as regards to sequence.

f. Pilot reports and delivery crew write-ups describing the discrepancies encountered with the MA-6 are received much too late to be effective. They do not contain sufficient information about the discrepancies, particularly as regards to cause and remedy.[5]

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5. See Exhibit # 17 p. 5

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g. Unsatisfactory Repprts are received much too late to effect any corrective action. Not all UR's are reaching the proper office for control purposes. Routing and classification of UR's appears to be entirely unsatisfactory.

h. One wing feels that the prescribed lubrication schedule for Constant Speed Motors is not sufficient. This wing has experienced a number less than usual of CSM failures as a result of lubricating the motor more frequently than what is called for in the specification. The wing's adopted policy for CSM lubrication is one after every 10 or 12 hour flight or after every other flight.

i. It was suggested that if the SAC ferry crew would pull a normal acceptance check as laid out in the dash 1 Tech Order, prior to acceptance of the aircraft, most of the troubles would be detected and repaired prior to the aircraft departing Larson or Wichita. There were some who favored the suggestion and there were others who felt that acceptance of the airplane was a function of AMC - that for SAC crews to perform additional duties prior to accepting the airplane would be duplication of effort which had already been well paid for.

j. Military Specifications for individual components appears to be satisfactory. But there is some doubt about the merits of the Military Specification governing the check-out of the entire MA-6 system. There is some belief that when you marry the MA-6 system with the autopilot, you encounter a case of incompatability of system accuracies. For this reason, one or more wings are relying on RRS runs as a more specific check for evaluating MA-6 performance. Compatability of test specifications in use by the equipment manufacturers, airframe facility, and the using

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6. See Exhibit # 17 p 6.

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command for evaluating performance of MA-6 systems is till open to debate.[6]

k. The use of the Failure Report card, form 781-1, has not been implemented at the B-52 airframe facilities.

l. There are no firm instructions in Technical Orders or Military Specifications for measuring backlash tolerances. The using command uses on set, the airframe facility another, and the equipment manufacturer still another.

m. Representatives from Hq USAF and SAC stressed the benefits of conducting RBS runs prior to turning the aircraft over to SAC. AMC Navigator-Observers stationed at Boeing-Seattle expressed their opinions as to why these checks should not be inaugurated as additional flight acceptance checks. AMC Navigator-Observer stationed at Wichita commented that his flight acceptance crew would not conduct RBS runs unless covered by specification requirements.

n. Technical Orders are not too easy to understand. They are received in the field long after the ECP has been incorporated. They do not contain necessary instructions for adjusting backlash, torquing synchro collets and lubricating the CSM.

o. Too many waivers involving relaxation of type tests and performance requirements are granted to the equipment manufacturers, permitting the black boxes to be shipped without having fully met either design or basic contractual requirements.[7]

p. The Air Force Quality Control group at the equipment manufacturers facility find it most difficult to interpret some of the contract requirements because of reference to Mil Specs which do not clearly define what portion of the Mil Spec is applicable.

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7. See Exhibit # 17 pp 6-7

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q. Missile work is taking priority over the use of environmental facilities at the equipment factories. Type testing of MA-6 components has been waived for this reason.

r. The present location of certain components are not too convenient for the navigator-observers. This is particularly true of the True Heading Transmitter Unit. And certain component configurations make it impossible to work on the units in the airplane. In-flight maintenance is also impossible. Pulling the units off the airplane to service them also adds to the total number of rejections against the unit.

s. Boeing-Seattle currently has their first two AN/ASB-4 systems in the Bench Test Area and one installed in an aircraft for flight evaluation. At the present time the contractor personnel are attending special classroom sessions and acquainting themselves with one of the systems in the Bench Test Area. The AFQC people are not familiar with this system at all. Steps will have to be taken to train AFQC people and to set up immediate controls over such programs as involve reporting of discrepancies and the use and recognition of acceptance criteria.

t. Experience in B-52 or bomber aircraft or with SAC operations appears to be a prerequisite when installing new AMC Navigator-Observers.

u. There is a feeling that if MA-6 components were subjected to a predetermined period of operating time prior to the final acceptance check at the factory, it would assist in preventing some of the common failures destined to occur moments after receipt of the component at its destination.

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8. See Exhibit # 17 pp 7-8.

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v. A procedure is needed to assure the using command that they are receiving all the necessary information and history, accumulated on the system they are receiving. For example, how is SAC informed of the authorized deficiencies granted to the equipment manufacturer ? How is the airframe facility notified of the same information ?

w. What constitutes a satisfactory system ? What is needed in a single specification which will outline the AF criteria of acceptability ? This specification would encourage uniform testing procedures throughout the Air Force.[9]

In order to help solve the problems outlined above, which are current in the MA-6 Bomb/Nav System, a number of recommendations were offered by the conferees:

1. That close control be exercised over the lubrication requirementsof the Constant Speed Motor. That adequate instructions covering the frequency and method of lubrication be disseminated to the field in the form of a T. O., and that specifically, a copy of these instructions be placed in the hands of the contractor personnel at Boeing.

2. That technical representatives, acquainted with the overall operational aspects of the MA-6 system, be stationed at all bomber wing bases receiving the MA-6 equipped aircraft. That these "tech Reps" be utilized to assist the A&E maintenance crews in the analysis anc orrection of MA-6 deficiencies

3. That due consideration be given to improvement of component configuration. A number of the presently used components are inaccessible in the aircraft, from a maintenance point of view.[10]

9. See Exhibit # /7 p 8.
10. See Exhibit # /7 p 9.

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4. That a certain number of the system components be relocated physically. One such compoent is the True Heading Transmitter. It was felt that if this unit were moved closer to the operator to permit him to monitor the unit, trouble with poor synchronization would be noticeably reduced.

5. That aggressive action be taken by the Air Force Quality Control organizations at the Boeing plants in setting up the proper amount of surveillance over the installations and systems evaluation tests of the AN/ASB-4. Due consideration should be given to the use of Failure Reports when reporting deficiencies on this system.

6. That the Air Force Quality Control organization pursue their responsibilities toward a more successful implementation of the Air Force Product Improvement Plan. Somewhere along the line UR's are being bogged down. FR's are not being submitted. Pertinent UR information is not reaching the office of primary concern.

7. That a quality coordinator be appointed for the purpose of monitoring and disseminating Quality Control information on the MA-6 to all administrative levels and to all involved Quality Control activities, regardless of geographical boundaries. Common knowledge of system inadequacies, system changes, and system malfunctions is arriving into the hands of Quality Control Organizations much too late to permit the timely execution of preventative measures against these common deficiencies."

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11. See Exhibit # 17 p 9.

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8. That Radar Bomb Scoring runs be inaugurated as a part of the AF flight acceptance checks. That these runs be conducted prior to delivery of the aircraft to SAC.

9. That replacement for AMC Navigator-Observers come from SAC. Experience in bomber aircraft is considered a prerequisite for appointment to the responsible duty assignment.

10. That certain present MA-6 maintenance T. O. 's be simplified and patterned after the Sperry Service Bulletins. These T. O. 's in question are not too easy to understand; they are overly complex in format, contain too much verbiage in one sense and totally lacking in detail in some of the more imporatnt system adjustment techniques.

11. That more detail be submitted in the body of the UR. This is particularly important when reporting malfunctions of certain electronic components. Serial numbers of motors, synchros, seal-amplifiers and other like items are needed by the investigating office in order to assure the proper analysis and subsequent course of action.

12. That some procedure be established which would systematically alert SAC and the airframe facilities of any contractually authorized deficiencies (excluding ECP coverage) granted on MA-6 components accepted at the factory level. This procedure to apply also to authorized deficiencies granted to airframe facilities.[12]

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12. See Exhibit # 17 p 10.

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13. That procurement contracts for major MA-6 components include a requirement for aproduction unit to be subjected to a specific operating time before submitting it to the final acceptance check-out station. This is referred to as "burn-in" time. It was pointed out that some APS-64 production units have a malfunction rate which increases with additional operating time.

14. That contracts referencing Mil Specifications should also clearly define the specific portion of the Mil Spec which is binding on the contractor. Omission of these specific references can cause many hours of ineffectual debate and dubious translations of the contract.

15. That Air Force specifications for evaluating the MA-6 system should be reviewed with an eye toward insuring a uniform standard of acceptability. In other words, what consititutes a satisfactory system ?

16. That an electronics field representative be sent out with the airplane for the purpose of channeling back MA-6 problems encountered by the wing operators.

17. That Flight Test Acceptance personnel visit SAC bases for the purpose of coordinating data on discrepancies and to coordinate on the use of certain desirable checks designed to better evaluate the system.

18. That AFQC people at the airframe facilities as well as those at the equipment manufacturer's facilities initiate UR's on those Mil Specs which are not satisfactory.[13]

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13. See Exhibit # 17 pp 10-11.

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B-52 GUNNERY SYSTEM

The B-52 Gunnery System improved somewhat during the month of February 1957, however, it continued to be classified as unsatisfactory. As of 28 February there were 42 aircraft assigned to the 42d Bombardment Wing. Thirteen of this number were out-of-commission as pertains to the gunnery system. The major portion of this number were out of commission due to gunnery hydraulic systems malfunction, while the balance were out of commission for reasons ranging from a lack of radar parts (which were on back order) to operation malfunction with the cause unknown.[14]

SUPPLY

Prime depot support also continued to be unsatisfactory. The desired AOCP (Aircraft Out-of-Commission For Parts) rate for wing aircraft was not attained due primarily to pipe line time on priority requisitions averaging nine (9) days and ranging up to fifteen (15) days.[15]

During the month of February an average of 14.7 aircraft per day were carried as ANFE (Aircraft Not Fully Equipped). During this same period 10.6 aircraft were carried as AOCP or anticipated AOCP.[16]

ECM CAPABILITY

The ECM (Electronics Countermeasures) capability of the 42d Bomb Wing remain limited. This limitation was further decreased by an Eighth Air Force message[17] advising that AN/ALT-6A Defensive ECM equipment would not be operated in B-52 aircraft until release by OCAMA, WADC and Boeing. Authority had not been received to install and use the AN-ALT-7 equipment presently available.[18]

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14. See Exhibit # 2 par 10a.
15. Ibid. par 10b
16. Ibid.
17. 8AF Conf Msg DM44E Dtd 15 February 57 on fine 42 BW ECM Office.
18. See Exhibit # 1 par 10b(5).

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The negative chaff dispensing capability remained in effect, in addition training type chaff was not available at this station. In summary, the wing had only the jamming capability provided by the AN/APT-9 equipment.[19]

MAINTENANCE DIFFICULTIES AND DEFICIENCIES

In conforming to the TOC (Technical Order Compliance) for a dye-check of landing gear struts on the B-52s, an excessive work load was created. This man-hour expenditure was made at the sacrifice of other maintenance requirements. Although the Bendix struts have manufacturing deficiencies, recurring dye checks are required monthly. The wing recommended conversion from the Bendix to the Cleveland Pneumatic strut.[20]

STATUS OF WING AIRCRAFT

As of 28 February the 42d Bombardment Wing had forty-two B-52 aircraft on hand, with each of the three tactical squadrons; the 69th, 70th and 75th, having fourteen. The total number of hours flown by B-52 aircraft during the February period was 839. 253 landings, launchings or flights took place.[21]

During this same period the 42d Air Refueling Squadron of the 42d Bomb Wing had twenty KC-97 Tanker aircraft on hand.[22]

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19. Ibid.
20. Ibid.
21. See Exhibit # 18, AF Form 110a "Rept of Acft Status and Purpose of Flt" for February 57 RCS: 1-AF-A1.

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The total number of airmen in all categories, who were assigned to the wing during the February period was 266. However, of this total there were 487 airmen not Manned In Required Specialties. The basic reason for these airmen not being MIRS is because of a lack of proper skill levels of assigned individuals in authorized AFSC's.

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4. Ibid par b(1).

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PERSONNEL

OFFICER MANNING

At the end of the February 1957 period the 42d Bombardment Wing had a total of 490 officers assigned as against 600 authorized. The percentage of Body Manning remained at 81.8. The total number of officers MIRS (Manned In Required Specialties) during this period was 479 for an MIRS percentage of 79.8. The SAC Rating Score for the February period was 40, a decrease of 10 from the January period. This was again attributed to the fact that the UMD (Unit Manning Document) strength was increased as of November 15th 1956 to provide a 1.6 crew/acft manning ratio.[1]

AIRMAN MANNING

The status of airman manning in the direct support category for the February 1957 period showed an improvement over the previous period with an increase in the number of airmen assigned to 2054 as against an authorization of 1915. The percentage of Body Manning increased to 107.2, while the number of airmen MIRS for the February period was 1707 for a percentage of 89.1. The SAC Rating Score for the direct support category remained at 90.[2]

The status of airmen in the indirect support category during the month of February showed a decline to 612, while the authorized strength remained at 591. In this category the percentage of Body Manning was 103.6. The number of indirect support airmen who were MIRS during the month of February was 472 (an increase of 26 over the January period) for a percentage of 79.9. The SAC Rating Score for this category increased to 40 over the January score of 20.[3]

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1. See Exhibit # 17 Part I, Mgmt Cont. Statement, Analysis of Points Lost, February 57, Hq 42 Bomb Wing (H) (SAC).
2. Ibid par b.
3. Ibid. par b(1).

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ROSTER OF KEY PERSONNEL

COLONEL DONALD E. HILLMAN	WING COMMANDER
COLONEL WOODROW P. SWANCUTT	DEP WING COMMANDER
Colonel Don W. Bailey	DIR OF OPERATIONS
COLONEL GERARD G. WOLKE	DIRECTOR OF MATERIEL
LT. COL. ROBERT E. BROFFT	SQUADRON COMMANDER
LT. COL. JOHN R. RISHER	SQUADRON COMMANDER
LT. COL. ROBERT R. SCOTT	SQUADRON COMMANDER
LT. COL. TOM B. STEWART	SQUADRON COMMANDER
MAJOR LORENZO CALIENDO	SQUADRON COMMANDER
MAJOR WILLIE H. SONNTAG	SQUADRON COMMANDER
MAJOR DONALD O. THORSENN	SQUADRON COMMANDER
MAJOR FRANK WRIGGLESWORTH	WING ADJUTANT

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LIST OF EXHIBITS

1. Organization Chart 45th Air Division.

2. Heavy Jet Bombardment Training Report for February 1957, RCS: 2-SAC-T12, Hq 45 AD, 6 March 1957.

3. Operational Photos 42d Bomb Wing for February 1957.

4. Refueling Air Training Report for February 1957, RCS: 9-SAC-T12, HQ 45AD, 8 MARCH 1957.

5. SUBJECT: Lecture Outline for Ground Training in "Hi Jinks".

6. Mission Flight Plans for Operation "Cannon Ball", 42 BW.

7. Mission Flight Plan for Operation "Last Stand", 42 BW.

8. Mission Plan for Operation "Pace Setter VII", 42 BW.

9. Pilots Flimsy 215-57 "Fur Collar" Hq 42 BW, 20 February 1957; Mission Flight Plan Operation "Fur Collar III", 42 BW; "Fur Collar III" Communications Flimsy Errata, Hq 42BW, 22 February 1957; Gunnery Flimsy 215-57 "Fur Collar III", Hq 42BW, 20 February 1957.

10. Flight Crew Flimsy "Fur Collar IV" Wednesday 6 March 1957, 42 BW.

11. Revision of B-52 C. G. Index Cards "Miscellaneous Items" Hq 42BW, 22 February 1957, Hq 42 BW.

12. Ltr Hq 42 BW, Subject: Proposed Revision of Air Force DD Form 365F, 22 February 1957.

13. Ltr Hq 42 BW, Subject: Revision of Angle of Bank Charts, 28 February 1957.

14. Request for Intercept Form.

15. Gunnery Preflight and Ammunition Loading Form.

16. KC-135 Progress Report # 1 for 45th Air Division, Hq 45 AD, Program Plan 101-56A.

17. Results of Quality Control Conference Held at Boeing-Seattle February 1957.

18. AF Form 1100a "Report of Aircraft Status and Purpose of Flight"for February 1957, RCS: 1-AF-A1.

19. Part I Management Control Statement, Analysis of Points Lost, February 1957, Hq 42 Bomb Wing (H) (SAC).

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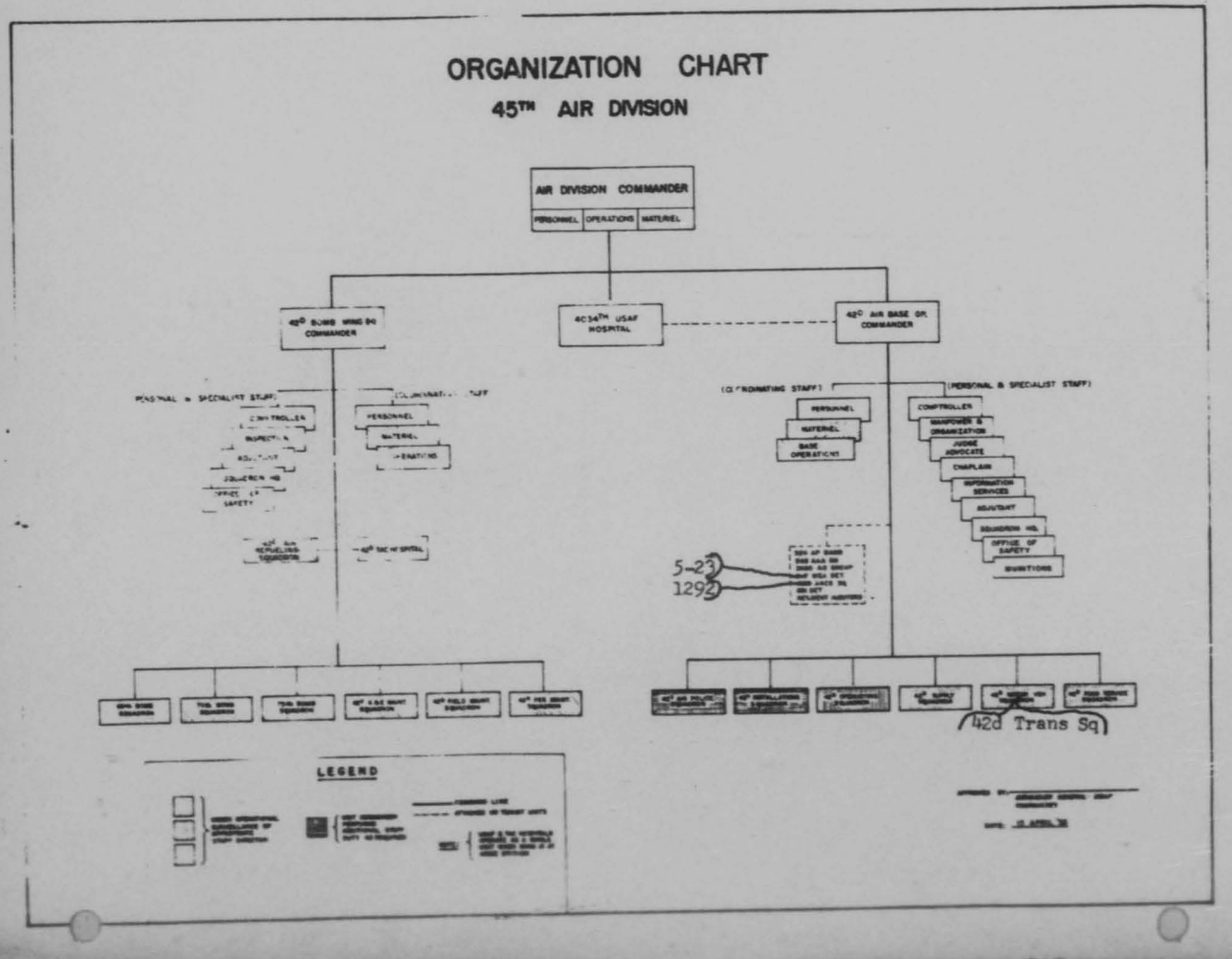

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base
Maine

42DOT 6 March 1957

SUBJECT: (Unclassified) Heavy Jet Bombardment Air Training Report for February 1957, RCS: 2-SAC-T12

TO: Commander
Eighth Air Force
Westover Air Force Base
Massachusetts

1. Submitted herewith in accordance with Annex II, SAC Regulation 50-23, dated 1 May 1956, is the Heavy Jet Bombardment Air Training Report, RCS: 2-SAC-T12.

2. If inclosures are withdrawn or not attached, the classification of CONFIDENTIAL on this correspondence may be cancelled in accordance with Air Force Regulation 205-1.

FOR THE COMMANDER:

Roger Leavitt
for JOSEPH H. JACOBY
Major, USAF
Adjutant

5 Incls
1. SAC Form 493 (7 pgs)
2. SAC Form 493a (6 pgs)
3. SAC Form 493b (5 pgs)
4. SAC Form 493c (6 pgs)
5. Comdrs Remarks (12 pgs)

cc: CINCSAC
ATTN: DOTRS (T12) (1 cy incl 1 thru 5)
COA (T12) (1 cy incl 1 thru 5)
D/Pers (1 cy incl 5 only)
D/Mat (1 cy incl 5 only)

COMDR 8AF
ATTN: ODT4 (1 cy incl 1 thru 4, 10 cys incl 5)
COM (1 cy incl 1 thru 4, 5 cys incl 5)

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42D BOMBARDMENT WING (H) (SAC)
FEBRUARY 1957

PART V - WING COMMANDER'S REMARKS FOR FEBRUARY 1957

1. Hours flown performing missions ordered by:

a. Higher Headquarters:

	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1)	Ferrying Aircraft	00:00	112:30
(2)	Static Display at McDill AFB, Florida	17:00	17:20
(3)	"Country Club"	150:00	169:45
	TOTAL	167:00	299:35

(a) Reference commitment (1): Due to indefinite delivery schedule it was impractical to program specific time for this item. (67:45 accomplished in February).

b. Eighth Air Force Priorities:

(1) Programmed and accomplished for current month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
1	AFR 60-2	00:00	Note (a)
2	Fur Collar III	180:00	124:35
3	Non Ready Training	420:00	452:45
4	Combat Ready and Above	270:00	395:10
5	Test Hops		7:50
	TOTAL	870:00	
	HIGHER HEADQUARTERS	150:00	237:30
	GRAND TOTAL	1020:00	1217:50

(b) Reference commitment (1): A proportionate share of requirements under AFR 60-2 was accomplished on all flights.

W-1851C

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(b) Reference commitment (2): Severe weather conditions at this station and at tanker support station cancelled one wave of aircraft on Fur Collar III. (27 Feb 57)

(2) Flying time programmed for the following month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED
1	AFR 60-2	00:00
2	SES	30:00
3	"IRONCLAD"	432:00
4	Demonstration at Schilling AFB, Kansas	20:00
5	Non Ready Training	270:00
6	Combat Ready and above	378:00
		1130:00

2. Weather or Local Conditions:

a. Five (5) B-52's were diverted to alternate bases due to weather.

b. All flying cancelled 27 February due to weather. Loss of eight sorties.

3. Air Traffic Control Delay Information:

a. Not applicable for this reporting period.

4. Restrictive Directives:

a. SAC message DM4A1-7-12-7466, dated 29 January 1957, suspended flying of eighteen (18) B-52's that were equipped with Bendix Main Landing Gear Struts. Action required by this message completed 16 February 1957.

5. Combat Crew Member Gains and Losses:

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a. Crew members gained:

(1) 2 co-pilots

(2) 3 Gunners

(3) 1 Navigator

b. Crew members lost:

(1) 3 Aircraft Commanders - Deceased

(2) 2 Co-Pilots - One deceased, one to 42D OPRON

(3) 2 Observers - Deceased

(4) 4 ECM Officers - One deceased, one to 3380th Tech. Tng. Wg. (ATC), Keesler AFB, Miss., one discharge, one to 107 Medical Ser. Sq., Walter Reed Hosp.

6. Crew Member Changes:

a. 3 Aircraft Commanders

b. 5 Co-Pilots

c. 13 Observers

d. 3 ECM Officers

e. 3 Gunners

7. New Crews:

a. Not applicable for this reporting period.

8. Crew Status Changes:

a. R-26 to L-26, 9 January 1957 - Upgraded

b. R-81 to L-81, 9 January 1957 - Upgraded

c. N-52 disbanded 10 January 1957 - Five (5) crew members deceased.

d. N-21 to R-21, 14 January 1957 - Upgraded

e. N-29 to R-29, 14 January 1957 - Upgraded

W-1851C

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f. N-24 disbanded 16 January 1957 - Aircraft Commander and Co-pilot deceased. No replacements available.

g. N-28 to R-28, 22 January 1957 - Upgraded

h. N-50 to R-50, 22 January 1957 - Upgraded

i. N-16 to R-16, 1 February 1957 - Upgraded

j. N-17 to R-17, 1 February 1957 - Upgraded

k. N-27 to R-27, 1 February 1957 - Upgraded

l. N-46 to R-46, 1 February 1957 - Upgraded

m. N-15 to R-15, 4 February 1957 - Upgraded

n. N-25 to R-25, 4 February 1957 - Upgraded

o. N-47 to R-47, 11 February 1957 - Upgraded

p. N-48 to R-48, 11 February 1957 - Upgraded

q. N-87 to R-87, 11 February 1957 - Upgraded

r. N-45 to R-45, 15 February 1957 - Upgraded

s. N-49 to R-49, 15 February 1957 - Upgraded

t. N-82 to R-82, 15 February 1957 - Upgraded

9. Standardization Crews:

a. L-75 assigned July 1956

b. L-85 assigned July 1956

c. L-20 assigned October 1956

d. L-26 assigned December 1956

e. L-78 assigned January 1957

f. L-55 assigned February 1957.

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10. Additional Material and Personnel Problems:

a. Materiel Problems:

(1) The B-52 gunnery system has improved somewhat; however, continues to be classed as unsatisfactory. As of 28 February 1957 there are forty-two (42) B-52 aircraft assigned to the 42d Bombardment Wing. Thirteen (13) of this number are out of commission as pertains to the gunnery systems due to the following reasons:

(a) Six (6) out for hydraulic system malfunctions.

(b) Three (3) out for radar parts not available (parts on back order).

(c) Three (3) out for elevation limit switch (parts on back order).

(d) One (1) out for relief valve.

(e) One (1) out for operation malfunction (cause unknown).

b. Supply:

(1) Prime depot support continues to be unsatisfactory. The desired AOCP rate for the 42d Bombardment Wing aircraft was not attained due primarily to pipe line time on priority requisitions averaging nine (9) days and ranging up to fifteen (15) days.

(2) During February an average of 14.7 aircraft per day were carried as ANFE. During this same period 10.6 aircraft were carried as AOCP or anticipated AOCP.

(3) Parts listings for the B-52 MD-9 fire control system were received 4 March 1957. Requisitioning actior has beer delayed as a result of this.

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(4) Bomb-Navigational (MA-6A) Deficiencies - - Personnel from this headquarters and Eighth Air Force attended a MA-6A Quality Control Conference at Boeing Airplane Company, Seattle, Washington, during February 1957. At this meeting it was pointed out by equipment manufacturing quality control personnel that many design deficiencies exist in the equipment and that many quality waivers have been granted by the Air Force. Most notable were the problems associated with RT-324 Receiver Transmitters, PP-259 Power Supplies and 10 inch indicators. Motorola advised that the RT-324 reject rate was 600-700 percent. Boeing advised that they had 100% reject at the end of two flights. Also, 15% of the RT-324 units fail within 40 minutes of flight and 25% within 2 hours. The PP-259 is being driven above rated maximum power and as a result causes critical voltages to be unstable. The Power Supply in the 10 inch indicator is unstable and back lash is hard to control. These are examples of problems recognized by manufacturers, which also exist at this station. Solutions exist for all of these problems and a program has been established by AMC and SAC Headquarters to cycle the equipment through modification lines. Initial production for some modified items will be available in March - April 1957. Recommend the B-52 program be considered for highest retrofit priorities.

(5) The limited ECM capability of the 42d Bomb Wing was covered in the January report. This has been further decreased by 8AF Confidential message DMM4E, dated 15 February 1957, advising that AN/ALT-6A defensive ECM equipment would not be operated in B-52 aircraft until release by OCAMA, WADC and Boeing. Authority has not been received to install and use the AN/ALT-7 equipment presently available. The negative chaff dispensing capability remains in effect, in addition training type chaff is not avail-

W-1851C

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able at this station. In summary, this organization has at present only that jamming capability provided by AN/APT-9 equipment.

c. Maintenance difficulties and deficiencies causing the greatest problems were:

(1) TOC requirement for a dye-check of landing gear struts - excessive work load was created in dye checking landing gear struts. This man hour expenditure was made at the sacrifice of other maintenance requirements. Although the Bendix struts have manufacturing deficiencies, recurring dye-checks are required monthly. Recommend conversion from Bendix to Cleveland pneumatic struts.

(2) Movement of aircraft due to weather conditions continues to be a serious hindrance to meeting the maintenance schedule.

(3) Entrance door malfunctions (Navigator's hatch) has been a primary cause for late take-offs.

(4) Ground power equipment troubles due to severe weather continues to be an added cause for late take-offs.

(5) Aircraft transfer schedule resulted in loss of programmed sorties due to changes in transfer dates.

(6) Cancellations and diversions due to weather.

d. The following are shortages of Airmen Direct Support Skills under the 45 B-52 UMD:

AFSC	AUTH	ASGD	PROJ 120 DAY LOSSES
301X3A	14	8	5
323X1G	73	59	0
431X1E	630	*603	33

W-1851C

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* Operation "Get-Well" final inputs are reflected in the assigned strength. Shortages continue to exist in 431X1E career field and as stated previously, the KC-135 conversion will require additional inputs.

e. The following are shortages of Airmen Indirect Support Skills under the 45 B-52 UMD:

AFSC	AUTH	ASGD
641X1/73	103	88

11. Refueling Data:

	Jan	Feb
a. Number of refueling sorties scheduled and confirmed:	104	64
b. Number of sorties:		
(1) Airborne:	68	56
(2) Effecting complete electronic rendezvous:	19	40
(3) Transferring required fuel:	29	38
c. Number of aborts due to:		
(1) Adverse weather:	1	0
(2) Aircraft Malfunction:	36	8
(3) Electronic rendezvous equipment malfunction:	0	0
(4) Refueling equipment malfunction:	1	3
(5) Other Causes:		
(a) Weather cancellation by tankers:	20	1
(b) Aircraft aborts and maintenance cancellations by tanker:	15	14
(c) Higher headquarters cancellations:	2	0

12. Comments and Recommendations of the Wing Commander:

a. The 42d Bomb Wing attained combat ready status on 15 February 1957 with thirty-two (32) flight crews assigned to Combat Ready or above. On 1 March 1957 four (4) additional crews were upgraded giving the Wing a

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total of thirty-six (36) combat ready crews and twelve (12) non-combat ready crews. Following is the projected crew status of the 42d Bomb Wing until 1 June 1957:

	As of Date	Combat Ready	Non-Ready
(1)	1 March	36	12
(2)	1 April	40	6

(a) Two co-pilots lost due to DOS.

(b) One co-pilot lost due to indefinite grounding DNIF.

(c) Four (4) additional crews will not be available due to transfer; however, EDCSA is 15 May.

(3)	1 May	46	
(4)	1 June	41	1

(a) Loss of one co-pilot due to DOS. One co-pilot due in from Castle AFB on 31 May will require upgrading.

(b) Loss of four (4) instructor crews to Castle AFB or Ellsworth AFB.

(c) Five (5) crews are due in from Castle AFB with reporting dates of August, September and October. The above crew figures are based on the utilization of one co-pilot presently on recuperation leave with availability uncertain.

13. Ground Training:

a. Not applicable for this reporting period.

W-1851C

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14. Hi Jinks Tactics:

CREW NUMBER	GROUND SCHOOL COMPLETED	CHECKED OUT FOR SOLO
N-14	No	No
N-15	No	No
N-16	No	No
N-17	Yes	No
N-18	No	No
N-19	Yes	No
L-20	No	No
R-21	Yes	No
N-22	No	No
N-23	Yes	No
N-25	Yes	No
L-26	No	No
N-27	No	No
R-28	No	No
R-29	Yes	No
N-30	Yes	No
N-45	No	No
N-46	No	No
N-47	Yes	No
N-48	Yes	No
R-49	No	No
R-50	Yes	No
N-51	No	No

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42D BOMBARDMENT WING (H) (SAC)
FEBRUARY 1957

CREW NUMBER	GROUND SCHOOL COMPLETED	CHECKED OUT FOR SOLO
N-53	No	No
R-54	No	No
L-55	Yes	No
N-56	Yes	No
N-57	Yes	No
N-58	Yes	No
N-59	No	No
N-60	Yes	No
R-73	Yes	No
R-74	Yes	No
L-75	No	No
R-79	Yes	No
L-80	No	No
R-82	Yes	No
N-83	No	No
L-85	No	No
N-86	Yes	No
N-88	Yes	No

(Note) Crews previously reported as Ground School completed are now incomplete and undergoing training in accordance with SAF Directive "Special Release Tactic, "Hi-Jinks", dated 18 January 1957.

15. Incomplete Combat Maintenance Crews:

Crew Number	Name	Position	Duty AFSC	Standboard Date	Flying Time in Tac Acft.
ICM-31	Gregg	AC	4331	27 Aug 56	11:30
ICM-31	Hedin*	CP	4351	None	None
ICM-61	Fisher	N	3231	November 56	5:40

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42D BOMBARDMENT WING (H) (SAC)
FEBRUARY 1957

Crew Number	Name	Position	Duty AFSC	Standboard Date	Flying Time in Tac Acft.
ICM-61	Duden	AC	4311	October 56	8:15
ICM-61	Estes*	CP	3216	None	None
ICM-89	Classon*	AC	4311	None	12:00
ICM-89	Brown*	CP	3231	None	None

* The above listed officers are not yet fully qualified but have completed varying phases of SAC Regulation 51-19.

Gordon P. Swancutt

DONALD E. HILLMAN
Colonel, USAF
Commander

PART VI - DIVISION COMMANDER'S REMARKS, 45TH AIR DIVISION (SAC)

I concur with the remarks and the recommendations of the Wing Commander.

D E Hillman Col

for W. K. MARTIN
Brigadier General, USAF
Commander

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I

UNIT: 42D Bombardment Wing (H)

MONTH: Feb 57 | PAGE NR: 1 | NR OF PAGES: 7 | REPORTS CONTROL SYMBOL: 2-SAC-T12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54
L85	B52D	002	021			001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	002	015	023	-	-
L20	B-52D	001	011			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	002	008	024	-	-
L55	B52D	006	058			-	-	-	-	-	-	-	-	-	-	-	-	-	002	006	006	-	-	001	002	017	026	-	-
L75	B52D	002	022			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L78	B52D	002	021			-	-	-	-	-	-	-	-	-	-	-	-	-	001	010	-	-	-	-	001	000	-	-	-
L26	B52D	005	063	Not Applicable	Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-	-	002	008	017	-	-	-	002	006	010	-	-
																								001	001	013	-	-	-
R26	B52C	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Std Bd Total	-	018	186			001	-	-	-	-	-	-	-	-	-	-	-	-	005	024	023	-	-	002	010	059	083	-	-
L72	B52D	008	079			002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
																			* 001	015	-	-	-	* 001	* 002	008	011	-	-
																									* 001	030	-		
L76	B52D	006	053			001	-	-	-	-	-	-	-	-	-	-	-	-	002	004	005	-	-	001	001	002	-	-	001
L77	B52D	006	055			001	-	-	-	-	-	-	-	-	-	-	-	-	002	011	011	-	-	001	-	-	-	-	-
L80	B52D	006	051			-	-	001	-	-	-	-	-	-	-	-	-	-	001	008	-	-	-	001	-	-	-	001	-
L84	B52D	007	058			001	001	001	-	-	-	-	-	-	-	-	-	-	001	005	-	-	-	-	002	008	009	003	-

SAC 493 PC: 2720

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I

UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
42D Bombardment Wing (H)	Feb 57	2	7	2-SAC-T12

A. GENERAL / B. BOMBING

1 Crew Number	2 Type and Model Aircraft	3 Number of Sorties	4 Flying Time	5 USCM	6 Bomber Stream	7 RBS at Mach.84	8 Radar Atks - Camera Scored, Radar Obs. IBDA	8 Radar Obs. Fixed Angle	8 Navigator Mach.84 IBDA	8 Navigator Fixed Angle	9 Visual Atks Camera Scored Mach.84, Radar Obs.	9 Navigation	10 Visual Releases - Mach.84, Radar Observer Total	10 Radar Observer M-19 Nr of Rel.	10 Radar Observer M-19 C. E.	10 Navigator Total	10 Navigator M-19 Nr of Rel.	10 Navigator M-19 C. E.
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62
L81	B52D	004	029			-	001	-	-	-	-	-	-	-	-	-	-	-
S-L Total		037	325			005	002	002	-	-	-	-	-	-	-	-	-	-
R81	B52C	003	017			002	002	-	-	-	003	001	-	-	-	-	-	-
R54	B52D	003	027			-	-	-	-	-	-	-	-	-	-	-	-	-
R73	B52D	004	038			001	-	-	-	-	-	-	-	-	-	-	-	-
R74	B52C	005	050	Not Applicable	Not Applicable	002	001	-	001	-	001	001	-	-	-	-	-	-
R79	B52C	005	051			-	-	-	-	-	-	-	-	-	-	-	-	-
R21	B52D	001	013			-	-	-	-	-	-	-	-	-	-	-	-	-
R28	B52D	002	016			-	-	-	-	-	-	-	-	-	-	-	-	-
R29	B52D	005	048			-	-	-	001	001	-	-	-	-	-	-	-	-
R50	B52D	003	027			002	-	-	-	-	-	-	-	-	-	-	-	-
R15	B52D	003	029			001	-	-	-	-	-	-	-	-	-	-	-	-
R16	B52D	002	018			-	-	-	-	-	-	-	-	-	-	-	-	-
R17	B52D	003	029			001	-	-	-	-	-	-	-	-	-	-	-	-
R25	B52D	002	020			-	-	-	-	-	-	-	-	-	-	-	-	-

C. NAVIGATION

1 Crew Number	11 Night Celestial Total Legs	11 Circular Error 1	11 Circular Error 2	11 Circular Error 3	11 Circular Error 4	12 Nr of Day Celestial Nav. Legs	13 Celestial Grid Total Legs	13 Circ. Error 1	13 Circ. Error 2	14 Number of Radar Grid Nav. Legs	15 Nr of Press Pattern Nav. Legs
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54
L81	-	-	-	-	-	002	-	-	-	001	001
S-L Total	007	043	016	-	-	006	006	048	020	005	002
R81	-	-	-	-	-	-	002	016	023	-	-
R54	-	-	-	-	-	-	002	010	015	-	-
R73	001	014	-	-	-	-	001	002	-	-	-
R74	002	007	012	-	-	001	002	008	010	001	001
R79	003	005	005	007	-	002	-	-	-	001	-
R21	-	-	-	-	-	-	-	-	-	-	-
							* 001	003	-		
R28	-	-	-	-	-	-	002	006	014	-	-
R29	001	012	-	-	-	003	002	007	010	-	-
R50	002	007	020	-	-	-	002	008	026	-	-
R15	-	-	-	-	-	001	001	009	-	001	-
R16	-	-	-	-	-	-	001	006	-	-	-
R17	001	014	-	-	-	001	-	-	-	-	-
R25	002	012	029	-	-	-	-	-	-	-	-

SAC 492 PC: 2739

Air Force-SAC, Offutt W-?51C (When Filled In)

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I	UNIT: 42D Bombardment Wing (H)	MONTH: Feb 57	PAGE NR: 3	NR OF PAGES: 7	REPORTS CONTROL SYMBOL: 2-SAC-T12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54
R27	B52C	001	011			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R45	B52C	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R46	B52C	001	011			002	-	-	-	-	-	-	-	-	-	-	-	-	002	004	005	-	-	-	-	-	-	-	-
R47	B52D	002	016			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	009	-	-	-
R48	B52D	002	022			001	-	-	-	-	-	-	-	-	-	-	-	-	001	010	-	-	-	002	-	-	-	-	-
R49	B52C	001	012			-	-	-	-	-	-	-	-	-	-	-	-	-	001	021	-	-	-	-	-	-	-	-	-
R82	B52C	001	009	Not Applicable	Not Applicable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R87	B52D	001	008			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	005	-	-	001
CR Total	-	050	472			013	003	-	002	001	004	002	-	-	-	-	-	-	016	106	071	007	-	010	018	089	098	003	002
N21	B52C	001	009			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N28	B52C	001	007			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N29	B52C	001	012			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N50	B52C	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N15	B52D	004	043			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	001	018	-	-	-
N16	B52D	004	046			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	013	-	-	-
N17	B52C	002	021			-	-	-	-	-	-	-	-	-	-	-	-	-	001	014	-	-	-	-	-	-	-	-	-

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A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54
N25	B52C	002	018			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	002	008	008	-	-	-
																								001	022	-			
N27	B52D	003	028			-	-	-	-	-	-	-	-	-	-	-	-	-	002	005	011	-	-	-	002	005	014	-	-
N45	B52D	005	049			-	-	-	-	-	-	-	-	-	-	-	-	-	003	004	015	027	-	001	002	004	009	-	-
N46	B52C	004	031			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N47	B52C	005	062			-	-	-	-	-	-	-	-	-	-	-	-	-	002	009	021	-	-	002	002	009	018	-	-
																									001	023	-		
N48	B52D	004	042			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	015	-	-	-
N49	B52C	004	040			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	021	-	-	-
N82	B52C	006	061			-	-	-	-	-	-	-	-	-	-	-	-	-	002	020	020	-	-	001	002	003	012	-	-
																									002	017	065		
N87	B52D	004	037			-	001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
																			* 002	026	029	-	-		* 001	021	-		
N14	B52D	006	062			002	-	-	-	-	-	-	-	-	-	-	-	-	001	028	-	-	-	-	002	005	015	-	-
																									001	026	-		
N18	B52C	006	051			002	001	001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	-	-	-	-	-
N19	B52D	007	076			-	-	001	-	-	-	-	-	-	-	-	-	-	002	004	010	-	-	002	-	-	-	-	-

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART I

UNIT: 42D Bombardment Wing (H) | MONTH: Feb 57 | PAGE NR: 5 | NR OF PAGES: 7 | REPORTS CONTROL SYMBOL: 2-SAC-T12

A. GENERAL						B. BOMBING												C. NAVIGATION									
1	2	3	4	5	6	7	8				9		10					11					12	13		14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.94					NIGHT CELESTIAL						CELESTIAL GRID			
							RADAR OBS.			NAVIGATOR			RADAR OBSERVER			NAVIGATOR			CIRCULAR ERROR								
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	JET AT MACH.84	IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	CIRC. ERROR	NUMBER OF RUN GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	53-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-38	41-43	45-47	49-51	52-54
																								*	*				
																								001	001	005			
N22	B52C	006	049			-	-	-	-	-	-	-	-	-	-	-	-	-	002	012	012	-	-	001	-	-	-	-	-
N24	B52C	001	007			Crew Disbanded 16 January 1957													-	-	-	-	-	001	014	-	-	-	-
N30	B52C	004	047			002	-	-	-	-	-	-	-	-	-	-	-	-	002	015	040	-	-	001	002	005	022	-	-
N51	B52D	005	054			-	-	-	-	-	-	-	-	-	-	-	-	-	"No accomplishments by this crew member."										
N23	B52C	006	053			-	-	-	-	-	-	-	-	-	-	-	-	-	001	012	-	-	-	002	002	003	017	-	001
N52	B52D	001	005	Not Applicable	Not Applicable	Crew Disbanded 10 January 1957																							
N53	B52D	002	019			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
																			"No accomplishments by this crew member."									
N56	B52C	005	041			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	002	013	020	-	-
																									001	025	-		
N57	B52D	003	025			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	038	-	-	-
N58	B52D	006	059			001	-	-	-	-	-	-	-	-	-	-	-	-	001	019	-	-	-	002	001	009	-	001	-
N59	B52C	001	009			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N60	B52D	004	038			-	-	-	-	-	-	-	-	-	-	-	-	-	001	010	-	-	-	-	-	001	018	-	-
N63	B52D	003	030			-	-	-	-	-	-	-	-	-	-	-	-	-	001	029	-	-	-	-	002	005	005	001	-
																									001	039	-		

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I

UNIT: 42D Bombardment Wing (H)

MONTH: Feb 57 | PAGE NR: 6 | NR OF PAGES: 7 | REPORTS CONTROL SYMBOL: 2-SAC-T12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
														M-19			M-19												
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	MACH.84 IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	NR OF REL.	C. E.	TOTAL	NR OF REL.	C. E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54
																								* 001					* 001
N86	B52C	001	007			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
																			"No accomplishments by this crew member."										
N88	B52D	005	051			-	-	-	-	-	-	-	-	-	-	-	-	-	002	010	014	-	-	001	001	043	-	-	001
NCR Total	-	122	1189			007	002	002	-	-	-	-	-	-	-	-	-	-	025	217	172	027	-	018	038	427	197	002	003
Wing Total	-	227	2172	Not applicable	Not applicable	026	007	004	002	001	004	002	-	-	-	-	-	-	053	390	282	034	-	036	072	623	398	010	007
5X Total	-	002	023			-	-	-	-	-	-	-	-	-	-	-	-	-	001	-	-	-	-	002	004	-	-	002	-
Pract. Trng.	-	-	-			-	003	-	-	-	003	001	-	-	-	-	-	-	010	-	-	-	-	001	020	-	-	003	001

IN14 Pilot Squadron Officers Course Maxwell AFB, 1-28 Feb. 57.

IN18 VO Survival School - 11 - 24 Feb. 57, Pilot Leave 25-27 Feb. 57.

IN19 Pilot DNIF, 3-7 Feb. 57.

IN23 VO TDY Westover AFB, 3-7 Feb. 57.

IN51 VO Emergency Leave, 18-26 Feb. 57.

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42D Bombardment Wing (H)	Feb. 57	7	7	2-SAC-T12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	MACH.84 IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54

IN53 A/C Altitide Chamber, 5-7 Feb. 57; Pilot TDY, BC School, 25-28 Feb. 57.

IN56 A/C DNIF, 25-28 Feb. 57.

IN57 TG DNIF, 1-4 Feb. 57; A/C DNIF 25-28 Feb. 57.

IN58 A/C Altitude Chamber 1-4 Feb. 57;

IN60 A/C Altitude Chamber 1-4 Feb. 57; TG Altitude Chamber 5-8 Feb. 57.

IN86 A/C Leave 1-12 Feb. 57; Nav Altitude Chamber 13-19 Feb. 57; A/C Westover 21-25 Feb. 57.

SAC FORM 493 PC 3700

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II	UNIT: 42d Bombardment Wing (H)	MONTH: Feb 57	PAGE NR: 1	NR OF PAGES: 6	REPORTS CONTROL SYMBOL: 2-SAC-T12

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 5 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS: TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2	S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.					
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
L85	003	003	-	-	-	-	-	-	-	-	-	-	-	-	001	001	001	-	-	-	-	001	088	-		-
L20	003	003	-	-	-	-	-	-	-	-	-	-	-	-	-	002	002	-	-	002	002	-	-	-		-
L55	007	007	-	-	-	-	-	-	-	-	-	-	-	-	020	003	003	003	003	003	003	001	076	-		-
L75	002	002	-	-	-	-	-	-	-	-	-	-	-	-	002	002	002	-	-	-	-	001	075	-		-
L78	002	002	-	-	-	-	001	001	-	-	-	-	-	-	018	001	001	001	001	-	-	001	100	-		-
L26	004	004	-	-	-	-	001	001	-	-	-	-	-	-	006	002	002	001	001	002	002	002	010	071		-
R26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Std Bd Total	021	021	-	-	-	-	002	002	-	-	-	-	-	-	047	011	011	005	005	007	007	006	349	071		-
L72	006	006	-	-	-	-	002	002	-	-	-	-	-	-	006	002	002	001	001	001	001	001	100	-		001
L76	001	001	-	-	-	-	-	-	-	-	-	-	-	-	003	003	003	002	002	001	001	002	013	097		-
L77	003	003	-	-	-	-	-	-	-	-	-	-	-	-	-	001	001	001	001	-	-	001	076	-		-
L80	005	005	-	-	-	-	001	001	-	-	-	-	-	-	007	002	002	-	-	002	002	001	064	-		-
L84	006	006	-	-	-	-	002	002	-	-	-	-	-	-	-	002	002	-	-	002	002	002	033	089		-
L81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	100	-		-
S-L Total	021	021	-	-	-	-	005	005	-	-	-	-	-	-	016	010	010	004	004	006	006	008	386	186		001

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART II

UNIT: 42d Bombardment Wing (H) | MONTH: Feb 57 | PAGE NR: 2 | NR OF PAGES: 6 | REPORTS CONTROL SYMBOL: 2-SAC-T12

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS[1]		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 5 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-25	29-31	33-35	37-39	41-43	45-47	50-51	52-54
R81	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–
R54	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–
R73	001	001	–	–	–	–	001	001	–	–	–	–	–	–	–	–	–	–	–	–	–	002	048	079		001
R74	004	004	–	–	–	–	001	001	–	–	–	–	–	–	–	003	003	–	–	–	–	001	080	–		002
R79	001	001	–	–	–	–	001	001	–	–	–	–	–	–	–	001	001	–	–	001	001	001	081	–		001
R21	001	001	–	–	–	–	001	001	–	–	–	–	–	–	001	–	–	–	–	–	–	–	–	–		–
R28	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	001	100	–		–
R29	003	003	–	–	–	–	001	001	–	–	–	–	–	–	–	001	001	–	–	–	–	–	–	–		–
R50	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	001	073	–		–
R15	002	002	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	001	078	–		–
R16	001	001	–	–	–	–	001	001	–	–	–	–	–	–	–	001	001	–	–	–	–	002	066	083		–
R17	002	002	–	–	–	–	002	002	–	–	–	–	–	–	–	–	–	–	–	–	–	001	094	–		001
R25	002	002	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–
R27	002	002	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–
R45	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–
R46	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		007
R47	002	002	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–

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CONFIDENTIAL (When Filled In)

HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II | UNIT: 42d Bombardment Wing(H) | MONTH: Feb 57 | PAGE NR: 3 | NR OF PAGES: 6 | REPORTS CONTROL SYMBOL: 2-SAC-T12

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 8 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
R48																										—
R49																001	001									—
R82																										—
R87																										001
CR Total	021	021	-	-	-	-	008	008	-	-	-	-	-	-	001	007	007	-	-	001	001	010	620	162		013
N21																						001	070			—
N28																001	001	001	001							—
N29									002	002																—
N50																										—
N15									012	012			001	001	006	004	004	004	004	004	004					—
N16									006	006			001	001	006	001	001	001	001	001	001					—
N17									004	004	001	001	001	001	—	002	002	002	002	002	002	001	000			—
N25									008	008	001	001			009	001	001	001	001			001	080			—
N27									001	001					002	001	001	001	001	001	001	001	075			—
N45									006	006	001	001	001	001	—	001	001			001	001	001	052			—
																						*001	050			

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART II	UNIT: 42d Bombardment Wing (H)	MONTH: Feb 57	PAGE NR: 4	NR OF PAGES: 6	REPORTS CONTROL SYMBOL: 2-SAC-T12

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 5 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
N45									003	003			001	001		002	002	001	001			002	011	092		--
N47									006	006			001	001		003	003	002	002	002	002	002	080	081		--
																						001	086	---		
N48									005	005			001	001								002	085	087	NOT APPLICABLE	--
N49									001	001			001	001								002	021	075		--
N82									001	001			001	001	004	001	001	001	001	001	001	002	067	100		--
																						001	100	---		
N87									005	005	003	003	003	003	010	002	002	001	001	002	002	001	090	---		--
N14									008	008	001	001	002	002	007	008	008	002	002	004	004					--
N18									009	009			001	001	011	003	003	001	001			001	100	---		--
N19									013	013			002	002	024	005	005	003	003	004	004					001
N22									014	014			001	001	010	005	005	005	005	004	004	001	067	---		--
N23									003	003					003	001	001			001	001	001	085	---		--
N24	SEE PART I																									
N30									009	009	001	001			013	003	003	003	003	003	003	002	021	066		--
N51																						001	100	---		--
N52	SEE PART I																									

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II	UNIT: 42d Bombardment Wing (H)	MONTH: Feb 57	PAGE NR: 5	NR OF PAGES: 6	REPORTS CONTROL SYMBOL: 2-SAC-T12

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 5 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS: TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2	S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.					
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
N53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	001	001	—	—	001	001	001	075	—		--
N56	—	—	—	—	—	—	—	—	006	006	006	006	001	001	023	004	004	004	004	003	003	—	—	—		--
																						"No accomplishment by this crew member"				
N57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	001	001	001	001	001	001	—	—	—		--
N58	—	—	—	—	—	—	—	—	005	005	—	—	—	—	003	003	003	00[illegible]	002	001	001	002	000	100		--
N59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	001	059		NOT APPLICABLE	
N83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	002	001	001	—	—	001	001	002	083	100		
N86	—	—	—	—	—	—	—	—	001	001	—	—	—	—	—	001	001	—	—	001	001	—	—	—		--
N88	—	—	—	—	—	—	—	—	003	003	—	—	—	—	—	022	003	003	003	001	001	—	—	—		--
																						* 001	100	—		--
N60	—	—	—	—	—	—	—	—	003	003	001	001	—	—	—	001	001	001	001	—	—	001	079	—		--
NCR Total	-	-	-	-	-	-	-	-	134	134	015	015	019	019	155	059	059	040	040	039	039	035	1636	701		005
Wing Total	063	063	-	-	-	-	015	015	134	134	015	015	019	019	219	087	087	049	049	053	053	059	2991	1120		019
5X Trng	026	026	-	-	-	-	-	-	-	-	-	-	-	-	043	002	002	-	-	002	002	002	-	-		-

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II	UNIT 42d Bombardment Wing (H)	MONTH Feb 57	PAGE NR 6	NR OF PAGES 6	REPORTS CONTROL SYMBOL 2-SAC-T12

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 5 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
Pract Trng	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART III	UNIT: 42D Bombardment Wing (H)	MONTH: Feb. 57	PAGE NR: 1	NR OF PAGES: 5	REPORTS CONTROL SYMBOL: 2-SAC-T12

I. GENERAL — ECM

31	32				33				34		35		36								37		38		39	
CREW NUMBER	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
	ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)		ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)						T-464/ALT-7		T-465/ALT-7		ALT - 6 OR 8 (S-BAND)		APT-9 (C) ALT - 6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65
L85	-	-	003	052	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L20	-	-	001	016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L55	-	-	003	051	-	-	002	048	-	-	-	-	002	012	002	011	-	-	005	019	-	-	-	-	-	-
L75	-	-	001	027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	007	029	-	-	-	-	-	-
L78	-	-	002	034	-	-	002	040	-	-	-	-	002	012	-	-	-	-	-	-	-	-	-	-	-	-
L26	-	-	005	069	-	-	003	049	-	-	-	-	-	-	-	-	-	-	002	006	-	-	-	-	-	-
R26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Std Bd Totals	-	-	015	249	-	-	007	137	-	-	-	-	004	024	002	011	-	-	014	054	-	-	-	-	-	-
L72	-	-	002	019	-	-	002	026	-	-	-	-	-	-	-	-	001	000	001	000	-	-	-	-	-	-
L76	-	-	003	073	-	-	001	005	-	-	-	-	-	-	004	018	-	-	001	000	-	-	-	-	-	-
L77	-	-	001	027	-	-	004	077	-	-	-	-	002	009	004	024	-	-	001	006	-	-	-	-	-	-
L80	001	027	004	068	-	-	004	076	-	-	-	-	005	028	-	-	-	-	003	012	-	-	-	-	-	-
L84	001	027	003	021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	003	006	-	-	-	-	-	-
L81	-	-	-	-	-	-	002	025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-L Totals	002	054	013	208	-	-	013	209	-	-	-	-	007	037	008	042	001	000	009	024	-	-	-	-	-	-

SAC 493 b FO 2700 Air Force-SAC, Offset W-1851 (When Filled In) CONFIDENTIAL

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CONFIDENTIAL (When Filled In)

HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART III

UNIT: 42D Bombardment Wing (H) | MONTH: Feb. 57 | PAGE NR.: 2 | NR OF PAGES: 5 | REPORTS CONTROL SYMBOL: 2-SAC-T12

I. GENERAL | J. ECM

31	32				33				34		35		36								37		38		39	
	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
CREW NUMBER	ALT-6 OR 8		APT-9 ALT-6 OR 8 (L-BAND)		ALT-6 OR 8		APT-9 ALT-6 OR 8 (L-BAND)						T-484/ALT-7		T-485/ALT-7		ALT-6 OR 8 (S-BAND)		APT-9 (C) ALT-6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65
R81	-	-	002	052	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R73	-	-	002	018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R74	001	018	003	081	002	036	001	021	-	-	-	-	004	017	002	010	-	-	001	000	-	-	-	-	-	-
R79	-	-	006	099	-	-	004	067	-	-	-	-	003	012	001	004	-	-	-	-	-	-	-	-	-	-
R21	-	-	001	000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R28	-	-	002	031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R29	-	-	001	018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R50	-	-	004	072	-	-	001	027	-	-	-	-	-	-	-	-	-	-	001	000	-	-	-	-	-	-
R15	-	-	003	056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R16	-	-	-	-	-	-	001	021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R27	-	-	-	-	-	-	002	046	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SAC FORM 493 b

Air Force-SAC, Offutt W-18512 (When Filled In)

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CONFIDENTIAL (When Filled In)

HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART III	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42D Bombardment Wing (H)	Feb 57	3	5	2-SAC-T12

I. GENERAL J. ECM

31	32				33				34		35		36								37		38		39	
CREW NUMBER	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
	ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)		ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)						T-464/ALT-7		T-465/ALT-7		ALT - 6 OR 8 (S-BAND)		APT-9 (C) ALT - 6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65
R48	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R49	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R82	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R87	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CR Total	001	018	024	427	002	036	009	182	–	–	–	–	007	029	003	014	–	–	002	000	–	–	–	–	–	–
N21	–	–	–	–	–	–	003	016	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N28	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N29	–	–	003	060	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N50	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N15	–	–	007	097	–	–	003	048	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N16	–	–	004	061	–	–	003	041	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N17	–	–	002	031	–	–	001	009	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N25	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N27	–	–	002	047	–	–	001	017	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N45	–	–	004	089	–	–	003	079	–	–	–	–	–	–	–	–	–	–	004	009	–	–	–	–	–	–
N46	–	–	003	068	–	–	003	053	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

SAC [illegible] 493 b FC: 2100

Air Force-SAC, Offset W-1[illegible]C (When Filled In)

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART III

UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
42D Bombardment Wing (H)	Feb. 57	4	5	2-SAC-T12

I. GENERAL / J. ECM

31 CREW NUMBER (6-10)	32 BIG PHOTO RUNS ALT-6 OR 8 RUNS (13-15)	32 ALT-6 OR 8 POINTS (17-19)	32 APT-9 ALT-6 OR 8 (L-BAND) RUNS (21-23)	32 APT-9 POINTS (25-27)	33 BIG PHOTO SPOT RUNS ALT-6 OR 8 RUNS (29-31)	33 ALT-6 OR 8 POINTS (33-35)	33 APT-9 ALT-6 OR 8 (L-BAND) RUNS (37-39)	33 APT-9 POINTS (41-43)	34 BIG SNOW RUNS (45-47)	34 BIG SNOW POINTS (49-51)	35 LITTLE SNOW RUNS (52-54)	35 LITTLE SNOW POINTS (56-58)	36 SIMULATOR RUNS T-464/ALT-7 RUNS (13-15)	36 T-464/ALT-7 POINTS (17-19)	36 T-465/ALT-7 RUNS (21-23)	36 T-465/ALT-7 POINTS (25-27)	36 ALT-6 OR 8 (S-BAND) RUNS (29-31)	36 ALT-6 OR 8 (S-BAND) POINTS (33-35)	36 APT-9 (C) ALT-6 OR 8 (L-BAND) RUNS (37-39)	36 APT-9 (C) POINTS (41-43)	37 BIG PHOTO CHATTEL RUNS ATT. (45-47)	37 SUCC. (49-51)	38 LITTLE RIVER RUNS RUNS (52-54)	38 POINTS (56-58)	39 [illegible]	39 [illegible]
N47	-	-	008	136	-	-	004	080	001	022	-	-	-	-	006	030	-	-	002	005	-	-	-	-	-	-
N48	-	-	005	064	-	-	002	030	-	-	-	-	-	-	-	-	-	-	003	003	-	-	-	-	-	-
N49	-	-	003	040	-	-	003	055	-	-	-	-	001	000	002	012	-	-	002	000	-	-	-	-	-	-
N82	-	-	002	152	-	-	004	037	-	-	-	-	002	012	-	-	-	-	001	000	-	-	-	-	-	-
N87	001	027	-	-	001	021	001	027	-	-	-	-	-	-	-	-	-	-	002	012	-	-	-	-	-	-
N14	-	-	002	041	-	-	002	020	-	-	-	-	-	-	-	-	-	-	002	000	-	-	-	-	-	-
N18	-	-	004	036	-	-	002	045	-	-	-	-	-	-	002	006	-	-	-	-	-	-	-	-	-	-
N19	-	-	001	000	-	-	001	021	-	-	-	-	-	-	-	-	004	000	007	029	-	-	-	-	-	-
N22	-	-	004	050	-	-	003	060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N23	-	-	004	058	-	-	002	023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N24	-	-	002	058	See Part I.																					
N30	-	-	001	019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	003	-	-	-	-	-	-
N51	-	-	001	000	-	-	001	023	-	-	-	-	003	014	008	048	-	-	003	009	-	-	-	-	-	-
N52	See Part I.																									
N53	-	-	002	027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N56	-	-	001	003	-	-	-	-	-	-	-	-	-	-	-	-	002	003	-	-	-	-	-	-	-	-
N57	-	-	002	048	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SAC FORM 493 b

W-18 [illegible] C

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART III	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42D Bombardment Wing (H)	Feb. 57	5	5	2-SAC-T12

I. GENERAL J. ECM

31	32				33				34		35		36								37		38		39	
	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
CREW NUMBER	ALT – 6 OR 8		APT-9 ALT – 6 OR 8 (L-BAND)		ALT – 6 OR 8		APT-9 ALT – 6 OR 8 (L-BAND)						T-484/ALT-7		T-465/ALT-7		ALT – 6 OR 8 (S-BAND)		APT-9 (C) ALT – 6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65
N58	–	–	002	024	–	–	005	068	–	–	–	–	002	012	001	002	–	–	002	012	–	–	–	–	–	–
N59	–	–	001	024	–	–	–	–	–	–	–	–	–	–	–	–	–	–	001	000	–	–	–	–	–	–
N60	–	–	001	012	–	–	001	014	–	–	–	–	–	–	003	018	–	–	001	000	–	–	–	–	–	–
N83	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	002	000	–	–	–	–	–	–
N86	–	–	001	000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N88	–	–	003	051	–	–	–	–	–	–	–	–	–	–	–	–	–	–	002	009	–	–	–	–	–	–
NCR Total	001	027	075	1256	001	021	048	766	001	022	–	–	008	038	022	116	006	003	035	091	–	–	–	–	–	–
Wing Total	004	099	127	2140	003	057	077	1294	001	022	–	–	026	128	035	183	007	003	060	169	–	–	–	–	–	–
5X Trng.	–	–	006	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	012	–	–	–	–	–	–	–
Pract. Trng.	–	–	002	–	–	–	003	–	–	–	–	–	003	–	018	–	–	–	008	–	–	–	–	–	–	–

SAC FORM 493 b

Air Force-SAC, Offutt W-18

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART IV

UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
42D Bombardment Wing (H) (SAC)	February 57	1	6	2-SAC-T12

K. GEN 40	L. FORMATION 41			M. P.P. 42	N. CREW REQUIREMENTS 43	44	45	46	47	48	49	50	O. 51	52	53	54	MISCELLANEOUS 55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL. PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACKS-RADAR OBSERVER	RBS VISUAL ATTACKS-NAVIGATOR	Sp Weapons Sim Missions	A/C Take-Offs & Logs	CP Take-Offs & Logs	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro Out	CP Gyro Out				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	67-68													
L-85	-	-	-	-	002	-	N/A	002	-	-	-	-	006	-	-	-	-	012	004	002	-	-	-	-	-				
L-20	-	-	-	-	-	-	Nov	-	-	-	-	-	002	-	-	-	-	007	-	002	-	001	-	-	-				
L-55	-	-	-	-	-	-	Nov	006	-	-	-	-	008	-	-	-	-	027	-	008	004	-	-	-	-				
L-75	-	-	-	-	002	060	Sep	002	-	-	-	-	006	-	-	-	-	-	-	-	-	-	-	-	-				
																	-	* 010	-	* 003	-	-	-	-	-				
L-78	-	-	-	-	002	-	Jan	002	-	-	-	-	007	-	-	-	-	019	001	001	001	-	-	-	-				
L-26	-	-	-	-	-	-	Nov	-	-	-	-	-	010	-	-	-	-	028	004	004	004	-	-	-	-				
R-26	-	-	-	-	-	-	Nov	-	-	-	-	-	-	-	-	-	-	004	-	-	-	-	-	-	-				
Std Bd Total	-	-	-	-	006	060	-	012	-	-	-	-	039	-	-	-	-	107	009	020	009	001	-	-	-				
L72	-	-	-	001	007	060	Oct	001	004	-	-	-	004	002	-	-	-	013	005	005	003	-	-	-	-				
L76	-	-	-	001	005	-	Nov	001	-	-	-	-	005	-	-	-	001	010	-	012	006	-	001	-	001				
L77	-	-	-	-	006	240	Oct	010	004	-	-	-	008	002	-	-	002	008	004	008	004	001	001	001	-				
L80	-	-	-	001	004	060	Oct	002	003	-	-	-	014	-	001	-	001	005	005	004	002	002	-	-	001				
L84	-	-	-	001	003	-	Oct	002	-	-	-	-	006	002	-	-	001	029	015	010	002	002	002	-	-				
L81	-	-	-	001	-	-	Dec	001	-	-	-	-	005	-	-	-	001	006	002	004	004	001	001	001	001				
S-L Total	-	-	-	005	025	360	-	017	011	-	-	-	042	006	001	-	006	071	031	043	021	006	005	002	003				

SAC FORM 493 c FC: 3730

Air Force-SAC, Offset W-1 X 5 1C (When Filled In)

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART IV	UNIT 42D BOMBARDMENT WING (H)	MONTH FEB 57	PAGE NR 2	NR OF PAGES 6	REPORTS CONTROL SYMBOL 2-SAC-T12

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O. MISCELLANEOUS															
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACKS-RADAR OBSERVER	RBS VISUAL ATTACKS-NAVIGATOR	Sp Weapons Sim Missions	A/C Take-Offs & Logs	CP Take-Offs & Logs	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro Out	CP Gyro Out				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	67-68													
R-81	-	-	-	-	-	-	Dec	-	-	-	-	-	003	001	002	-	-	004	002	001	001	-	-	-	-				
R54	-	-	-	-	-	-	Nov	-	-	-	-	-	-	-	-	-	-	012	-	004	001	-	-	-	-				
R73	-	-	-	001	002	120	Nov	001	-	-	-	-	006	003	-	-	-	006	004	009	008	001	001	001	001				
R74	-	-	-	-	001	-	Oct	003	004	-	-	-	009	-	001	-	-	010	-	006	-	-	-	001	-				
R79	-	-	-	001	004	120	Dec	002	-	-	-	-	003	001	-	-	-	010	008	008	008	-	-	-	-				
R21	-	-	-	-	-	-	Jan	-	-	-	-	-	005	-	-	-	-	002	-	001	001	-	-	-	-				
R28	-	-	-	001	002	-	Dec	002	-	-	-	-	003	-	-	-	001	-	-	001	002	-	-	-	-				
R29	-	-	-	-	-	180	Jan	001	-	-	-	-	002	-	-	-	-	009	003	005	008	-	-	-	-				
R50	-	-	-	-	002	120	Dec	001	-	-	-	-	006	-	-	-	001	010	006	002	002	-	-	-	-				
R15	-	-	-	-	-	-	Jan	002	-	-	-	-	003	-	-	-	-	006	-	003	-	-	-	-	-				
R16	-	-	-	-	002	060	Jan	001	-	-	-	-	003	-	-	-	001	004	-	001	-	-	-	-	-				
R17	-	-	-	-	002	-	Jan	001	-	-	-	-	003	-	-	-	-	006	-	002	001	-	-	-	-				
R25	-	-	-	-	004	180	Feb	001	-	-	-	-	004	-	-	-	-	008	002	003	001	001	001	-	-				
R27	-	-	-	-	001	-	Jan	-	-	-	-	-	-	-	-	-	001	001	-	-	-	-	-	-	-				
R45	-	-	-	-	-	-	Feb	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
R46	-	-	-	-	-	-	Jan	001	-	-	-	-	002	-	-	-	001	006	-	001	-	-	-	-	-				
R47	-	-	-	-	-	-	Jan	-	-	-	-	-	005	-	-	-	-	004	-	002	-	-	-	-	-				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART IV	UNIT: 42D BOMBARDMENT WING (H)	MONTH: FEB 57	PAGE NR: 3	NR OF PAGES: 6	REPORTS CONTROL SYMBOL: 2-SAC-T12

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O. MISCELLANEOUS																
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL. PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACKS-RADAR OBSERVER	RBS VISUAL ATTACKS-NAVIGATOR	Sp Weapons Sim Missions	A/C Take-Offs & Logs	CP Take-Offs & Logs	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro Cut	CP Gyro Out				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	67-68													
R48	-	-	-	-	001	060	Feb	001	-	-	-	-	004	-	-	-	-	004	-	002	001	-	-	-	-				
R49	-	-	-	-	001	-	Feb	-	-	-	-	-	005	-	-	-	001	-	002	001	001	-	-	-	-				
R82	-	-	-	-	-	-	Feb	-	-	-	-	-	-	-	-	-	001	002	-	-	-	-	-	-	-				
R87	-	-	-	-	001	060	Feb	001	-	-	-	-	002	-	001	-	001	002	-	-	-	-	-	-	-				
CR TOTAL	-	-	-	003	023	900	-	018	004	-	-	-	068	005	004	-	008	106	027	052	035	002	002	002	001				
N21	-	-	-	-	-	-	Jan	-	-	-	-	-	005	-	-	-	-	012	006	002	003	-	-	-	-				
N28	-	-	-	-	-	-	Dec	-	-	-	-	-	005	-	-	-	-	-	-	-	001	-	-	-	-				
N29	-	-	-	-	-	-	Jan	-	-	-	-	-	-	-	-	-	-	010	008	001	001	-	-	-	-				
N50	-	-	-	-	-	-	Dec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
N15	-	-	-	-	-	-	Jan	001	-	-	-	-	003	-	-	-	-	011	002	006	001	-	-	-	-				
N16	-	-	-	-	001	-	Jan	-	-	-	-	-	007	-	-	-	-	020	012	008	003	004	001	-	-				
N17	-	-	-	-	002	-	Jan	-	-	-	-	-	-	-	-	-	-	010	006	004	004	-	-	-	-				
N25	-	-	-	-	004	-	Feb	-	-	-	-	-	-	-	-	-	-	008	002	003	001	002	001	-	-				
N27	-	-	-	-	-	-	Jan	001	-	-	-	-	-	-	-	-	001	022	010	003	001	-	-	-	-				
N45	-	-	-	-	-	-	Feb	-	-	-	-	-	004	-	-	-	-	016	006	003	003	-	001	-	-				
N46	-	-	-	-	-	-	Jan	-	-	-	-	-	-	-	-	-	001	012	-	005	008	-	-	-	-				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART IV	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42D BOMBARDMENT WING (H)	FEB 57	4	6	2-SAC-T 12

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O.				MISCELLANEOUS											
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54		56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT INSTRUMENT POSITION	MONTH LAST STAND. BD CK SUCCL COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS RADAR OBSERVER	RADAR RBS NAVIGATOR	RBS VISUAL ATTACK RADAR OBSERVER	RBS VISUAL ATTACK NAVIGATOR	Sp Weapons Sim Missions	A/C Takeoffs & Lgrs	CP Takeoffs & Lgrs	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro Out	CP Gyro Out				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	67-68												
N47	–	–	–	–	001	–	Jan	–	–	–	–	–	013	002	–	–	–	022	009	003	002	–	–	–	–				
N48	–	–	–	–	004	–	Feb	–	–	–	–	–	006	–	–	–	–	004	002	002	001	–	–	–	–				
N40	–	–	–	001	004	–	Feb	003	–	–	–	–	006	–	–	–	001	014	004	003	–	–	–	–	–				
N42	–	–	–	–	005	–	Feb	004	–	–	–	–	009	–	–	–	001	025	006	009	001	–	–	–	–				
N87	–	–	–	001	003	060	Feb	004	–	–	–	–	–	–	–	–	001	012	004	003	002	–	–	–	–				
N14	–	–	–	–	012	120	–	002	–	–	–	–	018	–	–	–	–	014	–	011	–	–	–	–	–				
N18	–	–	–	–	004	–	Feb	001	–	–	–	–	005	–	006	–	001	021	013	014	009	–	–	–	–				
																	"No accomplishments by this crew member". (Co-Pilot)												
N10	–	–	–	–	002	060	Feb	001	–	–	–	–	–	005	–	–	–	020	004	012	002	001	–	–	–				
													* 008		–														
N22	–	–	–	–	004	–	Feb	–	–	–	–	–	006	–	002	–	–	025	009	005	002	–	–	–	–				
N23	–	–	–	001	004	180	–	006	–	–	–	–	–	–	–	–	–	028	004	011	002	001	001	001	–				
													* 007		–														
N24	See Part I												–	–	–	–		002	–	001	–	–	–	–	–				
N30	–	–	–	–	004	180	–	004	001	–	–	–	006	–	–	–	001	026	–	005	–	–	–	–	–				
N51	–	–	–	–	004	–	–	–	–	–	–	–	002	–	–	–	–	008	–	004	–	–	–	–	–				
																	"No accomplishments by this crew member". (Co-Pilot)												

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART IV	UNIT: 42D BOMBARDMENT WING (H)	MONTH: FEB 57	PAGE NR: 5	NR OF PAGES: 6	REPORTS CONTROL SYMBOL: 2-SAC-T 12

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O.				MISCELLANEOUS												
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54		56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. "LT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACKS-RADAR OBSERVER	RBS VISUAL ATTACKS-NAVIGATOR	Sp Weapons Sim Missions	A/C Take Offs & Logs	CP Take Offs & Logs	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro Out	CP Gyro Out				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	67-68													
N52	See Part I																												
N53	-	-	-	-	-	-	-	001	-	-	-	-	004	-	-	-	-	018	-	005	-	-	-	-	-				
N56	-	-	-	-	003	060	-	005	-	-	-	-	001	-	-	-	001	014	-	006	003	-	-	-	-				
N57	-	-	-	-	-	-	-	-	-	-	-	-	004	-	-	-	-	008	-	006	-	-	-	-	-				
																			*006		-		-		-				
N58	-	-	-	-	006	-	-	006	-	-	-	-	018	-	-	-	001	022	012	009	005	-	-	-	-				
N59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	010	004	001	001	-	-	-	-				
N60	-	-	-	-	001	-	Jan	001	-	-	-	-	004	-	-	-	-	-	003	-	-	-	-	-	-				
																		*014	-	*004		-		-					
N83	-	-	-	-	001	-	-	001	-	-	-	-	002	-	-	-	-	006	003	001	003	-	-	-	-				
																	"No accomplishments by this crew member" (A/C)												
N86	-	-	-	-	003	060	-	001	-	-	-	-	-	-	-	-	-	002	-	-	002	-	-	-	-				
																	"No accomplishments by this crew member" (Co-Pilot)												
N88	-	-	-	-	003	-	-	-	-	-	-	-	005	-	-	-	001	022	004	007	001	-	-	-	-				
NCR TOTAL	-	-	-	003	074	720	-	042	001	-	-	-	148	007	003	-	011	458	139	157	062	008	004	001	-				
WING TOTAL	-	-	-	011	128	2040	-	089	016	-	-	-	297	018	014	-	025	832	206	272	127	017	011	008	004				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART IV	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42D Bombardment Wing (H)	Feb. 57	6	6	2-SAC-T12

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O. MISCELLANEOUS																
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54		56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACKS-RADAR OBSERVER	RBS VISUAL ATTACKS-NAVIGATOR	Sp Weapons Sim Missions	A/C Take-Offs & Logs	CP Take-Offs & Logs	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro Out	CP Gyro Out				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	67-68													
5X Trng.	-	-	-	-	-	-	-	-	-	-	-	-	026	-	-	-	-	128	065	023	013	-	-	-	-				
Pract. Trng.	-	-	-	-	-	-	-	-	-	-	-	-	003	-	-	-	-	-	-	-	-	-	-	-	-				

1. Average number of combat ready and higher category crews assigned (including standardization crews) - 23.9
2. Average number of combat ready and higher category crews available - 15.8
3. Average number of non-combat ready crews assigned - 24.5
4. Average number of non-combat ready crews available - 19.3
5. Average number of Standardization crews assigned by crew category - Select - 0 Combat Ready - 0
   Lead - 5.5 Non-Combat Ready - 0

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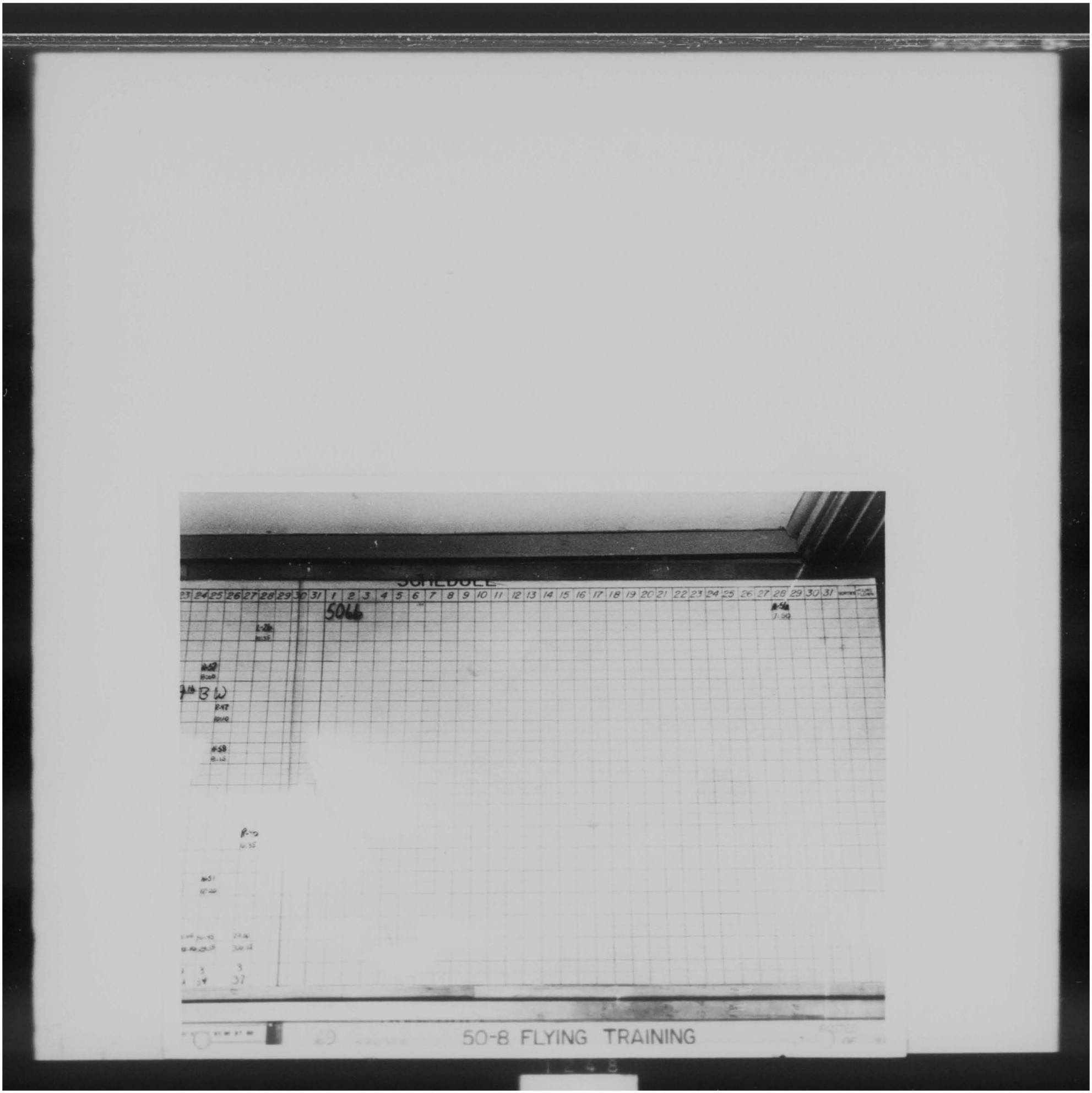

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75 TH SQUADRON

FEB 57

2670
2673
2682
3400
3403
5058
5061
5068
5071
5074
5077
5080
5083
5089
5092

Sched. Fly Hrs
Accomp Fly Hrs
Rev Total Fly Hrs
Sched Sorties
Accomp Sorties
Rev Total Sorties

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TRAINING ITEM	14 15 16 17 18 19 20 21 22 23 25 26 27 28 29 30 45 46 47 48 49 50 51 53 54 55 56 57 58 59 60 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88
PILOT PROFICIENCY — PILOT PROF MISSION	
TAKE OFFS AC	
TAKE OFFS CP	
LANDINGS AC	
LANDINGS CP	
GCS or ILS AC	
GCS or ILS CP	
PPI APPROACH AC / AC / CP	
GYRO OUT AC / AC / CP	
TOTAL ITEMS REQ	
TOTAL ITEMS COMP	
% COMPLETED	
SORTIES FLOWN	
TOTAL HRS FLOWN	

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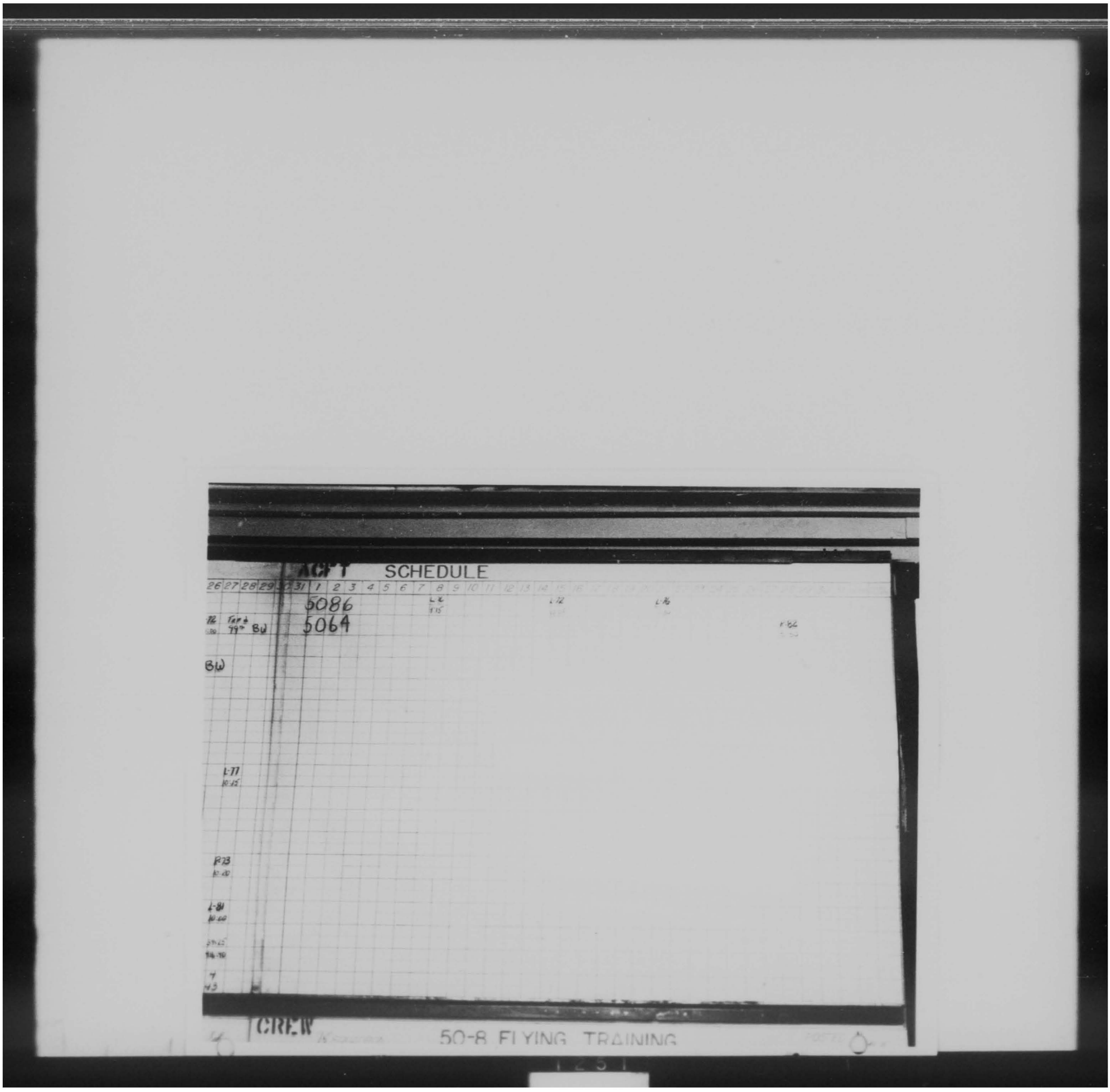

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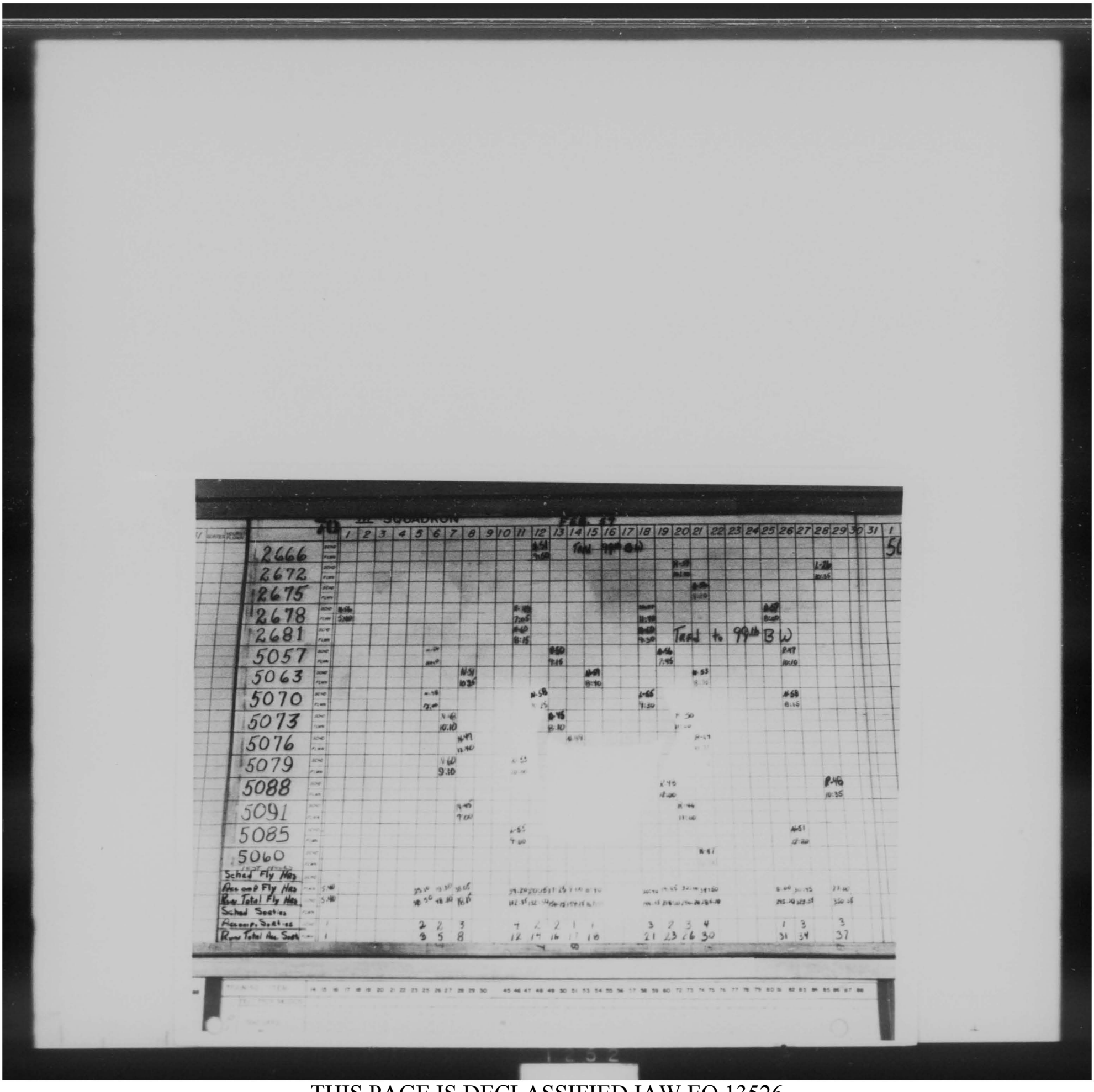

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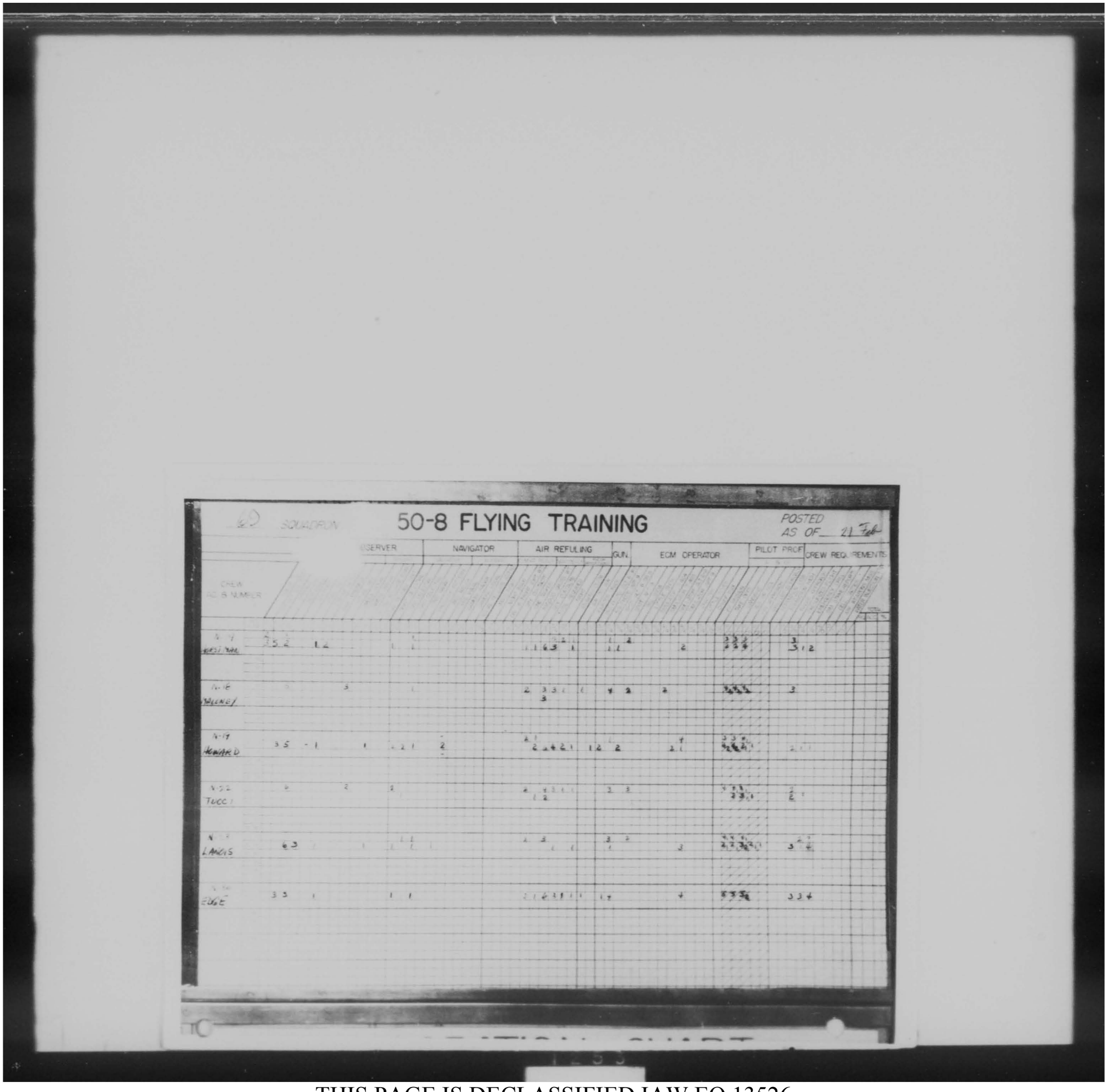

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		— BOMBING PROFICIENCY —						— NAVIGATION PROFICIENCY —					
		RADAR		CEA		VISUAL	CEA						
CREW	VO	MONTH	QUARTER	DAILY QUARTER		MONTH	QUARTER	NAVIGATOR					
45	Stocks		4	10				Parrish		2			
46	Johnson	2		14				Bent	2				
47	Hart	9	9	4				Searle		2	2	2	
48	Wendt	7	3	6			3	Taylor J.D.	1				
49	Dennis	8	3	14			2	Brown B.B.	1				
50	Brown	6		12				Rees	2				
51	Whitaker	2		3				Fitch					
53	Spears	+						Rice					
54	Holmes			2				Wisman			1		
55	Everette	3	5	14				McManus					
56	Higham	1						Whitesides			3		
57	Deitz	+						Lapps					
58	McGowan	10	8	1				Johnson					
59	Walsh							Spencer					
60	Romeo	1	3					Lovestedt			1	1	

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10th SQUADRON

50-8 FLYING TRAINING

CREW AC & NUMBER	RADAR OBSERVER	NAVIGATOR	AIR REFUELING	GUN	ECM OPERATOR	PILOT PROF	CREW REQUIREMENTS
N-51							
N-53							
N-54							
N-57							
N-58							
N-59							
N-60							

RADAR PROFICIENCY

NAVIGATION PROFICIENCY

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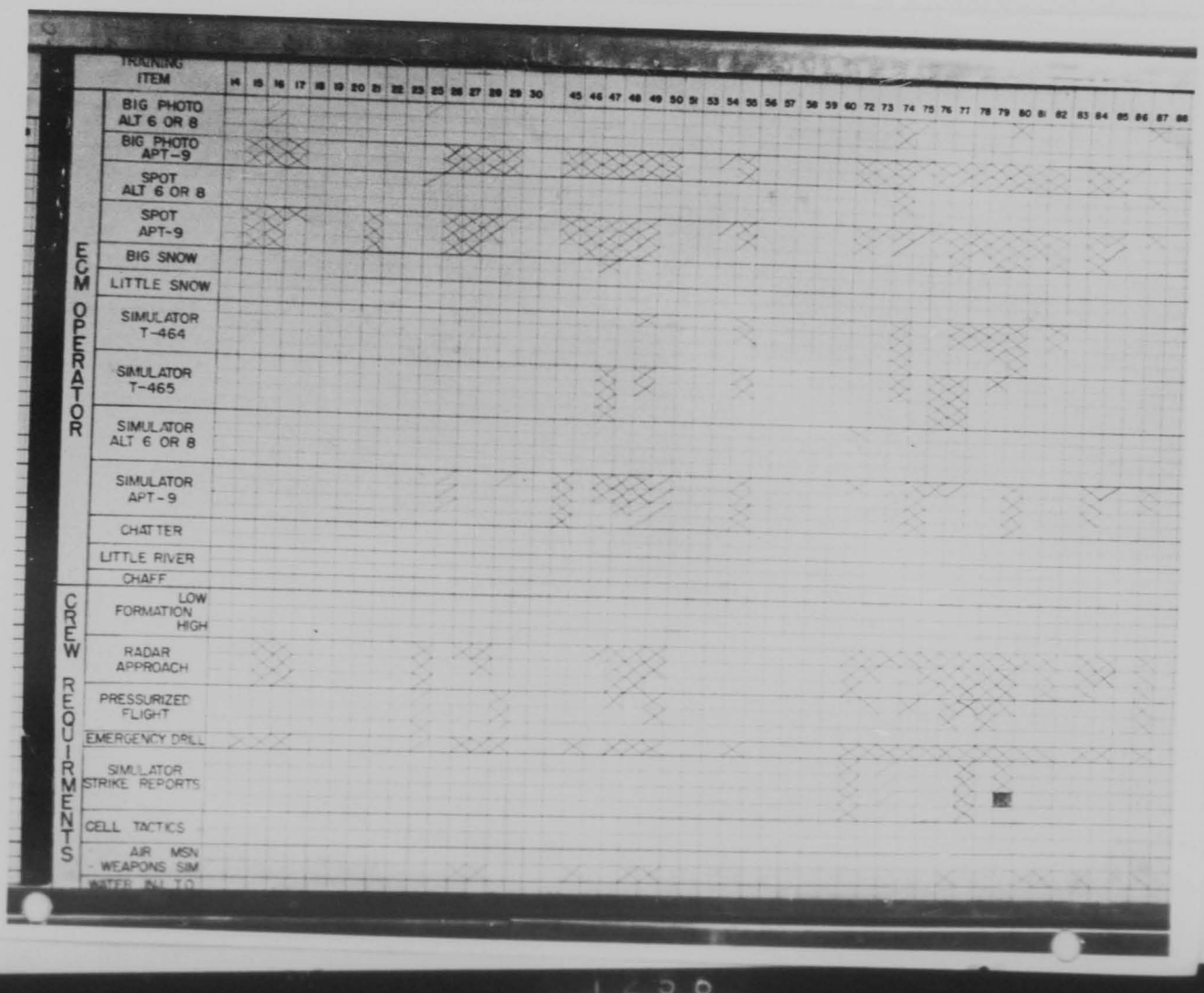

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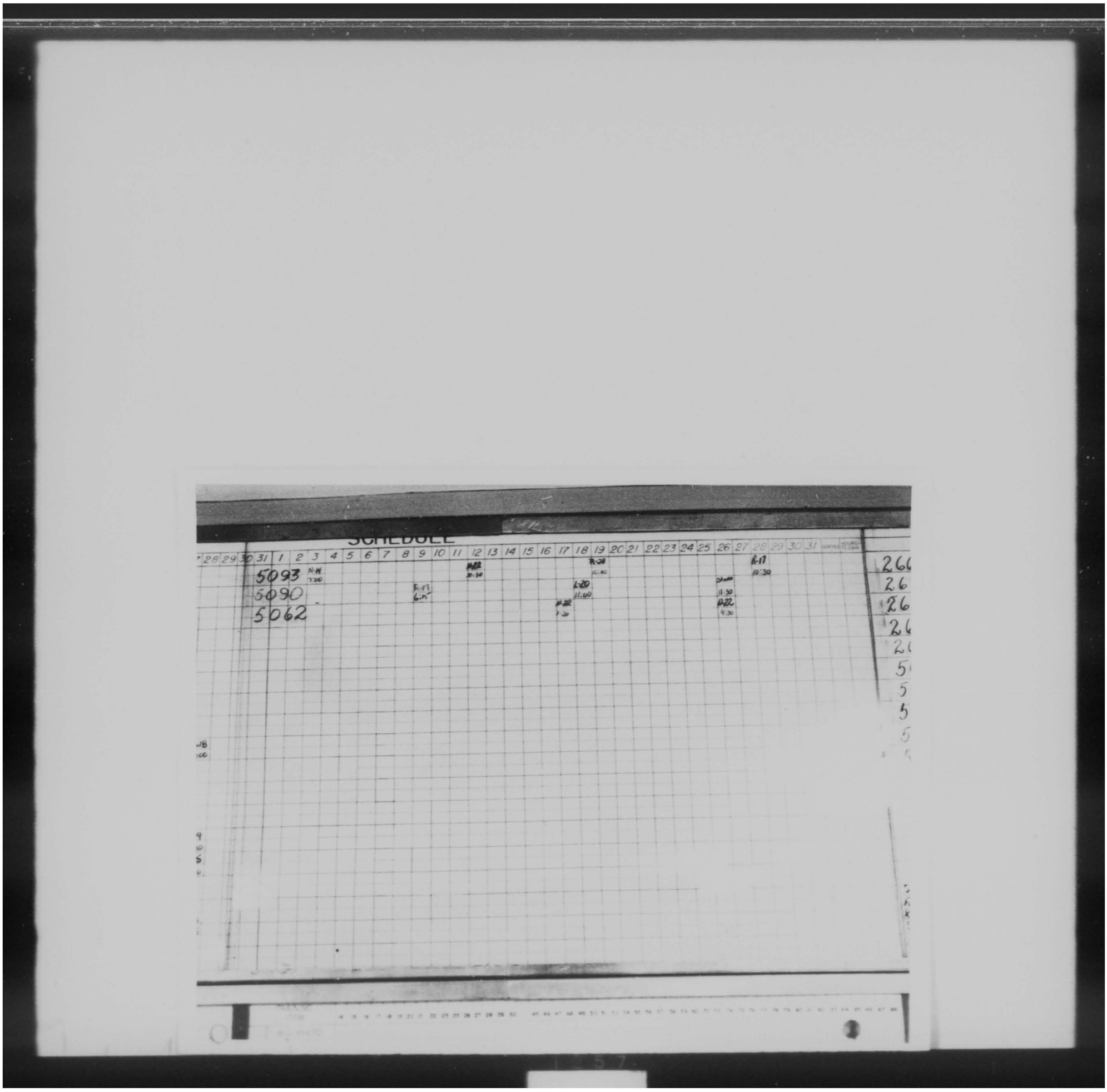

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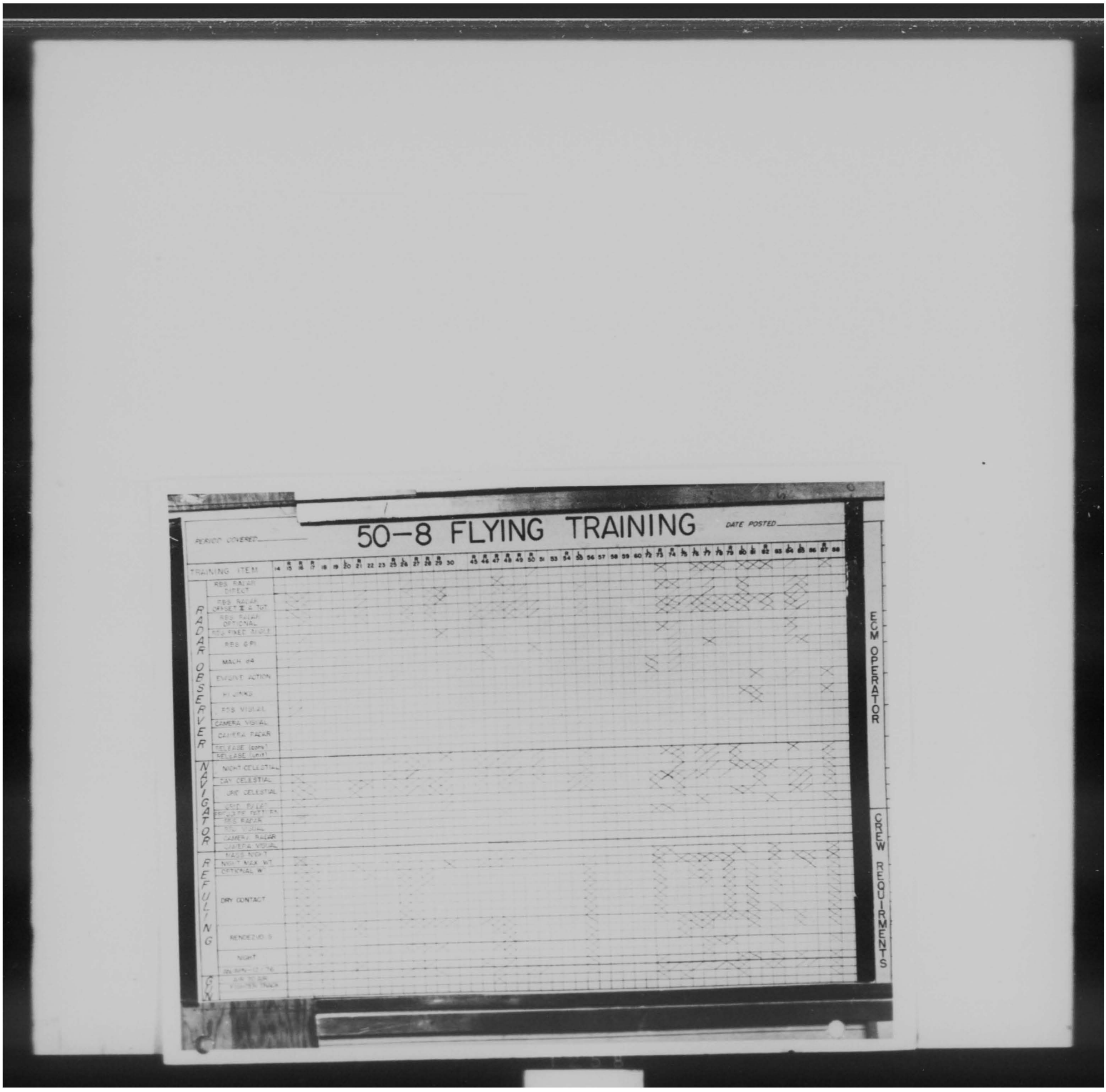

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CREW 75 SQUADRON

50-8 FLYING TRAINING

POSTED AS OF 21 Feb

CREW AC & NUMBER	RADAR OBSERVER	NAVIGATOR	ELM OPERATOR	CREW REQUIREMENTS
N-83 RIDLEY	2 1	1 1 2 1 1 1	1 2 1 1 1	1 1
N-86 JEWELL			2	
N-88 HARTMAN	1 1	1 1 1 1	2 6 2 1 1 1 1	2 1 1 2 1

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—BOMBING PROFICIENCY—								—NAVIGATION PROFICIENCY—			
CREW	VO	RADAR CEA MONTH	QUARTER	LAST QUARTER	VISUAL CEA MONTH	QUARTER	LAST QUARTER	NAVIGATOR	NITE MONTH	QUARTER	
14	Marcott	12	6'	13			1	Taylor, R.	1		2
15	Daniel	3	3	20	2			Concoppolit			2
16	KIMBALL	3	7	15			-	WATNEE			1
17	Aguilar	3	-	15			-	Doyle	1		1
*18	Massie		5	12		6'		Demond			
19	Ramoldi	8		-				FULLEN			1
*20	Scott	2	-	30			-7	Reiter			2
21	Ahlstedt	5	5	11				CANTWELL			
22	NORMAN		6	25		2		BURNETT			
23	YESKOVICH	7		-				Schweigart	1		1
25	Gillespie	4		7				BROWN	2		2
26	Martin	10		11				HECHENBERN	2		3
27	KIMMERER			3				[illegible]			
28	Bushee	3	5'	29				JANSEN			2
29	Lang	2		22				Hewes	1		2
30	Reus	6		-				Russell	2		2

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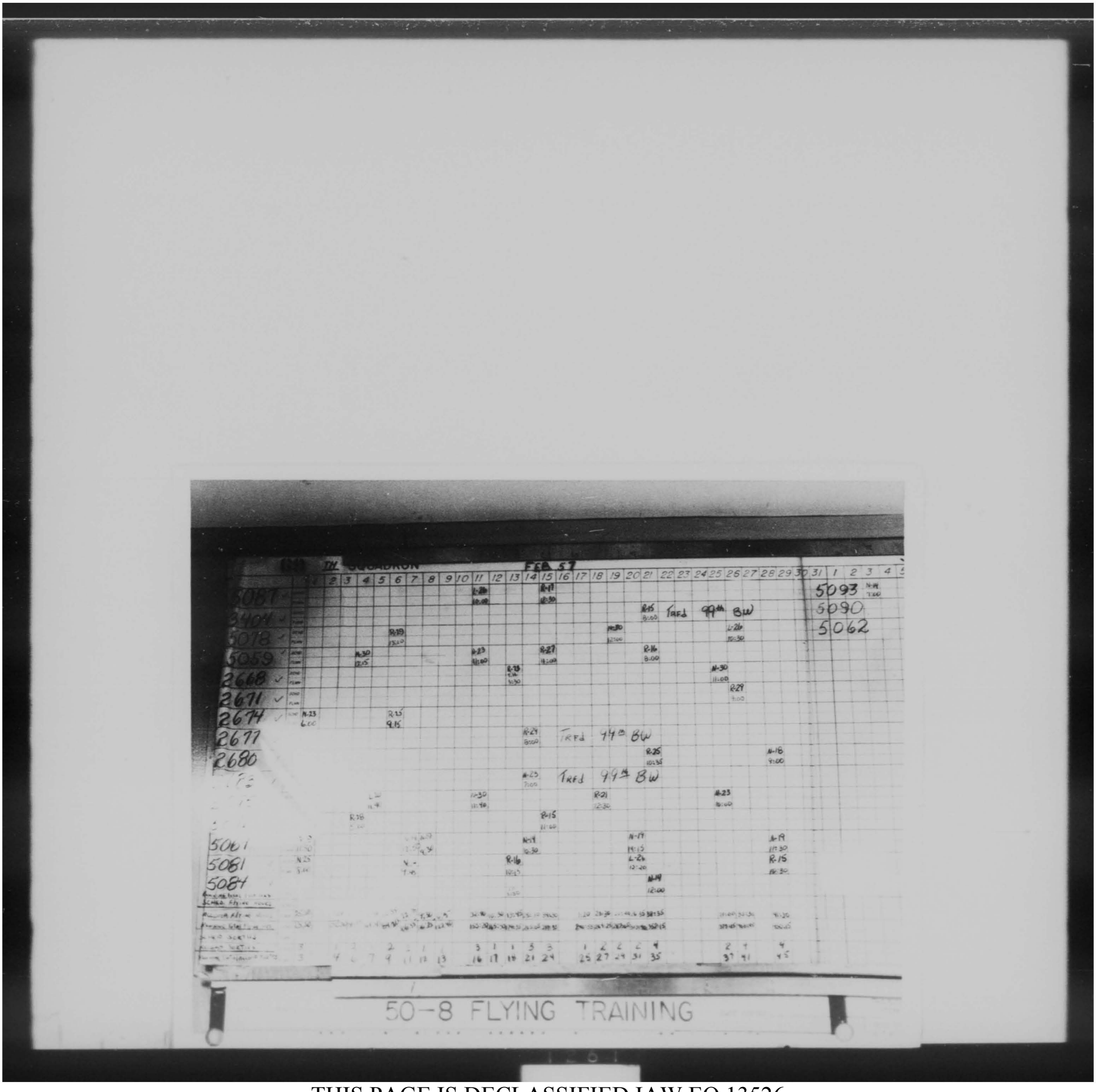

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——BOMBING PROFICIENCY——							——NAVIGATION PROFICIENCY——				
		RADAR CEA			VISUAL	CEA					
CREW	VO	MONTH	QUARTER	LAST QUARTER	MONTH	QUARTER	LAST QUARTER	NAVIGATOR	NITE			
72	Morris	2	2	11			–	WURSCHINGER	1		1	1
73	Gibbons	3	3	25			–	COFFEE				
74	Martzen	5	4	22		1	–	BEAL		2	3	
75	Bensey	6		10			–	Woodington				
76	Townly	2	3	10			–	Mauchart	1	1		1
77	Phelps	5	3	17			1	VEBER	2			
78	Bossert	4	3	7			–	Hamm		1	1	
79	McCarty		3	13			–	Reiley		3		
80	Brolin	5	9	24		1	–	Searry			1	
81	Smith	5	3	10		2	–	Dodd				
82	Gallowich	3	6	11			–	Wagner			2	
83	Cantwell	2		–			–	RYAN				
84	Sulkowski	3	3	12			–	Hentschel		1	2	3
85	Ford	6		7			–	BRAGE			1	2
86	SHOTGREN			1			1	MULLIGAN				
87	Boone	2	BAIL	–	1		–	MAURO		2	–	1
88	Hill	1	1	12			–	Comeau	1		–	2

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base
Maine

42DOT 8 March 1957

SUBJECT: (Unclassified) Refueling Air Training Report for February 1957, RCS: 9-SAC-T12

TO: Commander
Eighth Air Force
Westover Air Force Base
Massachusetts

1. Submitted herewith in accordance with Annex IX, SAC Regulation 50-23, dated 1 May 1956, is Air Refueling Training Report, RCS: 9-SAC-T12.

2. If inclosures are withdrawn or not attached, the classification of CONFIDENTIAL on this correspondence may be cancelled in accordance with Air Force Regulation 205-1.

FOR THE COMMANDER:

Roger O'Keefe

JOSEPH H. JACOBY
Major, USAF
Adjutant

3 Incls
1. SAC Form 36 (3 pgs)
2. SAC Form 36a (3 pgs)
3. Comdrs Remarks (6 pgs)

cc: CINCSAC
ATTN: DOTRS (T12) (1 cy Incl 1, Incl 2, and Incl 3)
COA (T12) (1 cy Incl 1, Incl 2, and Incl 3)
D/Pers (1 cy Incl 3 only)
D/Mat (1 cy Incl 3 only)

COMDR 8AF
ATTN: ODT4 (1 cy Incl 1, Incl 2, 10 cys Incl 3)
COM (1 cy Incl 1, Incl 2, 5 cys Incl 3)

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42D AIR REFUELING SQUADRON
FEBRUARY 1957

PART III - SQUADRON COMMANDER'S REMARKS

1. Hours flown performing missions ordered by:

a. Higher headquarters:

COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1) Cold Wave	00:00	130:50
(2) Busy Bee	00:00	157:50
(3) Sun Dog	120:00	168:50
(4) Ferry (Thule Task Force)	00:00	21:45
(5) Country Club	230:00	268:40
(6) AACS Comm. Test	00:00	17:55
TOTAL	350:00	765:10

(a) Reference commitment (1) Deployment was programmed for completion during December 1956.

(b) Reference commitment (2) commitment received after completion of monthly programming.

(c) Reference commitment (3): Receiver cancellations after being airborne required two (2) missions to be rescheduled requiring an additional 48:50.

(d) Reference commitment (4): Commitment received after completion of monthly programming.

(e) Reference commitment (5): The first wave of Country Club returned to Frobisher because of weather at Thule requiring an additional 38:40.

(f) Reference commitment (6): Commitment received after completion of monthly programming.

b. Eighth Air Force Training Priorities:

(1) Programmed and accomplished for current month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
1	AFR 60-2	00:00	Note (a)

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42ND AIR REFUELING SQUADRON
FEBRUARY 1957

PRIORITY	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
2.	Country Club	230:00	268:40
3.	Sun Dog	120:00	168:50
4.	Non-Ready Training (Ind. Crew Members included in priority 5)	00:00	00:00
5.	Combat Ready	260:00	221:40
6.	Test Hops	10:00	10:20
	TOTAL	620:00	669:30

(a) Reference priority 1: Proportional share of AFR 60-2 completed within other priorities.

(b) Reference priority 2: The first wave of Country Club returned to Frobisher because of weather at Thule which required an additional 38:40.

(c) Reference priority 3: Receiver cancellations requiring two (2) missions to be rescheduled, requiring an additional 48:50.

(d) Reference priority 5: 38:20 diverted to priorities two and three.

(2) Flying time programmed for the following month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED
1	AFR 60-2	00:00
2	Dog Sled	171:00
3	Giant Killer	78:00
4	Non-Ready Training (Individual crew members included in 5)	00:00
5	Combat Ready Training	334:00
	TOTAL	583:00

2. Weather or local conditions:

a. Not applicable for this reporting period.

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3. Air Traffic Control Delay Information:

   a. Not applicable for this reporting period.

4. Restrictive directives:

   a. SAC TWX, DO 1842, restricting all KC-97 aircraft to 155,000 pounds gross weight at take-off.

5. Combat Crew Member Gains and Losses:

   a. Crew Members gained:

      (1) 1 Aircraft Commander

      (2) 0 Pilots.

      (3) 0 Observers

      (4) 0 Engineers

      (5) 0 Boom Operators

   b. Crew members lost:

      (1) One (1) Aircraft Commander reassigned within the Wing.

6. Crew member changes:

   a. 2 Aircraft Commanders

   b. 0 Pilots

   c. 0 Observers

   d. 1 Engineer

   e. 1 Boom operator

7. New Crews:

   a. Not applicable.

8. Crew Status Changes:

   a. T-15 Downgraded to M-28 - through loss of first engineer.

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9. Standardization Crews:

a. T-02 assigned September 1955.

b. T-08 assigned April 1956.

10. Additional Material and personnel problems:

a. Not applicable for this reporting period.

11. Refueling data:

a. Number of refueling sorties scheduled and confirmed:

(1) Scheduled: - 88

(2) Confirmed: - 88

b. Number of sorties:

(1) Airborne: - 85

(2) Effecting complete electronic rendezvous: - 68

(3) Aircraft not attempting rendezvous in cell formation: - 1

(4) Rendezvous not successful due to equipment malfunction: 0

(5) Transferring required fuel: - 69

c. Number of aborts due to:

(1) Adverse weather: - 0

(2) Aircraft malfunction: - 9

(3) Electronic rendezvous equipment malfunction: - 0

(4) Refueling equipment malfunction: - 0

(5) Other causes:

(a) Receiver cancellation - 10

d. Mass night cell refueling:

(1) Confirmed sorties: - 49

(2) Airborne sorties: - 49

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(3) Sorties effecting complete rendezvous: - 33

(4) Sorties transferring required fuel: - 34

e. Fuel transferred:

(1) Gallons: 226,404

(2) Pounds: 1,358,623

12. Comments and Recommendations of the Squadron Commander:

a. Eighty-one (81) percent of the quarters 50-8 requirement has been accomplished during the TDY period at Thule. From our overall percentage, the above accomplishment looks good, however, the unit was only able to accomplish approximately 40% of training in connection with day/night refuelings and rendezvous. The above was due to an insufficient number of air refueling sorties scheduled and/or made available to the unit at Thule. There were no refueling sorties lost due to missed rendezvous or refuelings. A minimum of 75 refueling sorties should be made available each month in the Thule area.

b. The above discrepancy along with the nature of those refueling sorties flown caused the unit to have a non-existant standboard program at Thule. It also precluded the upgrading of additional boom operators, flight engineers, and complete IM crews.

c. Designated refueling areas should be established for the Thule area similar to those established for the NEAC area.

d. There were no unusual problems encountered while operating under Arctic conditions.

13. Ground Training:

a. Combat ready crews attending SAC Reg 50-24 requirement 22.

b. Combat ready crews completing SAC Reg 50-24 requirements 22.

c. Combat ready crews scheduled to attend block training in accordance with SAC Reg 50-24 during March - 0.

d. Factors precluding crews from completing ground training requirements during March 1957. None, of the 22 crews reported as being complete, 14 lack hand-gun firing and aquatic survival not available at TDY Station.

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Willie H. Sonntag
WILLIE H. SONNTAG
Major, USAF
Commander

PART IV - WING COMMANDER'S REMARKS, 42D BOMBARDMENT WING (H) (SAC)

I concur with the remarks of the Commander of the 42d Air Refueling Squadron.

Woodson P. Swancutt Col
for DONALD E. HILLMAN
Colonel, USAF
Commander

PART V - DIVISION COMMANDER'S REMARKS, 45TH AIR DIVISION (SAC)

I concur with the remarks and recommendations of the Wing Commander.

DE Hillman Col
for W. K. MARTIN
Brigadier General, USAF
Commander

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AIR REFUELING AIR TRAINING REPORT – PART I

UNIT: 42D AIR REFUELING SQUADRON | MONTH: FEB 57 | PAGE NR: 1 | NR OF PAGES: 3 | REPORTS CONTROL SYMBOL: 9 - SAC - T12

A. GENERAL					B. AIR REFUELING								C. RADAR RENDEZVOUS						D. NAVIGATION						
1	2	3	4	5	6		7		8		9		10		11		12		13	14	15			16	17	18
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCH	TOTAL REFUELINGS		DAY REFUELINGS		NIGHT REFUELINGS		IN RADIO SILENCE		KC-97 FIGHTER REFUELINGS 20,000 LBS		TOTAL RENDEZVOUS		MULTIPLE RENDEZVOUS PATTERN		AN/APN-12-78	NR OF DAY CELESTIAL NAVIGATION LEGS	NIGHT CELESTIAL			NUMBER OF RADAR NAVIGATION LEGS	NR OF PRES. PATTERN LEGS (SCN-718)	NUMBER OF LORAN NAVIGATION LEGS
																					TOTAL LEGS	CIRCULAR ERROR					
																						1	2	3			
6-10	11-15	17-19	21-23	26-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	56-58	60-62	63-65	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-52	52-54	56-58	60-62	63-65
T-02	KC97G	010	056	-	005	005	003	003	002	002	005	005			003	003	002	002	003	003	-	-	-	-	-	002	-	001
T-08	KC-97G	010	056	-	001	001	001	001	-	-	001	001			001	001	001	001	-	-	002	001	008	-	-	001	-	-
STBD TOTALS	—	020	112	-	006	006	004	004	002	002	006	006			004	004	004	003	003	003	002	001	008	—	—	003	—	001
T-01	KC-97G	014	068	-	005	005	003	003	002	002	004	004			004	004	002	002	-	-	-	002	008	010	-	003	-	004
T-03	KC-97G	014	066	-	003	003	002	002	001	001	002	002			004	004	003	003	002	002	001	001	013	-	-	001	-	002
T-04	KC-97G	012	075	-	002	002	-	-	002	002	002	002			002	002	001	001	-	-	003	003	005	004	008	002	002	002
																						001	010	-	-			
T- 05	KC-97G	010	058	-	001	001	001	001	-	-	001	001	NOT APPLICABLE	NOT APPLICABLE	001	001	001	001	-	-	002	002	012	005	-	003	-	002
T 06	KC-97G	009	061	-	004	004	002	002	002	002	002	002			003	003	-	-	003	003	001	003	002	002	006	002	001	002
																						001	010	-	-			
T- 07	KC-97G	014	093	-	004	004	001	001	003	003	004	004			006	006	005	005	004	004	001	003	015	009	007	007	001	004
T- 09	KC-97G	015	074	-	005	005	003	003	002	002	004	004			004	004	003	003	001	001	001	003	003	003	009	002	001	003
																						001	013	-	-			
T-10	KC-97G	009	053	-	005	005	003	003	002	002	003	003			005	005	004	004	002	002	-	003	014	014	004	003	001	002
T- 11	KC-97G	005	020	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-	-	003	-	001
T-13	KC-97G	016	086	-	002	002	002	002	-	-	002	002			002	002	001	001	001	001	001	003	011	006	002	009	001	004

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AIR REFUELING AIR TRAINING REPORT – PART I	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42D AIR REFUELING SQUADRON	FEB 57	2	3	9-SAC-T12

A. GENERAL					B. AIR REFUELING										C. RADAR RENDEZVOUS						D. NAVIGATION								
1	2	3	4	5	6		7		8		9		10		11		12		13		14	15				16	17	18
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCH	TOTAL REFUELINGS		DAY REFUELINGS		NIGHT REFUELINGS		IN RADIO SILENCE		KC-97 FIGHTER REFUELINGS 20,000 LBS		TOTAL RENDEZVOUS		MULTIPLE RENDEZVOUS PATTERN		AN/APN-12-76		NR OF DAY CELESTIAL NAVIGATION LEGS	NIGHT CELESTIAL				NUMBER OF RADAR NAVIGATION LEGS	NR OF PRESS. PATTERN LEGS (SCR-718)	NUMBER OF NAVIGATION LEGS
																						TOTAL LEGS	CIRCULAR ERROR					
					ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.			1	2	3			
6-10	11-15	17-19	21-23	26-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-52	52-54	56-58	60-62	63-65
T-14	KC-97G	010	051	-	002	002	001	001	001	001	002	002			002	002	001	001	002	002	001	002	000	005	-	002	002	002
T-15	KC-97G	004	028	-	001	001	-	-	001	001	001	001			001	001	001	001	-	-	-	002	010	009	-	002	001	-
T-16	KC-97G	011	057	-	003	003	001	001	002	002	003	003			003	003	001	001	002	002	001	002	008	006	-	003	001	003
T 17	KC-97G	011	053	-	003	003	003	003	-	-	002	002			003	003	002	002	001	001	001	-	-	-	-	002	-	002
T-18	KC-97G	001	071	-	005	005	001	001	004	004	005	005			005	005	005	005	-	-	001	003	010	004	002	002	-	-
																						002	014	006	-			
T-19	KC-97	005	040	-	001	001	-	-	001	001	001	001			001	001	-	-	001	001	001	003	008	015	010	001	001	003
T-20	KC-97G	004	023	-	002	002	-	-	002	002	002	002			002	002	002	002	-	-	001	003	008	009	008	002	-	001
T-21	KC-97G	012	070	-	003	003	001	001	002	002	002	002			004	004	004	004	001	001	001	003	008	019	003	003	001	002
T-22	KC-97G	012	073	-	002	002	001	001	001	001	002	002			004	004	003	003	001	001	004	002	016	007	-	006	001	005
T 23	KC-97G	013	080	-	005	005	003	003	002	002	004	004			005	005	003	003	002	002	001	003	009	018	010	004	001	004
																						002	006	014	-			
T-24	KC-97G	011	056	-	005	005	003	003	002	002	001	001			005	005	003	003	002	002	001	003	012	009	018	002	001	003
																						001	019	-	-			
CR TOTALS		222	1256	-	063	063	031	031	032	032	049	049			066	066	045	045	025	025	023	057	244	174	087	064	016	051
M 25	KC-97G	NO FLIGHT AS A CREW WHILE ON TDY																										

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AIR REFUELING AIR TRAINING REPORT – PART I

UNIT: AIR REFUELING SQUADRON | MONTH: FEB 57 | PAGE NR: 3 | NR OF PAGES: 3 | REPORTS CONTROL SYMBOL: 9-SAC- T12

A. GENERAL					B. AIR REFUELING										C. RADAR RENDEZVOUS						D. NAVIGATION							
1	2	3	4	5	6		7		8		9		10		11		12		13		14	15				16	17	18
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	TOTAL REFUELINGS		DAY REFUELINGS		NIGHT REFUELINGS		IN RADIO SILENCE		KC-97 FIGHTER REFUELINGS 20,000 LBS		TOTAL RENDEZVOUS		MULTIPLE RENDEZVOUS PATTERN		AN/APN-12-76		NR OF DAY CELESTIAL NAVIGATION LEGS	NIGHT CELESTIAL				NUMBER OF RADAR NAVIGATION LEGS	NR OF PRES. PATTERN LEGS (SCR-718)	NUMBER OF LORAN NAVIGATION LEGS
					ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		TOTAL LEGS	CIRCULAR ERROR 1	2	3			
6-10	11-15	17-19	21-23	26-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-52	52-54	56-58	60-62	63-65
M 26	KC-97G	NO FLIGHT AS A CREW WHILE ON TDY																										
M 27	KC-97G	NO FLIGHT AS A CREW WHILE ON TDY																										
M 28	DIS-BANDED	1 FEB 57																										
WING TOTALS	–	242	1368		069	069	035	035	034	034	055	055			070	070	049	049	028	028	025	058	252	174	087	067	016	052
													NOT APPLICABLE	NOT APPLICABLE														

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AIR REFUELING AIR TRAINING REPORT – PART II

UNIT: 42D Air Refueling Squadron | MONTH: Feb, 57 | PAGE NR: 1 | NR OF PAGES: 3 | REPORTS CONTROL SYMBOL: 9-SAC-T12

CREW NUMBER	E. GEN	F. CEL GRID NAV. TOTAL LEGS	F. CEL GRID NAV. CIRCULAR ERROR 1	F. CEL GRID NAV. CIRCULAR ERROR 2	G. P.P. NUMBER OF INCOMPLETE PILOT PROF. MISSIONS	H. LOADING KC-97 LOAD & UNLOAD EWP PASS OR CARGO	H. LOADING KC-97 PRECOMPUTATION OF MAX LOAD	I. EMERGENCY PROCEDURE DRILLS NUMBER OF SIMULATED BAIL-OUTS	I. EMERGENCY PROCEDURE DRILLS NUMBER OF SIMULATED DITCHINGS	I. EMERGENCY PROCEDURE DRILLS NR OF SIMULATED CRASH LANDINGS (TAIRCREW)	I. EMERGENCY PROCEDURE DRILLS NR OF SIMULATED CRASH LANDINGS (MAX PASS)	I. EMERGENCY PROCEDURE DRILLS PASSENGER EMERGENCY PROCEDURE BRIEFING	J. CELL MISSIONS TOTAL CELL MISSIONS	J. CELL MISSIONS DAY CELL MISSIONS	J. CELL MISSIONS NIGHT CELL MISSIONS	K. STD. BD. DATE OF LAST STANDARDIZATION CHECK	L. No Long Range Cruise Control Missions	M. Performance Index	N. Performance Index	O. No Dry Contacts	P. Aircomp. Airborne Radar Approach. A/C	MISCELLANEOUS Q. Take-offs & Ldgs. A/C	R. Take-offs & Ldgs. CP	S. IIS or GCA	T. IIS or GCA	U. FTI	V. Gyro Out
6-10	13-15	17-19	21	22	23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	56-58	60-62	63-65												
T02	–	–	–	001	–	–	009	008	009	006	006	004	002	002	June	–	–	–	005	–	9	7	– 1	006	001	– –	– –
T08	–	–	–	–	–	–	–	–	–	001	001	001	001	–	Sept	–	–	–	–	–	9	10	– –	009	001	1 –	– –
Std Bd Totals	–	–	–	001	–	–	009	008	009	007	007	005	003	002	–	–	–	–	005	–	18	17	– 1	015	002	1 –	– –
T01	001	009	–	–	–	006	003	003	003	–	002	001	001	–	Aug	001	091	–	005	003	6	6	3 4	003	003	– 1	– 1
T03	002	009	013	001	–	009	003	003	002	001	004	003	001	002	Feb	001	096	–	009	008	7	7	6 6	008	005	2 2	2 1
T04	002	006	007	001	002	006	007	006	007	002	003	003	–	003	Oct	–	–	–	–	004	9	9	2 2	007	003	– –	1 –
T05	002	004	006	–	001	–	005	005	005	005	005	001	–	001	Aug	002	093	092	–	004	7	7	3 3	006	001	1 1	– 1
T06	002	019	019	001	–	003	003	003	003	001	003	003	001	002	Dec	001	100	–	–	004	5	5	3 3	003	002	1 –	– –
T07	002	006	006	001	003	006	014	014	014	014	014	006	001	005	July	002	089	096	–	013	11	13	1 –	013	–	2 –	1 –
	001	018	–																								
T09	002	005	012	001	–	006	005	005	005	007	008	001	–	001	Sept	001	098	–	003	004	13	15	2 3	010	002	– –	1 –
T10	002	008	008	001	002	004	007	007	007	002	002	003	002	001	Nov	001	092	–	–	006	8	7	1 2	007	002	1 –	2 1
	001	015	–																								
T11	–	–	–	001	–	–	002	002	002	001	002	–	–	–	Nov	–	–	–	–	001	4	4	1 1	006	001	– –	– –
T13	002	012	003	–	001	–	015	015	015	007	009	003	002	001	Dec	001	089	–	–	003	10	10	6 6	008	003	1 1	1 1
	001	003	–																								

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AIR REFUELING AIR TRAINING REPORT – PART II | UNIT: 42D Air Refueling Squadron | MONTH: Feb. 57 | PAGE NR: 2 | NR OF PAGES: 3 | REPORTS CONTROL SYMBOL: 9-SAC-T12

E. GEN	F. CEL GRID NAV.		G. P.P.	H. LOADING		I. EMERGENCY PROCEDURE DRILLS				J. CELL MISSIONS			K. STD. RD.	Range Control	Performance	Performance	MISCELLANEOUS							
19	20		21	22	23	24	25	26	27	28	29			30	31	32	33	34	35	36	37	38	39	40	41
CREW NUMBER	TOTAL LEGS	CIRCULAR ERROR 1	CIRCULAR ERROR 2	NUMBER OF COMPLETE PILOT PROF. MISSIONS	KC-97 LOAD. & UNLOAD. EMP PASS. OR CARGO	KC-97 PRECOMPUTATION OF MAX LOAD	NUMBER OF SIMULATED BAIL-OUTS	NUMBER OF SIMULATED DITCHINGS	NR OF SIMULATED CRASH LANDINGS (AIRCREW)	NR OF SIMULATED CRASH LANDINGS (MAX PASS.)	PASSENGER EMERGENCY PROCEDURE BRIEFING	TOTAL CELL MISSIONS	DAY CELL MISSIONS	NIGHT CELL MISSIONS	DATE OF LAST STATION RADIO CALIBRATION CHECK	No Long Cruise Control Missions	Performance Index	Performance Index	No Dry Contacts Accomp.	Airborne Radar App.	A/C Take-offs & Ldgs.	CP Take-offs & Ldgs.	A/C ILS or GCA	CP ILS or GCA	PPI	Gyro Out
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65											
T14	002	006	014	003	–	003	009	009	009	002	002	–	–	–	Sept	–	–	–	–	001	7	9	1	1	008	003	– –	– –
T15	001	008	–	001	–	003	001	001	001	001	002	002	001	001	July	–	–	–	–	002	3	3	–	–	003	–	– –	– –
T16	001	008	–	001	–	006	003	003	003	002	003	002	–	002	Aug	001	096	–	–	–	8	7	2	3	004	003	2	1	– –
T17	002	012	018	002	006	006	005	004	005	005	006	002	002	–	Sept	–	–	–	–	003	6	6	3	3	005	003	1	–	– –
T18	001	014	–	001	002	–	004	002	002	001	004	003	001	002	July	–	–	–	–	003	8	9	2	1	008	001	– –	– –
T19	002	016	016	–	001	006	004	004	004	003	003	–	–	–	June	001	090	–	–	003	6	7	1	–	005	001	– –	– –
	001	004	–																									
T20	001	010	–	–	002	006	004	004	004	003	003	001	–	001	Sept	–	–	–	–	–	3	2	2	3	002	002	– –	– –
T21	002	008	003	–	–	006	008	008	008	005	006	003	001	002	Oct.	002	087	094	–	004	9	8	1	2	009	003	1 1	1 1
T22	002	014	014	–	–	003	011	011	011	010	010	002	001	001	July	002	098	097	–	002	9	9	1	1	010	004	1 –	1 –
	001	018	–																									
T23	002	007	012	–	002	003	005	005	005	004	004	002	–	002	Dec	–	–	–	003	002	8	8	4	4	005	003	– –	3 1
	002	011	012																									
T24	002	009	010	001	–	006	003	004	003	003	001	003	001	002	Sept	001	094	–	003	002	6	8	4	2	005	001	2 1	1 –
	001	004	–																									
CR Totals	043	263	183	016	022	088	121	118	118	079	096	044	015	029	–	017	2113	379	023	077	153	159	49	50	135	046	15 8	14 7

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AIR REFUELING AIR TRAINING REPORT – PART II

UNIT: 42D Air Refueling Squadron

MONTH: Feb. 57 | PAGE NR: 3 | NR OF PAGES: 3 | REPORTS CONTROL SYMBOL: 9-SAC-T12

E. GEN 19	F. CEL GRID NAV. 20			G. P.P. 21	H. LOADING 22	23	I. EMERGENCY PROCEDURE DRILLS 24	25	26	27	28	J. CELL MISSIONS 29			K. STD. BD 30	MISCELLANEOUS 31	32	33	34	35	36		38	39	40	41
CREW NUMBER	TOTAL LEGS	CIRCULAR ERROR 1	CIRCULAR ERROR 2	NUMBER OF COMPLETE PILOT-PROF. MISSIONS	KC-97 LOAD. & UNLOAD. NEW PASS. OR CARGO	KC-97 PRECOMPUTATION OF MAX LOAD	NUMBER OF SIMULATED BAIL-OUTS	NUMBER OF SIMULATED DITCHINGS	NR OF SIMULATED CRASH LANDINGS (AIRCREW)	NR OF SIMULATED CRASH LANDINGS (MAX PASS.)	PASSENGER EMERGENCY PROCEDURE BRIEFING	TOTAL CELL MISSIONS	DAY CELL MISSIONS	NIGHT CELL MISSIONS	DATE OF LAST STANDARDIZATION CHECK	No Long Range Cruse Control Missions	Performance Index	Performance Index	No Dry Contacts Accomp.	Airborne Radar App.	A/C Take-offs & Ldgs.	CP Take-offs & Ldgs.	A/C ILS or GCA	CP ILS or GCA	PPI	Gyro Out
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	56-58	60-62	63-65												
M25	No Flight as a Crew while on TDY																									
M26	002	030	015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M27	No Flight as a Crew while on TDY																									
M28	Disbanded 1 Feb. 57.																									
NCR Totals	002	030	015																							
Wing Totals	045	293	198	017	022	088	130	126	127	086	103	049	018	031	-	016	-	-	028	077	171 176	49 51	150	048	16 8	14 7

1 Average number of Combat ready and higher category crews assigned (including standboard crews) - 23

2 Average number of combat ready and higher category crews available - 20.8

3 Average number of Non-Combat ready crews assigned - 3.5

4 Average number of Non-Combat ready crews available - 0

5 Average number of Standardization crews assigned by crew category - 2

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SUBJECT: Lecture outline for Ground Training in "Hi Jinks".

A. BASIC REQUIREMENTS:

1. Definitions:

a. Breakaway Turn: A turn executed immediately following release of a high yield weapon to insure survival of aircraft and crew from thermal, air pressure, and gust effects. The secondary function is to obtain sufficient ground range, at burst time, for acquiring BDA - photography. (secret)

b. "Hi Jinks": A code name or identifier used by B/RB-47 and B/RB-52 aircraft whenever they employ a Breakaway procedure in conjunction with various types of runs on an RBS site. The term "right" or "left" will be used to designate the direction of turn.

2. General Procedure - Pilots:

a. Bank Angle: A bank angle of 10 degrees less than maximum recommended buffet or a maximum bank angle of 50 degrees, whichever occures first. (secret)

b. Use of B/RB-52 Buffet charts, A2-10 and A2-6, to 1B-52B-1A

(1) Problem:

Given: Gross weight =300,000 lbs
Pressure alt =42,100 ft
Speed =MACH. 80

Find: Bank Angle $=52^{0} - 10^{0} - 42^{0}$
G force =1.348 (42^{0})
Turn radius =21,000
Turn rate $=2.2^{0}$/sec

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(2) 42D Bomb Wing angle at Bank Chart: Go through problem using gross weight of 310,000 lbs and 40,000 ft of altitude. (confidential)

c. Direction of turn, right or left, will depend upon location of other aircraft, clouds, and wind structure effect. Under conditions of actual release the tactical situation would also be a consideration. If at all possible the turn will be made down wind. (secret)

d. Time in turn: After releasing any type of nuclear weapon, where practical for purpose of BDA and for minimizing weapon effects, the optimum turn time should be adhered to. Timing will start at bombs away with roll out initiated at the end of an optimum turn time of 55 seconds. (secret)

e. Minimum and Maximum Heading Change: The minimum heading change will be 80° and the maximum heading change will be 140°. This will result in an approximate tail-on position of the aircraft relative to the burst, minimizing weapons effects on the aircraft, and is likely to produce acceptable BDA photography. (secret)

f. Power Requirements: Power and Altitude will remain constant. A slight loss in air speed may occur in order to maintain a constant altitude. (secret)

g. Control Techniques: Smooth pilot techniques are essential to insure that premature initiation of buffet is not encountered. Abrupt and violent control movements must be avoided. At no time should there be more than one pilot on the controls. Whenever the bank angle does not exceed 40° the turn can be made by Auto-Pilot, when the turn exceeds a bank angle of 40° manual means must be used to execute the turn. At no time will any breakaway turn procedures that exceed initial buffet be

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attempted unless directed by 8AF or higher headquarters.

3. Pilot duties. Inflight:

a. Pre-release:

(1) At 15 seconds prior to release, the pilot will read and transmit to the crew, "15 seconds to bombs away, 10 seconds, 5 seconds, 4, 3, 2, 1, bombs away, starting turn. (confidential)

b. Release:

(1) At bombs away, the pilot, on instruments, and in the left seat, will initiate the prescribed maximum rate roll - in accordance with gross weight and altitude of the aircraft but not to exceed a 50° bank angle or 10° less than maximum recommended buffet. (secret)

(2) The pilot will initiate the roll out 55 seconds after bomb release. Straight and level flight will be maintained until after simulated passage of the shock wave. (secret)

4. Co-pilots Duties:

a. At bombs away, the co-pilot will be prepared to take over in the event of emergency.

5. Rader Navigator Techniques and Duties:

a. Photo Techniques:

(1) Preflight: A check with A&E or by visual inspection to ascertain that the pulse generator switches are placed in the following configuration.

Bomb-auto switch - auto

normal-manual switch - normal

Hi-alt-lo-alt switch - Hi-Alt

This configuration allows the C-217/AWA-2 to control the C-15 camera until 2½ minutes after bombs away.

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The camera will take pictures every sweep after bombs away.

(b) Check the camera magazine to make sure that its loaded with 100 ft of film.

(c) Rotate camera frame number on the camera log. 90 ft of film will give 1440 frames.

(d) Proceed with preflight procedures as outlined in check list.

(2) In-flight procedures:

(a) Camera switch positions will be as called for in the check list up to the Pre-IP.

1. Pre-IP:

LD-6 Selector Switch - 1:4

O-15 Power Switch - On

2. Bomb Release:

a. Function switch - track

b. Complete post bomb release check -(EWP for offset-in Hi Jinks and weapon release.) a - Offset switch - out

2a. Adjust antennas tilt and gain so that ground returns under the cross-hairs will be visable but not approaching saturation in the area of interest. This procedure will be continued until after bomb burst time.

(3) At bomb burst (100 sec)

(a) Record O-15 camera counter number

(b) Time to nearest second

(c) Record lat and long of cross-hairs, with Navigation Unit Reference Point switch in reference position.

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(4) 15 seconds after bomb burst

(a) Function switch - Nav

(b) Range mark-cross hair switch - range marks

(c) Range dial control - 20 NM

(d) Adjust tilt and gain for optimum navigation type ground painting for use by photo interpreters.

(5) Two minutes after bomb burst, resume normal operation (camera off)

b. Pre-Comp of Ballistics

(1) Prior to each flight which has been briefed for a "Hi Jinks" run the Radar Navigator will complete a practice EWP ballistics computation for an assigned EWP weapon, using the anticipated flight conditions for EWP delivery. After demonstrating complete proficiency in the computations for his assigned weapon, subsequent computations will be made, in turn, for all weapons within the assigned weapons interest of the unit.

(2) Sample problem

c. Bomb run Procedures - Radar Navigator

(1) Ballistics for actual use in flight on RBS targets or camera scored runs will be computed in the air using the normal RBS Bombing table (T.O. 11N-60-42)

(2) Up to Bomb release the B-52 flight hand book checklist will be followed with exceptions noted above.

(3) At bomb release use a stop watch or a watch with a sweep second hand to back bombs away.

(4) Note the start and completion of the Breakaway turns, record the readings.

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(5) Inform pilot to roll out of turn 55 second from bomb release.

(6) Conduct O-15 photography in accordance with photo techniques discussed.

(7) Complete post bomb release check, as soon as possible, after bomb release with the exception of those protions pertaining to IBDA

(a) Function switch - track

(b) Camera switchs - on

(8) (The Navigator will record the following

(a) True heading at bomb release and true heading at breakaway turn roll out.

(b) Initial and final absolute altitudes of breakaway turns.

(c) TAS at bombs away

B. RBS PROCEDURES

1. Breakaway runs can be made in conjunction with various types of runs, evasive action included, however it will not be made in conjunction with a fixed angle run or a GPI run.

2. Breadaway may be accomplished on rotation targets and class III A targets only.

3. Minimum altitude for breakaway procedure is 39,000 feet for a B/RB-52.

4. Normal RBS call in procedures prevail with the exception that the identifier Hi Jinks, Right or Left will be called in to indicate a breakaway turn and direction of turn.

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5. Non-combat and 5x crews will follow the same procedures as combat ready crews.

6. This wing will attempt to schedule Hi Jinks run during the early stages of each quarter in order to allow for reflights of unsatisfactory Hi Jinks.

C. CRITIQUE PROCEDURES

1. Critique will be conducted within 15 working days after the Hi Jinks run.

2. Personnel attending critique will include

(a) Radar Navigator

(b) Pilot

(c) Wing Special Weapons Officer or representitive

(d) Wing Photo interpreter

3. The Wing Observer will insure that SAC Form 47, RBS plotting sheets and special weapons practice problem are available prior to each critique.

4. An analysis of the run will reveal or disapprove

(a) Successful RBS or photo score

(b) Successful breadaway procedures

(c) Successful photographic procedures

D. Specific requirements for full qualification in the performance of the "Hi Jinks" manuver

1. Solo performance

(a) One "Hi Jinks" run demonstrated by a qualified instructor.

(b) A minimum of two satisfactory "Hi Jinks" maneuvers, completed by the crew.

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(c) One of the two crew runs must be on an RBS site. The other two runs will be scored RBS runs or camera scored runs on city targets from SAC consolidated domestic DGZ list.

2. Fully Qualified

(a) Checked out for Solo Performance

(b) Satisfactory techniques in Ballistic Computation and IBDA photography.

(c) Successful accomplishment of a "Hi Jinks" run with RBS score less than a gross error.

(d) Successful accomplishment of IBDA photography, suitable for evaluation of the run, on one scored RBS run.

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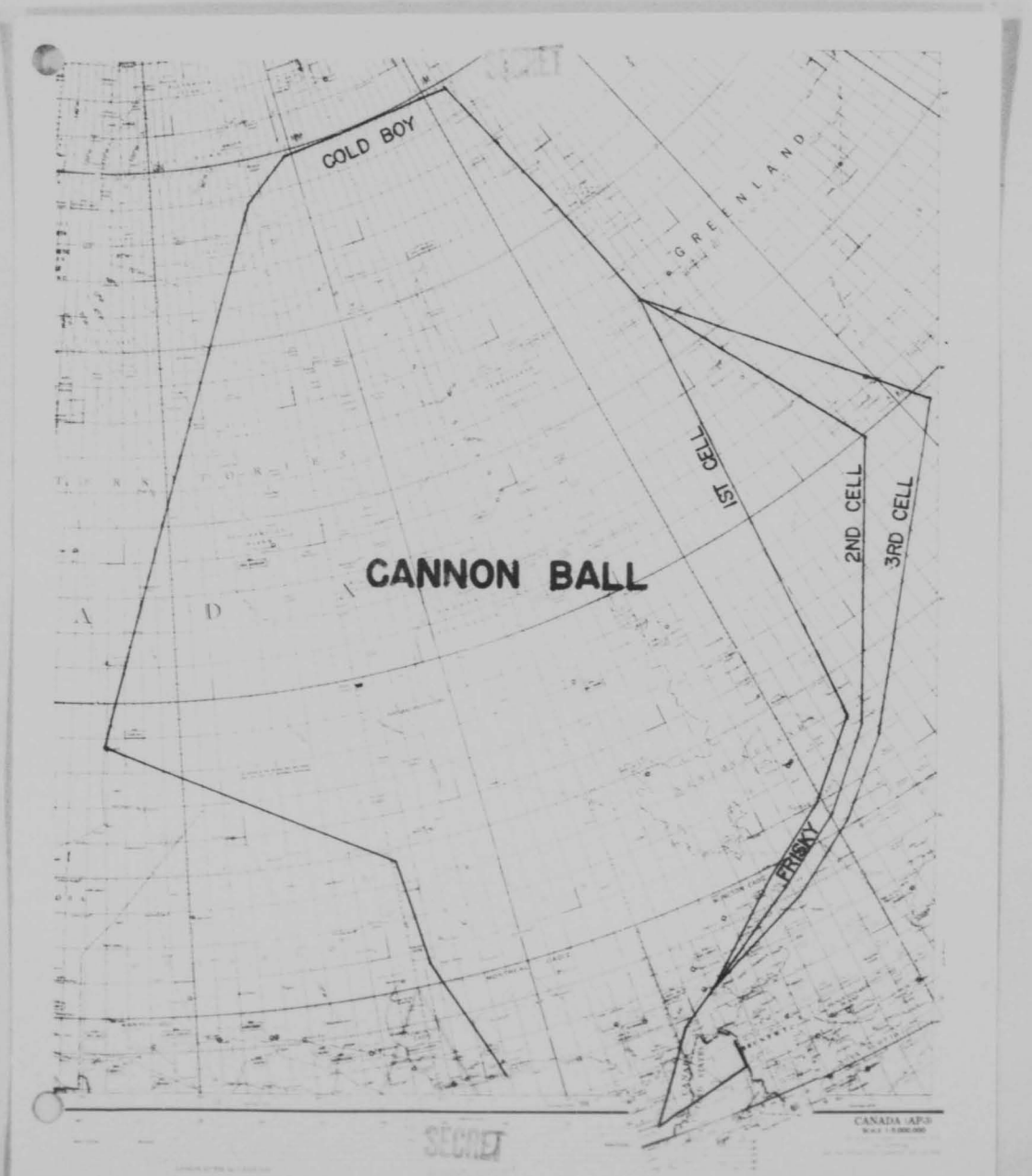

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MISSION FLIGHT PLAN	O. O. AND NICKNAME	UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
	CANNON BALL	42 BW	B-52D			

	POUNDS				POUNDS		
ACFT BASIC	167 760			BOMBS		CELL #1	
CREW	2650			AMMO		PAGE 1	
OIL	986			WATER AUG			
ATO				STATIC		NR FULL ATO REQUIRED	
RACK							
EXT TANKS WEIGHT (Empty)	2550			START ENGINES AND TAXI FUEL ALLOWANCE	5000	NR EMPTY ATO REQUIRED	
MISCELLANEOUS	800						
CHAFF		TOTAL FUEL		TAKE-OFF GROSS		ATO FIRING SPEED	
OPERATING	174656						

RUNWAY		
PRESSURE ALT 700	LENGTH 12100	AIR TEMP +50
CRITICAL FIELD LENGTH 10,000		CRITICAL AIR TEMP
TAKE-OFF DISTANCE 8900		TAKE-OFF SPEED 152
CRITICAL WIND COMPONENT		
1ST LEG	2ND LEG	3D LEG

PRE-FLIGHT PLAN

FROM LAFB / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
															257600	432256
															9700	9700
STTA											10	03	10		247900	422556
HOULTON VOR 46-02N 67-51W	CL	181	270/40 +7	188	+22				370	367	47	08	—		—	—
											57	11	—		—	—
L/O 45-49N 68-35W	CL	260	✓ +1	261	+21		↗25		370	367	32	05	80		10000	10000
											89	16	90		237900	412556
SHERBROOKE 45-24N 71-53W	CR	260	✓ +1	261	+19			.72	433	393	142	22	159		8000	8000
											231	38	249		229900	404556
RIVIERE DU LOUP 47-50N 69-34W	CR	039	✓ -4	035	+20			✓	✓	458	164	24	174		8700	8700 +3
											395	1:02	423		221200	395856
IP A/R 48-33N 67-52W	CR	057	270/40 -3	054	+23			.74	445	479	80	10	74		3700	3700
											475	1:12	497		217500	392156
S/P 50-16N 64-40W	CR	050	-4	046	+26		↓	↓	↓	475	159	:20	149		7340	7340
											634	1:32	646		210160	384816
L/O 50-26N 64-18W	DS	050	-4	046	+27		↘15		400		18	03	18		250	250
											652	1:35	664		209910	384566
RENDV 50-42N 63-42W	DECEL	050	280/30		+28				300	300	30	06	30		2060	2060
											682	1:41	694		207850	382506
TCP (RENDV. TIME)								—	—	—	///	04	28		800	800
												1:45	722		207050	381706
END A/R 51-56N 60-15W	AR	060	280/30 -4	056	+30				250	271	148	33	137		13400	13400
											830	2:18	859		193650	368306
ON LOAD											///	///	///		30000	30000
															223650	398306
S/C 52-02N 60-02W	ACC	061	280/30		+32		↓				11	02	11		1300	1300
											841	2:20	870		222350	397006
L/O 53-07N 58-11W	CL	046	280/30 -3	043	+33		↗34.5		425	441	95	13	92		7450	7450
											936	2:33	962		214700	389556 JN

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MISSION FLIGHT PLAN – CONTINUATION SHEET

CELL #1 PAGE 2

	FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T.A.S.	G.S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT	
	L/O 53-07N 58-11W															214900	389556	
START GRID	HUNTINGTON IS. 53-48N 56-53W	CR	046	280/30 -3	043	+33		34.5	.77	443	460	60 / 996	08 / 2:41	59 / 1021		2656 / 212744	2656 / 386900	JN 20
	62-02N 55-10W	CR	G.C. 050 / 050	GW 302/25 -3	047	–		↓	↓	↓	450	500 / 1496	1:07 / 3:48	495 / 1516		21050 / 191194	21050 / 365850	
	HALSTEINSBORG 66-56N 53-40W	CR	050	/	047	–		36	↓	↓	450	296 / 1792	40 / 4:28	295 / 1811		11950 / 179244	11950 / 353900	
END GRID	HAREOEN IS. 70-26N 54-52W	CR	035	/ -3	032	–		↓	↓	↓	442	213 / 2005	29 / 4:57	214 / 2025		8350 / 170894	8350 / 345550	
	NR IP 74-45N 57-35W	CR	047	316/25 -3	044			37	↓	↓	442	266 / 2271	36 / 5:33	266 / 2291		10150 / 160744	10150 / 335400	JN 7
	S/D 74-56N 63-32W	CR	339	322/25 -1	338			↓	↓	↓	420	93 / 2364	14 / 5:47	103 / 2394		3600 / 157144	3600 / 331800	
	L/O 75-00N 66-00W	DS	339	0	339			↓ 15	270 .75	400	380	38 / 2402	06 / 5:53	40 / 2434		475 / 156669	475 / 331325	
	RENDY 75-00N 68-00W	DECL	339	0	339				–	300	300	30 / 2432	06 / 5:59	30 / 2464		1860 / 154809	1860 / 329465	
	TCP (RENDY. TIME)								–	–	–	///	08	59		1600	1600	
													6:07	2523		153209	327865	
	END NR 74-45N 75-08W	AR	339	0	339				–	250	250	110 / 2542	26 / 6:33	110 / 2633		8650 / 144559	8650 / 319215	
	ON LOAD															32000	32000	
																176559	351215	
	S/C 74-44N 75-53W	ACC	339	0	339			↓	–	–	–	11 / 2553	02 / 6:35	11 / 2644		1050 / 125509	1050 / 350165	
	L/O 74-00N 79-38W	CL	307	0	307			1 37	–	–	–	80 / 2633	11 / 6:46	80 / 2724		7150 / 168359	7150 / 343015	
	T.P. 73-43N 80-43W	CR	307	347/30 +3	310			37	.77	443	420	25 / 2658	04 / 6:50	30 / 2754		1365 / 166994	1365 / 341650	
	66-00N 89-37W	CR	268	348/30 +4	272			37	↓	↓	439	500 / 3158	1:09 / 7:59	510 / 3264		18850 / 148144	18850 / 322800	JN 18
	CHURCHILL 58-46N 94-10W	CR	268	352/30 +4	272			37.5	↓	↓	440	450 / 3608	1:01 / 9:00	450 / 3714		15900 / 132244	15900 / 306900	
	CAPE JONES 54-38N 79-43W	CR	195	349/30 +2	197			41	↓	↓	470	538 / 4146	1:09 / 10:09	510 / 4224		17400 / 114844	17400 / 289500	JN 19
	SAWAYAN PT. 51-38N 79-14W	CR	TC 174	280/30 +4	178	+18		41	↓	↓	450	180 / 4326	24 / 10:33	170 / 4394		5700 / 109144	5700 / 283800	
	HHCL 48-00N 77-05W	CR	160	270/60 +5	165	+16		43.5	.82	470	482	234 / 4560	29 / 11:02	227 / 4621		8125 / 101019	8125 / 275675	JN 30
	TCP (HHCL)											///	09	70				
													11:11	4691				

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#1 HUDSON

MISSION FLIGHT PLAN – CONTINUATION SHEET Cell #1 TGT - HUDSON (1)

SECRET

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP ALT	IAS / MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	FUEL FLIGHT PLAN GROSS WT
HHCL															101019	275675
HAWKESBURY PIP 45-36N 74-55W	CR	145	270/40 / 44	149	+15		43.5	.82	470	494	176 / 4736	21 / 11:32	164 / 4855		5680 / 95339	5680 / 269795
IP PORT HENRY 44-04N 73-28W	CR	153	✓ / +4	157	+15		↓	↓	↓	490	104 / 4840	13 / 11:45	102 / 4957		3480 / 91859	3480 / 266515
HUDSON "A" 42-23N 71-34W	BR	141	✓ / +4	145	+15		↓	↓	↓	495	132 / 4972	16 / 12:01	125 / 5082		4190 / 87667	4190 / 262325
HIJINKS – BIGHT 42-25N 72-20W	–	–	✓				↘ 35	↓	↓		39 / 5011	05 / 12:06	39 / 5121		1290 / 86379	1290 / 261035
BRUNSWICK NAS BEM 43-54N 69-55W	CR	050	✓ / -3	047	+16		35	.77	443	473	136 / 5147	17 / 12:23	126 / 5247		3835 / 82544	3835 / 257200
HOULTON VOR 46-02N 67-51W	CR	034	✓ / -4	030	+20		35	↓	↓	465	156 / 5303	20 / 12:43	148 / 5395		4400 / 78144	4400 / 252800
LAFB	DS	255	✓		+21		↓		400	400	57 / 5360	10 / 12:53	74 / 5469		500 / 77644	500 / 252300
												15	111		7000	7000
LAND + TAXI												13:08	5580		70644	245300
												CELL	FORM		1010	1010
															69634	244290

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CELL #1

#2 BRIDGEPORT

MISSION FLIGHT PLAN (FRONT) CONTINUATION SHEET CELL #1 TGT BRIDGEPORT (2)

FROM HHCL / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
PIP OTTOWA 45-25N 75-36W	CR	160	270/40 +5	165	+14	179	44	.82	470	482	167 / 4727	21 / 11:32	164 / 4855			
IP SACANDAGA 43-05N 74-13W	CR	156	270/40 +5	161	+13	174			470	483	155 / 4882	19 / 11:51	178 / 5003			
TGT BRIDGEPORT	BR	157	270/40 +5	162	+13	175			470	483	126 / 5008	16 / 12:07	122 / 5125			
HIJINKS (R) 41-23N 73-33W	CR		270/40		+12		35		470		47 / 5055	06 / 12:13	47 / 5172			
ECM NO TRUMP 42-02N 70-03W	CR	075	270/40 -1	074	+14	088	35	.77	444	484	156 / 5211	19 / 12:32	140 / 5312			
GLOUCESTER 42-36N 70-38W	CR	306	270/40 -3	303	+15	318	35			410	58 / 5269	08 / 12:40	63 / 5375			
KENNEBUNK VOR	CR	001	270/40 -5	356	+16	012	35			443	27 / 5296	04 / 12:44	27 / 5402			
HOULTON VOR	CR	036	270/40 -4	032	+19	051	35			467	196 / 5492	25 / 13:09	185 / 5587			
LAFB											57 / 5549	10 / 13:19	70 / 5657			

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CELL #1 #3. WINDSOR

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MISSION FLIGHT PLAN - CONTINUATION SHEET CELL #1 WINDSOR (3)

FROM HHCL / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
PIP MT SIRWILFRID 46-54N 75-37W	CR	140	270/40 +4	141	+15	159	44.5	.82	470	497	88 / 4648	11 / 11:22	86 / 4777			
IP PLATTSburg AB 44-42N 73-28 W	CR	147	270/40 +4	151	+15	166	✓	.82	470	492	162 / 4810	20 / 11:42	156 / 4933			
TGT WINDSOR	BR	147	270/40 +4	151	+15	166	✓	.82	470	492	88 / 4898	11 / 11:53	86 / 5019			
HI JINKS (L) 43-56N 71-51W	CR		270/40		+15		35	.77	444		22 / 4920	03 / 11:56	22 / 5041			
EAGLE BEAK LORING	CR	043	270/40 -4	039	+19	058	35	.77	444	471	248 / 5168	32 / 12:28	236 / 5277			

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CELL #1 #4. BINGHAMTON

MISSION FLIGHT PLAN – CONTINUATION SHEET CELL #4 BINGHAMTON (4)

FROM HHCL (TCP) / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
PIP ARNPRIOR 45-26N 76-22W	CR	169	270/40 +5	174	+14	188	45	.82	470	477	158 / 4718	20 / 11:31	155 / 4846			
IP PT OF LLNP 43-53N 76-15W	CR	178	270/40 +5	183	+12	195	✓	↓	470	470	93 / 4811	12 / 11:43	93 / 4939			
TGT BINGHAMTON	BR	178	270/40 +5	183	+11	194	✓	↓	470	470	109 / 4920	13 / 11:56	102 / 5041			
HIJINKS (R) 42-24N 76-46W	CR		270/40		+10		35	↓	470		39 / 4959	05 / 12:01	39 / 5080			
ECM MUD PIE 44-47N 73-01W	CR	049	270/40 -3	046	+13	059	35	.77	444	473	218 / 5177	28 / 12:29	222 / 5302			
HOULTON VOR	CR	070	270/40 -2	068	+18	086	35	.77	444	483	229 / 5406	29 / 12:58	234 / 5536			
LAFB											57 / 5463	10 / 13:08	70 / 5606			

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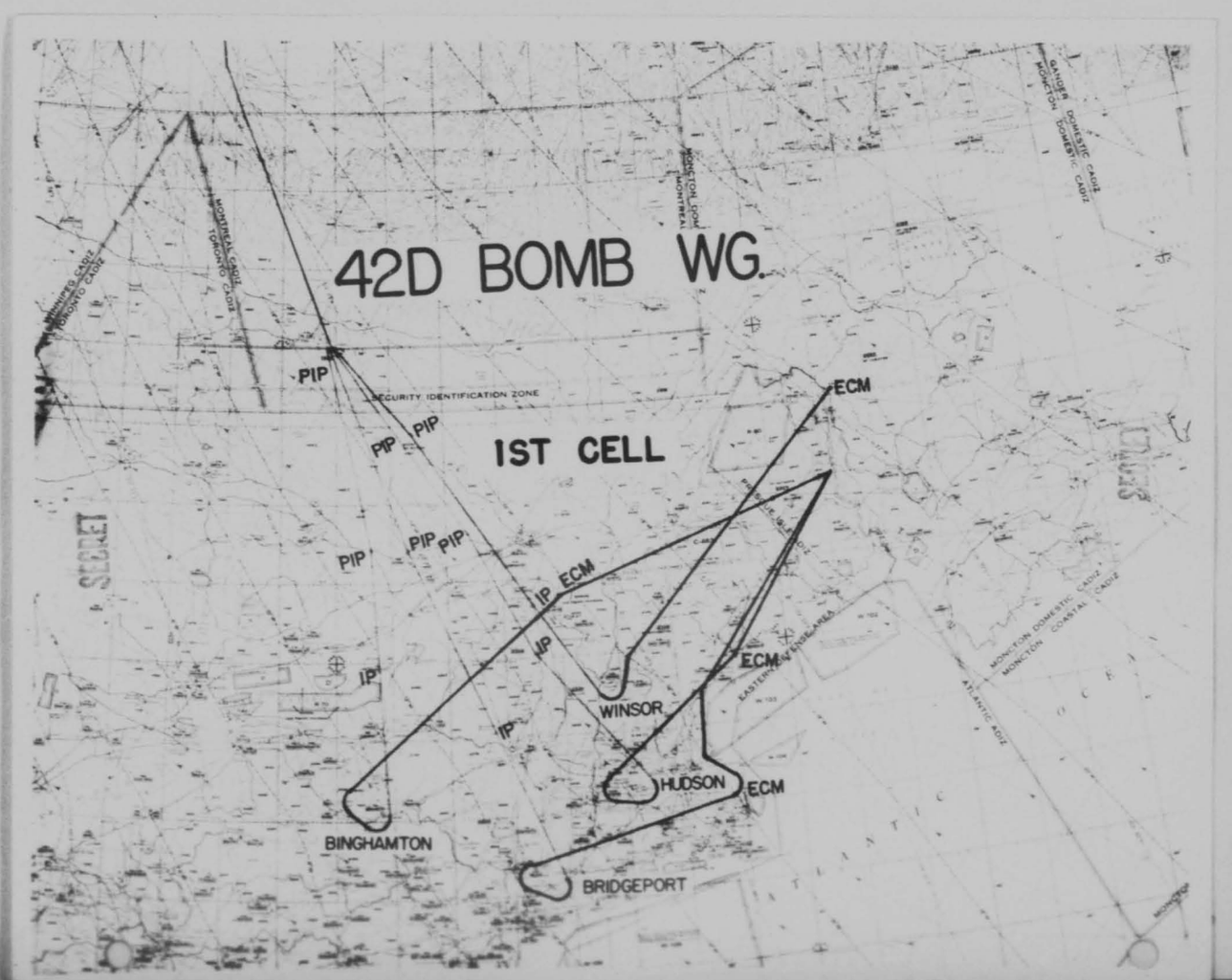

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MISSION FLIGHT PLAN	O. O. AND NICKNAME: CANNON BALL	UNIT: 42B.W	TYPE ACFT: B-52 D	WAVE: CELL 2	CELL CALL SIGN	REMARKS

	POUNDS
ACFT BASIC	167760
CREW	2650
OIL	986
ATO	—
RACK	—
EXT TANKS WEIGHT (Empty)	2550
MISCELLANEOUS	800
CHAFF	—
OPERATING	174656
TOTAL FUEL	

	POUNDS
BOMBS	
AMMO	
WATER AUG	
STATIC	
START ENGINES AND TAXI FUEL ALLOWANCE	5000
TAKE-OFF GROSS	

PAGE 1 OF	
NR FULL ATO REQUIRED	
NR EMPTY ATO REQUIRED	
ATO FIRING SPEED	

RUNWAY		
PRESSURE ALT: 700'	LENGTH: 12100'	AIR TEMP: +50F
CRITICAL FIELD LENGTH: 10,000		CRITICAL AIR TEMP:
TAKE-OFF DISTANCE: 8900	TAKE-OFF SPEED: 156	
CRITICAL WIND COMPONENT		
1ST LEG	2ND LEG	3D LEG

PRE-FLIGHT PLAN

FROM: LAFB

ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	PRED FUEL REMAINING	GROSS WT
STTA											10	:03	10			
HOULTON VOR 46-02N 67-51W	CL	181	270/40 / +7	188	+22		↗		370	367	47 / 57	:08 / :11	– / –			
L/O 45-49N 68-35W	CL	260	✓ / +1	261	+21		↗ 25		370	367	32 / 89	:05 / :16	80 / 90			
SHERBROOKE 45-29N 71-53W	CR	260	✓ / +1	261	+19			.72	433	393	142 / 231	:22 / :38	159 / 249			
RIVIERE DU LOUP 45-50N 69-39W	CR	039	✓ / -4	035	+20			↓	↓	458	164 / 395	:24 / 1:02	174 / 423			
I.P. A.R. 48-33N 67-52W	CR	057	✓ / -3	059	+23			.74	445	479	80 / 475	:10 / 1:12	74 / 497			
S/D 49-55N 64-23W	CR	059	✓ / -4	055	+26		↓	↓	↓	475	159 / 634	:20 / 1:32	149 / 646			
L/O 50-04N 63-58W	DS	060	✓ / -4	056	+27		↘ 15		400		18 / 652	:03 / 1:35	18 / 664			
RENDU 50-19N 67-17W	Decel	060	280/30 / -4	056	+28		↓		300	300	30 / 682	:06 / 1:41	30 / 694			
TCP RENDU TIME												:04 / 1:45	28 / 722			
END AR. 51-30N 59-53W	AR	061	280/30 / -4	057	+30		15		250	271	148 / 830	:33 / 2:18	137 / 859			
ON LOAD																
S/C 51-34N 59-38W	ACC	061					15		300	300	11 / 841	:02 / 2:20	11 / 870			
L/O 52-38N 57-50W	CL	045	280/30 / -3	042	+32		↗ 35		410		95 / 936	:13 / 2:33	92 / 962			

+3

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MISSION FLIGHT PLAN – CONTINUATION SHEET CELL 2 PAGE 2 OF

FROM 52-38N 57-50W / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
53-20N 56-34W	CR	047	280/30 -3	044	+34	078	35	.77	443	461	62 / 998	:08 / 2:41	59 / 1021			
St. Grid 59-58N 47-35W	CR	G.C. 077	G.W. 300/25 -2	075						462	495 / 1493	1:05 / 3:46	480 / 1501			
HOLSTEIN BORG 66-56N 53-40W	CR	018	✓ -3	015						438	464 / 1957	1:03 / 4:49	465 / 1966			
HAREOEN IS. 70-26N 54-52W	CR	035	302/25 -3	032						442	213 / 2170	:29 / 5:18	212 / 2178			
I.P. A.R. 74-45N 57-35W	CR	047	316/25 -3	044						442	266 / 2436	:36 / 5:54	266 / 2444			
S/D 74-56N 63-32W	CR	339	322/25 -1	338			↓	↓	↓	420	93 / 2529	:14 / 6:08	103 / 2547			
L/O 75-00N 66-00W	DS	339	VARIABLE	339			15		400	380	38 / 2567	:06 / 6:14	40 / 2587			
RENDV 75-00N 68-00W	DECEL	339	✓	339					300	300	30 / 2597	:06 / 6:20	30 / 2617			
TCP (RENDV TIME)							↓					:09 / 6:29	66 / 2683			
END A.R. 74-45N 75-08W	AR	339	✓	339			15		250	250	110 / 2707	:26 / 6:55	110 / 2793			
S/C 74-44N 75-53W	ACC	339	✓	339			↓				11 / 2718	:02 / 6:57	11 / 2804			
L/O 74-00N 79-38W	CL	307	✓	307			↗35		410	436	80 / 2798	:11 / 7:08	80 / 2884			
73-43N 86-43W	CR	307	347/30 +3	310				.77	443	420	25 / 2823	:04 / 7:12	28 / 2912			
66-00N 89-37W	CR	268	348/30 +4	272						439	500 / 3323	1:09 / 8:21	510 / 3422			
Churchill 58-46N 94-10W	CR	268	352/30 +4	272						440	450 / 3773	1:01 / 9:22	451 / 3873			
CAPE JONES-END Gnd 54-38N 79-43W	CR	195	348/30 +2	197						470	538 / 4311	1:09 / 10:31	510 / 4383			
SAWAYAN PT 51-38N 79-14W	CR	T.C. 174	280/30 +4	178	+18	196	↓	↓	↓	450	180 / 4491	:24 / 10:55	180 / 4563			
HHCL ★ 48-00N 77-05W	CR	160	270/40 +5	165	+16	181	43.5	.82	470	482	234 / 4725	:29 / 11:24	226 / 4789			
TCP HACL												:09 / 11:33	70 / 4859			

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CELL #2 SECRET #1 LOWELL

MISSION FLIGHT PLAN – CONTINUATION SHEET CELL #2 LOWELL (1)

FROM / ROUTE	FLT COND	T.C.	WIND DIR / DRIFT	T.R.	VIR	N.R.	TEMP / ALT	MS / MACH	T.A.S.	G.S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
47-00N 77-05W																
#1 INCPT PIP HAUNTSBURY	CR	145	270/40 +4	149	+14	163	43.5	.82	470	490	178 / 4903	:22 / 11:55	173 / 5032			
IP PORT HENRY	CR	153	✓ +5	158	+14	172	43.5			490	105 / 5008	:13 / 12:08	102 / 5134			
TGT LOWELL, MASS	BR	132	✓ +3	135	+15	150	43.5			500	126 / 5134	:16 / 12:23	118 / 5252			
HI JINKS (R) 42-22N 71-55W	CR		✓	–	–	–	35				39 / 5173	:05 / 12:28	39 / 5291			
ECM WILD RILL 43-54N 69-56W	CR	053	✓ -3	050	+16	066	35	.77	443	475	119 / 5292	:15 / 12:43	111 / 5402			
HOULTON VOR 46-02N 67-51W	CR	034	✓ -5	029	+18	047	35			463	154 / 5446	:20 / 13:03	148 / 5550			
LIZ	DS	355	✓		+21					400	57 / 5503	:10 / 13:13	70 / 5620			

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CELL #2 SECRET #2 SCHENECTADY

MISSION FLIGHT PLAN – CONTINUATION SHEET CELL #2 SCHENECTADY (2)

FROM 48-00N 77-05W ROUTE	FLT COND	T.C.	WIND D/V DRIFT	T.H.	VAR	M.H.	TEMP ALT	IAS MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	GROSS WT
#2 ACFT P.P 46-44N 76-00W	CR	150	270/40 +4	154	+14	168	44	.82	470	490	90 4815	:11 11:44	86 4945			
IP 44-54N 74-55W	CR	157	✓ +5	162	+14	176	44			485	115 4930	:14 11:58	110 5055			
TGT SCHENECTADY	BR	162	✓ +5	167	+14	181	44			480	130 5060	:16 12:14	126 5181			
H. JINKS (R) 42-50N 74-40W	CR		✓				35				39 5099	:05 12:19	39 5220			
ECM NOTRUMP 42-02N 70-03W	CR	097	✓ +1	098	+14	112		.77	443	480	214 5313	:27 12:46	200 5420			
GLOUSTER MASS	CR	304	✓ -3	301	+16	317				400	35 5348	:05 12:51	37 5457			
KENNEBUNK VOR	CR	003	✓ -6	357	+17	014				443	50 5398	:07 12:58	52 5509			
HOULTON VOR 46-02N 67-51W	CR	036	✓ -5	031	+20	051				465	194 5592	:25 13:23	185 5694			

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PORTLAND — MISSION FLIGHT PLAN – CONTINUATION SHEET — CELL #2 PORTLAND (3)

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
#3 ACFT PLP			270/40								88	:11	86			
46-54N 75-38W	CR	140	+4	144	+14	158	445	.82	470	495	4813	11:44	4945			
Newport #1 IP	CR	130	+3	133	+16	149				502	185	:22	173			
TGT B											4998	12:06	5118			
PORTLAND ME	BR	133	+3	136	+17	153				500	114	:14	110			
HI-TIMES Left											5112	12:20	5228			
44-09N 69-55W											31	:04	31			
EAGLE BEAR											5143	12:24	5259			
46-57N 67-53W	CR	027	-2	025	+18	043		.77	443	460	187	:24	175			
HOULTON VOR											5330	12:48	5434			
46-02N 67-51W	CR	175	+6	181	+21	202	435			443	57	:08	57			
LAFB			✓								5380	12:56	5491			
46-57N 67-53W	DS	355	-6	349	+21	010	3		400	400	57	:10	57			
											5437	13:06	5548			
LAND + TAXI	LD															

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SYRACUSE — MISSION FLIGHT PLAN – CONTINUATION SHEET CELL #2 SYRACUSE (1)

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
48-00N 77-05W			270/40								32	:04	31			
#4 ACFT P.U.P. 47-30N 76-55W	CR	164	+5	169	+14	183	45	.82	470	480	4757	11:37	4850			
ARNPRIOR I.P. 45-26N 76-22W	CR	170	+5	175	+14	189				480	4883	11:53	5015			
TGT SYRACUSE 43-05N 76-15W	BR	179	+5	184	+12	196				470	142	:18	142			
HI-JINKS RIGHT 43-27N 76-55W											5025	12:11	5157			
											39	:05	39			
											5064	12:16	5196			
ST. ALBANS mud PE ECM 46-47N 73-01W	CR	064	-3	061	+14	075		.77	443	480	186	:23	170			
											5250	12:39	5366			
HOULTON VOR 46-02N 67-51W	CR	070	-2	068	+18	086	35			480	228	:28	206			
											5478	13:07	5572			
LAFB 46-57N 67-53W	DS	355	-5	350	+21	011	30		400	400	57	:10	57			
											5535	13:17	5629			
												:15				
LAND + TAXI	LD											13:32				

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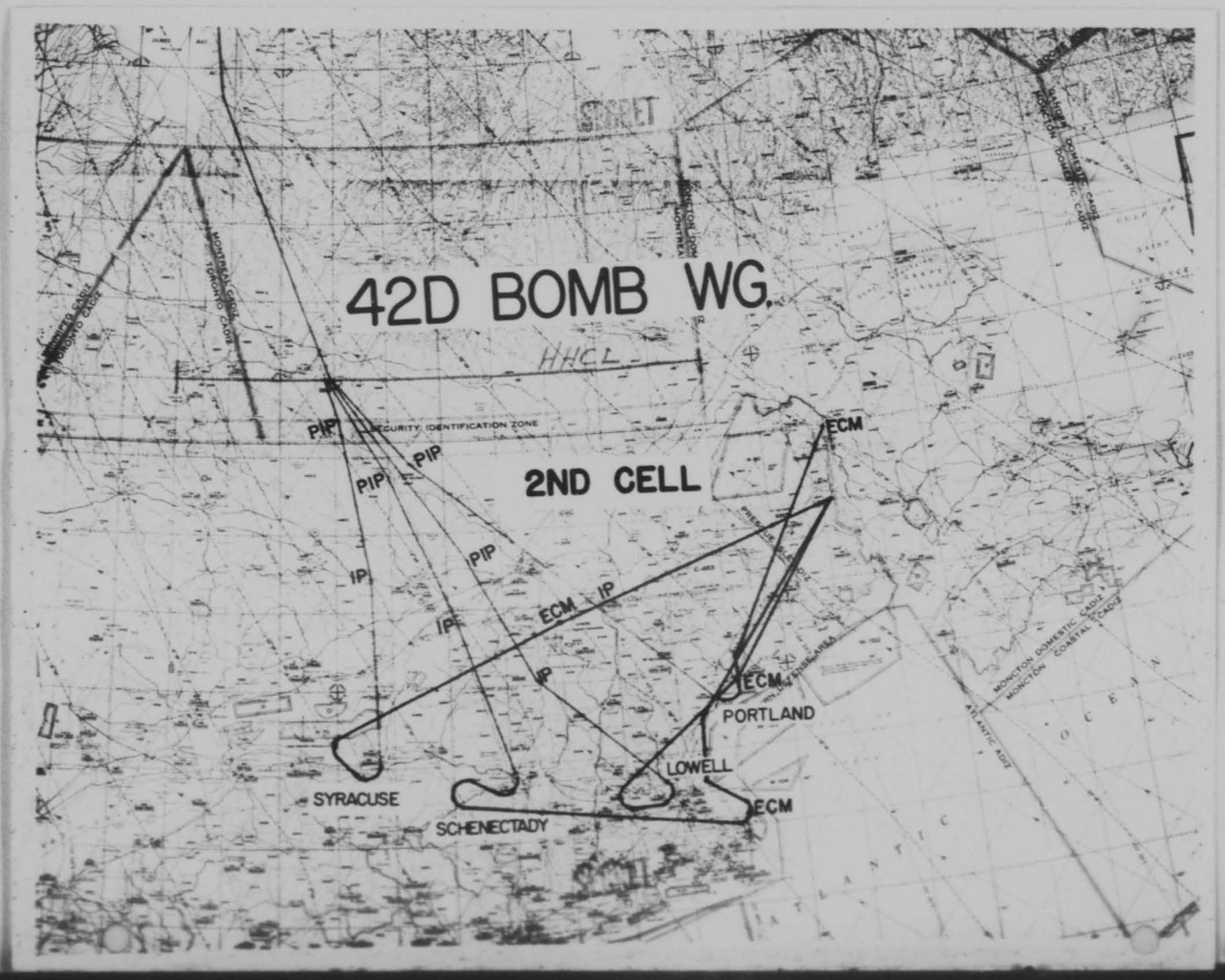

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MISSION FLIGHT PLAN

O. O. AND NICKNAME	UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
CANNON BALL	42 BW	B-52D	SECRET		

	POUNDS
ACFT BASIC	167,760
CREW	2560
OIL	486
ATO	
RACK	
EXT TANKS WEIGHT (Empty)	2550
MISCELLANEOUS	800
CHAFF	
OPERATING	174656
TOTAL FUEL	

	POUNDS
BOMBS	
AMMO	
WATER AUG	
STATIC	
START ENGINES AND TAXI FUEL ALLOWANCE	
TAKE-OFF GROSS	

CELL #3

PAGE 1

NR FULL ATO REQUIRED	
NR EMPTY ATO REQUIRED	
ATO FIRING SPEED	

RUNWAY PRESSURE ALT	LENGTH	AIR TEMP
700	12100	+50

CRITICAL FIELD LENGTH	CRITICAL AIR TEMP
10,000	

TAKE-OFF DISTANCE	TAKE-OFF SPEED
8900	156

CRITICAL WIND COMPONENT 1ST LEG	2ND LEG	3D LEG

PRE-FLIGHT PLAN

FROM L.A.F.B. / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	GROSS WT
															257600	432256
															9700	9700
STTA											10	03	10		247900	422556
HOULTON VOR			270/40								47	08	–		–	–
46-02N 67-51W	CL	181	+7						370	367	57	11	–		–	–
L/O			✓								32	05	80		10000	10000
45-49N 68-35W	CL	260	+1				↗ 25		370	367	89	16	90		237900	412556
SHERBROOKE			✓								142	22	159		8000	8000
45-24N 71-53W	CR	260	+1					.72	433	393	231	38	249		229900	404556
RIVIERE DU LOUP			✓								164	24	174		8700	8700
47-50N 69-34W	CR	039	-4					✓	✓	458	395	1:02	423		221200	395856 +3
IP (AIR)			270/40								80	10	74		3700	3700
48-33N 67-52W	CR	057	-3					.74	445	479	475	1:12	497		217500	392156
S/D											159	20	149		7340	7340
49-34N 64-04W	CR						↓	✓	✓	475	634	1:32	646		210160	384816
L/O											18	03	18		250	250
49-41N 63-38W	DS						↘ 15		400	400	652	1:35	664		209910	384566
RENDV			280/30								30	06	30		2060	2060
49-52N 62-54W	DECEL								300	300	682	1:41	694		207850	382506
											–	04	28		800	800
TCP (RENDV TIME)								–	–	–	–	1:45	722		207050	381706
END AIR			✓								148	33	137		13400	13400
51-02N 59-30W	AIR	061	-4	057					250	271	830	2:18	859		193650	368306
															30000	30000
ON LOAD								–	–	–	/	/	/		223650	398306
S/C			✓								11	02	11		1300	1300
51-06N 59-16W	ACC										841	2:20	870		222350	397006
L/O											95	13	92		7450	7450
52-11N 57-28W	CL										936	2:33	962		214900	389556

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CELL #3

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MISSION FLIGHT PLAN – CONTINUATION SHEET CELL #3 PAGE 2

FROM L/O 52-11N 57-28W ROUTE	FLT COND	T.C.	WIND D/V DRIFT	T.H.	VAR	M.H.	TEMP ALT	IAS MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	GROSS WT	
															214900	377556	JN-20
T.P.			280/30								62	08	57		36656	36656	
52-52N 56-14W	CR	047	-3	044			35	.77	443	461	998	2:41	1021		212244	366900	
T.P.		GC	GW 300/25								580	1:15	554		23600	23600	
59-30N 43-28W	CR	086	-2	084			↓	✓	✓	463	1578	3:56	1575		188644	363300	
HOLSTEINBORG											524	1:13	503		20300	20300	
66-56W 53-40W	CR	006	-3	003			36	✓	✓	432	2102	5:09	2078		166444	343100	
HARGONEN I.P.											213	29	214		8000	8000	JN-19
70-26N 54-52W	CR	035	-3	032			37	✓	✓	442	2315	5:38	2292		160444	335100	
IP (AIR)			316/25								266	36	266		9950	9950	
74-45N 57-35W	CR	047	-3	044				✓	✓	442	2581	6:14	2558		150494	325150	
S/D			322/25								93	14	106		3900	3900	JN-7
74-56N 63-32W	CR	339	-1	338			↓	✓	✓	420	2674	6:28	2664		146594	321250	
L/O			—					270			38	06	40		525	525	
75-00N 66-00W	DS	339					↘ 15	.75	400	300	2712	6:34	2704		146069	320735	
RENDV			—								30	06	30		1810	1810	
75-00N 68-00W	DECEL	339							300	300	2742	6:40	2734		144259	318915	
			—								—	10	74		2000	2000	
TCP (RENDV TIME)								—	—	—	—	6:50	2808		142259	316915	
END AIR			—								110	26	110		8370	8370	
74-45N 75-08W	AR	339							250	250	2852	7:16	2918		133889	308545	
															32000	37000	
ON LOAD								—	—	—	/	/	/		165889	340545	
S/C			—								11	02	11		1000	1000	
74-44N 75-53W	ACC	339					↓	—	—	—	2863	7:18	2929		164889	339545	
L/O			—								80	11	80		7100	7100	
74-00N 79-38W	CL	307					↗ 38.5	—	—	—	2943	7:29	3009		157789	332445	
TP			347/30								25	04	30		995	995	
73-43N 80-43W	CR	307	+3	310				.77	443	420	2968	7:33	3039		156794	331450	
			348/30								500	1:09	510		185500	185500	JN-18
66-00N 89-37W	CR	268	+4	272			↓	✓	✓	439	3464	8:42	3549		138294	312950	
CHURCHILL			352/30								450	1:01	451		16000	16000	
58-46N 94-10W	CR	268	+4	272			39.5	✓	✓	440	3918	9:43	4000		122294	296950	
CAPE JONES			348/30								538	1:09	510		17100	17100	JN-19
54-38N 79-43W	CR	195	+2	197			41	✓	✓	470	4456	10:52	4510		105194	279250	
SAWAYAN PT		TC	280/30								180	24	180		5100	5800	
51-38N 79-14W	CR	174	+4	178	+18	196	41.5	✓	✓	450	4636	11:16	4690		99394	274050	
HHCL			270/40								234	27	227		7890	7890	JN-30
48-00N 77-05W	CR	160	+5	165	+16	181	43.5	.82	470	482	4870	11:45	4917		91504	266160	
											—	09	86		1800	1800	
TCP (WHCT)											4870	11:54	5003		89704	264360	

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CELL #3 SECRET #1 LAWRENCE

MISSION FLIGHT PLAN – CONTINUATION SHEET CELL #3 TGT LAWRENCE(1)

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	FUEL FLIGHT PLAN GROSS WT
48-00N 77-05W																
#1 ACFT PIP			270/40								177	22	173			
HAWKESBERRY		146	+4	150	+14	164	43.5	.82	470	490	5047	12:16	5174			
PORT HENRY IP			v								104	13	102			
		152	+5	157	+15	172				490	5151	12:29	5278			
TGT LAWRENCE			v								128	15	118			
42-44N 71-08W		127	+3	130	+15	145				505	5279	12:44	5396			
HI-JINKS RT.											39	05	39			
42-41N 71-50W							↓	↓	↓		5318	12:49	5435			
WILD BILL ECM											110	14	103			
43-54N 69-56W		049	-3	046	+16	062	35	.77	443	475	5428	13:03	5538			
HOULTON VOR											156	20	148			
46-02N 67-51W		034	-4	030	+19	049	↓	↓	↓	465	5584	13:23	5686			

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CELL #3 · #2 ALBANY

SECRET

MISSION FLIGHT PLAN – CONTINUATION SHEET CELL #3 TGT ALBANY (2)

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
48-00N 77-05W															69708	264360
ACFT #2 PIP			270/40								90	11	86		2595	2145
46-44N 76-00W		150	+4	154	+14	168	44.0	.82	470	490	4960	12:05	5089		86809	261465
I.P.			✓								116	14	110		3690	3690
44-54N 74-54W		157	+5	162	+14	176				485	5076	12:19	5199		83119	257775
TGT ALBANY			✓								139	17	133		4410	4410
42-45N 73-48W		160	+5	165	+14	179				485	5215	12:36	5332		78709	253365
HI-JINKS RT											39	05	39		1290	1290
42-20N 74-44W											5254	12:41	5371		77419	252075
NO TRUMP ECM											204	25	184		5525	5525
42-02N 70-03W		095	0	095	+14	109	35	.77	443	482	5458	13:06	5555		71894	246550
GLOUCESTER, MASS.											35	05	37		1000	1000
		298	-3	295	+16	311				400	5493	13:11	5592		70894	245550
KENNEBUNK VOR											50	07	52		1500	1500
		003	-6	357	+17	014				443	5543	13:18	5644		69394	244050
HOULTON VOR											194	25	184		5300	5300
46-02N 67-51W	CR	036	-5	031	+20	051				465	5737	13:43	5828		64094	238750
											57	10	74		475	475
L.A.F.B.	DS										5794	13:53	5902		63619	238275
												15	—		7000	7000
LAND & TAXI	LD											14:08	5902		56619	231275
											–	CELL	Form		980	980
															55639	230295

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CELL #3

#3 AUGUSTA

MISSION FLIGHT PLAN – CONTINUATION SHEET CELL #3 TCT-AUGUSTA(3)

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
48-00N 77-05W																
#3 ACFT PIP			270/40								88	11	86			
46-54N 75-38W		140	+4	144	+14	158	44.5	.82	470	475	4958	12:05	5089			
NEWPORT IP											184	22	173			
		130	+3	133	+16	149				502	5142	12:27	5262			
AUGUSTA, ME.											112	13	102			
44-19N 69-48W		110	+2	112	+17	129				510	5254	12:40	5364			
HI-JINKS LEFT							↓	↓	↓		39	05	39			
											5293	12:45	5403			
EAGLE BEAK ECM											138	18	133			
LORING AFB		032	-5	027	+19	046	↓ 35	.77	443	460	5431	13:03	5536			

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CELL #3 SECRET #4 UTICA

MISSION FLIGHT PLAN – CONTINUATION SHEET CELL #3 TGT UTICA (4)

FROM 48-00N 77-05W / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
#4 ACFT PIP			270/40								32	04	31			
47-30N 76-55W		164	+5	169	+14	183	45.0	.82	470	480	4902	11:58	5034			
ARNPRIOR IP											126	16	125			
45-26N 76-22W		170	+5	175	+14	189				480	5028	12:14	5159			
TGT UTICA											138	17	133			
43-14N 75-24W		163	+5	168	+12	180				480	5166	12:31	5292			
HI JINKS RT.											39	05	39			
											5205	12:36	5331			
MUD PIE ECM											156	20	148			
		060	-3	057	+14	071	35	.77	443	478	5361	12:56	5479			
HOULTON VOR											230	29	210			
46-02N 67-51W		070	-2	068	+18	086	35			480	5591	13:25	5689			

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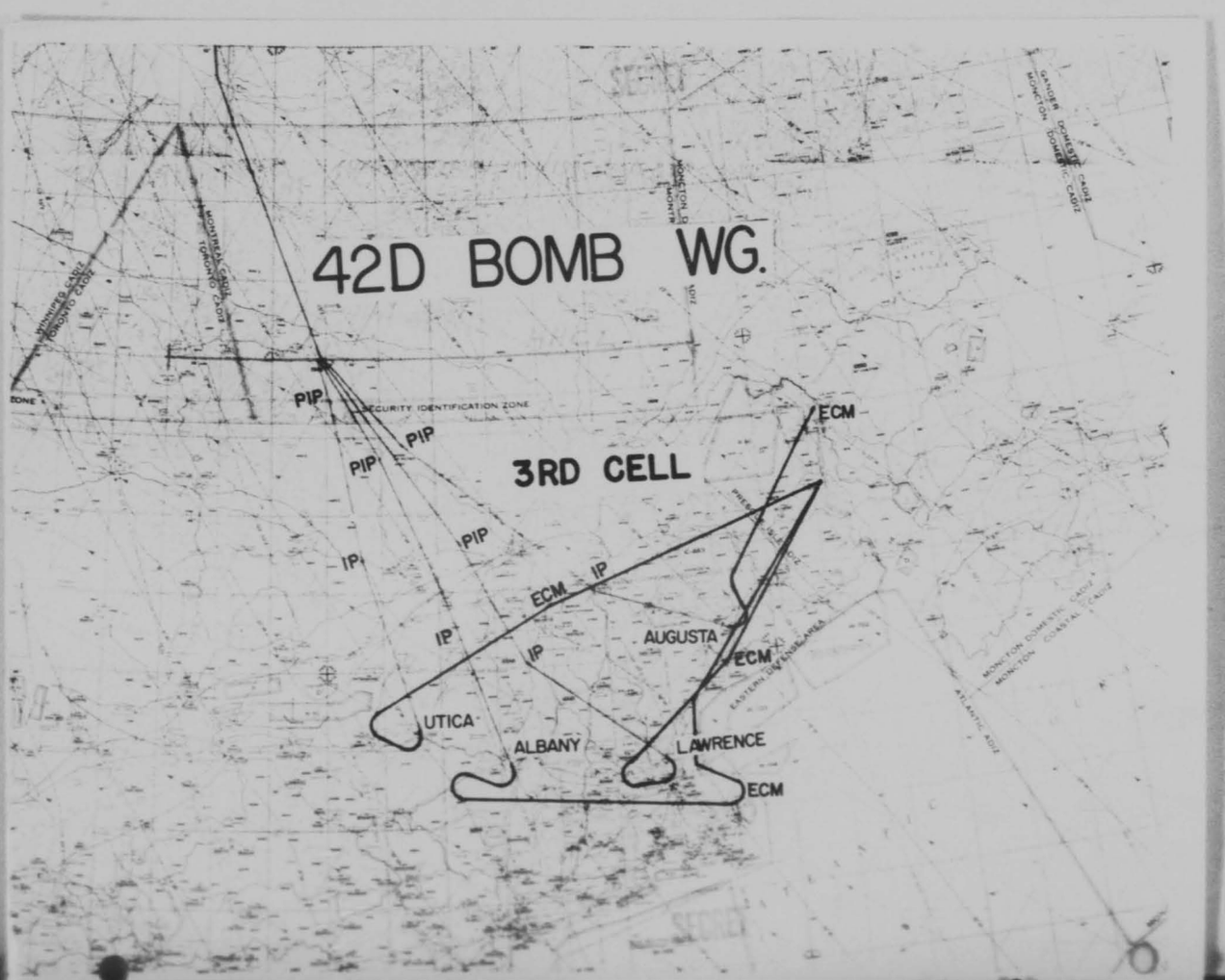

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MISSION FLIGHT PLAN — O. O. AND NICKNAME: Last Stand. — UNIT: 92nd BW. — TYPE ACFT: B-52D — WAVE: Bomber Stream — CELL CALL SIGN: — REMARKS

	POUNDS
ACFT BASIC	167760
CREW	2560
OIL	986
ATO	—
RACK	—
EXT TANKS WEIGHT (Empty)	2550
MISCELLANEOUS	800
CHAFF	—
OPERATING	174656

TOTAL FUEL 257600

	POUNDS
BOMBS	
AMMO	
WATER AUG	
STATIC	432256
START ENGINES AND TAXI FUEL ALLOWANCE	5000
TAKE-OFF GROSS	427256
NR FULL ATO REQUIRED	
NR EMPTY ATO REQUIRED	
ATO FIRING SPEED	

Page # 1

RUNWAY: PRESSURE ALT 700' — LENGTH 12,100 — AIR TEMP +40°F — CRITICAL FIELD LENGTH 9300 — CRITICAL AIR TEMP +70°F — TAKE-OFF DISTANCE 8300' — TAKE-OFF SPEED 156 IASK — CRITICAL WIND COMPONENT: 1ST LEG — 2ND LEG — 3D LEG

North T.C.

PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T.A.S.	G.S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	GROSS WT	
	Loring AFB															257600	432256	Time Hac
																9740	9740	
	S-T-T-A											10	:03	10		247860	422510	
A	Houlton VOR 46-02N 67-51W	CL	191	265/40 +5	196	+21	217			410	396	66	:14	95		13250	13250	+4
												76	:17	105		234610	409260	
B	N/O 46-18N 69-30W	CL	284	↓ -2	282	+21	303	34.5		410	373	68	:13	89		—	—	+2
												144	:30	194		234610	409260	
C	St. Celestial 46-42N 71-52W	CR	284	260/50 -3	281	+20	301	34.5	.77	443	397	100	:15	111		5266	5266	
												244	:45	305		229344	404000	
D	Split Stc MARIE 46-31N 58-22W	CR	269	275/50 +1	270	+13	283	34.5	.77	443	394	514	1:19	532		23200	23200	
												758	2:04	837		206144	380[illegible]	
E	TAN MOUNTAIN [illegible]N 88-04W	CR	255	280/50 +3	258	+2	260	36.0	.77	443	396	159	:24	177		7800	7800	
												917	2:28	1014		198344	373000	
F	Foss Air Port 43-35N 96-44W	CR	249	280/50 +3	252	-5	247	37.0	.77	443	400	395	:59	435		17500	17500	
												1312	3:27	1449		180844	355500	
G	RAWLINS VOR 41-47N 107-35W	CR	257	275/50 +2	259	-13	246	38.0	.77	443	396	492	1.15	553		21500	21500	
												1804	4:42	2002		159344	334000	
H	VERNAL 40-27N 109-32W	CR	228	✓ +4	232	-15	217	42.5	.82	470	435	119	:17	133		6000	6000	
												1923	4:59	2135		153344	328000	
I	BEAR LAKE P.P. HNCP 42.00N 111-20W	CR	319	✓ -4	315	-16	299		.82	470	433	123	:19	149		6250	6250	+2
												2046	5:18	2284		147094	321750	
J	FREMONT LAKE I.P. 42-53N 109-50W	CR	051	✓ -4	047	-17	030		.82	470	504	85	:12	94		3920	3920	+2
												2131	5:30	2378		143174	317850	
K	TG+ 44-54-33N 108-46-34W	BR	027	-5	022	-17	005		.82	470	486	134	:17	133		5500	5500	
												2265	5:47	2511		137674	312330	
L	HI-JINKS Left 45-10N 109-15W		—		—	—	—	↓	.82	470	470	47	:06	47		2225	2225	
												2312	5 53	2558		135449	310105	
M	ECM 48-52N 106-30W	CR	027	260/40 -5	022	-17	005	42.5	.77	443	452	249	:33	243		8700	8700	
												2561	6:26	2801		126749	301405	

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MISSION FLIGHT PLAN – CONTINUATION SHEET PAGE 2 LAST STAND

	FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
	48-52N 106-20W															126747	331405
	REGINA ST. GCID			280/40								120	:16	118		3705	37285
N	50-27N 104-37W	CR	037	-5	032	-17	015	42.5	.77	443	459	2681	6:42	2917		123044	297700
				280/40								500	1:02	458		15700	15700
O	51-57N 91-29W	CR	080	-1	081	-8	071	42.5	.77	443	480	3181	7:44	3377		107344	282000
				280/40								475	:59	435		13700	13700
P	52-00N 78-45W	CR	090	0	090	+9	099	42.5	.77	443	482	3656	8:43	3812		93644	268300
				280/40								419	:52	384		11500	11500
Q	48-08N 69-45W	CR	124	+2	126	+21	147	43.5	.77	443	480	4075	9:35	4196		82144	256800
												99	:13	96		2800	2800
R	J/D 46-45N 68-29W	CR	149	260/50 +6	155	+22	177	43.5	.77	443	458	4174	9:48	4292		79344	254000
												50	:07	52		1500	1500
S	HOULTON VOR 46-02N 67-15W	DS	149	" +6	155	+22	177	35	.77	443	458	4224	9:55	4344		77844	252500
												57	:09	60		510	510
	LAFB 46-57N 67-53W	DS	355	265/40 -6	349	+21	010	↓		400	398	4281	10:04	4404		77334	251990
													:15			7000	7000
	LAND & TAXI	LD											10:19			70334	244990

TOP ACFT USES 1300 # ADDITIONAL FUEL FOR +2000 FT OFF ALTITUDE

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MISSION FLIGHT PLAN	O. O. AND NICKNAME	UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
	PACE-SETTER VII	42 B.W	B-52 D	Bomber Stream		

	POUNDS				POUNDS			RUNWAY		
ACFT BASIC	167760			BOMBS		#1 ACFT		PRESSURE ALT 800'	LENGTH 12,100'	AIR TEMP 42°F
CREW	2560			AMMO						
OIL	986			WATER AUG		PAGE 1	OF 2	CRITICAL FIELD LENGTH 9650' (DRY THRUST)		CRITICAL AIR TEMP 68°F
ATO	-			STATIC	432256	NR FULL ATO REQUIRED	T.O.	TAKE-OFF DISTANCE 8650'		TAKE-OFF SPEED 155K
RACK	-							CRITICAL WIND COMPONENT		
EXT TANKS WEIGHT (Empty)	2550			START ENGINES AND TAXI FUEL ALLOWANCE	-5000	NR EMPTY ATO REQUIRED	00:13Z	1ST LEG	2ND LEG	3D LEG
MISCELLANEOUS	800									
CHAFF	—	TOTAL FUEL	257600	TAKE-OFF GROSS	427256	ATO FIRING SPEED				
OPERATING	174656									

PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	FUEL FLIGHT PLAN GROSS WT
	LAFB															257600	432256
																9825	9825
	STTA											10	:03	10		247775	422431
A	HOULTON VOR 46-02N 67-51W	CL	175	270/40 +6	181	+21	202	↗		410	410	57 / 67	:08 / :11	55 / 65		-	-
B	L10 45-04N 64-10W	CL	220	✓ +4	224	+20	244	34		410	380	76 / 143	:12 / :23	82 / 147		15500	15500
C	Lewiston St Grid 44-06N 70-14W	CR	220	260/50 +4	224	+19	243		.77	445	405	78 / 221	:11 / :34	84 / 231		3431 / 228844	3431 / 403500
D	44-41N 80-40W	CR	274	✓ -2	272	+13	285				395	455 / 676	1:08 / 1:42	505 / 736		22200 / 206644	22200 / 381300
E	END Grid 37-30N 79-45W	CR	173	270/55 +7	180	+16	186	↓			445	438 / 1114	:58 / 2:40	423 / 1159		17900 / 188744	17900 / 363400
F	SIC 36-53N 80-19W	CR	214	270/70 +8	222	+3	225	↗ 39			400	46 / 1160	:07 / 2:47	50 / 1209		2200 / 186544	2200 / 361200
G	Mt. AIRY 36-32N 80-36W	NRT CL	214	✓ +8	222	+3	225				400	27 / 1187	:04 / 2:51	30 / 1239		2000 / 184544	2000 / 359200
H	★ HMCL Bristol VA. 36-34N 82-11W	CR	276	✓ -1	275	+2	277				375	79 / 1266	:13 / 3:04	98 / 1337		3300 / 181244	3300 / 355900
I	ASHville N.C. P.I.P. 35-34N 82-20W	CR	195	✓ +9	204	+1	205				420	62 / 1328	:09 / 3:13	67 / 1404		3500 / 177744	3500 / 352400
J	TOCCOA GA. IP 34-34N 83-20W	CR	212	✓ +8	220	0	220				400	70 / 1398	:10 / 3:23	74 / 1478		2800 / 174944	2800 / 349600
K	TGT LIMA ATLANTA	BR	228	270/65 +6	234	-1	233				392	76 / 1474	:12 / 3:35	89 / 1567		3450 / 171494	3450 / 346150
L	TUSCALOOSA. ALA. 33-11N 87-34W	CR	258	✓ +7	260	-2	258		↓	↓	380	160 / 1634	:26 / 4:01	194 / 1761		7450 / 164044	7450 / 338700
M	P.I.P. GRENADA MISS 33-46N 89-50W	CR	287	270/60 -2	285	-5	280	↓	.82	470	412	120 / 1754	:30 / 4:31	235 / 1996		10000 / 154044	10000 / 328700

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(HEAVY)

MISSION FLIGHT PLAN – CONTINUATION SHEET PAGE SETTER VII PG 2 OF 2

	FROM GRENADA MISS 33-46N 89-50W / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
																154044	328700
N	I.P. 34-09N 90-58W	CR	292	270/60 -3	289	-6	283	39	.82	470	412	64 / 1818	:09 / 4:40	71 / 2067		2890 / 151154	2890 / 325810
O	TGT ALPHA LITTLE ROCK	BR	301	✓ -4	297	-7	290		↓	↓	420	78 / 1896	:11 / 4:51	86 / 2153		3530 / 147624	3530 / 322280
P	P.I.P. PADUCAH KY 37-06N 88-35W	CR	052	✓ -4	048	-5	043		.77	445	490	230 / 2126	:28 / 5:19	208 / 2361		7500 / 140124	7500 / 314780
Q	I.P. EVANSVILLE IND 37-58N 87-35W	CR	042	✓ -5	037	-3	034				482	72 / 2198	:09 / 5:28	67 / 2428		2385 / 137739	2385 / 312395
R	TGT. HAYDEN IND. 38-59N 85-45W	BR	054	✓ -4	050	-2	048	↓			495	106 / 2304	:13 / 5:41	96 / 2524		3145 / 134594	3145 / 309250
S	I.P. for GAS BAG 40-28N 82-01W	CR	063	✓ -3	060	0	060	40			500	195 / 2499	:23 / 6:04	170 / 2694		6150 / 128444	6150 / 303100
T	ADEAM ECM SITE 41-02N 80-27W	CR	064	✓ -3	061	+4	065	↓			500	78 / 2577	:09 / 6:13	67 / 2761		2250 / 126194	2250 / 300850
U	CLAREMONT VT St. GRID 43-22N 72-22W	CR	068	✓ -2	066	+9	075	41			500	390 / 2967	:46 / 6:59	340 / 3101		11650 / 114544	11650 / 289200
V	51-00N 73-30W	CR	354	✓ -8	346	+18	004	42			438	465 / 3432	1:04 / 8:03	475 / 3576		15400 / 99144	15400 / 273800
W	END GRID 47-02N 60-25W	CR	115	✓ +2	117	+24	141				500	566 / 3998	1:08 / 9:11	505 / 4081		15650 / 83494	15650 / 258150
X	46-12N 60-00W	CR	160	✓ +7	167	+26	193				460	54 / 4052	:07 / 9:18	52 / 4133		1500 / 81994	1500 / 256650
Y	NEW GLASGOW 45-38N 62-40W	CR	252	✓ +2	254	+25	279				390	105 / 4157	:16 / 9:34	119 / 4253		3550 / 78444	3550 / 253100
Z	CHATHAM ECM 47-01N 65-28W	CR	306	✓ -5	301	+24	325				395	142 / 4299	:21 / 9:55	156 / 4409		4250 / 74194	4250 / 248850
AA	S/D 46-29N 66-45W	CR	240	✓ +4	244	+23	267	↓			390	65 / 4364	:10 / 10:05	74 / 4487		2250 / 71944	2250 / 246600
AB	HOULTON VOR 46-02N 67-51W	DS	240	✓ +4	244	+22	266	35	↓	↓	390	50 / 4414	:08 / 10:13	59 / 4542		1700 / 70244	1700 / 244900
AC	LAFB 46-57N 67-53W	DS	355	270/40 -5	350	+21	011	3		400	400	57 / 4471	:09 / 10:22	57 / 4599		486 / 69764	486 / 244420
	LAND + TAXI	LD											:15 / 10:37			7000 / 62764	7000 / 237420

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HEADQUARTERS 42D BOMBARDMENT WING (H) HEAVY
LORING AIR FORCE BASE,
MAINE
20 FEBRUARY 1957

PILOTS FLIMSY 215-57 "FUR COLLAR III".

1. BRIEFING AND DE-BRIEFING:

a. Specialized Briefing: To be held immediately following the general briefing in the Training and Briefing Building.

b. Pre-take-off Weather Briefing: Approximately 2:30 hrs Before take-off in the 75th Bombardment Squadron briefing room.

c. De-briefing: Conducted at A&E.

2. GROUND AIRCRAFT MOVEMENT:

a. Start Engines: 40 Minutes prior to take-off.

b. Taxi: 20 Minutes prior to take-off.

c. Take-off Intervals: 1½ minutes (planned).

d. Parking and Taxi Plan: To be given at pre-take-off meeting.

3. PLANNED TAKE-OFF ORDER:

a. Wave 1 - Cell #1 (RED)

Pilot	TAIL #	CALL SIGN	PRE-T/O MEETING	TAKE-OFF
Morgan	673	Peddler 76	26/0200E	26/0420E
McDaniel	057	Peddler 52	26/0200E	0422E
Wright	080	Peddler 89	26/0200E	0424E
Wave 1 - Cell #2 (ORANGE)				
Riordan	078	Peddler 28	26/0200E	26/0500E
Penzien	070	Peddler 56	26/0200E	0502E
Bailey	089	Peddler 92	26/0200E	0504E

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b. Wave 2 - Cell #1 (GREEN)

Suprenant	083	Peddler 90	27/0200E	27/0420E
Howard	081	Peddler 29	27/0200E	0422E
Bell	073	Peddler 57	27/0200E	0424E

Wave 2 - Cell #2 (BLUE)

Owens	088	Peddler 62	27/0200E	27/0500E
Smith	093	Peddler 33	27/0200E	0502E
Strickler	092	Peddler 93	27/0200E	0504E

c. Wave 3 - Cell #1 (WHITE)

Bruce	072	Peddler 26	28/0300E	28/0540E
Bubb	076	Peddler 58	28/0300E	0542E
Confer	079	Peddler 59	28/0300E	0544E

Wave 3 - Cell #2 (SCARLET)

Childs	058	Peddler 82	28/0300E	0620E
Curtis	071	Peddler 86	28/0300E	0622E
Frazer	084	Peddler 30	28/0300E	0624E

4. CLIMB PROCEDURE:

a. North T/O *

(1) Climb straight ahead.

(2) Execute right turn 15° bank at end of three minutes from T/O roll.

(3) Climb on course to Houlton VOR.

(4) Proceed on course.

b. South T/O *

(1) Climb straight ahead Loring on Houlton VOR.

(2) After Houlton, proceed on course

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* For both North and South T/O's. Climb A/S will be 310KIAS until reaching MACH .765 until level off. Maintain MACH .765 until level off. At level off cell leader will reduce to MACH .72 until cell is joined.

5. ALTIMETER CHECK:

As soon as practical after level off altimeters and airspeeds will be cross checked. #2 will cross check on #1, and #3 will cross check on #2.

6. REFUELING INFORMATION:

RDZ Time	1:31 after T/O
Tanker Call Sign	CRONY (Westover)
Refuel area	"KILO" (standard refueling mission)
Refueling tactics	Pre target and in accordance with SAC tac Doctrine.
Refueling Frequencies	(Contact) 321.0 (P) 324.2 (S) 368.3
Beacon Settings	APN 69 3-1 (12) T-7 R-6 (76) T-6 R-7
Refueling ratio	1 - 1
Planned on-load	30,000#
Refueling Altitude	Base 15M
Refueling Track	279° magnetic

NOTE: The C/R plan is as prescribed in the routine standard refueling mission flimsy.

a. All receiver aircraft will turn on APN-76 rendezvous equipment when reaching a point 200 NM out from rendezvous point. After initial contact with tanker force, all receiver aircraft, except leader, will turn off APN-76 to avoid confusion.

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b. Descent will be made on command of cell leader and will be made at 4000 FPM, idle power, airbrakes at number 4 position. The leader will maintain partial power to aid other aircraft in retaining relative position.

c. Formating Air Speed will be 200KIAS.

d. After arrival in visual contact with tankers, the leaders will direct all receivers to assume observation position behind assigned tanker.

e. Each receiver will notify leader when ready to refuel, the receiver leader will direct aircraft to move into contact position and begin transfer of fuel.

f. When receiver leader has determined that all receivers have completed refueling, he will inform tanker leader to clear refueling track. Receiver force will then fly necessary dog leg to clear track. Receiver leader will announce time to accelerate and climb. Cell formation will then be accomplished.

7. CHRONOLOGICAL MISSION PROGRESS (AFTER REFUELING)

(Wave 3 - no refueling or gunnery route as outlined in Navigator Flimsy)

a. ECM Run by 1st aircraft "MOONSHINE" each cell

b. ECM Run by 2nd aircraft "POSTCARD" each cell

c. Cell break up at Stevens Pt., Minn.

d. Start gunnery at 47-30N 89-10W, clearance on channel 12.

e. End gunnery at 47-24N 89-50W, clearance on channel 12.

f. ECM Run by 3th aircraft "GRADY" each cell.

g. Start day X at Cherokee, Iowa

h. End day X at Hunnington, West Va.

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i. Pre IP at Danville, Va.

j. MHGL at Danville, Va.

k. IP at Keyesville, Va.

l. Target Richmond FOXTROT

m. P. IP at So. Asbury Pk, N. J.

n. IP at Norwalk, Conn

o. Target Springfield, Mass "BRAVO"

p. P. I. P. at Lade Sebago, Maine

q. IP at Newport, Vt.

r. Target at Montreal "BRAVO"

s. To Houlton

t. To Loring

8. Wave 3 will not refuel or accomplish gunnery. On this wave, White and Scarlet cells will T/O at 0540EST and 0620EST respectively. Fly briefed mission as in Nav Flimsy start Radar Nav Leg at Brunswick Maine, end Radar Nav Leg at so East part O/ Cleveland, Ohio.

a. ECM #1 aircraft each cell MOONSHINE

b. ECM #2 aircraft each cell POSTCARD

c. ECM #3 aircraft each cell CHOCOLATE

Cell break up after this run. Start day X Cherokee, Iowa and follow common route with 10 min interval and 3000'

1st aircraft 38,000'

2nd aircraft 41,000'

9. ALTERNATE BASES:

Westover	11,400 x 300	Wright-Patterson	11,400 x 300
Wright-Patterson	8,000 x 300	Goose	11,000 x 300

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10. RECOVERY PLAN: Controlled by Loring RAPCON.

11. AIR ABORTS: Turn 90° out of the bomber stream and file individual clearance after descending to quadrantal altitude.

12. RECALL WORD: "WATER-TANK"

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
20 FEBRUARY 1957

GUNNERY FLIMSY 215-57 "FUR COLLAR III"

1. Gunnery portion of this mission will include live gunnery fire-out. There will be no fighter lock-on or gun camera attacks.

2. Firing will be accomplished on the Grand Marais Air-to Air Gunnery Range (R-187A). Utilization of the Grand Marais Range is controlled by Commander, 31st Air Division (Defense).

3. Each aircraft will fire out a full load of ammo (2400 rnds). Before firing begins, the gunner will ensure that the area is properly cleared to safeguard personnel and material. Any member on the crew may call a cease fire at any time safety precautions are being violated.

4. The aircraft that is firing must also ensure that ammunition impact areas are will within the range limits.

5. All firing must be from land toward water.

6. Boundaries of the range area:

NORTH LAT	WEST LONG
47° 25'	90° 55'
47° 50'	89° 50'
47° 30'	89° 30'
47° 05'	90° 40'

7. Heading for firing will be 255 degrees magnetic at 38,000 and 41,000 resp.

8. Galahad Control will render Range Assistance on Channel 12.

9. There will be no gunnery firing for wave 3.

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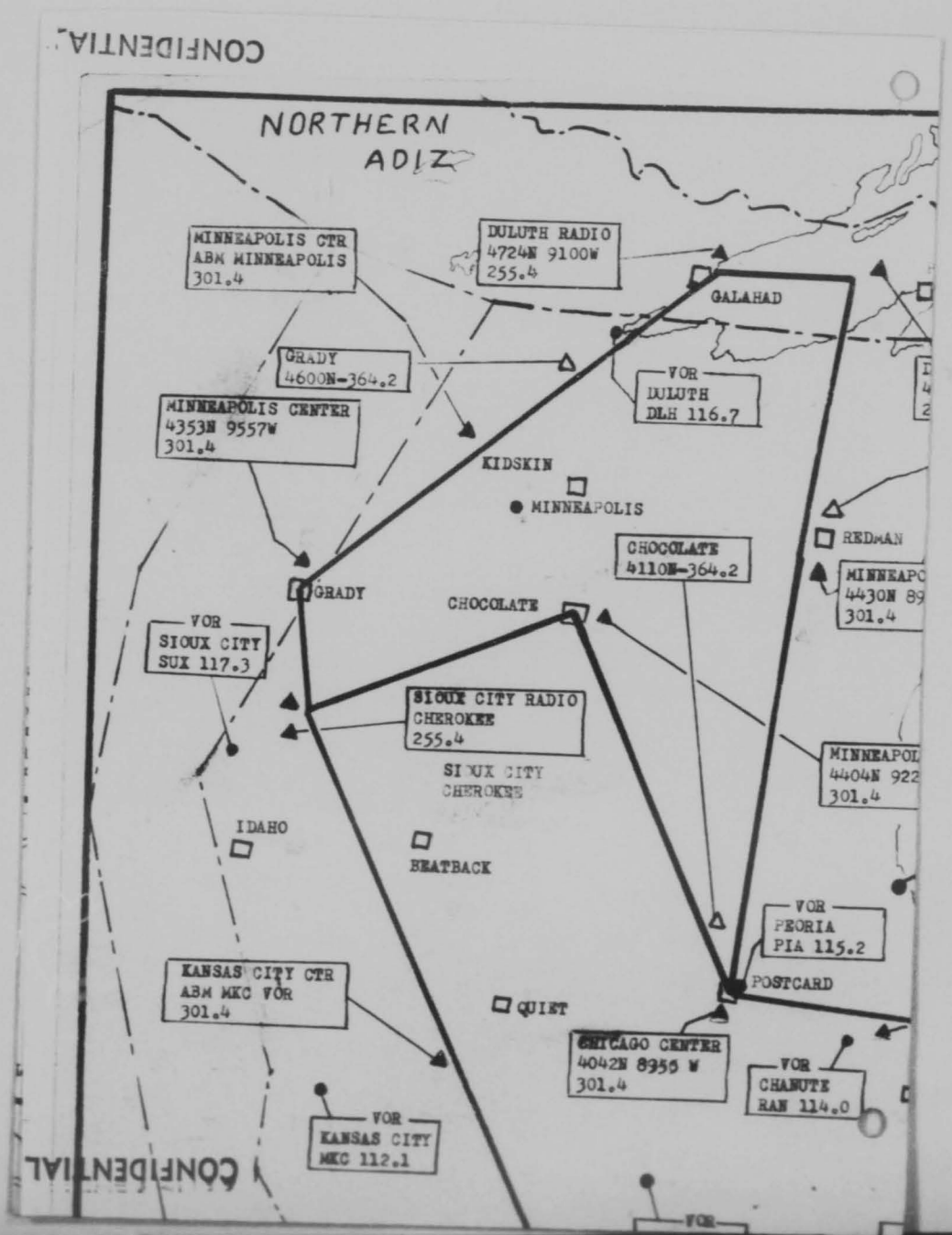

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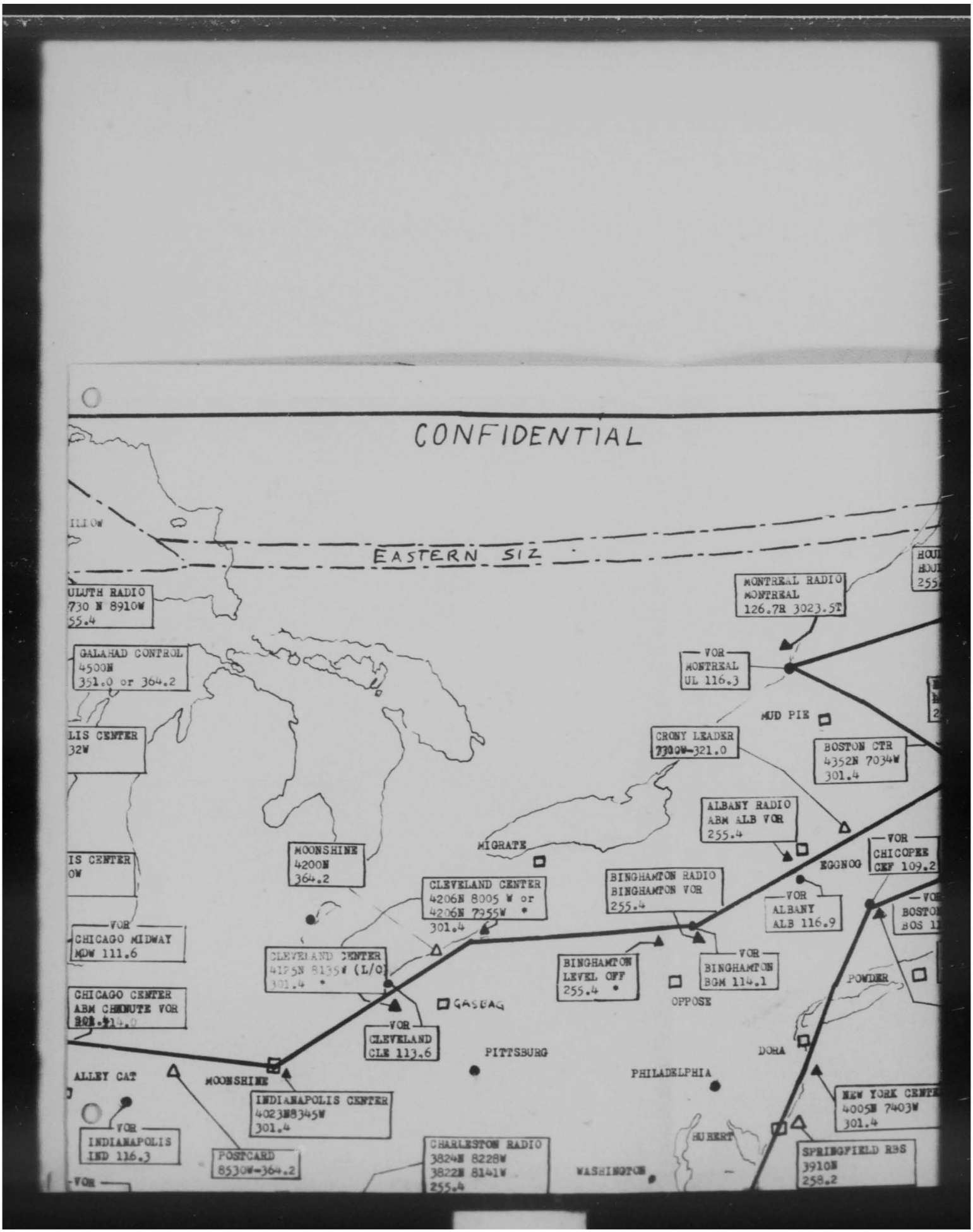

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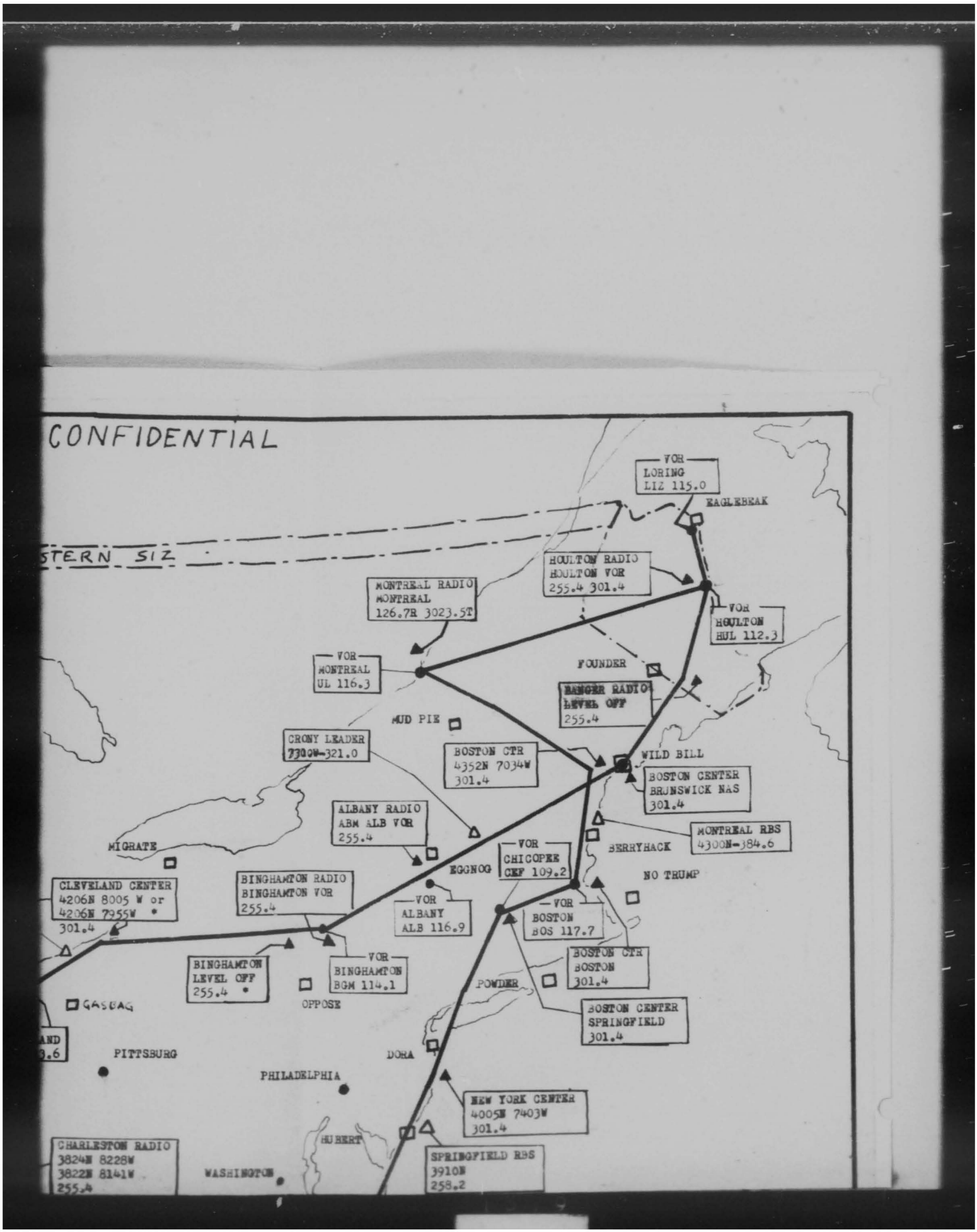

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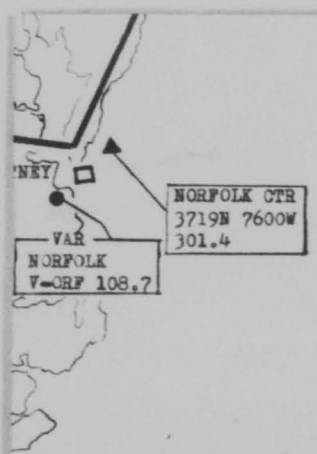

NOTE: REPORTING AT POSITIONS FOLLOWED BY AN ASTERISK IS NOT REQUIRED OF AIRCRAFT ON THE "FJR COLLAR IIIA" MISSIONS.

normally require
by a number
the cell.
owever, where
as another unit
unit's call
. (EXAMPLE:

nitial contact
it call sign,
AMPLE: "PEDDLAR
o "RED LEAD"
no apparent

used for relay

ay of RBS and

and no clear
reveal unit
e of the mission.

L E G E N D

▲ . . . . . REPORTING POINTS

△ . . . . . SUGGESTED INITIAL CONTACT POINTS

● . . . . . CITIES AND/OR FACILITIES

□ . . . . . ADC SITES

—— - —— ADIZ/CADIZ BOUNDARIES

AIRCRAFT ROUTE

POSITION REPORTING BLOCKS:

NORFOLK CENTER. . . . .FACILITY TO CALL:
RICHMOND. . . . . .AT POSITION:
301.4 . . . . . .ON FREQUENCY:

RADIO CHANNELIZATION will be IAW current Operations Memos with the exception of UHF as follows:

CHANNEL	FREQ	USE
7	356.8	Richmond RBS
8	258.2	Springfield RBS
9	384.6	Montreal RBS
12	321.0	Interplane/Tanker Contact
19	324.2	Refueling Common
20	351.0	GALAHAD Control (Gunnery)

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MISSION FLIGHT PLAN — O. O. AND NICKNAME: FUR Collar III — UNIT: 42 BWg — TYPE ACFT: B-52D — WAVE: 1ST WAVE — CELL CALL SIGN: — REMARKS: 26 & 27 Feb 57, 30,000 # ON LOAD

	POUNDS				POUNDS			
ACFT BASIC	167760			BOMBS		1ST ACFT		
CREW	2560			AMMO				
OIL	986			WATER AUG		PAGE 1 of 3		
ATO	—			STATIC	370 000	NR FULL ATO REQUIRED	T.O.	
RACK	—			START ENGINES AND TAXI FUEL ALLOWANCE		NR EMPTY ATO REQUIRED	0900Z	
EXT TANKS WEIGHT (Empty)	2550				- 5000			
MISCELLANEOUS	800							
CHAFF	—	TOTAL FUEL	195344	TAKE-OFF GROSS	365 000	ATO FIRING SPEED		
OPERATING	174656							

RUNWAY: PRESSURE ALT 750 — LENGTH 12100 — AIR TEMP 35°F — CRITICAL FIELD LENGTH 7600' — CRITICAL AIR TEMP — TAKE-OFF DISTANCE 6600' — TAKE-OFF SPEED 149K — CRITICAL WIND COMPONENT: 1ST LEG — 2ND LEG — 3D LEG

PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP ALT	IAS MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	GROSS WT
	LAFB															195344	370 000
	STTA															8625	8625
												10	:03	10		186719	361375
A	HOULTON VOR 46-02N 67-51W	CL	175	270/60 +8	183	+21	204	35.0		410	410	57	:08	55		10700	10700
B	L/O 44-58N 68-53W	CL	214	+7	221	+20	241			410	385	67	:11	65		176019	350675
C	BRUNSWICK NAS 43-54N 69-55W	CR	214	+7	221	+19	240		.72	420	380	77	:12	82		—	—
D	COMPRESSION PT. 43-16N 72-13W	CR	248	+3	251	+16	267				362	221	:35	231		176019	350675
E	AR I.P. 43-01N 72-45W	CR	248	+3	251	+15	266		.77	445	390	108	:18	126		3240	3240
F	TO BINGHAMTON #3-01N 75-54W	CR	248	+3	251	+12	263				390	329	:53	357		172779	347435
G	L/O 42-06N 76-32W	DS	270	0	270	+10	280	15.0		410	350	26	:04	30		4860	4860
H	RENOZ 42-06N 77-15W	DECEL	270	0	270	+9	279			300	245	355	:57	387		167919	342575
I	END AR 42-06N 79-43W	AR	270	0	270	+7	277			250	195	152	:23	172		1150	1150
												507	1:20	559		166769	341425
	ON LOAD											32	:05	35		6600	6600
J	ACC 42-06N 79-55W	ACC	270	270/60 0	270	+6	276	15		300		539	1:25	594		160169	334825
K	L/O 41-25N 81-35W	CL	238	+4	242	+3	245	36		410	360	28	:06	30		400	400
L	ECM 40-23N 83-45W	CR	238	+4	242	+2	244		.77	445	395	567	1:31	624		159769	334425
												110	:36	150		1865	1865
												677	2:07	774		157904	332560
																12275	12275
																145629	320285
																30 000	30 000
																175629	350285
												8	:02	10		1050	1050
												685	2:09	784		174579	349235
												72	:12	82		6300	6300
												757	2:21	866		168279	342935
												114	:15	107		4435	4435
												871	2:36	973		163844	338500

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MISSION FLIGHT PLAN – CONTINUATION SHEET FURBOLLAR II Pg 2 of 3

	FROM / ROUTE	FLT COND	T.C.	WIND W/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
	40-23N 83-45W															163844	338500
M	40-42N 89-50W ECM	CR	274	270/60 -1	273	-2	271	36	.77	445	385	278 / 1149	:44 / 3:20	326 / 1299		12500 / 151344	12500 / 326000
N	STEVEN PT WISC ★ Break Cell 44-30N 89-32W	CR	005	✓ -7	358	-4	354	38			450	220 / 1369	:32 / 3:52	238 / 1537		8500 / 142844	8500 / 317500
O	T.P. ST. Gunnery 47-30N 89-10W	CR	006	✓ -7	359	-2	357				450	180 / 1549	:26 / 4:18	192 / 1729		6700 / 136144	6700 / 310800
P	END Gunnery 47-24N 91-00W	CR	255	✓ +2	257	-2	255				390	63 / 1612	:10 / 4:28	74 / 1803		2800 / 133344	2800 / 308000
Q	43-53N 95-57W ECM	CR	224	✓ +5	229	-4	225				400	298 / 1910	:45 / 5:13	333 / 2136		11400 / 121944	11400 / 296600
R	Cherokee St. Day ✗ 42-42N 95-33W	CR	160	✓ +7	167	-8	159				460	68 / 1978	:09 / 5:22	67 / 2203		2400 / 119544	2400 / 294200
S	37-00N 91-00W	CR	163	✓ +7	170	-7	163				460	406 / 2384	45 / 6:07	333 / 2536		10700 / 108844	10700 / 283500
T	HUNTINGTON TENN. END Day ✗ 38-24N 82-28W	CR	082	✓ -1	081	-2	079	↓			505	462 / 2846	1:02 / 7:09	470 / 3006		15060 / 93789	15060 / 268740
U	Charleston W.VA 38-22N 81-41W	CR	097	✓ +1	098	+2	100	39			505	38 / 2884	:04 / 7:13	29 / 3035		— / 93784	— / 268440
V	WINSTON-SALEM N.C. 36-06N 80-15W	CR	154	✓ +7	161	+3	164				470	152 / 3036	:19 / 7:32	142 / 3177		4640 / 89144	4640 / 263800
W	P.I.P. DANVILLE VA 36-34N 79-23W	CR	056	✓ -4	052	+3	055				490	50 / 3086	:06 / 7:38	45 / 3222		1700 / 87144	1700 / 262100
X	I.P. Keyesville VA 37-03N 78-29W	CR	056	✓ -4	052	+4	056				490	52 / 3038	:06 / 7:44	45 / 3267		1100 / 86344	1100 / 261000
Y	TGT F Richmond VA	BR	067	✓ -3	064	+6	070				500	54 / 3192	:05 / 7:50	45 / 3312		1200 / 85144	1200 / 259800
Z	CAPE Charles MD 37-19N 76-00W	CR	100	✓ +1	101	+7	108				500	62 / 3254	:09 / 7:59	67 / 3379		2000 / 83144	2000 / 257800
AA	36-47 74-15W	CR	030	✓ -6	024	+8	032				470	172 / 3426	:22 / 8:21	163 / 3542		— / 83144	— / 257800
AB	P.I.P SO. ASBury PK NJ 40-05 74-03W	CR	015	✓ -7	008	+10	018				460	22 / 3448	:03 / 8:24	22 / 3564		5700 / 77444	5700 / 252100
AC	I.P. NORWALK CONN 41-08N 73-25W	CR	021	✓ -7	014	+12	026				460	66 / 3514	:09 / 8:33	67 / 3631		2100 / 75344	2100 / 250000
AD	TGT B Springfield MASS	BR	031	✓ -6	025	+13	028		↓	↓	470	69 / 3583	:09 / 8:42	67 / 3698		2000 / 73344	2000 / 248000
AE	Boston MASS 42-22N 71-08W	CR	081	✓ -1	080	+14	094		.82	470	520	64 / 3647	:09 / 8:51	74 / 3772		2600 / 70744	2600 / 245400
AF	P.I.P Lake Sebago 43-52N 70-34W	CR	015	✓ -7	008	+16	024	↓	↓	↓	482	82 / 3639	:11 / 9:02	96 / 3858		2600 / 68144	2600 / 242800

SAC FORM 15 APR 56 15 PC: 2720

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Air Force-SAC, Offset O-1858(50)

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MISSION FLIGHT PLAN – CONTINUATION SHEET FOR COLLAR III Pg 3 of 3

	FROM 43-52 70-34W / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	GROSS WT
																68144	242800
AG	I.P. Newport Vt 44-55N 72-15W	CR	311	270/60 -5	306	+17	323	39	.82	470	420	98 / 3837	:14 / 9:16	110 / 3968		3800 / 64344	3800 / 239000
AH	TGT B Montreal	BR	303	✓ -4	299	+16	315	↓	↓	↓	420	66 / 3903	:09 / 9:25	70 / 4038		3000 / 61344	3000 / 236000
AI	Houlton VOR 46-02N 67-51W	CR	085	✓ 0	085	+20	105	35	.77	445	505	235 / 4138	:30 / 9:55	222 / 4260		5200 / 56144	5200 / 230800
AJ	LAFB 46-57N 67-53W	DS	355	✓ -8	347	+21	009	↘		400	400	57 / 4195	:10 / 10:05	57 / 4317		600 / 55544	600 / 230200
	Land + Taxi												:15 / 10:20			7000 / 48544	7000 / 223200
	* From Stevens Point											1369	3:52	1537			
	#2 ACFT 46-08N 87-00W	CR	045	270/60 -5	040	-1	039	41	.77	445	480	144 / 1514	:18 / 4:10	133 / 1670			
	47-30N 89-10W	CR	318	✓ -6	312	0	312	↓	↓	↓	410	124 / 1638	:18 / 4:28	133 / 1803			
	* From Stevens Point											1369	3:52	1537			
	#3 ACFT 46-22N 85-50W	CR	055	270/60 -4	051	0	051	38	.77	445	540	190 / 1559	:23 / 4:15	171 / 1708			
	47-30N 89-10W	CR	303	✓ -4	299	+1	300	↓	↓	↓	398	152 / 1711	:23 / 4:38	171 / 1879			

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MISSION FLIGHT PLAN	O. O. AND NICKNAME	UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
	Fur Collar IIIA	42 B.W.	B-52	1st WAVE		Feb 28 ONLY NO IFR

	POUNDS				POUNDS			RUNWAY		
ACFT BASIC	167760			BOMBS		1st ACFT		PRESSURE ALT 750'	LENGTH 12,100'	AIR TEMP 35°F
CREW	2560			AMMO						
OIL	986			WATER AUG		PAGE 1 OF 3		CRITICAL FIELD LENGTH 7600'		CRITICAL AIR TEMP
ATO	—			STATIC	370,000	NR FULL ATO REQUIRED	T.O.	TAKE-OFF DISTANCE 6600'	TAKE-OFF SPEED 149K	
RACK	—									
EXT TANKS WEIGHT (Empty)	2550			START ENGINES AND TAXI FUEL ALLOWANCE	- 5000	NR EMPTY ATO REQUIRED	10:00Z	CRITICAL WIND COMPONENT		
MISCELLANEOUS	800							1ST LEG	2ND LEG	3D LEG
CHAFF -	—	TOTAL FUEL	195344	TAKE-OFF GROSS	365 000	ATO FIRING SPEED				
OPERATING	174656									

PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	C. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	FUEL FLIGHT PLAN GROSS WT
	LAFB															195344	370000
																8625	8625
	STETTO											10	:03	10		186719	361375
A	HOULTON VOR 46-02 N 67-51 W	CL	175	270/60 +8	183	+21	204			410	410	57	:08	55		10700	10700
												67	:11	65		176019	350675
B	L/O 44-58 N 68-35 W	CL	214	✓ +7	221	+20	241	35		410	385	77	:12	82		—	—
												144	:23	147		176019	350675
C	START RADAR NAV Leg Brunswick NAS 43-54 N 69-55 W	CR	214	✓ +7	221	+19	240		.72	420	380	77	:12	84		3240	3240
												221	:35	231		172779	347435
D	Compression Pt. 43-16 N 72-13 W	CR	248	✓ +3	251	+16	267		↓	↓	362	108	:18	126		4860	4860
												329	:53	357		167919	342575
E	Binghamton N.Y. 42-06 N 75-54 W	CR	248	✓ +3	251	+14	265		.77	445	390	178	:27	200		7375	7375
												507	1:20	557		160544	335200
F	Erie PA. 42-06 80-05 W	CR	270	✓ 0	270	+8	278				390	170	:26	193		7300	7300
												677	1:46	750		153244	327900
G	END RADAR NAV Leg 41-25 N 81-35 W	CR	238	✓ +4	242	+5	247	↓			395	80	:12	89		2900	2900
												757	1:58	839		150344	325000
H	ECM 40-23 N 83-45 W	CR	238	✓ +4	242	+2	245	36			395	114	:15	107		2900	2900
												871	2:13	946		147444	322100
I	ECM 40-42 N 89-50 W	CR	274	✓ -1	273	-2	271	↓			385	278	:44	326		12050	12050
												1149	2:57	1282		135394	310050
J	★Cen Brk-up ECM 44-04 N 92-20 W	CR	332	✓ -7	325	-5	320	38			412	234	:34	252		9250	9250
												1383	3:31	1534		126144	300800
K	START DAY X 42-45 N 95-32 W	CR	238	✓ +4	242	-7	235	↓			392	156	:24	178		6050	6050
												1539	3:55	1712		120094	294750
L	37-00 N 91-00 W	CR	163	✓ +7	170	-7	163	39			460	406	:45	333		11000	11000
												1945	4:40	2045		109094	283750
M	END DAY X 38-24 N 82-28 W	CR	082	✓ -1	081	-2	079	↓	↓	↓	505	462	1:02	470		15075	15075
												2407	5:42	2515		94019	267765

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MISSION FLIGHT PLAN – CONTINUATION SHEET FOR COLLAR III A PAG 2 OF 3

	FROM 38-24N 82-28W / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
																94019	268675
N	Charleston W.VA. 38-22N 81-41W	CR	097	270/60 +1	098	+2	100	39	.77	445	505	38 / 2445	:04 / 5:46	29 / 2544		900 / 93119	900 / 267775
O	Winston-Salem N.C. 36-06N 80-15W	CR	154	✓ +7	161	+3	164				470	152 / 2597	:19 / 6:05	142 / 2686		4385 / 88734	4385 / 263390
P	P.I.P. Danville VA. 36-34N 79-23	CR	056	-4	052	+3	055				490	50 / 2647	:06 / 6:11	45 / 2731		1375 / 87359	1375 / 262015
Q	I.P. Keyesville 37-03N 78-29W	CR	056	-4	052	+4	056				490	52 / 2699	:06 / 6:17	45 / 2776		1370 / 85989	1370 / 260645
R	TGT F Richmond VA	BR	067	-3	064	+6	070				500	54 / 2753	:06 / 6:23	45 / 2821		1365 / 84624	1365 / 259280
S	Cape Charles MD. 37-19N 76-00W	CR	100	+1	101	+7	108				500	62 / 2815	:09 / 6:32	67 / 2888		2030 / 82594	2030 / 257250
T	39-47N 74-15W	CR	030	-6	024	+8	032				470	172 / 2987	:22 / 6:54	163 / 3051		4910 / 77684	4910 / 252340
U	P.I.P. So. Asbury Pk NJ 40-05N 74-03W	CR	015	-7	008	+10	018				460	22 / 3009	:03 / 6:57	22 / 3073		660 / 77024	660 / 251680
V	I.P. Norwalk Conn 41-08N 73-25W	CR	021	-7	014	+12	026				460	66 / 3075	:09 / 7:06	67 / 3140		1995 / 75029	1995 / 249685
W	TGT B Springfld Mass	BR	031	-6	025	+13	038				470	69 / 3144	:09 / 7:15	67 / 3207		1985 / 73044	1985 / 247700
X	Boston Mass 42-22N 71-08N	CR	081	-1	080	+14	094		.82	470	520	64 / 3208	:09 / 7:24	74 / 3281		2180 / 70864	2180 / 245520 +2
Y	P.I.P. 43-52 70-34W	CR	015	-7	008	+16	024				482	92 / 3300	:11 / 7:35	86 / 3367		2820 / 68044	2820 / 242700
Z	I.P. Newport 44-55N 72-15W	CR	311	-5	306	+17	323				420	98 / 3398	:14 / 7:49	110 / 3477		3580 / 64464	3580 / 239120
AA	TGT B Montreal	BR	303	-4	299	+16	315				420	66 / 3464	:09 / 7:58	70 / 3547		2340 / 62164	2300 / 236820
AB	Houlton VOR 46-02N 67-51W	CR	085	0	085	+20	105		.77	445	505	235 / 3699	:30 / 8:28	222 / 3769		6320 / 55844	6320 / 230500 +2
AC	LAFB 46-57N 67-53W	DS	355	-7	348	+21	009			400	400	57 / 3756	:10 / 8:38	57 / 3826		600 / 55244	600 / 229900
	LAND + TAXI												:15 / 8:53			7000 / 48244	7000 / 222900

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MISSION FLIGHT PLAN – CONTINUATION SHEET FOR Colla III A PAGE 3 OF 3

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
FROM #2 ACFT																
44-04N 92-20W											1383	3:31	1534			
			270/60								110	:17	126			
44-40N 94-45W	CR	288	-2	286	-6	280	41	.77	445	390	1493	3:48	1660			
			↓								123	:17	126			
42-42N 95-33W	CR	196	+6	202	-7	195	↓	↓	↓	436	1616	4:05	1786			
FROM #3 ACFT																
44-04N 92-20W											1383	3:31	1534			
			270/60								140	:22	163			
45-20N 95-05W	CR	302	-4	298	-6	292	38	.77	445	395	1523	3:53	1697			
			↓								157	:22	163			
42-42N 95-33W	CR	187	+7	194	-8	186	↓	↓	↓	432	1680	4:15	1860			

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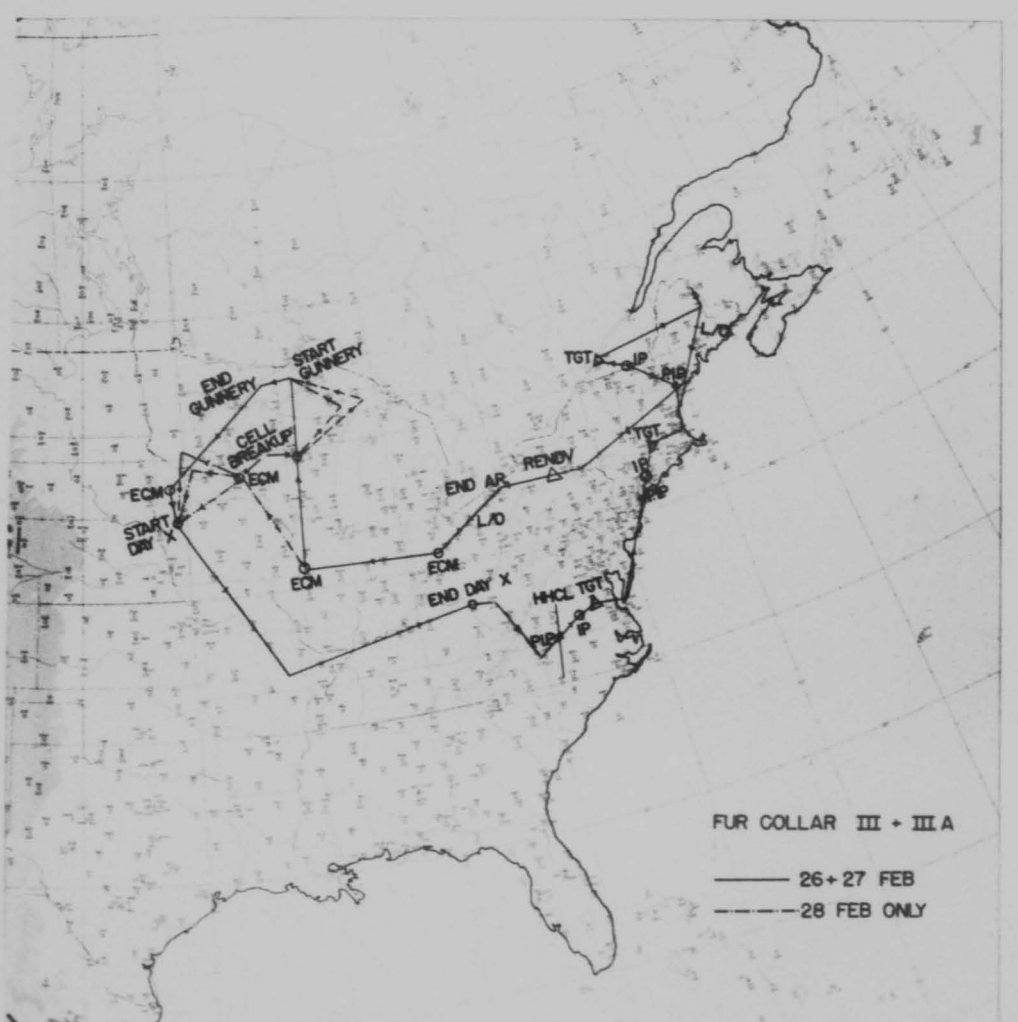

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
20 FEBRUARY 1957

GUNNERY FLIMSY 215-57 "FUR COLLAR III"

1. Gunnery portion of this mission will include live gunnery fire-out. There will be no fighter lock-on or gun camera attacks.

2. Firing will be accomplished on the Grand Marais Air-to-Air Gunnery Range (R-187A). Utilization of the Grand Marais Range is controlled by Commander, 31st Air Division (Defense).

3. Each aircraft will fire out a full load of ammo (2400 rnds). Before firing begins, the gunner will ensure that the area is properly cleared to safeguard personnel and material. Any member on the crew may call a cease fire at any time safety precautions are being violated.

4. The aircraft that is firing must also ensure that ammunition impact areas are will within the range limits.

5. All firing must be from land toward water.

6. Boundaries of the range area:

NORTH LAT	WEST LONG
47° 25'	90° 55'
47° 50'	89° 50'
47° 30'	89° 30'
47° 05'	90° 40'

7. Heading for firing will be 255 degrees magnetic at 38,000 and 41,000 resp.

8. Galahad Control will render Range Assistance on Channel 12.

9. There will be no gunnery firing for wave 3.

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HEADQUARTERS 42D BOMBARDMENT WING
Loring Air Force Base
Maine
22 February 1956

"FUR COLLAR III" Communications Flimsy Errata:

1. The following applies in addition to "POSITION REPORTING" procedures outlined on the Communications Flimsy:

a. While aircraft are in cell, a phrase consisting of the mission nickname, cell color designator and the word "Cell" will be included as the first part of message text.

b. While aircraft are in bomber stream, a phrase consisting of the mission nickname and the words "FIRST AIRCRAFT" or "LAST AIRCRAFT", as appropriate, will be included as the first part of message text.

2. The color designator assignments of "CALL SIGNS", sub-paragraph "a", still applies. The rest of sub-paragraph "a" is changed as follows:

"a. The call signs used on all air/ground communications will be the aircraft's assigned tactical call sign."

EXAMPLE: Cell position report:

AIRCRAFT: BOSTON CENTER - THIS IS - PEDDLAR 72 - OVER

GROUND: PEDDLAR 72 - THIS IS - BOSTON CENTER - GO AHEAD

AIRCRAFT: THIS IS - PEDDLAR 72 - FUR COLLAR RED CELL - OVER BRUNSWICK AT 30 - etc.

Bomber Stream position report:

AIRCRAFT: ST. LOUIS CENTER - THIS IS - PEDDLAR 72 - OVER

GROUND: PEDDLAR 72 - THIS IS - ST. LOUIS CENTER - GO AHEAD

AIRCRAFT: THIS IS - PEDDLAR 72 - FIRST FUR COLLAR AIRCRAFT - POSITION THREE SEVEN DEGREES NORTH, NINE ONE DEGREES WEST AT FOUR FIVE - etc.

3. The following is added as a part of communications procedures:

RBS AND APC communications will require the phrase "FUR COLLAR RUN" be part of the information supplied on initial call-up.

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42D BOMB WING
FLIGHT CREW FLIMSY

FUR COLLAR IV
(WEDNESDAY 6 MARCH 1957)

FLYING SAFETY
"TWO AIRPLANES
FACE TO FACE
NEITHER GAVE WAY
NOW THERE'S NO TRACE"

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
4 MARCH 1957

PILOTS FLIMSY 216-57 "FUR COLLAR IV"

1. GENERAL:

a. On 9 and 10 April 1957 the 42BW will participate in the 8th AF bombing competition exercise "Pace Setter VII". 8th Air Force has allocated RBS time on 6 and 18 March and 1 April to the 42BW for bomber stream practice, on Atlanta and Little Rock. These are two of the targets to be bombed on Pace Setter VII.

b. In addition to normal training, those crews checked out in "Hi Jinks" and those crews with Instructor pilots aboard will execute "Hi Jinks" Maneuvers on "Fur Collar IV" on Atlanta and Little Rock RBS, and Schenectady camera attack.

2. BRIEFING AND DEBRIEFING:

a. Specialized Briefing: To be held immediately following the general briefing in the Training and Briefing Building.

b. Pre-Takeoff Weather Briefing:

CREWS 1 - 4	1600E	@	75TH BS
CREWS 5 - 8	1645E	@	75TH BS
CREWS 9 - 13	1730E	@	75TH BS

c. DEBRIEFING: Will be conducted at A&E. Pilots are requested to have all forms ready as there is little separation between landing times. Two debriefing teams will be utilized.

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3. GROUND AIRCRAFT MOVEMENT:

a. Parking and Taxi Plan: To be covered in pre-takeoff meeting.

b. Start Engines: 40 Minutes prior to takeoff.

c. Taxi: 20 Minutes prior to takeoff.

d. Takeoff Interval: 10 minutes between acft.

4. GENERAL: (See detailed attached "Aircraft Schedules".

PILOT	ACFT	T/O TIMES (E) (APPROX)	IP
SANDACZ	083	1830	
FRAZIER	090	1840	
DOUGLAS	091	1850	
CHILDS	080	1900	
ANASTASIA	081	1910	
ROBERTS	071	1920	
*BRUCE	084	1930	
*SUPRENANT	058	1940	BATSON
*BRITTON	079	1950	
*EDGE	059	2000	WARREN
*DEATON	672	2010	SWANCUTT
*HOWARD	680	2020	STEWART
*BELL	073	2030	HUDLOW

5. CLIMB PROCEDURE: * HI JINKS RUNS

a. North T/O

(1) Climb straight ahead.

(2) Raise flaps at 1000 feet.

(3) Execute 90° right turn 15° bank at end of four minutes from T/O roll, and climb 10,000 feet, then turn on course to Houlton VOR.

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(4) Proceed on course.

b. South T/O *

(1) Climb straight ahead

(2) Raise flaps at 1000 feet

(3) Execute 90° left turn at the end of four minutes and climb to 10,000 feet, then turn on course to Houlton VOR.

c. For both North and South T/O's. Climb A/S will be 310KIAS until reaching MACH .765 until level off. Maintain MACH .765 until level off.

6. PILOTS INFORMATION:

DEPART LORING:	ALTITUDE
TO: HOULTON	
TO: LEVEL OFF	34-37M
TO: LEWISTON - START GRID	
TO: END GRID - (2:06 LATER)	
TO: START CLIMB	39-42M
TO: MT AIRY - DOG LEG TO PRE-IP	
TO: HHCL BRISTOL, VA.	
TO: ASHVILLE, N.C. P.I.P.	
TO: TOCCOA, GA. I.P.	
TO: TGT ATLANTA - TGT "I"	
TO: TUSCALOOSA	
TO: LITTLE ROCK - TGT "J"	
TO: START NITE CELESTIAL	
TO: 42-00N 91-30W (TP)	40-43M
TO: HARRISBURG (END NITE X)	

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TO: READING

TO: SCHENECTADY (CAMERA ATTACK)

TO: "FOUNDER" (ACFT #1 - 3 - 5 - 7 - 9 - 11 - 13 ECM RUNS)

TO: LORING AFB

NOTE: True airspeeds as shown on the navigators flight plan will be used by all aircraft in order to preserve the ten (10) minute time interval of the bomber stream.

7. Reporting procedures for this mission are simple. (See Communications) The first and last aircraft will do the reporting to ATC.

8. Since aircraft involved in this mission vary as regards amount fuel aboard, it will be the responsibility of each pilot to determine at READING, PA, as to whether or not he will continue the planned mission, or file individual ATC clearance from READING, PA, direct to Bar Harbor, direct to Houlton and Loring AFB. The minimum fuel in tanks at Reading to continue the mission as planned is 69,000 lbs to reach Houlton VOR with 50,000 lbs fuel reserve.

9. HHCL times remain as assigned, regardless of other aborting aircraft in the bomber stream. Late take off slots will be assigned from the tower.

10. "Hi Jinks" procedures are listed in inclosure 2.

11. Clearance will be signed off by WX officer at pre-take-off briefing.

12. Recovery plan will be directed by Loring RAPCON.

13. Air aborts will turn 90° out of the bomber stream for two minutes, descend to a non-conflicting altitude and contact nearest ATC facility for further clearance.

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14. CLEARANCES: The Form 175 "D" section will include the remarks "As filed, FUR COLLAR IV" for those aircraft making ECM runs at "FOUNDER", the following information will be included in the remarks section: "PASS TO 32ADV, ONE BIG PHOTO RECORD RUN, FOUNDER, (TIME)Z.

15. Recall word is WATER TANK.

16. Alternate bases enroute are:

BASE	RUNWAY
WRIGHT PATTERSON	10,000X300
EGLIN	10,000X300
FORT WORTH	10,500X300
WESTOVER	11,600X300

17. The project officers for this mission are Lt Col McCourt (General) 26173 - 2133, Major Hunt (General) 26173- 2133, Capt Mulligan (Navigator 24118, Major Goris - (Hi Jinks) 24118, M/Sgt Green (Communications) 5159 - 2145, L/Col Thomas (ECM) 5159 - 2145).

4 Incls
1. Acft Schedules
2. Hi Jinks procedures (Unclassified)
3. Nav Flt Plan
4. Communications.

DON W. BAILEY
Colonel USAF
Director of Operations

OFFICIAL:
FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

DISTRIBUTION:

42C	1 cy
42DO	10 cys
42DM	3 cys
69th BS	10 cys
70th BS	10 cys
75th BS	10 cys
ADO	1 cy
Base Operations	2 cys (less incl 2)
Base Weather	1 cy (less incl 2)
AACS (RAPCON)	3 cys (less incl 2)

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AIRCRAFT SCHEDULES

"FUR COLLAR IV"
(ALL TIMES ZULU)

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NO	ACFT	C/S	PILOT	T/O	HHCL	ATLANTA	LITTLE ROCK	SCHENECTADY	REMARKS
1	083	90	SANDACZ		0234	0303	0420	0605	
2	090	32	FRAZER		0244	0313	0430	0615	
3	091	63	DOUGLAS		0254	0323	0440	0625	
4	080	89	CHILDS		0304	0333	0450	0635	
5	081	29	ANASTASIA		0314	0343	0500	0645	
6	071	86	ROBERTS		0324	0353	0510	0655	
7	084	30	BRUCE		0334	0403	0520	0705	HI JINKS - (SOLO)
8	058	82	SUPRENANT		0344	0413	0530	0715	HI JINKS - BATSON/GORIS
9	079	59	BRITTON		0354	0423	0540	0725	HI JINKS - (SOLO)
10	059	22	EDGE		0404	0433	0550	0735	HI JINKS - WARREN/BENSEY
11	672	46	DEATON		0414	0443	0600	0745	HI JINKS - SWANCUTT/CARPERTER
12	680	18	HOWARD		0424	0453	0610	0755	HI JINKS - STEWART
13	073	57	BELL		0434	0503	0620	0805	HI JINKS - HUDLOW/BOSSERT
*					0444	0513	0630	0815	
*					0454	0523	0640	0825	
*					0504	0533	0650	0835	
*					0514	0543	0700	0845	

NOTES: * Late take off slots

1. Minimum fuel in tanks at Reading, Pa to continue mission 69,000 lbs otherwise delete Hi Jinks camera attack at Schenectady, and file individual ATC clearance direct to Bar Harbor, direct to Houlton, and Loring AFB. CAUTION: Contact Loring RAPCON for descent instructions as soon as possible after Bar Harbor.

2. Wind take off times to be completed at weather briefing.

INCLOSURE I

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"HI JINKS" PROCEDURES

TIME	PILOT	CO-PILOT	RADAR NAVIGATOR	NAVIGATOR
Prior to Flight	(1) Normal Planning Procedures	(1) Normal Planning Procedures	(1) Complete a Practice EWP ballistics computation for an assigned EWP Weapon, using anticipated flight conditions for EWP delivery.	(1) Normal Planning Procedures
Preflight	(1) Normal Preflight Procedures	(1) Normal Preflight Procedures	(1) Check with A&E BNS mechanic for correct positioning of switch in C-217/AWA-2 a. Bomb-Auto Switch - Auto b. Normal Manual Switch - Manual c. Hi Alt Low Alt Switch - Low Alt (2) Check camera magazine for 100 feet of film. (3) Note camera frame number on camera log SAC Form 284 (90 feet of film will give 1440 frames)	(1) Normal Preflight Procedures
Before Pre-IP	(1) Bank angle and rate of turn determined. Bank angle should not exceed brief limits. (2) Check rate of turn to insure that minumum and maximum heading changes falls within limits. (3) Increase speed to MACH .82	(1) Make normal RBS call in but include with type of run the words "Hi Jinks" Maneuver right" (or left) obtain confirmation from RBS site on direction of turn.	(1) Bombing Equipment check complete. (2) Inform pilot and co-pilot of direction of turn to be made with Hi Jinks maneuver. Down wind turn at bombs away will give better results however RBS traffic or other factors may not make a down wind turn feasible. (3) Compute Ballistics using TO 11N-60-42 (Normal RBS tables)	(1) Normal check list procedures (2) Figure out and check Radar Navigators Ballistics.

Inclosure 2
PAGE 1

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"HI JINKS" PROCEDURES

TIME	PILOT	CO-PILOT	RADAR NAVIGATOR	NAVIGATOR
Pre-IP	(1) Normal check list procedures	(1) Normal check list procedures	(1) LD-6 Selector Switch - 1:4 (2) LD-6 Power Switch - ON	(1) Normal check list procedures
IP	(1) Normal check list procedures	(1) Normal check list procedures	(1) Normal check list procedures	(1) Normal check list procedures
Bomb Run	(1) 15 seconds prior to release transmit over interphone 15 sec, 10 sec, 5 sec, 4, 3 2, 1, bombs away starting turn. (caution: use bomb release light on instrument panel and not light on PDI as indication of bomb release)	(1) Normal check list procedures	(1) Normal check list procedures	(1) Normal check list procedures
Bomb Release	(1) On instruments initiate turn to computed bank angle. (2) Maintain bank angle and altitude until Radar Navigator requests roll out	(1) Be prepared to take over air plane in the event of an emergency.	(1) Start stop watch at bomb release (2) Record absolute altitude of bombs release (3) Complete post bomb release check with exception of camera switchs. Caution: make sure offset switch is out (4) Adjust tilt and gain for maximum ground returns under cross hairs just short of saturation	(1) Record following information at bomb release: a. True heading b. True air speed c. Wind components from bomb run (2) Inform co-pilot of bombing information necessary for RBS site

Inclosure 2
PAGE 2

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"HI JINKS" PROCEDURES

TIME	PILOT	CO-PILOT	RADAR- NAVIGATOR	NAVIGATOR
Roll out turn	(1) Initiate roll out turn at Radar Navigators request. (2) When airplane is straight and level maintain heading	(1) When straight and level transmit bombing information to RBS site.	(1) Inform pilot to roll out of turn (Time as briefed) (2) Record absolute altitude after roll out. (3) Readjust tilt and gain for maximum ground returns, under cross hairs just short of saturation.	(1) Record true heading when airplane is straight and level
Bomb Burst	(1) Maintain roll out heading		(1) Record O-15 camera counter number (2) Record bomb burst time to nearest second	(1) Record lat and long of cross-hairs. Caution: check lat and long with reference point switch in REFERENCE POINT
15 sec after bomb burst	(1) Maintain roll out heading		(1) Function Switch - Nav. (2) Range MK. X-hair switch - Range MK. (3) Range Dial Control - 20NM (scope should portray two 10 mile range marks) (4) Adjust tilt and gain for optimum navigation type ground painting (high gain)	
2 min and 15 sec after bomb burst Inclosure 2 Page 3	(1) Turn to heading requested by navigator		(1) Camera switchs off (2) Complete post bomb release check (3) Fill out both sides of photo log (SAC Form 284)	(1) Inform pilot of new heading (2) Complete post bomb release check -

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MISSION FLIGHT PLAN — O. C. AND NICKNAME: FUR COLLAR IV — UNIT: 42 B.W. — TYPE ACFT: B-52-D — WAVE: 1st ACFT Bomber Stream — CELL CALL SIGN: HI-JINKS — REMARKS

	POUNDS				POUNDS
ACFT BASIC	167760			BOMBS	
CREW	2560			AMMO	
OIL	976			WATER AUG	
ATO	—			STATIC	432256
RACK	—			START ENGINES AND TAXI FUEL ALLOWANCE	-5000
EXT TANKS WEIGHT (Empty)	2550			TAKE-OFF GROSS	427256
MISCELLANEOUS	800				
CHAFF	—	TOTAL FUEL	257600		
OPERATING	174656				

NR FULL ATO REQUIRED	NR EMPTY ATO REQUIRED	ATO FIRING SPEED
ON PAGE	3 T.O.	23:15Z

RUNWAY: PRESSURE ALT 800' — LENGTH 12,100 — AIR TEMP 42° F — CRITICAL FIELD LENGTH 9650' DRY THRUST — CRITICAL AIR TEMP 68° F — TAKE-OFF DISTANCE 8650' — TAKE-OFF SPEED 155K IAS — CRITICAL WIND COMPONENT: 1ST LEG / 2ND LEG / 3D LEG

PRE-FLIGHT PLAN PAGE 1 OF 2

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	GROSS WT	
	LORING AFB															257600	432256	
	STTA											10	:03	10		9825	9825	
												10	:03	10		247775	422431	
A	HOULTON VOR 46-02N 67-51W	CL	175	270/40 +6	181	+21	202	↗		410	410	57	:17	111		-		+9
												67	:20	121		-		
B	L/O 45-30N 68-30W	CL	220	✓ +4	224	+20	244	34		410	380	30	:05	34		17100	17100	
												97	:25	155		230675	405331	
C	LEWISTON ST GRD HH-06N 70-14W	CR	220	260/50 +4	224	+19	243		.77	405	405	124	:18	134		3531	3531	
												221	:43	289		227144	401800	
D	T.P. HH-41N 80-40W	CR	274	✓ -2	272	+13	285				395	455	1:10	505		22150	22150	+2
												676	1:53	794		204994	379650	
E	END GRID 37-30N 79-45W	CR	173	270/55 +7	180	+16	186				405	438	1:00	423		17500	17500	+2
												1114	2:53	1217		187494	362150	
F	S/C 36-53N 80-19W	CR	214	270/70 +8	222	+3	225	↓		↓	400	46	:07	50		2150	2150	
												1160	3:00	1267		185344	360000	
G	MT. AIRY 36-32N 80-36W	NRT CL	214	✓ +8	222	+3	225	39	↓	↓	400	27	:04	30		2000	2000	
												1187	3:04	1297		183344	358000	
H	HNCL Bristol VA 36 34N 82-11W	CR	276	✓ -1	275	+2	225		.82	470	410	79	:12	94		4300	4300	
												1266	3:16	1391		179044	353700	
I	ASHVILLE NC. P.P. 35-34N 82-34W	CR	195	✓ +9	204	+1	205				450	62	:08	63		2860	2860	
												1328	3:24	1454		176044	350840	
J	TOCCOA GA. IP 34-34N 83-20	CR	212	✓ +8	220	0	220				430	70	:10	78		3515	3515	
												1398	3:34	1532		172669	347325	
K	TGT ATLANTA	BR	228	270/65 +6	234	-1	233				420	76	:11	86		3820	3820	
												1474	3:45	1618		168849	343505	
L	TUSCALOOSA ALA 33-41N 87-34W	CR	258	+2	260	-2	258				400	160	:24	188		8140	8140	
												1634	4:09	1806		160709	335365	
M	GRENADA MISS FIP 33-46N 89-50W	CR	287	270/60 -2	285	-5	280	↓	↓	↓	412	120	:30	295		9875	9875	
												1754	4:39	2141		150834	325490	

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MISSION FLIGHT PLAN – CONTINUATION SHEET

	FROM 33-46 N 89-50 W GRENADA, MISS ROUTE	FLT COND	T.C.	WIND D/V DRIFT	T.H.	VAR	M.H.	TEMP ALT	IAS MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL RELAINING	GROSS WT	
																150 834	325 490	
N	I.P. 34-09N 90-58W	CR	292	270/60 -3	289	-6	283	39M	.82	470	412	64 1818	:09 4:48	71 2212		2935 147899	2935 322555	
O	TGT Little Rock, ARK	BR	301	✓ -4	297	-7	290		.82	470	418	78 1896	:11 4:59	86 2298		3515 144384	3515 319040	
P	START Nite X 36-01N 91-42W	CR	022	✓ -7	015	-6	009		.77	445	465	80 1976	:12 5:11	90 2388		3040 141344	3040 316000	+2
Q	42-00N 91-30W	CR	001	✓ -8	353	-6	347				440	344 2320	:47 5:58	348 2736		13650 127694	13650 302350	
R	End Nite X Harrisburg 40-16N 76-51W	CR	099	✓ +2	101	+1	102	39			440	674 2994	1:21 7:19	600 3336		22800 104894	22800 279550	
S	Reading PA. P.I.P. 40-22N 75-56W	CR	083	✓ -1	082	+9	091	40	.82	470	530	44 3038	:05 7:24	39 3375		1420 103474	1420 278130	
T	I.P. Abeam Pt. Jarvis 41-22N 75-00W	BR	030	✓ -6	024	+10	034				500	82 3120	:10 7:34	78 3453		2815 100559	2815 275315	
U	TGT Airfield Schenectady N.Y.	BR	030	✓ -6	024	+12	036				500	86 3206	:10 7:44	78 3531		2785 97774	2785 272530	
V	UTICA N.Y. 43-06N 75-15W	CR	263	✓ +1	264	+12	278		.77	445	410	36 3242	:09 7:53	71 3602		1930 95844	1930 270600	+4
W	Berlin N.H. ECM IP 44-28N 71-12W	CR	065	✓ -3	062	+15	077				500	190 3432	:23 8:16	171 3773		5415 90429	5415 265185	
X	"Founder"	CR	065	✓ -3	062	+18	080				500	94 3526	:11 8:27	82 3855		2545 87884	2545 262640	
Y	Houlton VOR 46-02N 67-51W	CR	042	✓ -6	036	+20	056	35			480	82 3608	:11 8:38	82 3937		2515 85369	2515 260125	+1
	LAFB	DS										57 3665	:10 8:48	57 3994		600 84769	600 259525	
	Land + TAXI												:12 9:00			7000 77769	7000 252525	

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MISSION FLIGHT PLAN – CONTINUATION SHEET

HI-JINKS PAGE 3

	FROM TGT ATLANTA / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T.A.S.	G.S.	GND DIS ACC	TIME ACC	AIR DIS ACC	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	GROSS WT
	HI-JINKS RIGHT				FUEL FLOW							39	:05	39		168849	343505
	34-17N 84-55W	NRT	–	–	@ NRT			34	.82	470	–	1513	3:50	7657		167109	341745
L	TUSCALOOSA ALA			270/60								148	:22	172		7450	7450
	33-11N 87-34W	CR	242	+4	246	-2	244				410	1661	4:12	1829		159659	334315
M	P.I.P GRENADA MISS											120	:30	235		9875	9875
	33-46N 89-50W	CR	287	-2	285	-5	280				412	1781	4:42	2064		149784	324440
N	IP											64	:09	71		2935	2935
	34-09N 90-58W	CR	292	-3	289	-6	283				412	1845	4:51	2135		146849	321505
O	TGT											78	:11	86		3515	3515
	LITTLE ROCK	BR	301	-4	297	-7	290				418	1923	5:02	2221		143334	317990
	HI-JINKS RIGHT				FUEL FLOW							40	:05	39		1740	1740
	35-20N 91-45W	NRT	–	–	@ NRT				↓	↓	–	1963	5:07	2260		141594	316250
P	START NITE X											53	:07	52		2085	2085
	36-10N 91-42W	CR	001	-9	352	-6	346		.77	445	440	2016	5:14	2312		139509	314165
Q												344	:47	348		13650	13650
	42-00N 91-30W	CR	001	-9	352	-6	346				440	2360	6:01	2660		125859	300515
R	END NITE X											674	1:21	600		22800	22800
	HARRISBURG PA	CR	099	+2	101	+1	102	↓	↓	↓	500	3034	7:27	3260		103059	277715
S	READING PA P.I.P											44	:05	39		1420	1420
	40-22N 75-56W	CR	083	-1	082	+9	091	40	82	470	530	3078	7:27	3299		101639	276295
T	I.P Abeam PORT JARVIS											82	:10	78		2815	2815
	41-22N 75-00W	CR	030	-6	024	+10	034				500	3160	7:37	3377		98824	273480
U	TGT AIR FIELD											86	:10	78		2785	2785
	SCHENECTADY N.Y.	BR	030	-6	024	+12	036				500	3246	7:47	3455		96039	270695
V	HI-JINKS LEFT				FUEL FLOW							40	:05	39		1740	1740
	43-06N 75-15W	NRT	–	–	@ NRT				↓	↓		3286	7:52	3494		94299	268955
W	BERLIN N.H ECMLA											190	:23	171		5415	5415
	44-28N 71-12W	CR	065	-3	062	+15	077		.77	445	500	3476	8:15	3665		88884	262540
X	FOUNDER											94	:11	82		2545	2545
	45-05N 69-06W	CR	065	-3	062	+18	080	↓			500	3570	8:26	3747		86340	260995
Y	HOULTON VOR											82	:11	82		2515	2515
	46-02N 67-51W	DS	042	-6	036	+20	056	35	↓	↓	480	3652	8:37	3829		83824	258480
	LAFB			270/40								57	:10	57		600	600
	46-57N 67-53W	DS	355	-6	349	+21	010	3		400	400	3709	8:47	3886		83224	257880
													:13			7000	7000
	LAND + TAXI												9:00			76224	250880

SA FORM 15 APR 55 1b FC: 2720

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HEADQUARTERS 42D BOMBARDMENT WING (H)
LORING AIR FORCE BASE
MAINE
1 March 1957

INCLOSURE #4, COMMUNICATIONS, OPERATIONS FLIMSY "FUR COLLAR IV"

1. Identification and Recognition will be in accordance with Operations Memo BT100-41, dated 14 September 1956. (U)

2. Authentication will be accomplished by use of the current edition of the Air/Ground Code. (U)

3. IFF Will be operated in accordance with Operations Memo BT100-42. For this purpose, aircraft in bomber stream are to be considered individual aircraft. (C)

4. Aircraft Recalls will be relayed through CAA and USAF HF Air/Ground Stations. The message will, in turn, be relayed by and/or to each aircraft of the bomber stream. The recall word is "WATERTANK". (C)

5. Monitoring Procedures:

a. UHF control units will be set on the "TR/G" position at all times except as otherwise required for receipt of messages. (U)

b. Aircraft with ATC reporting responsibility will monitor CAA or DOT frequencies except as otherwise required. (U)

c. Aircraft in the number four (4), seven (7) and ten (10) positions of the bomber stream will monitor 364.2 mcs. at all times while over Canadian territory except as may be otherwise required. This is necessary to facilitate ADC/Aircraft communications, if required, while overflying remote Canadian areas. (U)

d. The UHF Interplane Frequency (321.0 mcs. primary, 311.0 mcs. secondary) will be monitored at all times except as may be otherwise required for air/gnd. communications and moniter of 364.2 mcs. Crews not able to monitor

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interplane at all times will, when possible, monitor the interplane frequency for three (3) minute periods beginning on the hour and on the half hour. (C)

e. The HF Interplane Back-up (5710.5 kcs) will be monitored at all times except as otherwise required. HF is to be used ONLY in the event of UHF communications failure. (U)

f. ECM Observers will coordinate to insure a USAF HF A/G frequency is monitored for three (3) minute periods beginning at :05, :25 and :45 past each hour. To thoroughly cover the most usable frequencies, crews will follow the below schedule while aircraft are in bomber stream. The frequency to be monitored is listed opposite numbers corresponding to aircraft positions in the stream. (C)

1, 4, 7, 10: . . . . . 4724.5 kcs.

2, 5, 8, 11, 13: . . . 6738.0 kcs.

3, 6, 9, 12: . . . . 11,228.0 kcs.

6. POSITION REPORTING will be the responsibility of the first and last aircraft of the bomber stream and individual aircraft. Aircraft not able to maintain communications with the stream will be considered individual aircraft for reporting purposes. Radio facilities, reporting points and frequencies are indicated on Attachment #1 to the Communications Flimsy. While aircraft are in stream, a phrase consisting of the mission nickname and the words "FIRST AIRCRAFT" or "LAST AIRCRAFT", as appropriate, will be included as the first part of message text. (U)

EXAMPLE: THIS IS - PEDDLAR 72 - FIRST "FUR COLLAR"

AIRCRAFT - ATLANTA AT 30 - etc.

7. RBS AND ADC communications will require the phrase "FUR COLLAR RUN" be part of the information supplied on the initial call-up. (U) W1729C

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8. CALL SIGNS:

a. Call signs to be used on all air/ground communications will be the aircraft's assigned tactical call sign. (U)

b. Tactical call signs will also be used for interplane communications. (U)

c. ONLY AUTHORIZED SACADS will be used for relay of other than RBS and ECM scores. (U)

d. The encoded SACSUB "NY" will be used for relay instructions on all RBS and ECM scores. (C)

9. RADIO CHANNELIZATION will be in accordance with current Operations Memos with the exception of UHF as follows: (C)

CHAN	FREQ	USE
7	384.6	ATLANTA RBS PRIMARY
8	251.0	LITTLE ROCK RBS PRIMARY
9	356.8	ATLANTA RBS SECONDARY
12	321.0	INTERPLANE PRIMARY (C)

10. ADIZ/CADIZ procedures and tolerances will be strictly complied with. (U)

11. SCHENECTADY CAMERA ATTACK: The following procedure is required to assure proper aircraft spacing on the Schenectady Camera Attacks. When abeam Johnstown VOR, each crew will announce over interplane it's ETA to the IP (4122N - 7500W). If necessary, spacing will be adjusted in the designated maneuver area as outlined in specialized briefing. (U)

12. COMMUNICATIONS SECURITY will be observed and no clear text transmission will be made that will reveal unit designation, location, aircraft type or nature of the mission. (U)

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ATTACHMENT #1, COMMUNICATIONS FLIMSY, "FUR COLLAR IV"

COMPULSORY REPORTING POINTS (CAA*DOT)

CALL	AT	PRIMARY	SECONDARY
HOULTON	HOULTON	5(UHF)	6(UHF)
AUGUSTA	ABEAM AUGUSTA	5(UHF)	243(UHF)
PLATTSBURGH	ABEAM PLATTSBURGH	5(UHF)	243(UHF)
STIRLING	ABEAM STIRLING	T-3023.5-HF R-126.7-VHF	CALL TORONTO CENTER*6(UHF)
WIARTON	ABEAM WIARTON	T-3023.5-HF R-126.7-VHF	CALL TORONTO CENTER-6(UHF)
YOUNGSTOWN	ABEAM YOUNGSTOWN	5(UHF)	CALL PITTSBURGH 6(UHF)
ROANOKE	ABEAM ROENOKE	5(UHF)	243(UHF)
ASHVILLE	ABEAM ASHVILLE	5(UHF)	T-3023.5-HF R-135.9-vhf
ATLANTA	ATLANTA	6(UHF) (CENTER)	5(UHF) (RADIO)
TUSCALOOSA	ABEAM TUSCULOOSA	5(UHF)	243(UHF)
LITTLE ROCK	LITTLE ROCK	5(UHF)	243(UHF)
VICHY	ABEAM VICHY	5(UHF)	243(UHF)
CEDAR RAPIDS	ABEAM CEDAR RAPIDS	5(UHF)	243(UHF)
CHICAGO	ABEAM CHICAGO	6(UHF) (CENTER)	5(UHF) (RADIO)
FINDLAY	ABEAM FINDLAY	5(UHF)	243(UHF)
PITTSBURGH	ABEAM PITTSBURGH	6(UHF)	5(UHF)
ALLENTOWN	ABEAM ALLENTOWN	5(UHF)	243(UHF)
ALBANY	SCHENECTADY	5(UHF)	243(UHF)
AUGUSTA	ABEAM AUGUSTA	5(UHF)	243(UHF)
HOULTON	HOULTON	5(UHF)	6(UHF)

AND HOME----------FLY SAFELY

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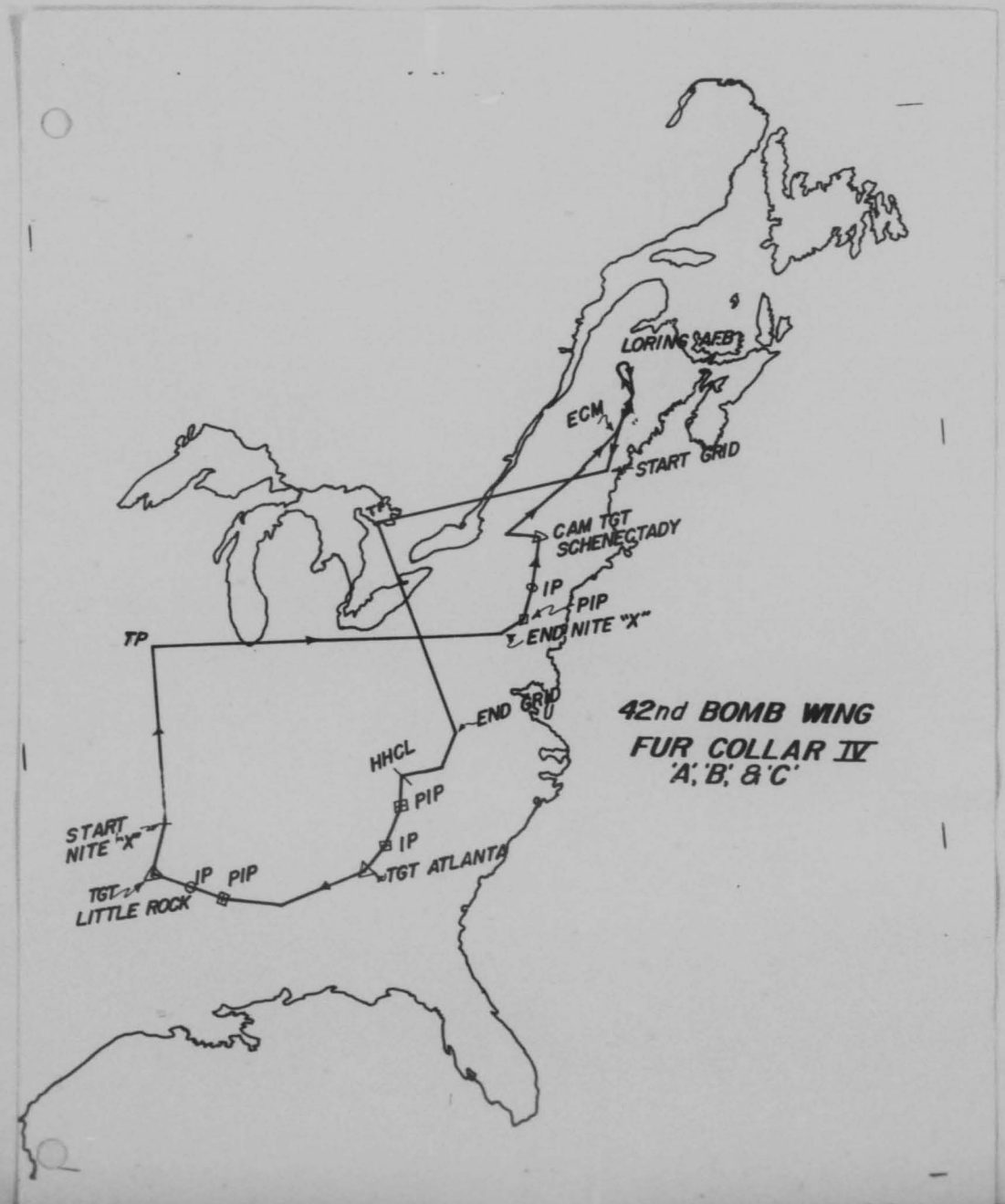

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOT4 22 February 1957

SUBJECT: Revision of B-52 C.G. Index Card, "Miscellaneous Items."

TO: B-52 Aircraft Commanders and Pilots.

1. The 15 November 1956 issue of 42D Bomb Wing Standboard B-52 Center of Gravity Index Card entitled, Miscellaneous Items" Contained errors in index value changes in columns A and B under the heading "Cargo". These errors were due to decimal point location during original computation.

2. Revision of this card is issued as of this date to keep this data current and is as accurate as possible.

FOR THE COMMANDER:

Frank L. Wrigglesworth

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

1 Incl
Revised B-52 C.G. Ind. Card
"Miscellaneous Items".

DISTRIBUTION:

69th BS 100 cys (1 ea B-52 AC&P)
70th BS 100 cys (1 ea B-52 AC&P)
75th BS 100 cys (1 ea B-52 AC&P)
42D BW Standboard 40 cys

Enclosure 2

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B-52 CENTER OF GRAVITY INDEX

MISCELLANEOUS ITEMS

OIL	
LBS	INDEX
986	-0.8

CREW	
POS	INDEX
P(2)	-1.6
I.P.	-0.7
E.C.M.	-0.6
V.O.	-0.7
NAV.	-0.7
G	+1.1

DROP TANKS	
LBS	INDEX
2550	+3.4

AMMO	
RDS.	INDEX
600	+0.9
1200	+1.8
1800	+2.6
2400	+3.5

H_2O INJ.	
LBS.	INDEX
2500	-3.6

CHAFF	
LBS	INDEX
(TO BE INCL. WHEN DATA AVAIL.)	

SPECIAL PURPOSE BOMB		
LBS	INDEX FWD	INDEX AFT
1000	-0.4	+0.3
2000	0.9	0.7
3000	1.3	1.0
4000	1.8	1.3
5000	2.2	1.7
6000	2.6	2.0
7000	3.1	2.4
8000	3.5	2.7
9000	3.9	3.0
10,000	4.4	3.4
11,000	4.8	3.7
12,000	5.3	4.0
13,000	5.7	4.4
14,000	6.1	4.7
15,000	6.6	5.1
16,000	7.0	5.4
17,000	7.5	5.7
18,000	7.9	6.1
19,000	8.3	6.4
20,000	8.8	6.7

PRACTICE BOMBS (LOAD ON CENTER RACK)			
LBS.	500	750	1000
INDEX	(NO INDEX CHANGE)		

CARGO*					
	COMPARTMENT				
LBS	-A	-B	-D	+F	+G
500	-1.5	-1.0	-0.1	+1.6	+2.4
1000	3.0	2.0	0.1	3.1	4.9
1150					5.6
1500	4.6	3.0	0.1	4.7	
1770				5.5	
2000	6.1	4.0	0.2		
2500	7.6	5.0	0.2		
2800		5.6			
3000	9.1		0.3		
3500	10.6		0.3		
4000	12.2		0.4		
4500	13.7		0.4		
5000	15.2		0.5		
5500	16.7		0.5		
6000	18.3		0.6		
6100	18.6				
7000			0.7		
8000			0.7		
9000			0.8		
10000			0.9		
20000			1.9		
30000			2.8		
40000			3.7		
50000			7.4		

INSTRUCTIONS FOR COMPUTING INDEX:

1. Operating weight empty. Add weight of all items aboard to basic weight, except ammo, bombs, fuel, H_2O.
2. Operating index empty. Add indices under + or − signs algebraically, for items which comprise operating weight empty, to the aircraft basic index.
3. Static gross weight. Add weight of ammo, bombs, fuel and H_2O to operating weight empty.
4. Static index. Add index of ammo, bombs, fuel and H_2O algebraically to operating index empty.
5. Take-off condition. Deduct weight and index of fuel used for start engines, taxi, and run-up. Change sign of index indicated under fuel index table for this small amount of fuel and add algebraically.
6. Landing condition. Add weight and algebraically add indices of remaining expendables to operating weight and index empty.

* See compartment structural capacity chart, page 19, T.O. 1-1B-40.

42D B.W. STANDBOARD 22FEB 1957

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DCT4 22 February 1957

SUBJECT: Proposed Revision of Air Force DD Form 365F

TO: B-52 Aircraft Commanders and Pilots

1. This organization has been directed by Headquarters Eighth Air Force and SAC, to conduct a sixty (60) day evaluation of a proposed change in the formate of DD Form 365F, entitled "Weight and Balance Form F".

2. The purpose of the proposed revision is to provide pilot personnel a more direct means of computing and presenting the Weight and Balance configuration of their aircraft.

3. Attached, as inclosure 1, is a copy of the proposed Form F, on which a sample computation for a B-52 loading is presented for the static (hard-stand), take-off, and landing conditions.

4. Primary changes incorporated in the revised Form F are:

a. Decrease space allocated under reference 3, "Compartment Loading".

b. Decrease space allocated under reference 5, "Ammo and Chaff".

c. Increase space allocated under reference 7, "Fuel Load", to permit entry of individual tank loads, within the main portion of the Form F.

d. Inclusion of reference 11, "Correction" (to the static condition) to preclude small additions or deductions of index values as required on current Form F. It will be noted that this is the only section requiring reverse computation on the weight and balance slide rule.

e. Revision of reference 14, for recording the landing condition. In this section the operating weight (ref 4) is posted on the first line of the section, and unused expendables are added to arrive at the landing weight. The landing index is computed by operating the weight and balance rule in a forward manner, as in computing the static index. This method will be recognized as in direct contrast to the present method of subtracting the weight of items and working the load adjuster backwards to arrive at the landing index.

Inclosure 4

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5. The standard procedure for completing the proposed Weight and Balance Form F, will be as follows:

Reference 1. Basic weight. The basic weight and index shall be as listed in chart "C".

Reference 2. Oil. Oil weight, 128 gal. X 7.7 lb/gal = 986 lb.

a. In this section enter "Drop Tanks", 2 X 1275 lbs = 2550 lbs.

Reference 3. Compartment loading. Crew weight, 230 lbs per man.

a. If on an artic flight where escape kits and heavy clothing are carried, add 80 lbs per man in the "Cargo" column.

Reference 4. Operating weight will be the total of the above items.

Reference 5. Ammo, Chaff. Full load of 50 caliber, 2400 rds X. 30 lbs/round = 720 lbs, if applicable.

a. Chaff will be listed as a separate line entry showing total weight and index effect.

Reference 6. Bombs, Rockets. Bomb weight as listed in bomb tables if applicable.

Reference 7. Initial Fuel Load. Tanks will be listed in detail as noted on inclosure 1. Weight of fuel aboard, in individual tanks will be obtained from Refueling Data Sheet, SAC Form 320A.

Reference 8. Water Injection. 300 gal X 8.33 lbs/gal = 2500 lbs, if applicable.

Reference 9. Jato or Rato. Not applicable.

Reference 10. Static Condition. The gross weight will be the total of the above individual weights and the index the accumulative index

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Reference 11. Corrections. Enter fuel consumed for start and taxi. Standard weight of this consumption for local operations will be 5000 lbs used equally from 1&4, 2&3 tanks. When using the load adjuster, the index resulting from this consumption should be computed from the full towards the empty reading, to obtain the correct effect of the fuel used on the final take-off index.

Reference 12. Take-off conditions, will be reference 10 minus reference 11.

Reference 13. Take-off CG - 0/0 MAC, will be computed for the take-off weight and index.

Reference 14. This block will contain the data required for computing the landing condition. On the first line, post the operating weight and index from reference 4. Add unused expendables to the operating weight and proceed in a forward manner in computing the landing index with the load adjuster. This method will be recognized as being in direct contrast to the present method of subtracting weight of items and working the load adjuster backwards.

Reference 15. Estimated Landing Conditions, will be computed using the estimated weight for first low approach or touch and go landing, unless the final landing will be made soon after entering the local traffic pattern.

Reference 16. Estimated Landing CG in 0/0 MAC will be computed for the estimated landing gross weight and index.

6. Aircraft Limitations. (For B-52C&D aircraft).

a. Take-off Gross Weight will be the maximum weight as listed in the applicable Technical Order, 450,000 lbs.

b. Permissable take-off CG limits will be those applicable for the predicted gross weight, in reference 12.

c. Landing Gross Weight entered on the Form F will be maximum weight as listed in the applicable Technical Order, 450,000 lbs.

NOTE: During normal operating Conditions, pilot personnel are advised that the actual maximum landing weight will be 270,000 lbs.

d. Permissable landing CG limits will be those for the estimated landing gross weight in reference 15.

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7. In computing fuel remaining for the landing, where other than the main tanks contain fuel, the load in 1&4 tanks will be estimated at 27,600 lbs and 2&3 tanks, 32,900 lbs for a total 60,500 lbs. This figure will be taken from fuel remaining to determine the distribution of auxiliary fuel.

8. This letter will be effective for a period of 60 days from date of publication and will be considered as SOP during the period of testing the proposed revisions of DD Forms 365F.

9. On completion of the test period Squadron Staff Aircraft Performance Engineers will solicate comments and recommendations concerning the revised Form F and forward them to the Director of Operations, 42D Bomb Wing.

BY ORDER OF THE COMMANDER:

Frank L. Wrigglesworth

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

1 Incl
Sample Copy of 42D BW
Revised Form F.

DISTRIBUTION:

69th BS 100 cys (1 ea B-52 AC&P)
70th BS 100 cys (1 ea B-52 AC&P)
75th BS 100 cys (1 ea B-52 AC&P)
42D BW Standboard 40 cys

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WEIGHT AND BALANCE FORM F
TACTICAL
(USE REVERSE FOR TRANSPORT MISSIONS)

FOR USE IN T.C. 1-18-40 & AN. 01-18-40

DATE	AIRPLANE TYPE	FROM	HOME STATION
22 FEB '57	B-52D	LORING AFB	LORING AFB
MISSION / TRIP / FLIGHT NO.	**SERIAL NO.**	**TO**	**PILOT**
CCTM	55-075	LORING AFB	MAJ. BLACK

REMARKS

REF	ITEM	WEIGHT	INDEX OR MOM.
1.	BASIC AIRPLANE (From chart C)	167210	717
2.	OIL (128 Gal)	9866	709
	DROP TANKS	25500	743
3.	COMPARTMENT LOADING		

COMPT.	CREW NO.	CREW WEIGHT	BAGGAGE	CARGO & MISC.		
A	B	1840		640	24800	667
G	1	230		80	3100	681

4	OPERATING WEIGHT	173536		681
5	AMMO CHAFF — COMPT G	QUANTITY 2400	CAL. / SPEC. 50 CAL.	7200 / 716
6	BOMBS ROCKETS — FORWARD			
	AFT	10000		750
	EXTERNAL			
	ROCKETS			
7	INITIAL FUEL LOAD — TANKS			
	MAINS 1&4	30000		695
	MAINS 2&3	35800		423
	L&R OUTB	30000		640
	C.W.	36500		221
	MID BODY	32500		319
	AFT BODY	28700		714
	FWD #1	15000		397
	FWD #2	12000		339
	DROPS	37000		818
	TOTAL	(257500)		

EXAMPLE

Pertinent instructions to the pilot for shifting load and crew during take off and landing should be noted above.

METHOD OF COMPUTATION (Computer plate no, moment tables) E-1092

14	OPERATING WT. (Ref 4.)	173536	681	8	WATER INJ (300 Gal)	2500	782
	JATO, RATO, WATER INJ			9	JATO OR RATO		
	BOMB			10	STATIC CONDITION	444256	782
	AMMO			11	CORRECTIONS (If req'd)		
	CHAFF				COMPT. / ITEM		
	FUEL				1&4 FUEL	-2500	788
	MAINS 1&4	27600	630		2&3 FUEL	-2500	806
	MAINS 2&3	32900	381				
	DROPS	25968	704				
	TOTAL	(86468)					
15	EST. LANDING COND.	260004	704	12	TAKE-OFF CONDITION	439256	806
16	ESTIMATED LANDING C.G. % MAC OR IN.	28.9	+	13	TAKE-OFF C.G. % MAC OR IN.	29.4%	

LIMITATIONS

LANDING			TAKE OFF		
GROSS WEIGHT	PERMISSABLE C.G.		GROSS WEIGHT	PERMISSABLE C.G.	
450,000 LBS.	FROM 18	TO 35	450,000 LBS.	FROM 25.5	TO 32

1. Enter constant used.
2. Enter values from current applicable T.O.
3. Applicable to gross weight (Ref 12.)
4. Applicable to gross weight (Ref 15)

COMPUTED BY (Signature) John M. White, Capt
WEIGHT AND BALANCE AUTHORITY (Signature)
PILOT (Signature) George H. Black, Major

INCL. 1

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOT4 28 February 1957

SUBJECT: Revision of Angle of Bank Charts

TO: B-52 Aircraft Commanders, Pilots, and Observers.

1. On 25 August 1956, charts entitled "Bank Angle of Maximum Recommended Buffet at .82 Mach Indicated and .84 Mach Indicated", were reproduced by blue print process and distributed to the bomb squadrons.

2. These charts have been revised as of this date to include the turn rate and radius of turn associated with the previously charted bank angles. This data may be helpful in determining aircraft position (no wind) on completion of a turn, which was held for a specific time and airspeed and during which a constant bank angle was executed.

BY ORDER OF THE COMMANDER:

Frank L. Wrigglesworth

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

2 Incls
1. Turn Characteristics at Max Rec. Buffet, M.82
2. Turn Characteristics at Max Rec. Buffet, M.84

DISTRIBUTION:

69th Bomb Squadron	140 cys (1 ea B-52 AC, P, N, VO)
70th Bomb Squadron	140 cys (1 ea B-52 AC, P, N, VO)
75th Bomb Squadron	140 cys (1 ea B-52 AC, P, N, VO)
42BW Standboard	50 cys (1 ea B-52 AC, P, N, VO)

— CONFIDENTIAL —

W-1774 C

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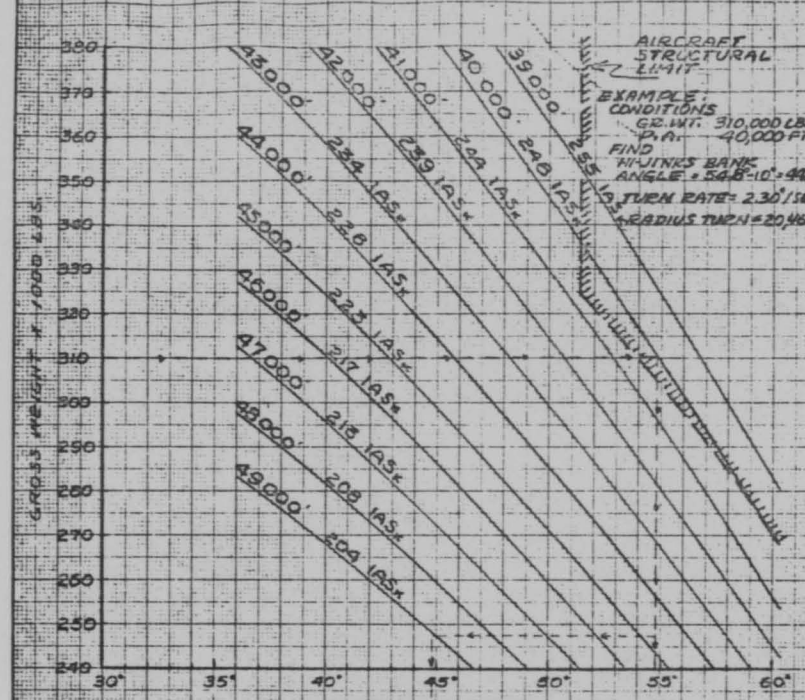
.82 MACH



	1.37	1.48	1.6	1.75	1.86	1.98	2.14	2.32	2.48	2.66	2.86	3.06	3.30	3.5	3.85	
1.33	1.43	1.54	1.67	1.8	1.92	2.05	2.23	2.4	2.56	2.76	2.97	3.17	3.42	3.65	4.2	

TURN RATE — DEGREES PER SECOND

	34.3	31.7	29.2	27.0	25.3	23.5	21.7	20.3	19.0	17.7	16.4	15.5	14.1	13.2	12.2	
36	33.1	30.7	28.1	26.1	24.4	22.5	21.1	19.6	18.4	17.0	16.0	14.7	13.7	12.8	11.8	

RADIUS OF TURN X 1000 FT.

NOTE: DURING "HI JINKS" TURNS:
1. TO OBTAIN BANK ANGLE, DEDUCT 10° FROM CHARTED VALUE.
2. DO NOT EXCEED ACTUAL MAX BANK ANGLE OF 50° UNDER ANY CONDITION.

CONFIDENTIAL

CALC	F.D.N.	8-25-56	REVISED	DATE	TURN CHARACTERISTICS FOR MAXIMUM RECOMMENDED BUFFET, .82 MACH (INDICATED)	B-52 C&D
CHECK	M.F. v N	8-25-56	F.D.N.	20-2-57		
APR						
APR					BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON	PAGE

BAC 461 C-R6 H-E 13560

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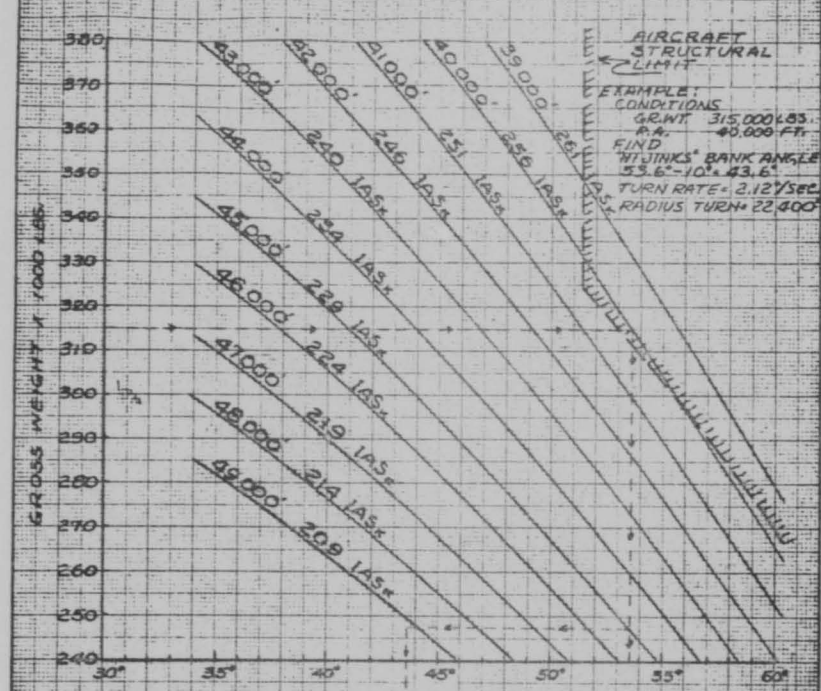
.84 MACH



1.35	1.45	1.56	1.69	1.81	1.93	2.07	2.24	2.41	2.58	2.78	2.98	3.20	3.45	3.75	
1.3	1.4	1.5	1.63	1.75	1.87	1.99	2.15	2.33	2.5	2.68	2.88	3.07	3.33	3.57	3.9

TURN RATE - DEGREES PER SECOND

36.3	33.1	30.8	28.5	26.4	24.7	23.0	21.4	20.0	18.6	17.3	16.1	14.8	13.8	12.8	
37.6	34.7	31.8	29.5	27.5	25.5	24.0	22.0	20.7	19.2	18.0	16.7	15.6	14.4	13.3	12.3

RADIUS OF TURN x 1000 FT.

NOTE: DURING "HI JINKS" TURNS:
1. TO OBTAIN BANK ANGLE, DEDUCT 10° FROM CHARTED VALUE.
2. DO NOT EXCEED ACTUAL MAX. BANK ANGLE OF 50° UNDER ANY CONDITION.

CONFIDENTIAL

CALC	F.D.N.	8-25-56	REVISED	DATE	TURN CHARACTERISTICS FOR MAXIMUM RECOMMENDED BUFFET, .84 MACH (INDICATED)	B-52 C&D
CHECK	M.F. v.N	8-25-56	F.D.N.	28-2-57		
APR						
APR					BOEING AIRPLANE COMPANY SEATTLE 14, WASHINGTON	PAGE

BAC 661 C-R6

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REQUEST FOR INTERCEPTS

TIME OF REQUEST _____

TAKE OFF TIME _____

A/C NUMBER _____(TAIL)

BIG PHOTO NUMBER _____

ALTITUDE _____

HEADING _____

DATE OF REQUEST _____

TAKE OFF TIME _____(ZULU)

LOCATION _____
TIME _____(ZULU)
HEADING _____
ALTITUDE _____

LOCATION _____
TIME _____(ZULU)
HEADING _____
ALTITUDE _____

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LOCATION _____
TIME _____(ZULU)
HEADING _____
ALTITUDE _____

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Gunnery Pre-Flight and Ammunition Loading

Crew No	Gunner	Squadron	ACFT No

ACFT Location	Amount of Ammo Loaded No Ammo LDNG Team No — No in Team (1-2-3-4)

Date and Time Loading Started	Finished

Date and Time Pclt Started	Finished

Weather conditions	Ammunition Lot No and condition of Ammo

Was Pre-flight allowed to continue without interruption such as engine run up etc Explain:

Discrepancies Noted	Action taken

Were all discrepancies cleared before take-off? If not explain:

In-Flight Portion

Radar model	If not used why not?

Discrepancies	In-Flight corrective action

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Gunners Signature_____

Munitions Team Chief Signature_____

A&E Team Chief Signature_____

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HEADQUARTERS 45th AIR DIVISION
LORING AIR FORCE BASE, MAINE
6 March 1957

KC-135 PROGRESS REPORT #1

FOR

45th AIR DIVISION

This Report Contains 21 Pages

HEADQUARTERS 45th AIR DIVISION
Program Plan 101-56A

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FOREWORD TO PROGRESS REPORT #1

SECTION I GENERAL

To facilitate the review of the KC-135 Conversion Progress Report, items that are 100% complete will be deleted in future reports. Items which are not complete, will retain the line number and sub-titles as previously designated. It is, therefore, requested that Progress Report #1 be retained for ease of reference.

SECTION II PROBLEM AREAS

Installations item #18, Modification of Luria Wing Maintenance Hangars. This item was included in the recent Fiscal Year '58 M&O program and deleted by Eighth Air Force because of excessive cost. It is deemed essential by this headquarters that a feasible less costly modification of these hangars to KC-135 configuration be immediately resolved in order that construction may be started during the early spring building season.

Material: AFSD Listings for table 2,table 11, and table 16 spares and FAK. It is essential that this headquarters receive early distribution of initial lay-in of spares AFSD and FAK AFSD together with a list of aircraft serial numbers in order that early requisition of Code 1 and Code 5 spares may be accomplished.

UAL for Air Refueling and adendems to UALs for Periodic, Armament and Electronic and Field Maintenance Squadrons. Before requisitioning action can be accomplished for additional 10 series kits, personal equipment, and allied support equipment it is essential that this headquarters be furnished with tentative UALs for these organizations. A TTE is available for KC-135, however, it is felt by this headquarters that this document is insufficient in scope to fulfill all requirements for proper requisition of equipment.

O E Stillman Col
for W.K. MARTIN
Brigadier General, USAF
Commander

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COMDR 8 AF	1 Cy (ltr to accompany this cy)
8 AF	7 Cys
DM	2 Cys
DO	2 Cys
DP	1 Cy
42C	1 Cy
42 DO	5 Cys
42 DM	2 Cys
42 DP	1 Cy
42 DCR	2 Cys
BSMO	1 Cy
BC	2 Cys
BO	2 Cys
BM	8 Cys
BP	1 Cy
BISO	9 Cys
HSS	1 Cy
BCR	1 Cy
BSOGS	1 Cy
OSC	1 Cy
BDC	1 Cy
42 AREFS	2 Cys

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TABLE OF CONTENTS

	PAGE
Report of 42nd Operations Squadron	1
Report of Base Director of Materiel	3
Report of 42nd Installations Squadron	4
Report of Comptroller	6
Report of Information Services	6
Report of 42nd Bombardment Wing, Director of Operations	7
Report of 42nd Director of Materiel	12
Report of 42nd Director of Personnel	15

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DETAILED COMMAND ACTIONS

PERTAINING TO

PROGRESS REPORT #1

45th AIR DIVISION PROGRAMMING PLAN

101-56A

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLET
42D OPERATIONS SQUADRON			
1. Insure training aids assigned to the Base Training Flight.	Determine the training aids requirements and initiate action to requisition and obtain the necessary aids.	Requirements for training aids are being coordinated with the 42d DO. No action has been initiated to date.	0
2. Monitor delivery of synthetic trainers.	Obtain synthetic trainer.	a. UAL change #126, 28 Jan 57, affecting UAL 017 MF-89 authorizes one KC-135 type MB 26 Flight Simulator.	5%
		b. A requirement exists to obtain and train airmen maintenance personnel for the operation of the simulator. It is recommended that the Base Director of Personnel be given this responsibility.	0
3. Monitor the housing including utilities for ready installation of new trainers.	Make necessary arrangements to accommodate the synthetic trainer when received.	The simulator is tentatively scheduled to be housed in the Bakery Bldg (#7330). Space requirements for the trainer are not known by 8th AF. Ogden Air Materiel Command was queried on 21 Feb 57 regarding advance installation data. Upon receipt of this information, work orders will be initiated to effect necessary building modifications and utilities.	5%
4. Monitor classroom requirements.	Obtain suitable space for classroom training.	Classrooms for most of the training are available. Additional classrooms are required in conjunction with the simulator training.	50%
5. Monitor establishment of space requirements for the Mobile Training Detachment.	Determine and obtain necessary space for the MTD.	Space requirements for MTD have been received and are being reviewed for possible reduction of requirement. At a meeting on 27 Feb, Space Allocation Board was made aware of requirement. On 26 Feb msg was sent to 8th AF requesting the 3400 Mobile Training Wing survey team arrive this base during month of March.	5%

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLETE
cont'd.		Confidential 8th AF message, DOT2 05288, Subject: Quarterly MTD assignment Report RCS: 2-AF-T4 (SAC-1) indicates that proposed Loring AFB assignment of KC-135A-2 MTD is scheduled for 1 Aug 57 through 31 March 58. Par 4i of SACSUP-1, dtd 1 Feb 57 states that "...facilities are (to be) ready for the arrival of the MTD two weeks before its scheduled arrival at the station".	

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLET
DIRECTORATE OF MATERIEL			
6. Establish Program for Disposition of Excess KC-97 Spares and Support Equipment.	Obtain information from 8th Air Force on Disposition of KC-97 Spares.	Hqs 8th Air Force was contacted 28 Feb 57 to obtain firm information on proposed disposition of excess KC-97 Spares and Equipment.	0
7. Insure Base Supply has a timely program to requisition, receive, bin and issue KC-135 aircraft spares.	Obtain from prime depot all tables II, XVI, prod-packs and AFSDS available for KC-135 aircraft.	Base Supply has requested on 27 Feb 57 from prime depots all tables II, XVI, prod-packs and an AFSD which might be available for KC-135 aircraft.	0
8. Insure Base Supply programs the establishment of IBM Cards for KC-135 aircraft, spares within the machine accounting section.	Obtain appropriate tables or AFSD to base request for IBM Cards.	Upon receipt of appropriate tables or AFSD, timely action will be initiated to prepare the IBM stock control cards for KC-135 aircraft spares within the machine accounting section in consonance with the Weapons Management Program. This will necessitate a temporary second shift for 026 Key Punch Machine.	0
9. Establish M&O project or establish Commercial Source to provide additional LOX capability.	Contact Commercial Sources and plan for delivery; enlarge base storage production capabilities.	Contacts with commercial companies have met with negative results in establishment of a nearby commercial source. Letter has been forwarded 8th AF Hqs requesting change of methods and place of delivery.	0
10. Establish program for disposition of the KC-97 FAK.	Obtain directions from higher Hqs as to disposition instructions, process, pack, crate and ship excesses peculiar to KC-97 aircraft.	Higher Headquarters is being contacted to obtain disposition instructions.	0
11. Obtain listings and complete preparation to receive and bin KC-135 FAK	Listings to be prepared by Hq SAC: Automatic Distribution.	Listings to be prepared by Hqs SAC with Automatic Distribution. Not received.	0
12. Coordinate with WDM for conversion of Pump House #5 to JP-4.	Coordinate with Wing D MAT and Chief of Maint with regard to time and implementation of change-over.	POL Officer is coordinating with Chief of Maint in establishing change-over date.	25%

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13. Insure the provision of adequate generation and storage capacity for demineralized water.	Program, initiate, insure submission of water demineralized plant plans plus storage and loading facility.	Project for storage and demineralizer has been completed and forwarded higher Hqs. Question as to location site in conjunction with ADI plant has been posed by 8th AF Hqs.	25%
42D INSTALLATIONS SQUADRON			
14. Fire Fighting Training.	Establish training and schedule.	8th AF indicates school being established at Castle and will notify us of schedule.	0
15. FY 59 MCP item 414-457 Squadron Ops Bldg 8920 sq ft.	To be submitted and justified in final submission FY 59 MCP on which call is expected about 1 May 1957.	Definitive Drawing, site adaptation is only requirement.	0
16. FY 59 MCP item 116-664 Pad, Power Check, 3 each	Obtain Command support as this item classed in Category 4 (Not Authorized) 8th AF Planning Board working committee at preliminary essentiality review.	Considered a requirement in B-52 conversion and still needed. FY 59 MCP is earliest program that can include this.	0
17. FY 59 MCP item 171-212 Flight Simulator Training Bldg.	Same as above. Facility requirements manual indicates this should be accommodated within existing operational training space.	Item first submitted in FY 55 and has been deferred year to year since.	0
18. FY 59 MCP item 211-113 Hangar Wing Maint, Modify 8 Iuria Docks.	To be submitted and justified in final submission FY 59 MCP on which call is expected about 1 May 1957.	This project first proposed as requirement for B-52 but line of site tower to south end of runway blocked project. Next proposed as FY 58 M&O project but rejected because of too great cost and 8th AF directs it be programmed in FY 59 MCP.	0
19. IFR Boom Shop Proposed additional FY 59 MCP item.	Justify and obtain approval to enlarge building 8262 to 2600 sq ft to accommodate KC-135 Boom in extended position.	Existing building originally designed as carburetor shop for future use as boom shop but is too short to accommodate boom in extended position. Also is only 1000 sq ft and will accommodate one boom dolly with collapsed boom.	0

4

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLE
20. FY 58 O&M item 211-113 Utilities for Maint Platforms	Prepare plans for submission to 8th AF for their technical review and funding for Contract award in accordance with their schedule which will be sent to base probably 1 May 1957.	This project provides for air, power, and lights at the engine positions on the maintenance stands for KC-135's.	0
21. Proposed FY 58 O&M item 211-193 Test Stand, Jet with Sound Suppression.	Disapproved on O&M Program review 26 Jan 57 8th AF Hqs. Division Commander should review request and take command action. Submit as MCP item FY 59.	Form 800-RCS 39 authorizes only one test stand for this base.	0
22. Proposed FY 58 O&M item 211-112 Hangar, Wing Modify 8 Luria Docks.	Submit as MCP item - FY 59.	8th AF disapproved this item for monetary reasons as being out of reach in O&M Program and instructed base to resubmit in FY 59 MCP. These covered aircraft spaces are beyond current Facilities Requirements Manual authorizations.	0
23. FY 58 O&M item 211-113 Modify 2 multi-purpose hangars for cell repair fuel.	Submit plans and specifications for technical review and funding in accordance with directed schedule expected soon from 8th.	Proposes explosion proofing two docks for fuel cell repair.	0
24. BY 58 O&M item 411-139 Additional LOX Building.	Submit plans etc. (same as above)	Proposes relocation of bldg T8501 as extension to present LOX bldg to provide shelter for portable LOX generators.	0
25. Demineralized Water Facility.	Resolve with higher Hqs that correct siting for this item, which is already under contract, is satisfactory where it is near water alcohol facility.	Facility proposed is for 25 gal per minute demineralized water facility with 25,000 gal storage tank all to be within heated bldg. 8th AF in msg DENGCIP 73830 dtd 29 Dec 56, Sub: Siting Demineralized Water Facility objects to siting as it is not adjoined to AC parking area. Because base water is 200 parts per million mineral content instead of TO specified 50 ppm. the demineralizer is sited to also serve Water Alcohol facility required in support of B-47 transient and staying units. Percent completion represents design.	7%

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLET
COMPTROLLER			
26. Insure fund requirements are included in FY 58 Financial Plan.	Obtain fund requirements from operating officials.	a. Commercial Transportation requirements requested in FY 58 Financial Plan.	100%
		b. Travel requirements not included in the FY 58 Financial Plan per special instructions Hq SAC 6 Feb 57 which state "Category 15 travel requirements. Total amounts on AF Form 62 will be limited to Category 6 (other) for both prior year and financial year".	
		c. $75,000 for 17-B hand tools included in FY 58 Financial Plan.	100%
		d. FY 58 Financial Plan submitted with justification to Hq 8th Air Force on 26 Feb 57.	100%
INFORMATION SERVICES			
27. Initial press release.	Preparation of release from current information and forward to Hq 8th AF for approval.	Release forwarded to 8th Air Force for notification of release date.	25%
28. Follow-up release.	Preparation of releases as information becomes available.	None	0
29. Brief Base Community Services Council.	Prepare briefing for the Council as the conversion affects Loring AFB.	Tentative meeting scheduled for 20 March 1957.	0
30. Brief Commanders Advisory Council.	Prepare briefing for the Council as the conversion affects Loring AFB.	Meeting to be scheduled at the call of the Division Commander.	0

6

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DIRECTORATE OF OPERATIONS

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLET
51. Disposition of EWP assignment Material.	Return to 8AF Directorate of Intelligence all EWP material no longer pertinent.	The disposition of EWP assignment material is a routine task which will be accomplished when this material is superceded, about 1 June 1957.	0%
52. Preparation of EWP study folders.	Prepare EWP study folders for crews of the 42 AREFS	Study folders will be prepared upon receipt of new EWP committments, about 1 June 1957.	0%
53. Indoctrination of Planning Officers in KC-135 Mission Planning	Officers of the planning Section will attend an orientation course.	It is anticipated Planning Officers will be integrated into the staff crews, attending the training course at Castle AFB about 15 June 1957.	0%
54. Personal Data Cards	Newly assigned crew personnel will be interviewed, and Personal Data cards will be prepared.	Cards are complete on all assigned crew members. New crew members will be interviewed and cards prepared upon arrival commencing 1 Sep 1957.	0%
55. MTD	Determine the training the KC-135 MTD will be available to the Wing, and make plans to utilize this MTD.	The KC-135 MTD is scheduled to be in place 1 Aug. 1957. The various KC-135 systems courses will be available for aircrew, staff crew and non-aircrew personnel. All personnel programmed into the KC-135 will be scheduled by the wing to assure maximum utilization of training facilities.	0%
56. FORMS	Establish and provide the necessary forms for certification of: a. Aircraft Commander and Co-Pilot Flight check. b. All crew members 51-19 completion. c. Safety of flight checks. d. Standboard checks.	SAC Form 412 will be utilized for initial checkouts and crew coordination checks in accordance with SAC Reg 51-19. SAC Reg 51-4 and 8th AF Supplement to this Reg establishes standarization procedures. As 8th AF has published all flight check forms in the past, that Headquarters will be queried regarding the date that the required forms will be available. Estimated date of completion is 1 Sep 1957.	0%

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57. SAC Tactical Doctrine	Request copies of SAC Tactical Doctrine for KC-135 Insure the Tactical Doctrine adequately covers new tactics and procedures in rendezvous, formation, cell tactics, and fuel conservation.	Higher headquarters will be queried concerning a distribution date for the Tactical Doctrine for the KC-135, after Castle is in operation with KC-135 aircraft.	0%
58. Control of KC-135 Transition Operations.	Assure that control tower personnel have adequate instructions for controlling KC-135 transition flights.	This information will be obtained by staff visit to Castle, and will be furnished to the control tower for use in KC-135 transition operations.	0%
59. Weather Minimums	Establish weather minimums for all local flying of KC-135 aircraft.	This cannot be established until more information is available on KC-135 performance and operations.	0%
60. Field Checks for Pilots	Develop procedures for field checkout of pilots in KC-135 aircraft.	This will be implemented immediately upon arrival of the instructor pilots, and should be completed by 31 Oct 1957.	0%
61. Wing Flying and Maintenance Schedule.	Determine the KC-135 Maintenance Cycle.	This subject will be discussed with the 93AREFS during staff visits to Castle AFB.	0%
62. Instruction on Weight and Balance.	Provide flight crews with course of instruction in fuel management to maintain proper CG. and fuel reserve.	Flight crews will receive a course of instruction in weight and balance, and fuel management in the aircrew course in MTD.	0%
63. Altitude Indoctrination	Schedule all programmed KC-135 crew members through the altitude indoctrination course.	This is a continuing requirement and crew members will be scheduled for this course in accordance with AF Reg 50-27.	0%
64. Refueling Areas	Make study to determine if new refueling areas are necessary, and the suitability of the present areas.	No action can be taken on this until receipt of the Tactical Doctrine for KC-135's and will depend upon refueling procedures.	0%
65. Equip KC-135 for Extra Crew Members.	Determine need for extra crew members positions in KC-135's, then submit to Director of Material the requirement to properly equip all aircraft with necessary facilities.	Staff visit to Castle AFB will determine this requirement. WDM will be advised if this requirement exists.	0%

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66. Airborne Radar Instrument Letdown.	Establish and test fly airborne radar instrument letdown procedures.	Airborne radar letdown procedures cannot be test flown until KC-135 acft become available. A plan will be developed for flight testing by 1 Oct 1957.	0%
67. Inflight Maintenance	Develop a course of instruction for all navigators on inflight maintenance of rendezvous equipment, radar, and computer.	An inflight maintenance course will be included in the 50-24 training. This will be developed by the 42d AREFS observer and technical representatives. Course will be subsequent to 1 Sep 1957.	0%
68 Support Aircraft	Determine if starting units and other equipment unique to the KC-135 will fit into C-119 and C-47 aircraft to support a KC-135 landing at other than the home station.	Staff visit to Castle AFB will reveal any problems that may exist in this area.	0%
69. F-1A Automatic Parachute Release.	Provide Director of Material with requirement for F-1A automatic parachute release for KC-135 crew members	The B-5 parachute will be used with the KC-135. The automatic release is an integral part of this parachute. The quantity of parachutes to be requisitioned will not be known until an EWP requirement is known.	0%
70. Standardization Crews	Selection of Standardization Board Crews.	Of the five potential instructor crews that will receive training with the first increment, two crews will have had previous standardization experience. These two crews will be in place on 15 Sept 1957.	0%
71. Instructional Visits to KC-135 Units.	Schedule visits of key personnel to KC-135 bases. Require written reports of each visit, and copies of any material obtained on these visits.	A staff visit will be sheduled approximately 1 May 1957 for key personnel of Operations, Materiel, and Personnel for the purpose of collecting information to assist in the conversion. A written report will be required upon completion of the visit.	0%
72. Traffic Pattern	Establish traffic pattern procedures including all SAC directives. This will be coordinated with Flying Safety.	Information concerning traffic pattern procedures will be obtained during staff visit to Castle AFB.	0%
73. Alternate and Emergency Fields.	Make a study of possible fields to use as alternates and emergency	When the requirements of runway length for the KC-135 are known a list of suitab	0%

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74. Dash 1 Manuals and Handbooks.	Obtain an adequate number of Dash 1 Manuals and KC-135 Handbooks.	The publication requirement table has been revised to include informational copies of the KC-135 dash 1 handbooks. Sufficient copies will be ordered 1 June 1957 to meet the requirements of the 42d AREFS.	0%
75. Crew Line-Up Procedure	Establish a standard for crew inspection, clothing and personal equipment.	Staff visit to Castle AFB will obtain the procedures in use there for utilization by the 42d AREFS.	0%
76. Thunderstorm Penetration Plan.	Make charts showing best altitude and air-speed, based on gross weight, for thunderstorms penetration.	Technical representatives indicate that subject charts will be included in the KC-135 Flight Handbook.	
77. Fuel Reserve	Prepare Wing Regulation stating minimum landing reserve for KC-135 aircraft.	Upon receipt of the Performance Data charts a policy establishing fuel reserve for the KC-135 will be published.	0%
78. Landing Weights	Establish maximum landing weights for KC-135 aircraft.	Maximum landing weight will be published upon receipt of aircraft performance data	0%
79. Weather and Emergency Evacuation Plans.	Study the current Weather and Emergency Evacuation Plans to assure their conformity with KC-135 aircraft operations.	This Wing does not have information as to bases to be used for evacuation of KC-135 aircraft. Higher headquarters will be queried on this.	0%
80. Block Training	Establish Block Training Programs for all ground training of crew and non-crew personnel.	Crew members will be trained under provisions of SAC Reg 50-43 upon return to Loring. 50-24 block training is not required of crew members until they become Combat Ready. The requirements of non-aircrew members is specified in Annex 1 to SAC Reg 50-24. The supplement to SAC Reg 50-24 establishing training requirements for KC-135 is not yet available	0%

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81. Charts Reflecting Crew Status	Prepare charts to reflect daily SAC Reg 51-19 status of all crew members in 42d AREFS. Charts will be current, and commence with the arrival of the first KC-135 aircraft. Charts will be used to insure strict compliance with SAC Reg 51-19.	Upon receipt of SAC Reg 51-19 for KC-135 aircraft, charts will be prepared to indicate aircrew accomplishments.	0%
82. Crew Boards	Standarize crew boards in the 42d AREFS to conform with those of the other squadrons in the Wing.	Crew Boards will be prepared following a staff visit to Castle AFB.	0%
83. Training Charts	Standarize all training charts in the 42d AREFS to conform with those of the other squadrons of the Wing.	Training Charts will be prepared following a staff visit to Castle AFB.	0%
84. Flight Simulator	Establish requirements for training in the Flight Simulator and monitor its utilization.	SAC Reg 50-24 establishes the simulator training requirements. The supplement to this regulation pertaining to the KC-135 has not yet been received. Upon receipt of this directive, and the simulator, crews will be scheduled and the training monitored by Wing.	0%

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DIRECTORATE OF MATERIEL

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101. Instructional Visits to Castle AFB	Schedule key maintenance personnel for visit to Castle AFB.	Key personnel will be scheduled to visit Castle AFB, after Castle is Operational.	0%
102. MTD	Make plans for full utilization of MTD	Assignment of personnel will be contingent upon arrival and installation of equipment.	0%
103. 263 Property	Secure list of 263 property for use of acceptance teams.	263 Property listing will be procured for acceptance teams during Castle familiarization trips.	0%
104. Acceptance Inspection	Establish a procedure for acceptance inspection of new acft.	A TMI will be published outlining acceptance inspection requirements including 263 check, post-flight inspection and local modifications, after Castle familiarization trips.	0%
105. Ground Power Equipment	Secure necessary ground power equipment. Establish school for instruction in use of equipment.	Liaison will be established to procure ground power equipment and train personnel upon receipt of "Z" account shipments.	0%
106. Mobility Plan	Prepare revised mobility plan for KC-135 aircraft.	Contingent upon coordination with Castle AFB on the interim KC-135 Mobility Plan.	0%
107. ECL	Submit requirements for KC-135 ECL's to Base Publications.	No ECL's published to date.	0%
108. FAK	Secure FAK listing for KC-135 aircraft.	No FAK listing available to date.	0%
109. UAL	Secure and monitor UAL's and changes for applicable squadrons.	No UAL published. Target date is March 57.	0%
110. Authorization Document TTE	Monitor TTE as published.	Document published. Another review at AMC is now being conducted to reduce TTE to ECL.	0%
111. "Z" Account	Monitor "Z" Account as published.	"Z" Account has been published. No further action to date.	0%
112. Personal Equipment	Secure personal equipment required after UMD publication.	Action delayed until UAL is published.	0%

12

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SUBJECT	NECESSARY ACTION	DEVELOPMENT & PROBLEMS	PERCENT COMPLETE
113.Inventory Assets against TTE.	Monitor accomplishment in April 57.	N/A	
114.Requisition shortages agair st TTE.	Monitor requisitioning in June 57 a after inventory against available assets.	N/A	
115.10 Series Tool Kits	Assure requisition action on shortages after publication of UMD and screening of available assets.	Delayed until UAL is published.	0%
116.Parts Breakdown for KC-135	Secure parts list from factory representative or tech rep.	Supply Liaison will provide necessary requirements to support bench stocks, preissue, guidance lists, consumption data and catalogs after Castle familiarization visits.	0%
117.Parts List	Secure lists for bench stock, preissue, master and frequently used parts list, and consumption data from Castle AFB.	Same as item .	0%
118.KC-97, KC-135 maintenance conversion program.	Determine capability to maintain and support KC-135 maintenance requirements in accordance with aircraft transfer and delivery schedules.	A capability will be maintained to phase-out the KC-97 aircraft and phase-in the KC-135 aircraft, but planning is pending receipt of firm training course duration and starting dates.	0%
119.KC-135 Dock Stands.	Determine requirements for dock stands and secure stands.	Requirements have been determined for four (4) each dock maintenance platforms (2 ea for post-flight inspection and 2 ea for periodic inspection). No further action to date.	0%
120.Time Standards.	Secure list of maintenance time stand ards for KC-135 maintenance from Castle.	Time Standards will be procured during Castle familiarization visits.	0%

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DIRECTORATE OF MATERIEL

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
121. Publications	Procure all applicable publications for KC-135 aircraft.	Publications will be procured when data is published.	0%
122. Engine build-up.	Prepare plan for J-57-43 engine build up and minor repair action.	Coordination will be established to finalize action after Castle familiarization visits.	0%

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DIRECTORATE OF PERSONNEL

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
151. Manning of KC-135 UMD	Project eligible assigned personnel to required school and indoctrination training to qualify for assignment to authorized positions. Monitor to insure on-base availability commensurate with KC-135 delivery schedule. Requisition identified personnel shortages at earliest possible date to insure procurement time-phased with overall conversion.	Personnel selected for conversion have been identified to Hq 8th AF. Maintenance package support personnel have been identified and further planning factors as to training program has been requested to insure compliance with time phasing of overall program.	0%
152. Staff Crews	Monitor to insure action is completed by higher headquarters to authorize KC-135 training for 4 staff crews (2 crews for complete course and 2 crews, already jet qualified, for abbreviated aircraft check out course) Select command and staff personnel and program for training in such a manner as to cause minimum disruption of wing and 42d AREFS mission.	Request to authorize a total of 4 Staff Crews for KC-135 has been accomplished and no action has been received to date. Staff and Command personnel have been earmarked for training to facilitate an orderly conversion with minimum disruption of wing and 42d AREFS missions.	0%
153. Simulator Crews	Determine requirement for simulator crews. Monitor selection and training of required personnel and insure availability prior to arrival of KC-135 Simulator.	No action to date.	0%
154. Combat Crews a. Local Resource	Determine composition of minimum of 15 KC-135 crews from assigned KC-97 crews who meet established eligibility requirements. Program these crews for KC-135 training in accordance with crew training schedule and in consideration of KC-97 operational capability which must be maintained during this conversion. Select 7 KC-97 crews for assignment to other Eighth Air Force bases as replacements for 7 input crews. 15	Crew composition of minimum of 15 KC-135 crews from assigned KC-97 crews has been accomplished subject to changes that will be forwarded upon return of 42d AREFS from TDY status. Crew training schedule has been coordinated with Hq 8th AF. Selection of 7 KC-97 crews for assignment to other 8th AF units has been accomplished and is under further evaluation pending any changes of primary KC-135 selected personnel. A request has been submitted proposing that all crew inputs to the 42nd AREF be drawn from SAC resources and	0%

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		presently assigned crew personnel be reassigned to other units.	
b. Eighth Air Force Resource.	Monitor assignment of 7 KC-135 crews trained from Eighth Air Force resources for this wing.	Monitoring inputs of 7 KC-135 crews trained from 8th AF resources for this wing will be accomplished as selections are made.	0%
155. Staff Familiarization Course.	Develop time-phased program for attendance of designated personnel of this wing. Submit to Eighth Air Force for coordination and arrangement of course availability with Fifteenth Air Force	Time phasing has not been accomplished pending coordination of course availability with 8th AF.	0%
156 Surplus Personnel	Identify personnel rendered surplus to the wing who are not authorized to be trained to meet wing requirements and make these personnel available to higher headquarters for further assignment.	Personnel have been tentatively designated in this category and were made available to higher headquarters for assignment.	0%

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EXCERPTS FROM MAJOR ESTES PRESENTATION

"The problems encountered existing in the MA-6 in the B-52 we feel, can be generally categorized as design/operational and quality control. It is felt that these many problems, if encountered at an operational base, can be greatly reduced if these two basic deficiencies are resolved. At the operating level, it is our opinion that by initiating an aggressive program at all echelons of Air Force and civilian facilities, the problem can be reduced to a minimum or normal every-day maintenance.

We have no intention of specifically placing blame for these problems on any activity. However, to discuss these problems, specific cases must be sighted. First, from the quality control viewpoint let's take a look at some of the original aircraft that arrived at Loring.

Aircraft 53-400 arrived at Loring during June of '56. The following discrepancies existed when the aircraft arrived: Synchronization, sluggish optics, radar cross hair dispacement, cro s hair noncoincidence, position mark generator smearing, and daisy chain effect. The cause for these problems consisted of excess backlash and stabilizer synchros mis-zeroed or mal-adjustment. The daisy chain effect was not corrected because of the numerous cable changes required.

Aircraft 53-403 arrived in July and the en route observer reported the radar cross hairs off in azimuth, radar altitude errors, the autopilot and MA-6 discrepancies or PDI off center, radar cross hairs uncontrollable. The causes were: Stabilizer synchros not in step, bent shaft on the stabilizer synchro, synchros mis-zeroed, gear off a synchro, excess synchro backlash and defective voltage limiter. This aircraft required considerable maintenance and troubleshooting to provide a satisfactroy system. It is interesting to note that the discrepancies are all related and could tend to give similar symptoms. Because of this, and the fact that many problems would not repeat on the ground, several flights were made before we had a good system.

Aircraft 54-2667 arrived on the station and was immediately turned over to Boeing and OCAMA personnel who had arrived at Loring to evaluate the discrepancies on aircraft previously received. They worked on it several days and found the following errors: Defective magnetron, sweep breaking up in sweep delay, PMG was causing the sweep break, azimuth mark blanking, false targets at cross hairs, 2° error in Beta minus pitch synchro, six mills error in the optical boresight, Beta sensitivity sluggish, three-fourths of a degree backlash in SD-3515, the Beta synchro off 7° in polar.

Subsequent to the arrival at Loring of many personnel from other agencies to analyze our problem and to initiate corrective action at the appropriate facilities, we received several aircraft which were in relatively good condition. These aircraft had good synchronization. The primary deficiencies consisted mainly that of adjustment.

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57 OCPQ 70095

This is a certified true copy:

EDWARD V. JOHNSON
1st Lt, USAF
Information Services Officer

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A definite downward trend of aborts was noted from August through November. The write-up-free flights increased from 11% to 37%. In December a sharp increase in troublesome flights was noted. The abort rate increased from 4% to 9%. In January it increased to 9.8. The trouble-free flights dropped to 30%.

We attempted to establish a trend and pinpoint the source of trouble. It was noted that the problems that existed during the initial aircraft delivery was beginning to reoccur in our new planes. This results in a work load for which we have neither men nor equipment. In addition, this causes excessive down time on each new aircraft. Once again without discussing all aircraft I will use only a sample. Aircraft 55-068 was delivered to Loring on 19 December. Was reported on the delivery flight with synchronization trouble. The first training flight on 3 January 1957 was reported erratic winds and unable to synchronize. The second flight on 15 January was at troublefree flight. However, no bombing was accomplished. The third flight on 25 January reported wind problems once again. This time the aircraft was grounded in compliance with 8th Air Force Regulation 136-4 for extensive Bomb-Nav maintenance. During the maintenance at Loring we found that Theta stab and periscope sensitivity, IN and XE balance, and Phi sensitivity in balance out of adjustment. Excessive backlash in stabiliser synchros was found and a synchro in the polar converter was binding. The computer was brought into the shop, went over, was found to have a large amount of metal shavings, loose solder and flux, dirt and other particles in it. This tracker had a white seal, which we presumed to be a Boeing seal, intact when brought into the shop. It also had 1290 hours recorded on the running-time meter, of which approximately 60 hours was from Loring flights and ground maintenance. The lub stamp was dated, October '54. The tech order spec for depot overhaul had been exceeded and this, in conjunction with the internal condition of the unit, forced us to NRTS it. A replacement tracker was installed in the aircraft on 5 February and a very satisfactory test hop was made.

The next aircraft we'll discuss is 55-058 a WIBAC product. This plane was delivered in January of '57, was used only in the NAV position on the ferry flight. The operator reported the PDI rotating and oscillating in BOMB. He had difficulty latching it into BOMB and could not synchronize it in azimuth. Causes for these problems were: an open synchro, defective primary control and radar boresight was way out of tolerance. We don't know yet what was wrong inside the Primary control, because when I left we hadn't gone into it to find out exactly what was wrong.

You may have noticed that very little has been mentioned about the radar and optics. This hasn't been intentional, we believe that most of our problems are basically equipment design and operator limitational deficiencies. A listing of these problems follows:

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APS-64 radar will occasionally encounter frequencies where the AFC won't lock in.

The radar sweep length is sometimes too short: This is probably caused by the use of two indicators (the 284 and 135), the sweep voltage on 284 being inadequate. Vacuum tubes and component selection will usually overcome the problem. But it is believed this shouldn't be necessary.

Indicator power supply: The IP-284 power regulation requires improving and fluctuations causes modulation of the video spoking and smearing.

Unstable negative 300: This voltage appears to be the most critical in the system. If the voltages in two PP-29's are not identical, AFC difficulties will ensue. In other words, a PP-259 can not be replaced in an aircraft without accomplishing peaking adjustment of the crystals. Also, a difficulty has been noticed between ground power and aircraft power. While it is recognized that this is a critical voltage, it is by far too critical.

Offset operation: Occasionally erroneous offset values are fed into the computer and the operator doesn't realize it. This is caused by driving to a wrong video null and basically caused by limiter operation.

The azimuth mark gap and false targets: This has been carried forth on Air Force Form 781-3 as a discrepancy. And TO 11B24-2-1-508 corrects the azimuth mark gap but introduces a false target at the cross hairs making it far more prominent.

Y-7 frosting: Frosting at altitude causes our optics to be only partially usable and in many cases completely unusable. The optic need a much larger defrosting and dessicator system.

The RT-324: There are several deficiencies within this unit that require correction, most noticeable is crystal failures. On 8 February 1957, four Loring aircraft airborne had crystal trouble. RT-324A should improve the problem.

Wavy range marks and daisy chain: This deficiency is apparently associated with cabling problems, shielding, rerouting of cables and probably equipment changes will resolve the difficulty. It is understood that these ECP's are being considered for corrective action.

The heading mark width: There's no method to adjust the heading mark width. This provision is necessary to prevent in-flight problems and unnecessary maintenance effort.

LD-6 and O-15 compatability: The timing between these units is not compatable. The radar sweep and shutter operations are not synchronized.

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Backlash: The stab unit still receives excessive synchro backlas. The specifications should be reviewed for adequacy.

Adjustment: Many adjustments in the system are critical; receiver gain, video gain, bias, ped amp, min-max, phi and theta, just to mention a few. Poor presentation and sloppy control of the cross hairs are the end result.

The APS-64 and APN-69 compatability: The exact cause of this deficiency has not been isolated to either system by us at Loring. We have obtained good results. However, the beacon signal smears and very frequently generates concentric circles rather than a clear beacon signal.

Undoubtedly there are many problem areas, possibly considered more or less serious. However, these appear to be our most outstanding ones. Corrective action is undoubtedly in progress for most of them. However, our current operating aircraft are without the benefit of fixes. When these fixes are available to the operating unit is questionable. Collectively they represent an overwhelming work load. However, the dificiencies discussed can most certainly be classed as operational necessities and essential reliability fixes.

In summary, it is suggested that the following items be considered for discussion purposes of the committee meeting: Quality Control. Scored RBS runs be accomplished before the aircraft are delivered. Be sure action is taken to insure the equipment discrepancies are corrected prior to the delivery of aircraft and an aggressive mod program be established to incorporate reliability and operational fixes."

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Discussion Highlights and Office of Primary Interest

Quality Control Program — OCAMA

How much of an analysis is conducted of flight squawks remains uncertain. Are the SAC squawks compared with the AF flight squawks and these in turn compared with the Boeing flight squawks and these in turn compared with the bench check deficiencies? Have any of the reported deficiencies been traced down to a specific cause or a particular person or operation? The AF QC people at Boeing-Seattle do not actually review the rework or recheck system performance as a result of the work accomplished to correct a flight squawk.
Defective GFAE is not always reported back to the manufacturer.

Production battle with Boeing — AFPR BOEING-SEATTLE

AMC Navigator-Observers are continually fighting a production battle with Boeing. When the contractor comes up with a particularly bum system wherein all the bugs cannot be worked out on the benches, they immediately want a CCN.

AUTOPILOT — WADC

It is felt that a better autopilot is needed. Poor synchronization could very well be attributed to the autopilot-bombing computer marriage.

Interference problems between the APS-64 and MD-9 Radars — WADC

When airplane power is set up to obtain 115 volts on the MA-6, noise problems are encountered with the MD-9 Radar.

High rejection rate with MA-6 components — WADC

Moses Lake is experimenting an 80% rejection rate of RT-324's and 60% rejection rate of IP-284's and stab units. A 15-20% failure rate on the C-2 true Airspeed Meter.

Document Procedures — OCAMA

The document procedures at Boeing-Seattle need to be overhauled or corrected to make the checks both on the bench and in the aircraft a little more explicitly - particularly as regards to sequence.

Delivery crew write-ups — OCAMA -SAC

Pilot reports and delivery crew write-ups describing the discrepancies encountered with the MA-6 are received much too late to be effective. They do not contain sufficient information about the discrepancies, particularly as regards to cause and remedy.

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Unsatisfactroy Reports — OCAMA - WRAMA

UR's are received much too late to effect any corrective action.
Not all UR's are reaching the proper office for control purposes.
Routing and classification of UR's appears to be entirely unsatisfactory.

Constant Speed Motors — WRAMA

One wing feels that the prescribed lubrication schedule for Constant Speed Motors is not suificient. This wing has experienced a number less than usual of CSM failures as a result of lubricating the motor more frequently than what is scalled for in the specification. The wing's adopted policy for CSM lubrication is: one lubrication after every 10 or 12 hour flight or after every other flight.

SAC crews perform operational acceptance check prior to taking the aircraft — SAC

It was suggested that if the SAC ferry crew would pull a normal acceptance check as laid out in the dash 1 Tech Order prior to acceptance of the aircraft, most of the troubles would be detected and repaired prior to the aircraft departing Larson or Wichita. There were some who favored the suggestion and there were others who felt that acceptance of the airplane was a function of AMC - that for SAC crews to perform additional duties prior yo accepting the airplane should be duplication of effort which had already been well paid for.

Military Specifications — WADC

Military specifications for individual components appear to be satisfactory. But there is some doubt about the merits of the Mil Spec governing the check out of the entire MA-6 System. There is some belief that when you marry the MA-6 system with the auto-pilot, you encounter a case of incompatibility of system accuracies. For this reason, one or more of the wings are relying on RRS runs as a more specific check for evaluating MA-6 performance. Compatability of test specifications in use by the equipment manufacturers, airframe facility, and the using command for evaluating performance of MA-6 systems is still open to debate.

Failure Reports — SCAMA & WRAMA

The use of the FR card, form 781-1, has not been implemented at the B-52 airframe facilities.

Back-lash Adjustments — WRAMA

There are no firm instructions in Technical Orders or Mil Specs for measuring backlash tolerances. The using command uses one set of tolerances, the airframe facility uses another, and the equipment manufacturer still another.

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RBS Runs

OCAMA

Representatives from Hq USAF and SAC stressed the benefits of conducting RBS runs prior to turning the aircraft over to SAC. AMC Navigator-Observers stationed at Seattle expressed their opinions as to why these checks should not be inaugurated as additional flight acceptance checks. AMC Navigator-Observer stationed at Wichita commented that his flight acceptance crew would not conduct RBS runs unless covered by specification requirements.

Technical Orders

WRAMA

Technical Orders are not too easy to understand. They are received in the field long after the ECP has been incorporated. They do not contain nsmessary instructions for adjusting backlash, torquing synchro collets and lubricating the CSM.

Procurement Waivers

AMC

Too many waivers involving relaxation of type tests and performance requirements are granted to the equipment manufacturers, permitting the black boxes to be shipped without having fully met either the design or basic contractual requirements.

Complexity of Contracts

AMC

The AFQC group at the equipment manufacturer's facility find it most difficult to interpret some of the contract requirements because of reference to Mil Specs which do not clearly define what portion of the Mil Spec is applicable.

Use of Environmental Facilities

WADC - AMC

Missile work is taking priority over the use of environmental facilities at the equipment factories. Type testing of MA-6 components has been waived for this reason.

Component Configuration and Relocation

WADC - SAC

The present locations of certain components are not too convenient for the navigator-observers. This is particularly true of the True Heading Transmitter unit. And certain component configurations make it impossible to work on the units in the airplane. In-flight maintenance is impossible. Pulling the units off the airplane to services them also adds to the total number of rejections against the unit.

AN/ASB-4

Boeing-Seattle currently has their first two AN/ASB-4 systems in the Bench Test Area and one installed in an aircraft for flight evaluation. At the present time the contractor personnel are attending special classroom sessions and acquainting themselves with one of the systems in the Bench Test Area. The AFQC people are not familiar with this system at all. Steps will have to be taken to train AFQC people and to set up immediate controls over such programs as involve reporting of discrepancies and the use and recognition of acceptance criteria.

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Quality Coordinator — OCAMA - AMC

Several suggestions were made pointing up the need for a representative of the Quality Control organization to be in such a position as to be able to coordinate QC problems at all levels with such organizations as the using command, WSPO, WADC, and the Procurement Office.

Personnel problems of AMC Navigator-Observers — AMC - OCAMA

Experience in B-52 or Bomber type aircraft or with SAC operations appears to be a prerequisite when installing new AMC Navigator-Observers.

Detail in Unsatisfactory Reports — ALL

Information contained in the UR should be complete as possible. Serial numbers are needed on motors, syncnhros and sealed amplifiers. Circuit symbol numbers are erequired. Past history is ne eded.

Burn-in time of components — AMC- WADC

There is a fedling that if MA-6 components were subjected to a predetermined period of operating time prior to the final acceptance check at the factory, it would assist in preventing some of the common failures destined yo occur moments after receipt of the component at its next destination.

Dissemination of facts regarding Authorized Deficiencies. — AMC

A procedure is needed to assure the using command that they are receiving all the necessary information, and history accumulated on the systems they are receiving. For example, how is SAC informed of the authorised deficiencies granted to the equipment manufacturer? How is the airframe facility notified of the same information?

Uniform Standard of Acceptability — AMC - WADC-SAC

What constitutes a satisfactory system? What is needed in a single specification which will outline the AF criteria of acceptability? This specification would encourage uniform testing procedures throughout the Air Force.

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RECOMMENDATIONS OFFERED BY THE CONFEREES

1. That close control be exercised over the lubrication requirements of the Constant Speed Motor. That adequate instructions covering the frequeny and method of lubrication be disseminated to the field in the form of a T. O. and that specifically , a copy of these instructions be placed in the hands of the contractor personnel at Boeing.

2. The Tehchnical representatives, acquainted with the overall operational aspects of the MA-6 system, be stationed at all bomber wing bases receiving the MA-6 equipped aircraft. That these "tech reps" be utilized to assist the A&E maintenance crews in the analysis and correction of MA-6 deficiencies.

3. That due consideration be given to improvement of component configuration. A number of the presently used components are inaccessible in the aircraft, from a maintenance point of view.

4. That a certain number of the systemcomponents be relocated physically. One such component is the True Heading Transmitter. It was felt that if this unit were moved closer to the operator to permit him to monitor the unit, troubles with poor synchronization would be noticeably r educed.

5. That aggressive action be taken by the Air Force Quality Control organizations at the Boeing plants in setting up the proper amount of surveillance over the installations and system evaluation tests of the AN/ASB-4. Due consideration should be given to the use of Failure Reports when reporting deficiencies on this system.

5. The the Air Force Quality Control organization pursue their responsibilities toward a more successful implementation of the AF PIP program. Somewhere along the line UR's are being bogged down. FR's are not submitted. Pertinent UR information is not reaching the office of primary concern.

7. That a quality coordinator be appointed for the purpose of monitoring and disseminating Quality Control information on the MA-6 to all administrative levels and to all involved Quality Control activities, regardless of geographical boundaries. Common knowledge of system inadequacies, system changes, and system malfunctions is arriving into the hands of Quality Control organizations much too late to permit the timely execution of preventative measures against these common deficiencies.

8. That radar bomb scoring runs be inaugurated as a part of the AF flight acceptance checks. That these runs be conducted prior to delivery of the aircraft to SAC.

9. That replacement for AMC Navigator-Observers come from SAC. Experience in bomber aircraft is considered a prerequisite for appointment to the responsible duty assignment.

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10. That certain present MA-6 maintenance TO's be simplified and patterned after the Sperry Service Bulletins. These TO's in question are not too easy to understand; they are overly complex in format, contain too much verbiage in one sense and totally lacking in detail in some of the more important system adjustment techniques.

11. That more detail be submitted in the body of the UR. This is particularly important when reporting malfunctions of certain electronic components. Serial nujmbers of motors, synchros, sealed amplifiers and other like items are needed by the investigating office in order to assure the proper analysis and subsequent course of action.

12. That ECP break-in points be more closely coordinated among the various suppliers of the same equipment.

13. That some procedure be established which would systematically alert SAC and the airframe facilities of any contractually authorized deficiency (excluding ECP coverage) granted on MA-6 components accepted at the factroy level. This procedure to appy also to authorized deficiencies granted to airframe facilities.

14. That procurement contracts for major MA-6 components include a requirement for a production unit to be subjected to a specific operating time before submitting it to the final acceptance check-out station. This is referred to as "burn-in" time. It was pointed out that some APS-64 production units have a malfunction rate which increases with additional operating time.

15. That MIL-E-5400 should not be excluded from contracts for MA-6 components. Nor should the sampling test requirements of this specification be waived.

16. That contracts referencing MIL Specifications should also clearly define the specific portion of the MIL Specification which is considered binding on the contractor. Omission of these specific references can cause many hours of ineffectual debate and dubious transactions of the contract.

17. That Air Force test specifications for evaluating the MA-6 system should be reviewed with an eye toward insuring a uniform standard of acceptability. In other words what consititutes a satisfactory system?

18. That an aggressive modification program be established to incorporate reliability and operational fixes.

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19. That an electronics field representtative be sent out with the airplane for the purpose of channeling back MA-6 problems encountered by the wing operators.

20. That Flight Test Acceptance personnel visit SAC bases for the purpose of coordinating data on discrepancies and to coordinate on the use of certain desirable checks designed to better evaluate the system.

21. That AFQC people at the airframe facilities as well as those at the equipment manufacturer's facilities initiate UR's on those MIL-Specs which are not satisfactory.

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CONCLUSIONS

1. .The B-52 airframe facilities are delivering to SAC airplanes which are equipped with undesirable MA-6 systems.

2. Air Force Quality Control is in a position to give some relief to SAC. However, SAC's biggest relief must come from such sources as the WSPO, WADC, and AMC Procurement Office.

3. The AF Product Improvement Program is recognized as a potential source of immediate relief if fully implemented and scrupulously followed by all participants in the program.

4. SAC's problems with the MA-6 could generally be attributed to any one or a combination of the following causes:

a. A recognizable amount of ineffective Quality Control.
b. Deficiencies in design.
c. A breakdown in the implementation of the PIP program.
d. Inadequate MIL-Specifications and inept Technical Orders.
e. Constant battle between production and AF Flight Acceptance at Boeing-Seattle.
f. Authorized deficiencies granted at all levels of procurement of the MA-6 system components.
g. Contract waivers permitting the relaxation of environmental testing.
h. Restricted or lack of dissemination of pertinent information.
i.

5. Quality Control's weaknesses were pin-pointed as follows:

a. Many of the deficiencies reported by SAC were unquestionably the result of the ineffective Quality Control.
b. Company flight squawks and subsequent AF flight squawks are not summarised and analyzed with a view toward isolating a particular weakness in the system. Consequently corrective action on flight squawks does not include removing the cause and initiating steps to prevent recurring deficiencies.
c. Many deficiencies encountered with GFAE are not being reported to the equipment manufacturers.
d. The use of the FR card, Form 787-1, has not been implemented at the airframe facilities.
e. Quality of GFAE arriving at the airframe facilities is not altogether satisfactory.
f. The AFQC people at Boeing-Seattle do not actually review the rework or recheck system performance as a result of work accomplished to correct a floght squawk. They practice a procedure of releasing the airplane for reflight on the strength of the contractor's records.

6. The entire Quality Control Group felt as if they had gained a wealth of experience as a result of their participation in the conference. All were most pleased with the opportunity to discuss mutual problems with the one customer whom they try so hard to please.

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RESOLUTIONS SPONSORED BY OCPQ, OCAMA

1. Explore the possibility of or need for increasing Air Force Quality Control surveillance over the final acceptance areas at both Boeing plants.

2. Explore the benefits of incorporating into Air Force Quality Control procedures at the Boeing plants, a monitored set of system checks, based on current problems reported by the using command.

3. Investigate the kind and extent of analysis that is made on all company rejects on GFAE, and all company and Air Force flight squawks.

4. Explore the possibility of initaiting a corrective action program at the Boeing plants which will isolate or remove the cause of a deficiency before writing off the flight squawk, and before permitting the use of the once-rejected or once-deficient component.

5. Review the Boeing test document on the flight line with an eye toward improving its sequence of tests and details of content.

6. Initiate the action which will motivate the immediate use of Failure Reports at the Boeing plants--specifically to cover MA-6 and AN/ASB-4 components.

7. Pursue the problems of backlash adjustments, constant speed motor lubrication instructions, and torquing of synchro collets. Determine what the acceptable criterion is, and follow through to see that the necessary Technical Orders and MIL Specifications are written or amended accordingly.

8. Review the causes for delayed and improper routing of UP's, and in general, seek an overall improvement in the implementation of the PIP program.

9. Determine what steps must be taken to authenticate a requirement for conducting Radar Bomb Scoring Runs prior to delivery of the aircraft to SAC. OCAMA Flight Acceptance Branch to pursue this item to a satisfactory working arrangement with AMC Navigator-Observers stationed at both Boeing plants.

10. Insure adequate Air Force Quality Control surveillance over the bench testing and installations of the AN/ASB-4 at the Boeing plants.

11. Insure the proper and expeditious dissemination of data gathered at the conference.

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12. Explore the ways and means for inaugurating a wire report letter to be transmitted directly to the airframe facility which delivered the aircraft. The wing receiving the aircraft would transmit this report which would be so written as to include a summarise account of the MA-6 discrepancies encountered not only during the delivery flight but all subsequent reflight flown for the express purpose of bringing the MA-6 system up to satisfactory performance.

13. Study the desirability of standardizing AFQC procedures in handling the buy-back of flight squawks. One Boeing facility follows a course of verification - the other merely releases the airplane for reflight on the strength of records.

14. Encourage or initiate the action for or lend support to the airframe AFQCR training programs involving AN/ASB-4, MA-6, and MD-9 systems.

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REPORT OF AIRCRAFT STATUS AND PURPOSE OF FLIGHT

REPORTS CONTROL SYM: 1-AF-A1

MAJOR AIR COMMAND	SUBCOMMAND	WING	GROUP
SAC	8AF	42D Bomb Wing (H)	
SQUADRON	**DETACHMENT**	**INSTALLATION**	**DATE OF REPORT**
		Loring AFB, Maine	Final Report FEB 57

PART I

LINE NO.	TYPE, MODEL, AND SERIES	ASSIGNMENT OR STATUS CODE	TOTAL NUMBER ACFT ON HAND	TOTAL HOURS: ON HAND	TOTAL HOURS: OPERATIONALLY READY	NOT OPERATIONALLY READY: SUPPLY	NOT OPERATIONALLY READY: TECHNICAL ORDER COMPLIANCE	NOT OPERATIONALLY READY: PERIODIC MAINT INSP	NOT OPERATIONALLY READY: MAL-FUNCTION MECH DEFECTS, OPR DAM	NOT OPERATIONALLY READY: OTHER REASONS	NOT OPERATIONALLY READY FLYABLE	NUMBER OF LANDINGS, LAUNCHINGS, OR FLIGHTS	HQ USAF/CMD HQ USE	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
59th 1	B-52C	CC	3	3827	906	697		255	1469		72	12		
59th 2	B-52D	CC	11	6708	4418	545			1539	206	799	86		
70th 3	B-52C	CC	3	2736	1418	391			927		80	11		
70th 4	B-52D	CC	11	5786	3515	575			1616	80	591	115		
75th 5	B-52C	CC	2	2839	549	131		332	1827		16	9		
75th 6	B-52D	CC	12	7077	4880	301		222	1578	96	397	104		
USS 7	EC-97G	CC	20	*										
	8													
	9													
	10													

* EC-97G's presently TDY, no data available.

PART II

LINE NO.	TYPE, MODEL, AND SERIES	ASSIGNMENT OR STATUS CODE	HOURS FLOWN: SPECIAL FERRIED BY MATS FERRY PILOTS	TRAINING: COMBAT CREW AND OPERATIONAL	TRAINING: STUDENT	ADMINISTRATIVE	COMBAT READINESS TNG: TRAINING	COMBAT READINESS TNG: DUAL PURPOSE	COMBAT READINESS TNG: SPECIAL MISSIONS	OTHER	TOTAL	HQ USAF/CMD HQ USE	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
9th 1	B-52C	CC		77						4	81		81	
9th 2	B-52D	CC		369							369		369	
70th 3	B-52C	CC		87							87		87	
70th 4	B-52D	CC		264							264		264	
5th 5	B-52C	CC		34						4	38		38	
5th 6	B-52D	CC		378							378		378	
	7													
	8													
	9													
	10													

TYPED NAME, GRADE AND TITLE OF COMMANDING OFFICER: C. W. Zumbrunnen, S/Sgt., USAF

SIGNATURE OF COMMANDING OFFICER:

AF FORM 15 MAY 54 110a — PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base, Maine
Part I
Management Control Statement
Analysis of Points Lost
February 1957
Bombardment

A PERSONNEL

1. Officer Manning: The low SAC rating score is caused by the increase in UMD strength as of 15 November to provide a 1.6 crew/acft manning ratio.

MONTH	AUTH	ASGD	% BODY MANNING	MIRS	% MIRS	% 2 MONTH CHANGE	SAC RATING SCORE
Dec	600	500	83.3	487	81.2		40
Jan	600	490	81.8	481	80.1		40
Feb	600	490	81.8	479	79.8	-1.4%	30

(1) Officers not manned in Requires Specialties as of 28 February 1957.

UMD POSITION	GRADE,NAME,ORGN	PAFSC	DAFSC	REASON
Flt Test Maint Off	1Lt Pierson,42BW	4351	4331	This non-rated officer is not MIRS because he is filling the rated position of UR Officer in Quality Control, (Flight Maintenance Officer). He has effectively perfomred duty in the UR section for 16 months and his DOS is in June 1957; therefore it is considered advisable that he continue to fill this position until a better qualified replacement becomes available.
Dep Dir of Materiel	Lt Col Etherington 42BW	4316	4316	Position unauth currently. Request for UMD change submitted 28 Sept 56. Presently Comdr Loring Wherry Housing Task Force.
-------	Cpt Doan, 70BS	1525A	-----	Pending EDCSA: 12 Mar 57 Departed:
-------	Maj Cobb, 75thBS	1525I	-----	Grounded, Presently performing dy w/ABGp

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UMD POSITION	GRADE,NAME,ORGN	PAFSC	DAFSC	REASON
Intell Photo Radar Off	1Lt.Chatman, 42BW	1124Q	2041	Directed Duty.
Acft Obsr	Capt Hart, 69BS	1525A	----	On loan to 42d ABGp as Asst Housing Off, pending final result of 36-2 action.
Acft Perf Engr	1Lt Mauri,70BS	4324	4324	Surplus B-36 crew member DOS April 1957.
Pilot B-36	1Lt Whitner 70BS	1124Q	6421	Off is surplus B-36 plt and is performing duty in 70BHS as Supply Officer.
Gen Med Off	Capt Frascati,42TH	9326	9326	Officers do not have prof. training to be asgd auth medical specialists positions.
Gen Med Off	Capt Schain, 42TH	9326	9326	
Gen Med Off	Capt Malachowsky 42TH	9326	9326	

SUMMARY OF OFFICERS NOT MIRS DECEMBER THRU FEBRUARY

AFSC	TITLE	DEC	JAN	FEB	REASON
1234A	Pilot B-36	2	1	1	DOS Jul 57
1416	Ops Staff Off	1	1	1	DOS Jun 57
1435	Air Ops Off	1			
1525A	Nav B-36			1	Pending loss EDCSA:12 Mar57
1525I	Nav B-52			1	Grounded
1521P	Nav KC-97	2			
1525A	Acft Obsr, B-36 & B-52		1	1	On loan to 42d ABGp Asst Housing Off pending AFR 36-2 action
2044	Intell Photo-Radar Off	1	1	1	Directed Duty
4324	Acft Perf Engr	2	1	1	DOS Apr 57
4331	Flt Test Maint Off	1	1	1	DOS Jun 57
4344	Acft Maint Off	1			
9326	Med Off	3	3	3	Officers do not have professional training to be asgd medical specialists positions.

(2) Critical Officer Shortages Requiring Action by higher headquarters. The following 120 day projected critical shortages of officers are furnished higher headquarters for programming purposes to improve manning in required specialties in the most critical areas only but do not include all projected Officer shortages.

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AFSC	TITLE	AUTH	ASGD	GAINS	LOSSES	% MANNED
3216	Armament Staff Off	3	2			67
3234	Armament Sys Off	5	2	1		60
3244	Armament Oper Off	4	3			75
4316	Acft Maint Staff Off	6	5	1	1	83*
4334	Flight Test Maint Off	4	1			25
4344	Acft Maint Off	6	5		3	50
4355	Production Control Off	3	2			67
6424	Supply Officer	11	9		3	54**
7024	Administrative Off	5	4			80
7324	Personnel Off	4	4		1	75
9356	Med Off Aviation Med	5	4	1	1	80
9446	Otolaryngologist	1	0			0
9636	Radiologist	1	0			0
9734	Nurse Operating Room	1	1		1	0
9754	Nurse General	12	11		1	83
9836	Oral Surgeon	1	0			0
9856	Prosthodentist	1	0			0
43100	Acft Maint Supt	1	1		1	0
73000	Personnel Supt	1	0			0

* UMD Position Requested for one additional AFSC 4316 on 28 Sept 56.

** AFSC 6424 critical because four of assigned officers are at entry level.

b. Airmen Manning

DIRECT SUPPORT MONTH	AUTH	ASGD	% BODY MANNING	MIRS	% MIRS	% 2 MONTH CHANGE	SAC RATING SCORE
Dec	1894	1993	105.2	1653	87.3		80
Jan	1915	2027	105.8	1690	88.2		90
Feb	1915	2054	107.2	1707	89.1	↑01.8	90
INDIRECT SUPPORT							
Dec	613	617	100.7	421	68.7		10
Jan	591	641	108.5	446	75.5		20
Feb	591	612	103.6	472	79.9	↑11.2	40

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(1) SUMMARY OF AIRMEN NOT MANNED IN REQUIRED SPECIALTIES

	DEC	JAN	FEB
010's in excess of helper level positions	16	12	12
010's training in position w/o vacancy	22	25	61
3 level airmen on OJT - C for the 5 level where no vacancy exists	164	139	112
3 level airmen on OJT-C for the 5 level where vacancy exists	76	70	32
3 level airmen on OJT-C for the 7 level (no 5 level) where vacancy exists	0	0	1
3 level airmen on OJT-D to career fields where vacancy exists at higher skill level	25	21	18
5 level airmen not on any type of OJT due to maximum manning at 7 level	156	179	163
5 level airmen on OJT-C for 7 level where no vacancy exists at lower skill level	41	44	49
7 level airmen not on any type of OJT and cross training prohibited by Project Guidance	14	12	18
Airmen in unauthorized AFSC's which cannot be cross trained due to Project Guidance	22	30	21
TOTAL AIRMEN NOT MIRS	536	532	487*

Amn assigned (2666) - Amn MIRS (2179) = 487 Total Amn not MIRS

* The basic reason for these airmen not MIRS is because of lack of proper skill levels of assigned individuals in authorized AFSC's. This wing has 21 men with unauthorized AFSCs.

(2) Critical Airmen Shortages Requiring Action by Higher Headquarters.

The following 120 days projected critical shortages of airmen are furnished higher headquarters for programming purposes to improve manning in required specialties in the most critical areas only, but do not include all projected airmen shortages.

AFSC	AUTH	Feb CAFSC	Jan CAFSC	% OF CHANGE	LOSSES	GAINS	% MANNED
431X1E	630	603	554	108.0	41	65	95.7

(3) Skill Level Distribution

DIRECT SUPPORT	42BW	7 Level	5 Level	3 Level	010
AUTH	1915	498	1063	354	0
ASGD	2054	417	1179	457	1
PERCENTAGES	107.2	83.7	110.9	129.1	
INDIRECT SUPPORT					
AUTH	591	106	359	115	11
ASGD	612	87	349	157	19
PERCENTAGES	103.6	82.1	97.2	136.5	172.7

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(4) Grade Level Distribution

DIRECT SUPPORT	42BW	MSGT	TSGT	SSGT	A/1C	A/2C	A/3C	A/B
AUTH	1915	297	201	447	616	354	0	0
ASGD	2054	158	185	286	432	630	341	22
PERCENTAGES	107.2	53.2	92.0	64.0	70.1	178.0		
INDIRECT SUPPORT								
AUTH	591	52	54	163	201	110	11	0
ASGD	612	35	36	79	97	244	111	10
PERCENTAGES	103.6	67.3	66.6	48.5	48.3	221.8	1009.1	

(5) Losses by Control AFSC during February 1957.

LOSSES	3 LEVEL	5 LEVEL	7 LEVEL	TOTAL
Discharged	7	53	4	64
Transferred	24	17	7	48
Total this month	31	70	11	112
Total this vear	36	93	25	154
Average monthly loss	18	46.5	12.5	77
PROJECTED 120 DAYS				
LOSSES*	4	105	8	117
GAINS	69	25	18	112
NET GAINS OR LOSSES	165	-80	10	-5

*Projected losses include separations only. Reassignments within ZI and Overseas can not be predicted but will noticeably increase these projections.

2. AWOL RATE - No points were earned on this item durint the month of February since the Wing experienced 10 AWOL'S during the month. Immediate Command action is necessary since an extremely high rate was also experienced in January.

3. Reenlistment Rate - Ten percent of score was earned on this item with twelve airmen reenlisting. This item is again below the Wing average for last quarter.

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4. OJT EFFECTIVENESS

a. Test results and upgrading action

1 Air Force Job Knowledge Test

	Last Quarter	JAN	FEB
Number eligible for testing	85	12	3
Number Tested	40	12	3
Number passing tests	28	5	2
Number upgraded to 3 level	33	5	5
% passing test	62.8	42.0	66.7
% passing test to date this date	86.9	42.0	46.7
Number passing test but not yet upgraded	3	3	0

2 Airmen Proficiency Tests

	Last Quarter	JAN	FEB
Number eligible for testing	482	185	319
Number tested	335	106	—*
Number passing tests	197	85*	—**
Number upgraded to 5 level	195	125	110
Number upgraded to 7 level	38	15	25
% passing 5 level test	63.1	70.6*	—**
% passing 7 level test	39.9	60.9*	—**
% passing 5 level to date		70.6*	—**
% passing 7 level to date		60.9*	—**
Number passing tests but not yet upgraded		60	46

* Total figures not available due to large percentage of personnel taking tests are on operation cold wave. These personnel were tested at Thule AFB and percentage taking test will not be known until test scores are received from Mitchel AFB N. Y.

** No test results for February

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b. Adequacy of OJT Program

(1) The below table shows the shortage of each squadron in meeting the USAF goal of 10% upgrade training each month of all airmen in the considered and the difference between Column 7 (Monthly average Number Upgraded) and Column 8 (10% of number in training as listed in Column 2.)

SQUADRON SHORTAGES IN MEETING USAF GOAL OF 10% UPGRADE TRAINING

	NO. IN PROGRAM		PERCENTAGE	NUMBER UPGRADED			10% OF NO. IN TRNG	SHORTAGES	
UNIT	TOTAL	OVER 5 MOS	OVER 5 MOS	MONTH	DATE	AVERAGE		MONTHLY	TO DATE
HqSqWg	36	16	44.4	19	21	10.5	3.6	0	0
69BHS	81	39	48.1	11	28	14.0	8.1	0	0
70BHS	62	15	24.2	2	21	10.5	6.2	0	0
75BHS	81	27	33.3	7	21	10.5	8.1	0	0
42ARS	57	30	52.6	4	5	2.5	5.7	3.2	6.4
42FMS	257	114	44.5	40	98	49.0	25.7	.0	0
42FMS	99	12	12.1	1	35	17.5	9.9	0	0
42A&E	106	18	17.0	44	57	28.5	10.6	0	0
42TACHOSP	28	16	57.1	11	11	5.5	2.8	0	0
42FWG	807	287	35.6	139	297	148.5	80.7	0	0
DIV	AVERAGE		41.2	TOTAL 429		DIVISION TOTAL			0

(2) The adequacy of the OJT program, is those squadrons showing a cumulative shortage in Column 10 of the above table, must be correlated with the percentage of airmen in the program over 5 months.

							CHANGE IN COL 7
UNIT	AUTH	ASGD	MIRS	%MIRS	MANNED	OVER 5 MOS	SINCE LAST MONTH
WqHqSq	164	179	129	78.7	109.1	44.4	-07.4
69BHS	172	163	125	72.7	94.8	48.1	-09.4
70BHS	172	166	123	71.5	96.5	24.2	-01.7
75BHS	172	184	134	77.9	107.0	33.3	-25.3
42ARS	190	192	155	81.6	101.1	52.6	-00.8
42FMS	901	964	796	88.3	107.0	44.5	-03.4
42FMS	273	243	213	78.0	89.0	12.1	-00.1
42A&E	347	440	313	90.2	118.2	17.0	-02.7
42TACHOSP	115	135	98	85.2	110.4	57.1	-17.3
42FWG	2866	2666	2086	72.8	92.8	35.6	-04.5

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c. Summary of Results

IN PROGRAM	NOV	DEC	JAN	FEB	
TOTAL	827	930	901	807	
1 MONTH	76	171	133	111	
TOTAL	751	759	768	696	
2 MONTHS	180	69	163	113	
TOTAL	571	690	605	583	
3 MONTHS	58	163	67	131	
TOTAL	513	527	538	452	
4 MONTHS	114	55	137	59	
TOTAL	399	472	401	393	
5 MONTHS	74	110	40	106	
OVER 5 MONTHS	325	362	361	287	DIV AVERAGE PERCENTAGES
% of Total now in Program	39.3	38.9	40.1	35.6	1956 : FEB 57 31.78 42.77
* %Not upgraded After 5 Months	35.3	40.3	34.4	33.37	35.95: 37.09
No. Upgraded This Month	150	67		139	
**% Upgraded	16.5	8.1		15.43	10.71: 14.90
Wg Average Upgraded Monthly	10.15	9.98	16.99	16.21	
Div Average % Upgraded Monthly	10.70	10.71		14.90	

5. OJT EFFECTIVENESS: Reporting of OJT Effectiveness was implemented beginning Jan 57 and hence, no score (NS) is listed for last quarter.

a. Number On Ojt vs. Number Eligible

	LAST QTR	JAN	FEB
(1) Number on OJT	NS	711	668
(2) Number Eligible	NS	721	678
(3) Percent OJT	NS	98.61	98.53
(4) Percent Score	NS	15	15

b. Number Passing Test (APT & AFJKI) vs. Number Tested:

	LAST QTR	JAN	FEB
(1) Number Passing Test	NS	35	87
(2) Number Tested	NS	71	129

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	LAST QTR	JAN	FEB
(3) Percent Passing Test	NS	49.29	67.44
(4) Percent Score	NS	0	0

c. Number Upgraded of Number on OJT:
NOTE: Figures reported for Jan 57 under par (1) and (2) below are now corrected in compliance with msg CINCSAC DPATS 15782, Subj: SAC Form 24, Airman OJT Report dtd 26 Feb 57.

	LAST QTR	JAN	FEB
(1) Number Upgraded	NS	158	139
(2) Number on OJT	NS	930	901
(3) Percent Upgraded	NS	16.99	15.43
(4) Percent Score	NS	25	25

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B Materiel - No activity is being measured in this area at the present time.

C General -

1. Cost/Flying Hour - No standards have been published for measuring B-25 activity; therefore, no scores are included.

a. Personnel costs increased approximately $66,000. The majority of this increase was in the Field Maintenance Squadron. The Cost per Flying Hour decreased approximately $ 50 despite the increase in actual cost because of the increase in Flying Hours.

b. Aviation POL Costs - The data extracted from the Forms 781-2 resulted in an average fuel consumption of only 12,000 pounds per hour. Since this figure is well below the known consumption, an estimated fuel consumption was submitted for the expense report. The proper recording of all fuel serviced both ground and in-flight and extraction of data from forms on aircraft being transferred must be emphasized.

c. Other Supplies - The actual cost of other supplies for February was not available since the accounts reflect a $360,000 credit adjustment from previous months.

d. Contractual Services and TDY - This item decreased approximately $20,000 from the previous month but will remain high until B-52 transfers are complete.

2. Safety - Both Flying and Ground Safety received 100% of score for the month of February.

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR February 1957	PAGE NR 11	NR OF PAGES 24	REPORTS CONTROL SYMBOL
ORGANIZATION AND LOCATION Headquarters 42nd Bombardment Wing Loring Air Force Base, Maine	LAST SAC STATEMENT	CURRENT PERIOD (Applicable Months)		AVERAGE OR TOTAL

ITEM	SAC UPPER QUARTILE	Wing DATA	Dec	Jan	Feb		
A PERSONNEL							
1. MIRS							
(a) Officers	90	60%	40%	40%	30%		
(b) Airmen							
(1) Direct	60	10%	80%	90%	90%		
(2) Indirect	20	10%	10%	20%	40%		
2. AWOL Rate	100	100%	40%	10%	0%		
3. Reenlistment Rate	50	20%	60%	10%	10%		
4. OJT Effectiveness	NS	NS	NS	40%	40%		
Personnel Total	61.6%	26.7%	66.2%	53.1%	52.8%		
C GENERAL							
1. Cost/Flying Hour	76	50%	NA	NA	NA		
2. Safety							
(a) Flying	100	100%	100%	5%	100%		
(b) Ground	80	90%	85%	75%	100%		
3. Reports on Time	91	NR	NR	NR	NR		
4. USCM Sabotage	100	NR	NR	NR	NR		
General Total	84.3	65.6%	94.7%	28%	100%		

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SAF FORM 1 MAR 56 102 FC: 1910

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR February 1957	PAGE NR [illegible]	NR OF PAGES [illegible]	REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb		AVERAGE OR TOTAL
D OPERATIONS							
1. Training Accomplishments				17.3%	30.8%		
2. Wing Reliability							
a. Radar RBS	93			90%	89.4%		
b. Visual RBS	93			100%	87.5%		
c. Night Celestial Navigation	100			100%	100%		
d. Grid Cel Navigation	100			100%	100%		
e. Gunnery	91			85.7%	66.7%		
f. Big Photo Record				59.8%	64.4%		
g. Rendezvous	100			100%	100%		
h. Refueling							
(1) Wet Hookups	100			100%	100%		
(2) Mass Night Refueling	100			NS	NS		
3. USCM Effectiveness	100			NS	NS		
4. NCR Crew Upgrading	100			50%	100%		
5. NCR Crew Flying Time	100			90.8%	100%		
6. Probation Status	100			NS	NS		
7. Evaluation	81			NS	NS		
Operations Total	96.0			58.7%	77.2%		

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: February 1957	PAGE NR: 13	NR OF PAGES: 24	REPORT CONTROL SYMBOL	
ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine	LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)		AVERAGE OR TOTAL
ITEM	SAC UPPER QUARTILE	DATA	Dec	Jan	Feb
Grand Total				55.0%	70.7%
A PERSONNEL					
1. Manning in Required Specialties.					
(a) Officer MIRS % Score		60%	40%	40%	30%
(1) No. Required			600	600	600
(2) No. Assigned			500	490	490
(3) No. IRS			487	481	479
(4) Percent IRS			81.2%	80.1%	79.8%
(b) Airmen MIRS Direct Support Skill % Score		10%	80%	90%	90%
(1) No. Required			1894	1915	1915
(2) No. Assigned			1993	2027	2054
(3) No. IRS			1653	1690	1707
(4) Percent IRS			87.3%	88.2%	89.1%
(c) Airmen MIRS Indirect Support Skill % Score		10%	10%	20%	40%
(1) No. Required			613	591	591
(2) No. Assigned			617	641	612
(3) No. IRS			421	446	472
(4) Percent IRS			68.7%	75.5%	79.9%
2. AWOL Rate, % Score		100%	40%	10%	0%

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FC: 1810

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR	PAGE NO.	NO. OF PAGES	REPORTS CONTROL SYMBOL
	February 1957	14	24	

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb		AVERAGE OR TOTAL
(a) Average Strength			2706	2476	2530		
(b) No. going AWOL			4	7	10		
(c) Rate per 1000			1.48	2.83	3.95		
3. Reenlistment Rate % Score		20%	60%	10%	10%		
(a) No. Eligible			53	28	94		
(b) No. Reenlisting			26	4	12		
(c) Percent Reenlisting			49.1	14.3	12.8		
4. OJT Effectiveness % Score		NS		40%	40%		
a. No. on OJT vs No. Eligible			NS	15%	15%		
(1) No. on OJT				711	1379		
(2) No. Eligible				721	1399		
(3) % on OJT				98.6%	98.6%		
b. No. Passing Tests vs No. Tested				0%	0%		
(1) No. Passing Tests				35	122		
(2) No. Tested				71	200		
(3) % Passing Tests				49.29	61%		
c. No. Upgraded vs no. On OJT				25%	25%		
(1) No. Upgraded				158	297		
(2) No. on OJT				930	1831		

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SAF FORM 1 MAR 56 102 FC: 1810

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR		PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	February 1957		15	24	
ORGANIZATION AND LOCATION Headquarters 42nd Bombardment Wing Loring Air Force Base, Maine	LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)		AVERAGE OR TOTAL
ITEM	SAC UPPER QUARTILE	DATA	Dec	Jan	Feb
(3) % Upgraded				17.0%	16.2%
Personnel Total	..	26.7%	63.1%	53.1%	52.8%
C GENERAL					
1. Cost/Flying Hour		50%	NA	NA	NA
(a) Flying Hours Bomber			946	1001	1218
(b) Pers. Cost Bomber % Score			NA	NA	NA
(1) Total Cost			$585,541	$637,441	713,897
(2) Cost/Flying Hour			618.97	636.80	$586.12
(3) Standard Cost/Flying Hour			NA	NA	NA
(c) Aviation POL Cost Bomber % Score			NA	NA	NA
(1) Total Cost			$265,453	$291,207	364,947
(2) Cost/Flying Hour			280.61	290.92	299.63
(3) Standard Cost/Flying Hour			NA	NA	NA
(4) Performance Index			NA	NA	NA
(d) All Other Supply Cost Bomber % Score			NA	NA	NA
(1) Total Cost			$89,663	$71,143	(359,926)
(2) Cost/Flying Hour			$94.78	$71.07	(295.50)
(3) Standard Cost/Flying Hour			NA	NA	NA
(e) Contractual Serv. & Other Cost Bmb. % Score			NA	NA	NA

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SAF FORM 102 FC: 1910

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: February 1957	PAGE NR: 16	NR OF PAGES: 24	REPORTS CONTR SYMBOL:
ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine				

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	AVERAGE OR TOTAL
(1) Total Cost			25,688	42,009	20,316	
(2) Cost/Flying Hour			$27.15	$41.97	16.68	
(3) Standard Cost/Flying Hour			NA	NA	NA	
2. Safety						
(a) Flying % Score		100%	100%	5%	100%	
(1) No. Of Accidents			0	1	0	
(2) Flying Hours			946	1001	1218	
(3) Rate/100,000 Hours Flown			0	99.9	0	
(b) Ground % Score		90%	85%	75%	100%	
(1) Ground Safety Index			5.21	2.04	1.13	
(a) Military Injuries Rate/100,000 Mandays Exposure			5.21	2.04	1.13	
1 No. of Military Disabling Injuries			5	2	1	
2 No. of Mandays Exposure			96,007	97,898	88,620	
(b) Gov. Mtr. Veh. Accid. Rte/100,000 Miles Driven			0	0	0	
1 No. of Accidents			0	0	0	
2 No. of Miles Driven			15,229	25,353	25,449	
(c) Civ. Inj. Rate/1,000,000 Mandays Exp.			0	0	0	

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FC: 1910

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: February 1957	PAGE NR: 17	NR OF PAGES: 24	REPORTS CONTROL SYMBOL	
ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine	LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)		AVERAGE OR TOTAL
ITEM	SAC UPPER QUARTILE	DATA	Dec	Jan	Feb
1 No. of Civilian Disabling Injuries			0	0	0
2 No. Mandays Exposure			11,575	13,232	12,286
(2) Accident Cost Index			$1.93	$10.64	$.30
(a) Total Cost			$6,125	$34,644	$966.00
(b) Mean Strength			3,166	3257	3242
3. Reports on Time		NR	NR	NR	NR
4. USCM Sabotage % Score		NR	NR	NR	NR
(a) No. Aircraft Available					
(b) No. Aircraft Sabotaged					
(c) Per. Aircraft Not Sabotaged					
(d) No. Flyaway Kit System					
(e) No. Flyaway Kit System Sabotaged					
(f) Per. Flyaway Kit System Sabotaged					
(g) Ground Rules Violated (Yes or No)					
General Total		65.6%	94.7%	28%	100%
D OPERATIONS					W1977C
1. Training Requirements (50-8)				17.3	30.8
Radar RBS Total (Ob-Rad)				24.3	40.7
Direct Aiming				6.9	15.9

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ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb		AVERAGE OR TOTAL
Offset Class IIIA Target				79.2	100		
Optional (Direct or Offset)					44.5		
Fixed Angle					9.3		
GPI				8.0	26.1		
Mach 84				.6	15.3		
Evasive Action					5.7		
IBDA				4.0	8.7		
Radar RBS (Ob-Nav)				9.8	29.0		
RBS Visual Attacks (Ob-Rad)				12.5	13.3		
RBS Visual Attacks (Ob-Nav)							
Radar Attacks Camera Scored (Ob-Rad)				10.2	16.7		
IBDA at Mach 84				8.0	21.2		
Fixed Angle					12.1		
Rad Attack Camera Scored (Ob-Nav)					7.0		
Visual Attacks Camera Scored (Ob-Rad)				4.9	6.5		
Visual Attacks Camera Scored (Ob-Nav)				2.7	4.7		
Visual Rel. (Conv) (Ob-Rad)							
Visual Rel. (Conv or M-19) (Ob-Rad)							
Visual Rel. (Conv) (Ob-Nav)							

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: February 1957	PAGE NR: 19	NR OF PAGES: 24	REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb		AVERAGE OR TOTAL
Navigation Night Cel				20.0	38.4		
Day Cell				19.7	54.8		
Celestial Grid				32.9	73.0		
Radar Grid				2.7	23.3		
Pressure Pattern				5.4	16.3		
Refueling Total CR				44.7	60.9		
Mass Night							
Max Gross Weight Night				7.7			
Opt Gross Weight 20 Min. Contacts				15.4	56.5		
Dry Contacts					12.3		
Refueling Total NCR				100	100		
One Tanker Min. of 20 Minutes				6.3	75.0		
Gross Wt. 395,000				25.0	95.0		
Dry Contacts				65.0	100		
Rendezvous Total				28.6	51.4		
Night				57.1	66.7		
AN/APN-12/76				62.2	100		W1977C
Gunnery Air To Air				41.0	54.8		
Fighter Attack Mission				3.7	48.2		

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: February 1957	PAGE NR: 20	NR OF PAGES: 24	REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb		AVERAGE OR TOTAL
Big Photo Alt 6 or 8					2.7		
Big Photo Apt 9 or Alt 8				44.2	89.6		
Big Photo Spot Alt 8 or Alt 6				2.3	2.0		
Big Photo Spot Apt. 9 or Alt 8				24.1	47.3		
Big Snow				.8	.8		
Little Snow							
T-464/Alt 7				13.8	12.9		
T-465/Alt 7				20.7	19.3		
Alt 6 or Alt 8				1.0	3.3		
Apt 9 or Alt 6				4.7	21.9		
Big Photo Chatter							
Little River							
Max Chaff Dispense Out							
Formation Flying Total Hours							
Hours at 30,000 Feet or Above							
Hours at 10,000 feet or below							
Pilot Proficiency Mission				4.9	17.7		
Take Offs A/C				100	100		
Take Offs CP				58.9	100		

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	February 1957	21	24	

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb		AVERAGE OR TOTAL
Landings A/C				100	100		
Co-Pilot				58.9	100		
IIS or GCA A/C				92.4	100		
Co-Pilot				93.2	100		
PPI Approach A/C				11.0	18.8		
PPI Approach CP				10.8	25.6		
Gyro Out A/C				2.7	5.9		
Co-Pilot				2.7	9.3		
Airborne Radar Approach				47.7	95.3		
Pressurized Flight				100	22.3		
Emergency Drill				28.7	75.5		
Simulated Strike Reports				4.0	17.4		
Cell Tactics							
Air Weapons				69.2			
Water Injection Take Offs							
Total Average Completed				17.3	30.8		W1977C
2. Wing Reliability							
a. Radar RBS % Score				90%	89.4%		
(1) No. Flown				40	236		

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR	PAGE NR	NR OF PAGES	REPORTS CONTR SYMBOL
February 1957	22	24	

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)			AVERAGE OR TOTAL
	SAC UPPER QUARTILE	DATA	Dec	Jan	Feb	
(2) No. Reliable				36	211	
b. Visual RBS % Score			-	100%	87.5%	
(1) No. Flown				4	16	
(2) No. Reliable				4	14	
c. Night Cel Nav % Score				100%	100%	
(1) No. Flown				10	28	
(2) No. Reliable				10	28	
d. Grid Cel Nav % Score				100%	100%	
(1) No. Flown				9	34	
(2) No. Reliable				9	34	
e. Gunnery % Score				85.7%	66.7%	
(1) No. Attempts				7	24	
(2) No. 75% Fire Out				6	16	
f. Big Photo ECM % Score				59.8%	64.4%	
(1) No. Runs				21	55	
(2) Total Possible Points				567	1485	
(3) Total Points Scored				339	956	
g. Rendezvous % Score				100%	100%	
(1) No. Attempts				9	28	
(2) No. Successful				9	28	

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR February 1957	PAGE NR 23	NR OF PAGES 24	REPORTS CONT. SYMBOL

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb		AVERAGE OR TOTAL
h. Refueling							
(1) Wet Hookups % Score				100%	100%		
(a) No. Attempts				18	63		
(b) No. Successful				18	63		
(2) Mass Night Refueling % Score				NS	NS		
(a) No. Attempts							
(b) No. Successful							
i. Cruise Control							
(a) No. Attempts							
(b) No. Successful							
3. USCM Effectiveness % Score				NS	NS		
a. Average No. CR Crews Assigned							
b. No. NCR Crew Upgarded							
c. Total Points Earned							
4. NCR Crew Upgrading % Score				50%	100%		
a. Average No. CR Crews Assigned				18	19.7		
b. No. NCR Crews Upgraded				4	12		
c. Total Points Earned				100	300		

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: February 1957 | PAGE NR: 24 | NR OF PAGES: 24 | REPORTS CONTR. SYMBOL

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb		AVERAGE OR TOTAL
5. NCR Crew Flying Time % Score				90.8%	100%		
a. Hours Required				714	1182		
b. Hours Flown				648	1189		
6. Probation Status % Score			NA	NA	NA		
a. No. Crew Subject to Probation							
b. No. Crews Not on Probation							
7. Evaluation			NA	NA	NA		
a. No. Evaluating Given							
b. No. Successful Completed							
Total Operations				58.7%	77.2%		
Grand Total				55.0%	70.7%		

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COST PER FLYING HOUR

Month Ending 28 February 1957

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	Personnel		Supplies				Contractual Services and Others	
			Aviation POL		All Other			
Direct TAC Sqdn Costs	B-52	KC-97	B-52	KC-97	B-52	KC-97	B-52	KC-97
69th BHS	$103742		$135155		(341)			
70th BHS	98797		105028		8573			
75th BHS	105689		124764		14687			
42nd ARS		$103945		$107549		$ 1719		$ 73
Tactical TAC Sqdn	$ 308228	$103945	$364947	$107549	$22918	$ 1719		$ 73
Direct Maintenance								
A & E Maint.	$ 887				$15260	$ 21		
Field Maint.	164470	$ 5183			(409623)	294		
Periodic Maint.	41514				(6552)	(387)		
Total Direct Maint.	$ 294722	$ 5183			(400916)	(72)		
Indirect Maintenance								
A & E Maint.	$ 5641				$ 4064			
Field Maint.	20040	$ 641			12997		$ 217	
Periodic Maint.	4425				157			
Total Indirect Maint.	$ 30106	$ 641			$ 17218		$ 217	
TDY Costs							$20099	
SUB Total	$ 633056	$ 109769	$364947	$107549	(36078)	$1647	$20316	$ 73
Headquarters	$ 80841	$ 14043			$ 855			
Total Cost	$ 713897	$ 123812	$364947	$107549	(359926)	$1647	$20316	$ 73
1-AF-Al Tot. TAC Fly Hrs.	1218	669	1218	669	1218	669	1218	669
Cost/Fly Hour	586.12	185.07	299.63	160.76	(295.50)	(2.46)	$16.68	..11
Stand. Cost/Fly Hr.		200	293	135		$ 15		6.
Performance Index			97.7	84.0%				
% Maximum Score Earned		100%	100%	80%		100%		100%
Points Earned		50	55	44		20		25
Total Cost	$739234	$233081						
Total Actual Cost/Fly Hr.	$606.93	$348.80						
Total Stand. Cost/Fly Hr.		$356						
Total Points Earned		139						
Total Points Possible		150						
Overall % of Score Earned		92.7%						

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HISTORY

K-WG-42-Hi
March 1957
Vol. I
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Director
Research Studies Institute
Attn: Archives Branch
Maxwell AFB, Alabama

STRATEGIC AIR COMMAND

RM-57- 1997

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42D BOMBARDMENT WING , HEAVY

1-31 March, 1957
(Unclassified Title)

Part I of 2 Parts

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HISTORY OF
THE 42D BOMBARDMENT WING, HEAVY
1 MARCH to 31 MARCH, 1957
(Unclassified Title)
Loring Air Force Base, Maine

Prepared for the Historical Section of the Information Services Office, 42d Air Base Group, by S/Sgt John J. Houlihan, Historian, under the supervision of 1st Lt. Edward V. Johnson, Jr., Historical Officer.

(45th Air Division, Eighth Air Force, Strategic Air Command)

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FOREWORD

This report contains the History of the 42d Heavy Bombardment Wing for the period 1 thru 31 March 1957. The origin and organization of this bomb wing are recounted along with important activities--mission and mission implementation, operations and training, maintenance and materiel, and personnel--being emphasized for the reporting period.

The information contained herein, relative to the History of the 42d Heavy Bombardment Wing at Loring Air Force Base, Maine, a unit of the 45th Air Division (SAC) covers activities of the wing and assigned organizations. It is related to previous monthly histories of the wing since its activation.

The present report was supervised by 1st Lt. Edward V. Johnson, Jr., USAF, Historical Officer (Information Services Staff Officer) and written by S/Sgt John J. Houlihan, Historian.

Like other month's reports, this history is subject to change, and additional information or suggestions will be welcomed.

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TABLE OF CONTENTS

	PAGE
FRONTISPIECE	
FOREWORD	
ORGANIZATION, ADMINISTRATION AND PERSONNEL	1
Brief Unit History	1
THE MISSION AND ITS IMPLEMENTATION	5
Over-All Mission	5
OPERATIONS AND TRAINING	6
Wing Combat-Ready Status	6
Operation "Country Club"	7
Operation "Cold Wave"	14
Flying Training	18
Ground Training	20
Navigation and Bombing Panels	21
Miscellaneous Projects	22
KC-135 Conversion	23
PERSONNEL	24
Officer Manning	24
Airman Manning	24
LIST OF EXHIBITS	26
ROSTER OF KEY PERSONNEL	28

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ORGANIZATION, ADMINISTRATION AND PERSONNEL

Brief Unit History

The 42d Heavy Bombardment Wing was activated at Limestone Air Force Base, Maine, on 25 November 1953 and was assigned to the Eighth Air Force.[1] Actually, the 42d was "re-activated". The parent unit to the 42d Bomb Wing was the 42d Bombardment Group, Medium, Army Air Forces, which had served in the South Pacific during World War II.[2]

The three primary squadrons of the World War II bomb group-- the 69th, 70th and 75th[3] -- were again "re-activated" with the 42d Bomb Wing.[4] During the war these bomb squadrons flew the B-25 "Billy Mitchell" bombers and were designated "Medium".[5] When activated again in 1953, the squadrons were re-designated "Heavy"[6] and the B-36 "Peacemaker" became the primary aircraft.

During the fighting in the Pacific, the 42d Medium Bomb Group distinguished themselves by winning many battle credits and a Distinguished unit citation.[7]

---

1. SAC GO 10, 25 February '53 per DAF Ltr 322 (AFOMO 410h), 24 March '53.
2. USAF Hist Div Study, September '55; Hist Data per 42d Bomb Group (M) 1941-46.
3. Ibid., also Hist Data per 69th, 70th and 75th Bomb Sqdns (H).
4. SAC GO 10.
5. WD Ltr, AG 320.2 (10-17-40), M (Ret) M-C, 20 November '40.
6. DAF Ltr, 322 (AFOMO 410h), 24 March '53.
7. Battle credits awarded group for China Defensive and Offensive (Cir 1, Hq 13th AF, 10 June '46), and for action in the Bismarck Archipelago, Luzon, New Guinea, Northern Solomons (WD GO 12, 12 February '46) and Southern Philippines (DA GO 29, 21 April '48). For a mission near Balikpapan on the Isle of Borneo, Netherlands East Indies from 23-30 June '45, the group received a Distinguished Unit Citation (WD GO 44, 13 May '46).

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In 1946, while stationed in Japan, the 42d Bomb Group was de-activated.[8]

In this same year, 1946, a seemingly unrelated event was taking place back in the United States; the construction of a small airstrip in the northern part of Maine. Seven years later, at Limestone Air Force Base,[9] the 42d was re-activated.

Original construction of the base itself was begun in the winter of 1946-47. During the initial construction period, up to the winter of 1952-53, Limestone AFB was garrisoned by a small group of Air Force personnel.[10] The base did not come under the jurisdiction of Strategic Air Command until February, 1953.[11]

When the 42d Bomb Wing was activated, the construction program went into high gear; hangars, docks, an extension to the runway, barracks--many important facilities were initiated.

The first B-36 aircraft arrived the latter part of March, 1953, just a few weeks after the wing had been activated. In April 1953 the wing launched its first training missions. By October 1953, not quite nine months after the wing was activated, the construction was proceeding satisfactorily, and the B-36 crews were flying more than 1,000 hours a month.[12]

---

8. GO # 60, Hq 5th AF, 20 April '46, pursuant to instructions in WD Ltr AG 322 (26 March '46), OB-I-E-M, 26 March '46.
9. Named after Limestone Village, 7 miles from the base.
10. When first assigned, June '50, this group was designated a base detachment; Later re-designated 4215th Base Svc Sqdn., then 4215th Air Base Sqdn (the latter discontinued per SAC GO 10 when the wing was activated).
11. SAC GO 18, 21 April '53.
12. Inscribed on plaque awarded WCO by Convair , 5 December '55.

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At the time of activation, Brigadier General (then Colonel) Bertram C. Harrison, United States Air Force, was named commander. When the 45th Air Division was activated on 8 October 1954.[13] General Harrison became the new division commander and Colonel Jerome Tarter, USAF, took over as the wing commander.[14]

The 45th Air Division became the highest echelon (base) on activation in October 1954.[15] Another important change ocurred in October 1954 when the base was officially dedicatedand re-named "Loring" on the first day of the month in honor of Major Charles J. Loring, Jr., a Maine jet hero, who was awarded the Congressional Medal of Honor, posthumously, for action in Korea.[16]

Before the air division came into being, the 42d Bomb Wing Headquarters had been their highest base echelon. The supporting units to the wing, the 42d Air Base Group, had been activated with the wing in 1953.[17] Under the division set up, the wing and air base group received equal status, ie., lateral communication with each other.[18]

The primary squadrons previously mentioned, were augmented in February of 1955, with the activation of the 42d Heavy Air Refueling Squadron.[19] The KC-97 tanker aircraft took its place on the flight line along with the bomb squadron's B-36s.

---

13. SAC GO 69, 8 October '54 (SC I).
14. Officers Roster, 45th AD, 1-31 October '54 (RCS: 8AF-P1). Brig. Gen. W. K. Martin, USAF, became Div Comdr 18 June '55 and Brig. Gen. Harrison was reasgd Ramey AFB, P. I.
15. See 45th AD Organ Chart , Exhibit # 1.
16. DAF GO 34, 15 September '54 (par 6)/
17. SAC GO 10, actually re-activated, WWII parent was 42d Svc Gp.
18. SAC GO 10. See Also Exhibit # 1.
19. SAC GO 79, 8 December '54.

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Activated with the wing to render maintenance support were the 42d Armaments & Electronics Maintenance Squadron, 42 Periodic Maintenance Squadron and 42d Field Maintenance Squadron.[20] A medical group was also activated (see below).[21] Necessary base support was made possible by the activation of the air base group squadrons,[22] and special attached units to group headquarters.[23]

Organizationally, the 42d Wing Headquarters was sep up in two sections--the coordinating staff and the personal-specialist staff--which are directly responsible to the wing commander.[24] The wing coordinating staff--the directorates of personnel, materiel and operations--work on equal status with personnel, materiel and operations directorates of 42d Air Base Group Headquarters, and both staffs are responsible to the higher division directorates.[25] The wing personal-specialist staff includes[26] the comptroller, adjutant, air inspector, office of safety[27] and headquarters squadron.

The 42d Medical Group, activated as a wing unit in February 1953[28] had been operating the base hospital function since activation. In February 1954, after being activated for one year, the 42d Medical Group was re-designated the 42d Tactical Hospital.[29]

---

20. SAC GO 10.
2. Ibid.
22. See Exhibit # 1.
23. Ibid.
24. See Exhibit # 1. Hq Agencies function IAW SAC Man 20-1, December '54.
25. Ibid.
26. See Exhibit # 1.
27. Est. 1 April '55 per SAC Directive (8th AF Msg CS 186, 8 March '55).
28. SAC GO 10/
29. SAC GO 3, 27 January '54.

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THE MISSION AND ITS IMPLEMENTATION

OVER-ALL MISSION

The 42d Heavy Bombardment Wing was activated primarily to administer a force capable of flying strategic bombardment operations to any part of the globe.[1] In performing this task the latest technical knowledge and advanced weapons are utilized.[2]

In addition to long-range bombardment, air-to-air refueling is part of the wing mission.[3] Other tasks of the wing, secondary in nature, are the training of assigned United States Air Reserve Personnel and/ or units, and the participation by the wing in civilian emergencies, such as the assistance which mighte be rendered during a time of disaster.[4]

Aircrews and ground support units are constantly being tested in their work in order to maintain the highest possible degree of efficiency.[5]

---

1. 8th AF Reg 23-9, 1 April '54 , as amended.
2. Ibid.
3. 8th AF Reg 23-9A, 2 February '55.
4. As outlined in AF Reg 23-9.
5 IAW B-52 Tng commitments and as dir by opns orders fr higher hq.

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OPERATIONS AND TRAINING

Wing Combat-Ready Status:

The month of March marked an important milestone in the history of the 42d Bombardment Wing, Heavy. This was the month in which the wing attained combat-ready status by virtue of the successful completion of the graduation exercise known as Operation "Iron Clad".[1] The mission was flown on 26, 27 and 28 March 1957, with 36 B-52 aircraft participating and results proved the exercise a complete success.

On target Kansas City during Operation "Iron Clad" a total of 33 target runs were made with a CEA (Circular Error Average) of 1,320 feet and the reliability of the runs was 100 percent.[2] On the Denver target 33 runs were also made for a CEA of 2,146 feet for a reliability of 91 percent.[3] However, the figures on the Denver target runs may be corrected, if,as is expected, one of the runs is ruled out as an RBS (Radar Bomb Site) scoring error. This would have the effect of scoring only 32 of the bomb runs on the Denver target for a reliability of 93.8 percent.[4] The combined reliability percentage for the mission was 97% percent. With the one run deleted this would be increased to 97.5 percent.

It must be noted that while bombing results of these mission were very good that both of these targets were comparatively simple and easy ones to bomb and that results should not be used as a guide to compare for future predict missions.

---

1. See Exhibit # 2, Opns Order No. 217-57, "Iron Clad", 42 BW (H) (SAC).
2. See Exhibit # 3, Chart of Kansas City Bombing Results "Iron Clad".
3. See Exhibit # 3, Chart of Denver Bombing Results "Iron Clad".
4. Ibid.

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Operation "Country Club"

During the months of January, February, and part of March the 42d Air Refueling Squadron of the 42d Bomb Wing was TDY to Thule Air Base in greenland in connection with Operation "Cold Wave". During this period one of the most important missions inw which the squadron was engaged was Operation "Country Club".[5]

This operation was designed to test the capability of men and equipment to operate in sub-zero temperatures under emergency conditions. The concept of "live aboard" the aircraft for crew personnel was thoroughly tested and proved completely satisfactory. It was dtermined that the KC-97 has sufficient room to accomodate a minimum crew and selected specialists, however, not more than twelve people should be planned for an actual or test basis.[6]

The problems and difficulties encountered, personnel and maintenance wise, were only slightly greater than those experienced while operating from the deployment base.[7]

A total of nineteen combat-ready crews participated in this "live aboard" mission.

Weather conditions were good during the entire "Country Club" test. The lowest temperature experienced was -21 degrees fahrenheit. The maximum wind velocity during the test period was 20 knots. Sky conditions were clear for the most part.[8]

---

5. See Exhibit # 4, Final Report 42d BW Opns Order 214-57 "Country Club", and Exhibit # 5, Opns Order 214-57 "Country Club" Hq 42d BW 20 December 56.
6. Ibid.
7. Ibid.
8. Ibid.

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At take-off and during periods of intensive activity moderate ice fog was created but soon dissipated, moderate frost developed on wing and tail surfaces,[9] but was easily cleared with iso-propyl.

Excellent weather conditions throughout this test undoubtedly contributed to the success of the mission, and to crew comfort during the "live aboard" period. Adverse weather and extreme temperatures were not a factor during the operation; therefore, conclusions as to their effect on operation under the "live aboard" concept can not be made from this test.[10]

During the test the opinions of the crews as to the "live aboard" concept was determined by means of questionnaires. It was generally agreed by most crews that with certain changes, twelve crew members could live indefinitely abaord the KC-97 aircraft.

It was suggested that in addition to the rations which were used on this mission, that supplemental foods be used in order to sustain operations. The suggested additions to the basic diet consisted of canned fruit juices, canned coffee and canned vegetables.[11]

Crew rest was no serious problem. The sleeping bags, air mattresses, cots and trrop seats proved adequate to handle twelve people. It was found that by dividing the compartment into sleeping, living and messing areas a considerable aid was rendered to those people who were sleeping.[12]

The aircraft lavatory and toilet were used for ablutions. The deodorants provided were adequate to eliminate odors.[13]

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9. Ibid.Sec III.
10. Ibid.,
11. Ibid., Sec XIV.
12. Ibid.
13. Ibid.

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It was found that an occasional application of heat from an outside duct was needed to keep the relief can and tube from freezing. Due to the nearness of the parking areas to hangars, a waste truck was used to pick up garbage and waste daily. It was recommended however, that plastic bags be used to fit into the can of the toilet. After use it becomes a simple matter to fold it up and lay it outside to freeze, this eliminates any odor problem.[14]

With the use of operational body heaters the interior of the aircraft was warm and comfortable. With heater malfunctions it soon became like the inside of a refrigerator. It would be mandatory for the heaters to be maintained in constant operation if the crew were to live aboard.[15]

The major weak spot encountered during the time "Country Club was in progress was that of HF (High Frequency) communications. Monitoring was planned to cover all standard USAF air/ground frequencies. Reception was spasmodic and could not be depended upon to furnish refueling information on two out of three occasions. Aircraft were parked in such a manner that several planes of antenna coverage were possible.[16]

The mars turbine generator used in connection with the Solar heating unit was considered to have anticipated dpendability during both phases of "Country Club", since up to this time numerous troubles had been experienced.[17]

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14. Ibid., Sec XIV.
15. Ibid.
16. Ibid., Sec II.
17. Ibid., Sec IV.

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One problem in connection with the turbine generators concerned excessive oil usage (excessive was considered to be about one gallon every six hours). Three units were changed due to excessive oil consumption. No causes for this situation could be determined from a squadron level, due to a lack of adequate facilities; however, all units changed up to the time of this report had been changed at the 200 hour mark. A fact deemed significant regarding the oil usage was that most of the trouble-free units, using approximately a pint of oil in a 24 hour period, might suddenly jump to three quarts in a six hour period, and then revert to using a pint in 24 hours. This was not an isolated case, it happened quaite frequently, and the cause could not be determined. One unit was changed immediately upon the return to Thule AB because of excessively high decibel reading. This condition had persisted since installation but had gradually grown worse.[18]

The overa-all evaluation of the Stewart-Warner type of aircraft heater system from the point of being adequate to support a mission such as "Country Club" is satisfactory. There were some apparent weaknesses in the system which would probably have become more apparent over a sustained period of operation. Due to the fact that the air temperature during the entire operation was relatively moderate (ranging from -22 to 0 degrees), there was no need to operate all of the wing heaters continuously. This type of heater operation allowed the wing heaters to be purged over a period of time which tended to clean the ignition plug.[19]

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18. Ibid., Sec IV.

19. Ibid.,

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This resulted in a minimum of difficuly encountered with heater ignition failure due to excessive carbon deposits. It was believed that the air flow through the combustion chamber was somewhat limited due to blower output or back pressure and that this factor contributes to improper combustion caused by an improper fuel/air ratio. This contention was supported by the fact that at times the exhaust from the heaters was scoty and pieces of red hot carbon were discharged through the exhaust outlets. Some of the aircraft had raw fuel discharged through the heater fuel drains which indicated that more fuel was going into the chamber than could be burned. At some time during the operation nearly every aircraft experienced heater malfunctions while operating in normal position; when the heater switch was placed in the emergency position, the heaters would operate normally. This would indicate that the differantial pressure switch and/or control wasn't operating properly. This could have been caused by insufficient air flow and/or malfunction of the differential pressure switch.[20]

There was only one instance of a wing heater blower malfunction. It was found that the brushed were worn completely and there was excessive wear of the armature.[21]

The body heater difficulties consisted of two incidents of ground blower malfunctions and some incidents of fuel being discharged through the fuel drain which resulted in a couple of fuel drain fires.[22]

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20. Ibid.
21. Ibid.
22. Ibid.

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Since this was not a conclusive test of the aircraft preheat system a definite evaluation of the heater system could not be formulated. By using specific procedures of heater operation to fit the need of the mission, the heater system performance was adequate and satisfactory; the areas of weakness can only be formulated opinions without conclusive proof.

It was recommended that other units deploying on this type mission perform certain checks, to lesses the possibility of system malfunction.[23]

During the entire test period no difficulty was encountered in preparing for take-off with minimum warning, however, ideal conditions existed wherein de-icing of aircraft was not necessary. On the 18th of February, with timing information received two hours and 56 minutes before take-off, de-icing would have been possible if necessary. On the 6th and 15th of February, insufficient warning was given to enable de-icing to be completed prior to take-off and would have seriously affected the mission reliability had de-icing been necessary.[24]

Take-off gross weight was computed at 155,000 pounds. It was necessary to increase initial fuel loads by approximately 4,000 poujnds to allow for solar and heater operation, and pre-takeoff operational[25] chack. The procedure followed in servicing in excess of 155,000 pounis gross weight to allow for ground operation could have caused a problem in meeting take-off times without adequate warning unless either take-off gross weight was exceeded or tanker fuel reserve was sacrificed.[26]

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23. Ibid.
24. Ibid., Sec II.
25. Ibid.
26 Ibid.

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After 36 hours, all aircraft were re-serviced to take-off weight plus operational check requirements over 12 hours. This procedure is satisfactory bu not desirable since air refueling timing may have precluded re-servicing with the result that aircraft may have been lacking as much as 2,000 pounds of the flight planned fuel.[27]

All take-offs were made using the recommended short field procedures in T. O. 1C-97(K)G-1 using 55 percent flaps. This resulted in shortest take-off roll and best rate-of-climb to clear surrounding terrain. No difficulty was encountered with rough runway surface or packed snow.[28]

Air Traffic Control including GCA (Ground Control Approach) was satisfactory for two cells of five tankers. The best landing interval with a conventional tower approach contro, feeding aircraft to GCA, was eleven minutes. More than five aircraft arriving for a mass recovery would cause excessive holding and during instrument conditions would greatly affect fuel reserves. Computing flight plans on a 90 degrees worst wind factor is highly satisfactory and is recommended for all such tests.[29]

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27. Ibid.

28. Ibid.

29. Ibid.

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Operation "Cold Wave"

Operation "Cold Wave" was the code name for the exercise which sent the 42d Air Refueling Squadron on temporary duty to Thule Air Base in Greenland from 28 December 1956 through 7 March 1957. The unit was directed to accomplish a number of special missions during this time including: Operation "Big Boy" which required six tanker sorties each week during January for the refueling of B-52 aircraft from Loring;[30] Operations "Busy Bee" and "Sun Dog" which called for an average of three tanker sorties each week in support of B-47 aircraft on TDY at Thule, during January, February and the first week in March; "Country Club" which required thirty tanker sorties to be flown during February 1957 from Frobisher Air Base, subsequent to a specified ground time.[31]

Approximately 1,625 flying hours were flown by the squadron during the entire TDY period at Thule.[32]

"Cold Wave" Personnel and Administration

This area experienced no significant problems that tended to decrease unit effectiveness. However, an unusual amount of administrative work load was encountered through the preparation and processing of seventy-three Officers Effectiveness Reports of which fifty-nine were associated with application for Regular Air Force appointments.[33]

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30. See Exhibit # 6, Final Mission Report Operation "Cold Wave", Hq 45 AD 20 March 1957.
31. Ibid.
32. Ibid.
33. Ibid.

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In some instances the refueling squadron was criticized by higher headquarters in connection with RCS and Combat Crew Reporting. This was considered a normal function of the Wing Analysis and Combat Crew Reporting Section and as a result the unit was not adequately familiar with all the requirements during the TDY period.[34]

It was recommended that in future TDY's of this nature that an airman who is familiar with RCS and Combat Crew Reporting accompany the unit. It was also recommended that this requirement be included in SAC Manual 400-1B, dated July 1956.[35]

"Cold Wave" Operations & Training

The immediate turn-around capability of the refueling squadron and the beginning of normal training at Thule was curtailed since the arrival of the main force was sepread over a period of approximately six days. This was due, primarily, to adverse weather at Loring.[36]

Only 85 sorties (refueling) were made available to the unit for the entire period of TDY. 69 of these were accomplished; non-accomplishment was caused by receiver cancellations. This shortage of sorties available to the squadron along with the nature of the sorties engaged in prevented accomplishment of standardization flight checks and curtailed IM-crew as well as individual 51-19 check-out accomplishments.[37] It was recommended that Headquarters Eighth Air force schedule a minimum of 75 sorties per month for Thule. This would enable tanker units to maintain proficiency, continue standboard check rides and train new crews.[38]

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34. Ibid. p 1.
35. Ibid. p 4.
36. Ibid. p 2.
37. ibid.
38. Ibid. p 5.

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Inaccurate and unreliable weather reporting service for Thule Air Base presented a serious operational problem related to recovery of aircraft.[39]

"Cold Wave" Logistics

Maintenance manning for the TDY at Thule, as authorized by Eighth Air Force Headquarters, proved to be satisfactory for arctic operations.[40]

A "soft spot" was noted in the maintenance of Stewart Warner type heaters and system as well as in the Solar APU (Auxiliary Power Unit). It was found that electricians given on-the-job training were often confronted with other problems which required hit or miss procedures.[41] In line with this it was recommended that Headquarters Eighth Air Force consider training a minimum of two airmen electricians to accompany each refueling squadron equipped with the Solar APU and associated ground heating equipment.[42]

The supply of replacement items under project "Big Tin" was found to be unsatisfactory. The average delivery time for AOCP (Aircraft Out of Commission for Parts) items was 9.9 days. The average delivery time for routine items was 15.6 days.[43] Sub-depots co-mingled "Big Tin" items with Thule Air Base items and shipped them as one. This increased pipe-line time since items were not marked "Big Tin" and ended up in base stocks.[44]

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39. Ibid. p 2.
40. Ibid.
41. Ibid.
42. Ibid.p 4.
43. Ibid. P2.
44. Ibid.

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The amount of transportation established by SAC Thule Task Force SOP (Standard Operating Procedure) would have been adequate had it been furnished. The high out-of-commission rate of general purpose vehicles required continuous pooling of vehicles to meet minimum daily requirements.[45] As an example, during the month of March, ten vehicles per day were established in the monthly Unit Maintenance Order as the requirement, however, only 6.5 vehicles per day were actually furnished. This hampered the establishment of smooth daily operations. It also caused the unit to be concerned as to the existing capability to support sustained EWP (Emergency War Plan) operations.[46]

The oil trucks available are antiquated, and on one occasion they broke down completely. This necessitated servicing of the aircraft by jerry can method. The reliability of servicing aircraft by oil using this method was not acceptable, since the oil congealed prior to completion of servicing each aircraft.[47]

The support rendered the refueling squadron by Thule Air Base from a POL (Petroleum, Oil and Lubricants) standpoint was considered unsatisfactory. The conditions noted in the preceding paragraph were further aggravated by the out-of-commission rate of fuel hydrants. Fuel hydrants reported to be in condition were often found to be unserviceable due to snow or ice clogging the hydrants, hoses and control mechanisms.[48]

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45. Ibid. p3.
46. Ibid.
47. Ibid.
48. Ibid.

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FLYING TRAINING

During the month of March the 42d Bombardment Wing continued to plan unit and higher headquarters directed missions and to complete training and upgrading of B-52 crews. Photographs depicting the operational status of the wing for March are contained in this month's history.[49] A report showing the status of crew personnel in the wing with regard to their standardization checks is also contained in this history.[50]

The total flight time accumulated by B-52 aircraft of the bomb wing during the month of March is shown below:

HOURS FLOWN PERFORMING MISSIONS ORDERED BY HIGHER HEADQUARTERS

Commitment	Hours Programmed	Hours Accomplished
(1) Ferrying Aircraft	00:00	153:55
(2) Static Display at McDill AFB, Florida	17:00	17:20
(3) "Country Club"	150:00	169:45
(4) SES	30:00	26:05
(5) Demonstration at Schilling AFB, Kansas	20:00	17:25
(6) "Iron Clad"	432:00	470:35
TOTAL	649:00	855:00

HOURS FLOWN PERFORMING EIGHTH AIR FORCE PRIORITIES

Priority	Commitment	Hours P Programmed	Hours Accomplished
2	Non-Ready Training	270:00	343:55
3	Combat Ready and Above	378:00	775:20
4	Test Hops	------	46:40
	TOTAL	638:00	1165:55
	HIGHER HEADQUARTERS	482:00	555:30
	GRAND TOTAL	1130:00	1721:25

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49. See Exhibit # 7, Photos of Oper Status 42 BW for March 1957.
50. See Exhibit # 8, Monthly Rept of Stand Act, 45 AD, 1 - 31 March 1957 (RCS: SAC-U-52 , 8AF-1).
51. See Exhibit # 9, Heavy Jet Bomb Tng Rept for March '57, RCS: 2-SAC-T12, Hq 45 AD, dtd 15 April '57.

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The 42d Air Refueling Squadron's record of flight time for the month of March is indicated below:[52]

HOURS FLOWN PERFORMING MISSIONS ORDERED BY HIGHER HEADQUARTERS

Commitment	Hours Programmed	Hours Accomplished
(1) Cold Wave	00:00	130:50
(2) Busy Bee	00:00	157:50
(3) Sun Dog	120:00	168:50
(4) Ferry (Thule Task Force)	00:00	21:45
(5) Country Club	230:00	268:40
(6) AACS Comm. Test	00:00	17:55
(7) Dog Sled	171:00	181:25
(8) Giant Killer	78:00	82:35
(9) Bargain Day	00:00	43:50
(10) Iron Clad	00:00	17:40
TOTAL	599:00	1091:20

HOURS FLOWN PERFORMING EIGHTH AIR FORCE TRAINING PRIORITIES

Priority	Commitment	Hours Programmed	Hours Accomplished
1	AFR 60-2	00:00	
2	Dog Sled	171:00	181:25
3	Giant Killer	78:00	85:35
4	Non-Ready Training (Individual crew members included in number 5)	00:00	00:00
5	Combat Ready Training	334:00	371:20
6	Bargain Day	00:00	43:50
7	Iron Clad	00:00	17:40
	TOTAL	583:00	699:50

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52. See exhibit # 10, Refueling Air Trng Rept for March '57 Hq 45 AD, RCS: 9-SAC-T12.

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GROUND TRAINING

The ground training program for the wing during the month of March will be mentioned in general terms only, because of numerous personnel changes which took place during the period. Block training as prescribed for B-52 combat crew members by SAC Regulation 50-24 and its annexes began officially in March and will normally be received by at least three crews per week.[53] Similar training for non-aircrew personnel continued routinely.

Training required by SAC Regulation 50-43 for non-ready aircrews continued normally for the relatively few crews that still required it. No difficulties are foreseeable with respect to this program.

Special training courses in Tactical Doctrine, Combat Reporting, the "Hi Jinks" maneuver, and in-flight maintenance were conducted and will be continued as required in the future.

MISSION PLANNING

During the month of March the Directorate of Operations of the 42d Bombardment Wing was engaged in the planning and issuance of operations orders for a number of missions. Missions which were planned and completed in March included: Fur Collar IV which was flown on 6 March 1957, this mission , which included those crews checked out in "Hi Jinks" maneuvers and those with Instructor pilots aboard executed "Hi Jinks" maneuvers on the Atlanta and Little Rock Radar Bomb Sites and a camera attack on Schenectady.[54]

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53. See Exhibit # 11, Subj: ECM Phase 50-24 Ground Training and Subj: Communications Phase 50-24 Ground Training, Hq 42 BW.
54. See Exhibit # 12, 42 BW Flight Crew Flimsy Fur Collar IV, Wednesday 6 March 1957.

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"Fur Collar IVB" an Eighth Air Force directed mission which allocated Radar Bomb Site time on 18 March to the 42d Bomb Wing for bomber stream practice on Atlanta and Little Rock targets[55]; "Pace Setter VII" an Eighth Force Bombing and Navigation Competition which the bomb wing will participate in in April[56]; "Large Charge" at test project assigned the 42d Bomb Wing to test the feasability of the B-52 capabilities to make two precision bomb releases on the same run and complex area, this will comprise three combat-ready crews of the wing who will make thirty dual bomb runs against the Montreal RBS to be 50% complete by 3 April and 100% complete by 20 April.[57]

NAVIGATION AND BOMBING PANELS

During the month of March a navigation panel and a bombing panel were implemented. The navigation panel consists of the wing navigator and two navigators from each of the three bomb squadrons for a total of seven. This panel will assist in the planning of wing missions and will also formulate procedures and techniques for better navigation reliability for the wing. The bombing panel consists of the wing bombing officer and two radar navigators from each squadron. This panel will also assist in promoting new techniques and procedures for radar bombing.[58]

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55. See Exhibit # 13, 42d Bomb Wing Flt Crew flimsy "Fur Collar IVB" Monday 18 March '57.
56. See Exhibit # 14, Opns Order No. 219-57 "Pace Setter VII" 42 BW.
57. See Exhibit # 15, Opns Flimsy for Test Program "Large Charge" Hq 42BW.
58. From interview with Maj. H. H. Hangar, OIC 42 BW Bomb/Nav Sec. 20 April '57.

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MISCELLANEOUS PROJECTS

A special project was initiated at the request of Headquarters Eighth Air Force to investigate the possibility of beating the existing East to West transcontinental speed record of 4 hours and 25 minutes. The results of this investigation were presented as a 42d Bomb Wing pamphlet.[59]

Two handouts were distributed by the wing to B-52 crews; Handout No. 17 was concerned with requirements for SAC Regulation 51-11,[60] the second handout laid out the present procedure for accomplishing IBDA for "Hi Jinks" runs.[61]

In order to familiarize pilots with the type of stabilizer control problems which have previously been encountered or could be encountered on B-52 aircraft the wing issued Operations Memo Number B10-12.[62]

B-52 Landing Ground Runs requirements were summarized for presentation on a 5" x 8" card and issued for inclusion in the pilots "Flipcard" file. The information on the card was tabulated for gross weights ranging from 190,000 to 290,000 pounds.[63]

As a measure to avoid the reversal of tip protection gear the wing issued a letter on the subject.[64]

During March the Wing Director of Operations also coordinated with the Wing Director of Materiel and the technical representative of the Avien Corporation to accomplish and establish B-52 fuel tank gage and totalizer calibration during periodic inspection.[65]

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59. See Exhibit # 16, B-52 Trans East To West Speed Run Hq 42 BW.
60. See Exhibit # 17, Rules For Nav Tng Miss, Observer Handout # 17.
61. See Exhibit # 18, "Hi Jinks" Procedures.
62. See Exhibit # 19, Opns Memo B-10-12 "B-52 Stab Cont Prob" Hq 42BW.
63. See Exhibit # 20, Subj: B-52 Landing Grnd Run" w/1 incl, Hq 42BW.
64. See Exhibit # 21, Ltr Subj: Tip Gear Rev. dng Gnd turns, Hq 42BW.
65. See Exhibit # 22, Ltr 42DO, Subj: B-52 Fuel Tank Calib. Check, 42BW.

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KC-135 CONVERSION

The plans for the conversion of the 42d Air Refueling Squadron from the KC-97 tanker aircraft to tha all-jet KC-135 aircraft, and the developments and problems encountered in connection with the conversion were covered in KC-135 Progress Report # 2.[66] As the result of a recent staff visit to OCAMA (Oklahoma City Air Materiel Area) Loring representatives were advised that the new type aircraft will not be received until December 1957.

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66. See Exhibit # 23, KC-135 Progress Report # 2 for 45 AD, Hq 45AD Program Plan 101-56A. 5 April '57.

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PERSONNEL

OFFICER MANNING

During the month of March the 42d Bomb Wing was authorized a total strength of 600 officers , and had 479 assigned, a loss of 11 officers assigned over the February period. The number of officers MIRS (Manned in Required Specialities) was 470 for a percentage of 78.3. The SAC rating score for thisitem remained the same as for the February period, 30 percent.[1]

AIRMAN MANNING

The total number of airmen authorized for the wing during the March period was 2,506, with 2,635 actually assigned. A total of 2,166 airmen were MIRS for a percentage of 84.2. The basic reason for the large number of airmen (469) not being Manned in Required Specialties was because of the lack of proper skill levels of assigned individuals in authorized AFSC's. The wing has 19 men with unauthorized AFSCs.[2]

SUMMARY OF AIRMEN NOT MANNED IN REQUIRED SPECIALTIES

	MARCH
010's in excess of helper level positions	11
010's in position without vacancy	53
3 level airmen on OJT - C for the 5 level where no vacancy exists	72
3 level airmen on OJT-c for the 5 levels where vacancy exists	57
3 level airmen on OJT-D to career fields where vacancy exists at higher skill level	2
5 Level airmen not on any type of OJT due to maximum manning at 7 level	173

1. See Exhibit # 24, Part I Mgmt Control State., Hq 42 BW, March '57.
2. Ibid., p 3.

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5 level airmen on OJT-C for 7 level where no vacancy exists at lower skill level	51
7 level airmen not on any type of OJT and cross training prohibited by Project Guidance	31
Airmen in unauthorized AFSCs which cannot be cross trained due to project guidance	19
TOTAL[3]	469

A further breakdown of airmen manning for the month of March found the following in the Direct and Indirect Support categories:[4]

Athorized	Asgd	INDIRECT SUPPORT CATEGORY MIRS	% MIRS	SAC RATING SCORE
1915	2033	1693	88.4	90

Auth	Asgd	DIRECT SUPPORT CATEGORY MIRS	&MIRS	SAC RATING SCORE
591	602	473	80.0	40

The major shortages of airmen personnel during the month of March remained in the Direct Support category. Heading this list of shortages were airmen in the 431x1E career field (Aircraft Mechanic Jet Bomber over two engine); 301x3A (Aircraft Electronics Countermeasures Repairmen for Reconnaissance Equipment), and 323x1G (Weapons Control Systems Machanic for MG-3/10/13 radar).[5]

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3. Ibid.

4. Ibid.

5. See Exhibit # 9, p 7.

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LIST OF EXHIBITS

1. Organizational Chart 45th Air Division.
2. Operations Order Number 217-57, Iron Clad, Hq 42d Bomb Wing.
3. Charts of Target Kansas City and Target Denver, and Take-Off and Refueling Data for Operation Iron Clad.
4. Final Report 42 BW Operations Order 214-57 "Country Club", Hq 42 BW.
5. Operations Order 214-57 "Country Club", Hq 42 BW. 20 December '56.
6. Final Mission Report Operation "Cold Wave", Hq 45 AD, 20 March '57.
7. Photos of Operational Status of 42 BW for March '57.
8. Monthly Report of Standardization Activities 1 - 31 March '57, RCS: SAC-U-52(8AF-1), Hq 45 AD.
9. Heavy Jet Bombardment Air Training Report for March 1957, RCS: 2-SAC-T-12, Hq 45 AD, 15 April '57.
10. Refueling Air Training Report for March 1957, RCS: 9 SAC-T-12, Hq 45 AD, 5 April '57.
11. Ltr Hq 42 BW, Subj: ECM Phase 50-24 Ground Training, and Ltr Hq 42 BW, Subj: Communications Phase 50-24 Ground Training.
12. 42 BW Flight Crew Flimsy "Fur Collar IV" Wednesday 6 March '57.
13. 42 BW Flight Crew Flimsy "Fur Collar IVB" Monday 18 March '57 .
14. Operations Order Number 219-57 "Pace Setter VII", Hq 42 BW.
15. Operations Flimsy for Test Program "Large Charge", Hq 42 BW, 25 March '57.
16. B-52 Transcontinental Speed Run, Hq 42 BW.
17. Rules For Navigation Training Mission, Observer Handout # 17, Hq 42 BW.
18. "Hi Jinks " Procedures.
19. Operations Memo Number B-10-12, B-52 Stabilizer Control Problem, Hq 42 BW, 11 March '57.
20. Ltr 42 DOT4 Hq 42 BW, Subj: B-52 Landing Ground Run, 25 March '57. with incl "B-52 Landing Ground Run" card.

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21. Ltr 42DOT4 Hq 42 BW, Subj: Tip Gear Reversal During Ground Turns, 29 March '57.

22. Ltr 42DM Hq 42 BW, Subj: B-52 Fuel Tank Calibration Check, 20 March '57.

23. KC-135 Progress Report # 2 for Hq 45 AD, Program Plan 101-56A, 5 April '57.

24. Part I Management Control Statement, Analysis of Points Lost, March 1957, Hq 42 BW.

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ROSTER OF KEY PERSONNEL

DONALD E. HILLMAN, COLONEL, USAF	COMMANDER
DON W. BAILEY, COLONEL, USAF	DEP COMMANDER
WALTER C. STEWART, JR., COLONEL, USAF	DIR OF OPNS
TOM B. STEWART, LIEUTENANT COLONEL, USAF	DIR OF MAT
HARVEY N. SMITH, LIEUTENANT COLONEL, USAF	DIR OF PERS
VANCE H. MARCHBANKS, COLONEL , USAF	HOSP COMMANDER
FRANK WRIGGLESWORTH, MAJOR, USAF	ADJUTANT
JAMES T. MCNEELY, LIEUTENANT COLONEL, USAF	42 ABE Sq COMDR
ROBERT R. SCOTT, LIEUTENANT COLONEL, USAF	69th SQ COMDR
JOHN R. RISHER, LIEUTENANT COLONEL, USAF	70TH SQ COMDR
ROBERT E. BROFFT, LIEUTENANT COLONEL, USAF	75TH SQ COMDR
LAWRENCE W. SCHRADER, LIEUTENANT COLONEL, USAF	42 FM SQ COMDR
DONALD O. THORSSEN, MAJOR, USAF	42 PM SQ COMDR
WILLIE H. SONNTAG, MAJOR , USAF	42 AREF SQ COMDR

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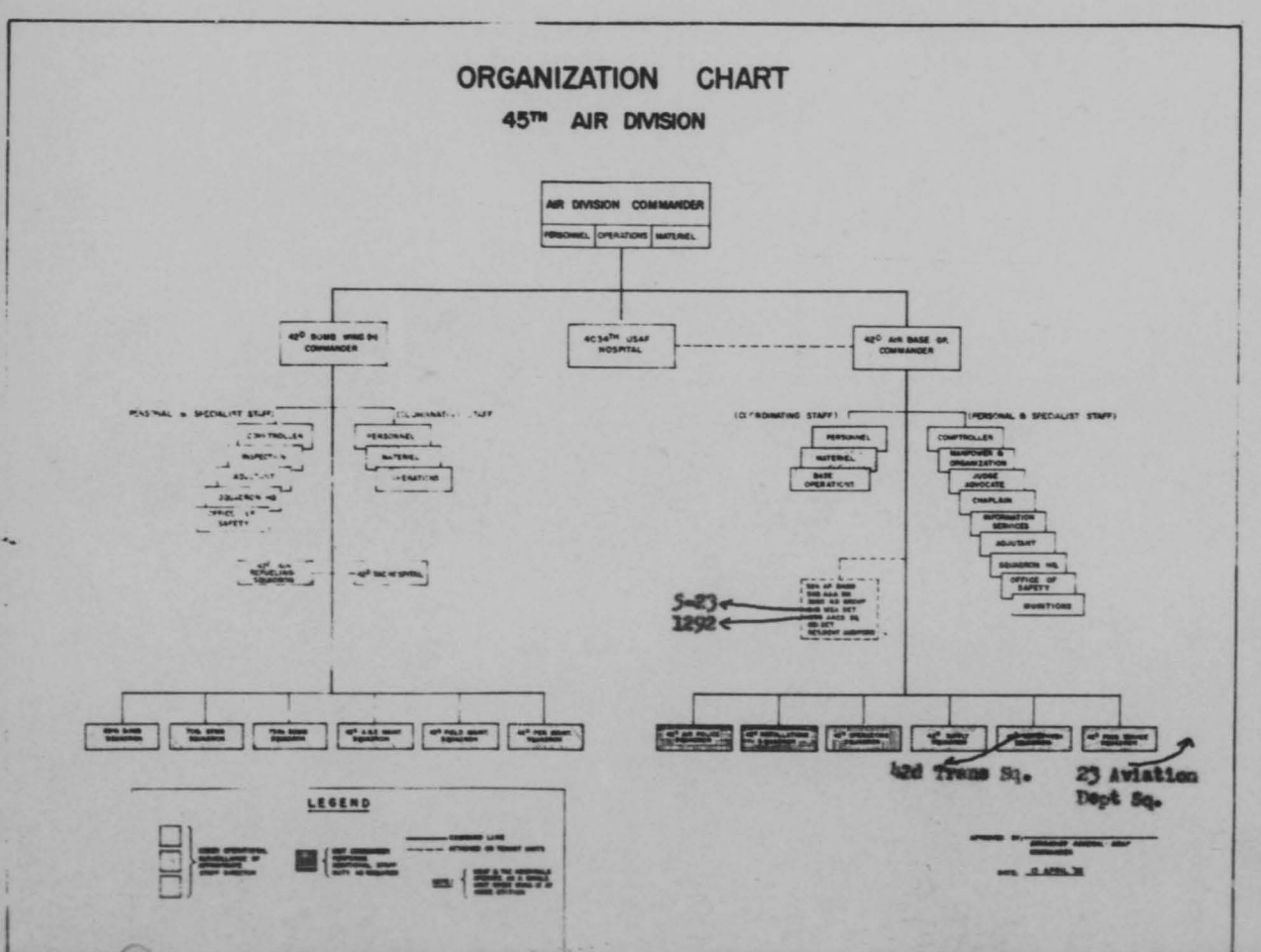

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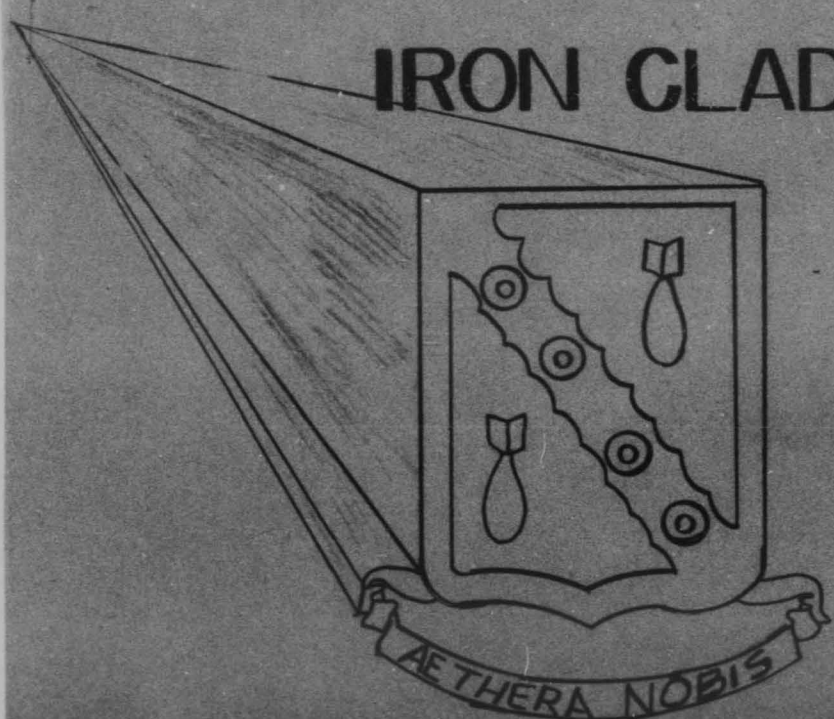
—CONFIDENTIAL—

OPERATIONS ORDER NUMBER 217-57

IRON CLAD



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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOT 18 March 1957

SUBJECT: (Unclassified) 42D Bombardment Wing Operations Order 217-57

TO: See Distribution

1. Enclosed is 42D Bombardment Wing Operations Order 217-57, dated 18 March 1957, unclassified nickname "IRON CLAD".

2. If the inclosure is withdrawn or not attached, the classification of this correspondence will be downgraded to unclassified, in accordance with AFR 205-1.

FOR THE COMMANDER:

Frank L Wrigglesworth

FRANK L WRIGGLESWORTH
Major USAF
Adjutant

1 Incl
42BW OPORD 217-57
18 MARCH 57

DISTRIBUTION:

See Basic OPORD

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TABLE OF CONTENTS

BASIC OPERATIONS ORDER

ANNEX A - AIR OPERATIONS

ANNEX B - AIR REFUELING

ANNEX C - COMMUNICATIONS

ANNEX D - ROUTE, FLIGHT LOGS, PERFORMANCE DATA AND CHARTS

NOTE: Special Weapons instructions issued separately due to classification

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
18 MARCH 1957

OPERATIONS ORDER

SERIAL NR 217-57

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
18 MARCH 1957

OPERATIONS ORDER 217-57 ("IRON CLAD")

TASK ORGANIZATIONS:

69th Bomb Squadron	Lt Col Scott
70th Bomb Squadron	Lt Col Risher
75th Bomb Squadron	Lt Col Brofft
42D A&E Squadron	Lt Col McNeely
42D Fld Maint Squadron	Lt Col Schrader

1. GENERAL SITUATION: A requirement exists to conduct a Graduation Exercise for the 42D Bomb Wing. Unclassified code name for this operation is "IRON CLAD". X day is 26 March 1957. (C)

a. Intelligence: Omitted

b. Friendly Forces:

(1) MATS and NEAC: Provide normal AACS and rescue facilities as required. (U)

(2) ADC: Provide fighter attacks for this operations. (U)

(3) 1st Radar Bomb Scoring:

(a) Provide Radar Bomb Scoring facilities during period of this operation. (U)

(b) Dispatch a ZIPPO message report to 42D Bomb Wing, as soon as possible after scoring the last participating aircraft of each wave. (U) Report to include data as follows: (U)

42BW OPORD
217-57
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1. Aircraft Tactical call sign.

2. Crew number

3. Coded score.

4. Time of release.

5. Type run. (U)

(4) Goose Task Force:

(a) Provide air refueling support as required for this operations. (Refueling requirements dispatched to Goose Task Force Commander on 8 March 1957.) (U)

(b) Coordinate with Harmon Task Force for refueling support of this operation as required. (U)

(5) 801st Air Division: Provide three RB-47 aircraft, crews and necessary logistical support at Goose AB as required by the Goose Task Force Commander. (U)

(6) 42D Air Base Group: Provide normal base support and facilities as required. (U)

2. MISSION: To conduct a Graduation Exercise for the 42D Bomb Wing. (U)

3. TASKS FOR SUBORDINATE UNITS:

a. 69th Bomb Squadron

70th Bomb Squadron

75th Bomb Squadron

(1) Provide flight crews, aircraft and maintenance support as required by this Operations Order. (U)

(2) Provide an observer at Eagle Beak during the period of this operations as follows:

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(a) 69th Bomb Squadron - Wave One

70th Bomb Squadron - Wave Two

75th Bomb Squadron - Wave Three

This observer will report to the Director of Training for instructions prior to duty period, and will make an informal report of refueling operations as observed from the GCI site (Eagle Beak).(C)

(3) The 75th Bomb Squadron will reserve one space aboard participating aircraft for one observer from Eighth Air Force. (U)

b. 42D A&E Squadron, 42D Fld Maint Squadron:

(1) Will provide normal maintenance support as required. (U)

(2) The 42D A&E Squadron Commander will advise the Director of Operations of the status of the radar systems of all participating aircraft twenty four hours prior to each wave. (U)

3. X. GENERAL INSTRUCTIONS:

(1) Air Traffic

(a) Flight plans will be submitted in accordance with SAC Reg 55-3, category 3, by the Wing Observer Section. (U)

(2) There will be no press release made on this operation. (U)

(3) Eighth Air Force will issue execution orders for each wave of this operation. (U)

(4) Reports: In accordance with appendix 4, annex A, Eighth Air Force Manual 55-1. All Forms and reports will contain the statement, "Graduation Exercise, request exercise be graded for information purposes only". Recap sheets (SAC Form 278a and b) will be submitted in accordance with paragraph 5c(2)(e), SAC Reg 50-8. (U)

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(5) Special Weapons instructions to be issued separately, due to classification. (U)

(6) Flying Safety: As in the case of any peacetime military air operations, the safe passage of the aircraft and crew to destination is the primary objective of this mission. At no time will continuance of the tactical mission be decided upon, if such action will jeopardize either crew or aircraft. (U)

(7) 42D Bomb Wing Project Officers for this operation are:

(a) Operations: Major Hunt (26173)

(b) Intelligence: Major Hessler (23263)

(c) Communications: Major Strong (2145)

(d) ECM: Lt Col Thomas (2240)

(e) Reports: Major Brittian (2133)

(f) Material: Major Wood (24154)

(g) Special Weapons: Major Bailey (25183)

(h) Debriefing and Critique: Major Harrington (24118)

4. ADMINISTRATIVE AND LOGISTICAL MATTERS: Normal.

5. COMMAND AND COMMUNICATIONS:

a. Command. Normal.

b. Communications. See Annex C.

OFFICIAL:

WALTER C STEWART JR
Colonel USAF
Director of Operations

DONALD E HILLMAN
Colonel USAF
Commander

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
18 MARCH 1957

ANNEX A

TO

OPERATIONS ORDER

SERIAL NUMBER 217-57

AIR OPERATIONS

This Annex consists of 5 pages
ANNEX A
42BW OPORD 217-57
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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
18 MARCH 1957

AIR OPERATIONS, ANNEX A, OPERATIONS ORDER 217-57 ("IRON CLAD")

1. GENERAL CONCEPT: The 42d Bomb Wing will fly a graduation exercise from home station to home station, striking targets within the ZI. One air refueling will be accomplished in the NEAC Area supported by tankers of the combined Goose/Harmon Task Force. (C)

a. Take-off: Aircraft will be launched from Loring AFB in three waves, of three cells each, onehour between cells, one and one-half minutes between aircraft within cell, on 26th, 27th and 28th March 1957, as follows: (C)

CELL	TAKE-OFF TIMES
1st Cell	16:52 Zulu
2nd Cell	17:52 Zulu
3rd Cell	18:52 Zulu
4th Cell (if used)	19:52 Zulu

(1) Take-Off times will be adjusted according to the latest forecast winds to make good air refueling rendezvous times as indicated in this annex. (C)

2. TACTICS:

a. Cell Formation: Cell will be formed enroute. Climb for all aircraft will be normal to level-off, after level-off lead aircraft will drop back to Mach .72 and succeeding aircraft to Mach .81 until cell is joined. After cell is joined, upon command of leader, all aircraft will go to Mach .77. (C)

b. Flight plan time and fuel pods as shown in Navigator-Performance Logs are in accordance with SAC Manual 55-13A. (C)

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c. Aircraft within cells will be separated by 10 minutes and 3,000 ft. altitude after cell break-up. Cell break-up area is the area bounded by Benton Harbor, Mich., south to 38-20N 86-43W and Ottawa, Ill. All of the time pad should be used up upon arriving at cell break-up point of Benton Harbor, Migh., in order not to exceed the limits of cell break-up area. (C)

d. Aborts:

(1) Aircraft aborting prior to primary target of Kansas City RBS will be rescheduled as additional aircraft on waves two and three (up to a maximum of 15 aircraft). Aircraft aborting after the primary target of Kansas City and/or successfully completing the mission will not be rescheduled. (C)

(2) Aircraft in bomber stream, aborting the mission, will turn 90° to the stream, and descend 2,000 feet below the altitude of the lowest aircraft in the cell. The cell leader will be advised immediately of the abort. An individual ARTC clearance will be obtained as soon as possible through the nearest CAA radio facility. Aborting aircraft will then proceed to home station or appropriate alternate. (C)

e. H-Hour Control Line and Timing:

(1) HHCL is established by a line running perpendicular to the true course from Benton Harbor, Mich. to Ottawa, Ill. and passing through Ottawa, Ill. (C)

(2) H-Hour Control Times: H-Hour is 23:15Z for each day. Assigned HHCL times will be made good within plus or minus 2 minutes. Cell leaders will make good the following H-Hour control times on each wave, succeeding aircraft within each cell will be spaced at 10 minute intervals. (C)

CELL	H-HOUR CONTROL TIMES
1st Cell	H-Hour
2nd Cell	H-Hour plus 1 hour
3rd Cell	H-Hour plus 2 hours
4th Cell (if used)	H-Hour plus 3 hours

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f. Refueling:

(1) From refueling IP, aircraft number 1 and 2 of each cell will proceed to rendezvous point ANN, base refueling altitude of 15,000 feet. Aircraft number 3 and 4 will proceed to rendezvous point BETTY, base refueling altitude 17,000 feet. (C)

(2) B-52 aircraft will make maximum use of GCI in reforming cell. (C)

3. BOMBING:

a. Primary RBS target for evaluation is Kansas City RBS, DGZ "FOX TROT", utilizing radar offset aiming. In event of an RBS site abort at Kansas City, a Radar Camera Attack will be made on DGZ "FOX TROT". Scope photography will be used for evaluation. An aircraft will be considered effective if it has operational radar and O-15 camera over primary target. (C)

b. The RBS run on Denver, will be made on DGZ "ECHO" utilizing direct aiming.

c. Bomb Load (simulated) Mark 21, weight 17,000 pounds. (C)

d. Bombing Tables: TO 11N-60-42 MAR 56. (C)

e. Bombing Altitudes and Air Speed:

(1) Kansas City RBS: 41,000 and 44,000 feet, ~~pressure~~ altitude Mach .82. (C)

(2) Denver RBS: 41,000 and 44,000 feet, ~~pressure~~ altitude, Mach .82 (C)

4. NAVIGATION:

a. A night celestial leg starting at Cheyenne, Wyo. and terminating on the St. Lawrence River at 48-07N 69-34W is required. The leg will be scored from O-15 radar photography taken at termination of the leg. (U)

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5. SCHEDULE:

a. Briefing: Briefing will be held in 42d Bomb Wing's Training and Briefing Building at 1400 hours, local time, Friday, 22 March 1957.

b. Final weather briefing will be held in 75th Bomb Squadron Operations each day, by cell, as follows: (C)

CELL	TIME
1st Cell	0850 Local
2nd Cell	0950 Local
3rd Cell	1050 Local
4th Cell (if used)	11:50 Local

c. Debriefing: Debriefing will be held in 70th Bomb Squadron Operations immediately after landing.(U)

d. Critique: Critique will be held in 42d Bomb Wing's Training and Briefing Building at 1500 hours local time, Thursday, 4 April 1956. (U)

6. ROUTES: For routes see Navigation-Performance Logs in Annex D. (U)

7. REFUELING: In accordance with SAC Manual 55-14.

a. Primary Area - APOLOGY

(1) TRACK, 240 degrees true course

(2) Off-load requirement, 30,000 pounds, per tanker, two tankers for each receiver. (C)

(3) Rendezvous Times:

CELL	TIME
1st Cell	1616Z
2nd Cell	2016Z
3rd Cell	2116Z
4th Cell (if used)	2216Z (C)

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b. Alternate Area - PEPPER BOX

(1) TRACK - 225 degrees True Course

(2) Off-load requirement 30,000 pounds, per tanker, two tankers for each receiver. (C)

(3) Rendezvous Times:

CELL	TIME
1st Cell	1858Z
2nd Cell	1958Z
3rd Cell	2058Z
4th Cell (if used)	2158Z (C)

8. ECM: A Big Photo Record Run will be made by each aircraft in the following order:

BY CELL	SITE
1st Aircraft	FOUNDER
2nd Aircraft	EGG NOG
3rd Aircraft	GAS BAG
4th Aircraft	MOONSHINE (C)

9. ALTERNATES: Alternates for this operation are listed by priority:

a. Terminal Alternates:

(1) Goose Bay AB, Labrador.

(2) Wright-Patterson AFB, Ohio

(3) Westover AFB, Mass. (U)

b. Missed refueling alternates:

(1) Loring AFB, Maine

(2) Wright-Patterson AFB, Ohio. (U)

10. RECALL WORD: "BOULDER" For details see ANNEX C, Communications. (C)

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
18 MARCH 1957

APPENDIX 1

TO

ANNEX A

OPERATIONS ORDER

SERIAL NUMBER 217-57

NAVIGATOR'S FLIMSY

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LORING AIR FORCE BASE
MAINE
18 MARCH 1957

B-52 NAVIGATOR'S FLIMSY DATA, APPENDIX 1, ANNEX A, OPERATIONS ORDER 217-57 ("IRON CLAD")

1. CHARTS REQUIRED: JN-30, 19, 20 And JNX/0-1.

2. REQUIREMENTS:

a. One MACH .82 radar optional run against target FOXTROT at Kansas City. (Primary Target) (C)

b. One MACH .82 radar direct run against target ECHO at Denver Colorado. (C)

c. One night celestial leg from Cheyenne, Wyo to 48-07N 69-34W scored in accordance with SAC Reg 51-11. (U)

d. Scope photography of all bomb runs in accordance with the B-52 Flight Handbook. (U)

3. ROUTE AND TIMING:

a. Take off first aircraft 1652Z, 26, 27, and 28 March 1957. Interval between cells - one hour. Aircraft separation at HHCL 10 minutes and 3000 feet. Take off times will be adjusted according to the latest forecast winds. (C)

b. Route: Flight plan is attached. (U)

c. Control times: H-Hour is 2315Z for each day. Cell leaders will make good the following H-Hour control times in each wave: (C)

CELL	H-HOUR CONTROL TIMES
1st Cell	H-Hour
2nd Cell	H-Hour plus 1 hour

APP 1, ANN A
42BW OPORD 217-57
W-1941C

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3th Cell H-Hour plus 2 hours

4th Cell (If used) H-Hour plus 3 hours (C)

Subsequent aircraft in each cell will cross the HHCL at 10 minutes intervals. Control times will be made good with-in plus or minus 2 minutes. Aircraft failing to make HHCL will not jepardize the RBS scoring of aircraft flying on schedule. (C)

4. NAVIGATION:

a. All types of navigation may be used from take off to Cheyenne, Wyo. The night celestial will be flown in accordance with SAC Reg 51-11. However, in the interest of flying safety, any time celestial information becomes unreliable, all types of navigation will be used. All types of navigation may be used from the termination of the night celestial to landing. Radio aids or radar beacons will not be used to locate IP's or targets. (U)

5. BOMBING DATA:

a. Bombing tables: TO 11N-60-42 March 56.

b. Bomb Load (Simulated): MK-21, weight 17,500 pounds.

c. Radar synchronize run will be executed against target "FOXTROT" at Knasas City, Mo.

(1) Method of aiming: Optional

(2) Bombing ~~Pressure~~ altitude: 41,000 - 44,000

(3) MACH number on bomb run: .82

(4) Pre-IP: Burlington, Iowa

Coordinates: 40-48N 91-08W

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Elevation: 700'

TC to IP: 237° 110 nautical miles

(5) IP: Brookfield, Mo.

Coordinates: 39-51N 93-10W

Elevation: 780'

TC to Target: 238° 82 nautical miles

(6) Target: Foxtrot. Hannibal Bridge. AP: Abutment, northeast corner of the bridge.

Coordinates: 39-06-52N 94-35-23W

Elevation: 755'

Offset #1: Center of R R Bridge 39-08-44N 94-32-00W N11,360 E15,990

Elevation 750'

Offset #2: Center of Slick Hanger 39-07-06N 94-36-02W N1,420 W3,030

Elevation: 760' (C)

d. A Radar Synchronous run will be executed against Target ECHO at Denver, Colo.

(1) Method of aiming: Direct

(2) Bombing ~~Pressure~~ Altitude: 41,000 - 44,000 ft

(3) MACH Number on Bomb Run: .82

(4) Pre-IP: Lake McConaughy

Coordinates: 41-14N 101-44W

Elevation: 3270'

TC to IP: 240° 112 nautical miles

APP 1, ANN A
42BW OPORD 217-57
W-1941C

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(5) IP: Abeam Ft. Morgan

Coordinates: 40-16N 103-48W

Elevation: 4550'

TC to Target: 240° 62 nautical miles

(6) Target: ECHO. Municipal Hanger, Stapleton Air Field.

AP: Center of small tower in SW corner of hanger.

Coordinates: 39-45-57N 104-53-43W

Elevation: 5300' (C)

e. "D" Values will be used with measured altitude in computing the Bombing Altitude. (C)

f. Photography: Radar Camera Photography will be conducted in accordance with the B-52 Flight Handbook check list with the following exceptions: At bomb release the camera switch will not be turned off until two minutes after release. The function switch will be left in the Track position in order to obtain cross-over photography for scoring purposes, in the event of RBS site abort, runs will be photo scored. (C)

6. ADDITIONAL INSTRUCTIONS:

a. In event that an aircraft lands at a base other than Loring, a B-51 report will be transmitted, based on observers estimate in accordance with SAC Manual 55-8B. Also film will be retained by crews, until return to home station, where normal processing and reporting procedures will apply. (C)

APP 1, ANN A
42BW OPORD 217-57
W-1941C

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
18 MARCH 1957

ANNEX B

TO

OPERATIONS ORDER

SERIAL NUMBER 217-57

AIR REFUELING

This Annex consists of 2 pages

Annex B to
42BW OPORD 217-57
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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
18 MARCH 1957

ANNEX B TO 42BW OPERATIONS ORDER 217-57 - AIR REFUELING

1. GENERAL SITUATION: The Goose Task Force Commander will be responsible for providing tanker support for this operation in the APOLOGY (Primary) and PEPPER BOX (Secondary) area. Tactics will be in accordance with SAC Manual 55-13A, and as amplified herein. This operation will be scheduled in three waves, 24 hours between waves. Each wave will consist of 3 cells, with B-52 aircraft in each cell. Additional aircraft may be rescheduled on waves two and three (up to a maximum wave composition of 15 aircraft). Waves consisting of more than 12 aircraft will utilize a fourth cell. A fourth wave will not be scheduled. (C)

2. TANKER-RECEIVER RATIO: 2 to 1. (C)

3. OFF LOAD: 30,000 pounds of JP-4. (C)

4. PROCEDURES: Each cell of B-52 aircraft will devide into elements of 2 B-52 aircraft at the refueling IP. One element will proceed to ANN rendezvous point, the second to BETTY. ANN and BETTY tanker cells will be spaced 30 miles apart. ANN base altitude 15,000 feet, BETTY, 17,000 feet. As refueling progresses and dependent upon the flight visibility, the two tanker cells will converge to approximately ten miles, to aid the receiver aircraft in reforming into cell after end refueling. In each individual B-52 two ship element, refueling will be accomplished by the lead B-52 with nurber one and two tankers respectively, number two B-52 with number three and four tankers respectively. As refueling progresses the second and fourth tankers will position themselves in loose visual formation abeam and to the right of the first and third tankers, so as to minimize the time required for the B-52 to change tankers. (C)

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5. TIMING: Wave One.

B-52 Cell	ROZ Apology	Track
Number One	26/1916Z MAR	240° TC
Number Two	26/2016Z MAR	240° TC
Number Three	26/2116Z MAR	240° TC

NOTE: The timing will remain the same for X + 2 and X + 3. If the rendezvous area is changed to the secondary area, PEPPER BOX, the rendezvous times for each day will be 1858Z, 1958Z and 2058Z for each wave, refueling track 225°. (C)

6. COMMUNICATION RENDEZVOUS PLAN:

In accordance with SAC Manual 100-1, near Alfa ANN for the first B-52 element, near Alfa BETTY for the second element. Each wave will utilize the same C/R Plan. (C)

7. FORMATING SPEEDS:

a. Begin Refueling, 193 knots indicated, to end of first tanker 200 knots indicated. (C)

b. Start Refueling second tanker 200 knots indicated, to end refueling 207 knots indicated. (C)

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
18 MARCH 1957

ANNEX C

TO

OPERATION ORDER

SERIAL NUMBER 217-57

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
18 March 1957

COMMUNICATIONS-ECM, ANNEX C, OPERATIONS ORDER 217-56 ("IRON CLAD"), 42D BOMBARDMENT WING

1. GENERAL:

a. Applicable CEI's, appropriate ACP's, appropriate SAC Manuals of the 55-8 series, JANAP's, Radio Facilities Charts, Supplementary Flight Information Documents and ICAO Documents apply unless modified herein. (U)

b. Communications Flimsies, made up in check list form, will be distributed to Aircraft Commanders prior to the general briefing. A copy of this flimsy will be forwarded to Headquarters Eighth Air Force a minimum of 24 hours prior to the first scheduled take-off. (U)

2. ADMINISTRATIVE COMMUNICATIONS:

a. Point-to-point communications will be conducted over the following facilities in the priority listed. (U)

(1) SOCS (for command and operational traffic only). (U)

(2) SACCOMNET (U)

(3) AIRCOMNET (U)

(4) Commercial Facilities (U)

(a) TWX (U)

(b) Long Distance Telephone (U)

b. The senior controller will coordinate with the AACS Commander to alert their facilities and insure SAC operational traffic is given expeditious and preferential handling and to activate circuits as required.

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3. AIRBORNE COMMUNICATIONS:

a. Identification and recognition will be in accordance with SAC-CEI 2404.2a and 42d Bomb Wing Operations Memo 100-41 (Confidential). (C)

b. IFF operation will be as directed by SAC Regulation 55-23 and Wing Operations Memo 100-42 (Confidential) or as otherwise instructed by ADC Radar Sites. (C)

c. Authentication will be by use of the current air/ground code (KAC-1( )/TSEC). (U)

d. Emergency procedures will be IAW ACP's 130 and 135, and current applicable Radio Facilities Charts and Supplementary Flight Information Documents. (U)

e. Radio channelization will be IAW SACCEI and Wing Operations Memos except as needed for specific requirements of the mission. Exceptions will be detailed by the communications flimsy. (U)

(1) HF channelization will be in compliance with the HF requirement of SAC Manual 100-1 (Confidential). (U)

(2) In addition to normal frequency assignments, UHF channelization will provide for: (U)

(a) Canadian DOT

(b) RBS

(c) Fighter/Bomber

(d) Air Refueling

f. The use of HF radios will be restricted to actual aircraft emergency and manditory reports to Canadian DOT and U.S. CAA radio stations. (C)

ANN C
42BW OPORD 217-57
W-1941C

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g. In compliance with SACCEI 2101.4a, number two aircraft of cells and individual aircraft must contact "Radar Advisory" on 364.2 mcs. prior to entry into Canada, or as soon thereafter as possible, and maintain continuous guard on this frequency while over Canadian territory. (U)

h. Call signs will be normal except that color designators will be used IAW SAC Manual 100-1 and SACCEI for air refueling and interplane communications. Use of call signs will be prescribed in detail by the communications flimsy. Color designators are assigned as follows: (C)

1ST WAVE	2ND WAVE	3RD WAVE
1st Cell - - Red	1st Cell - - Blue	1st Cell - - Copper
2nd Cell - - Gray	2nd Cell - - Orange	2nd Cell - - Black
3rd Cell - - Yellow	3rd Cell - - White	3rd Cell - - Green
	4th Cell - - Rose	4th Cell - - Purple

i. Communications security will be at a maximum. No clear text transmissions will be made that would reveal unit designation, location, aircraft type or the nature of the mission. (C)

j. "GUARD" frequency (243.0 Mcs) will be monitored at all times by adjustment of the UHF function switch to the "BOTH" position. (U)

k. Position reporting will be accomplished IAW CAA, DOT and CADIZ/ADIZ procedures, as prescribed by applicable Radio Facilities Charts and the North American Area Supplementary Flight Information Document. In addition, the following procedures apply:

(1) Position reporting will be the responsibility of: (U)

(a) Individual aircraft

(b) Cell leaders

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(c) First and last aircraft of streams with less than 15 minutes separation.

(d) Aircraft out of radio contact with the cell or stream.

(2) When in cell, a phrase consisting of the mission nickname and cell color will be included as the first part of message text. (Example: "IRON CLAD RED CELL"). When in stream the phrase will be the mission nickname and cell color suffixed by "FIRST" or "LAST AIRCRAFT", as appropriate. (Example: "IRON CLAD RED FIRST AIRCRAFT") (C)

(3) Procedure "ALFA" of the M-19 (SAC Manual 55-8M) position reporting procedures apply. (U)

(4) Cross band reporting will be used over Canada when out of range of UHF equipped DOT stations and in event of UHF failure. SAC-CEI 2101.4a (3) (b) applies. (U)

(5) ADC sites may be used to pass position reports as a secondary procedure to (4) above. (U)

l. M-11 (Refueling Timing Report) and B-11 (Strike Report) reports will not be transmitted. (C)

m. SAC HF monitor procedure Alfa applies. Frequency assignments will be provided by the communications flimsy. (U)

n. In accordance with SAC CEI 2101.4a (2) (b) 5, a minimum of two (2) "FOXTROT" messages will be sent. For use on this mission, the code word "FIRESTONE" has been assigned a meaning: "This is a practice 'Foxtrot' broadcast, no action will be taken on this message." (C)

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o. The recall word for this mission is "BOULDER". Used alone, meaning is for all units to return to home base. When suffixed by a Unit Tactical Call Sign the meaning is for that unit to return to home base. Followed by a Unit Call Sign and encoded SACSUB, meaning is that unit will divert to the base designated by the SACSUB. (C)

p. ECM.

(1) Each aircraft will have the following ECM equipment installed:

(a) APR-9 with TN-128 & TN-129

(b) APR-14

(c) APT-9

(d) T464/ALT-7 or T465/ALT-7

(e) No chaff will be loaded

(2) Each aircraft will attempt one Big Photo Record Run as indicated below:

(a) First aircraft of each cell on Founder

(b) Second aircraft of each cell on Eggnog

(c) Third aircraft of each cell on Gasbag

(d) Fourth aircraft of each cell on Moonshine

(3) Each aircraft commander will include intended ECM activity against ADC sites in the Remarks section of the DD Form 175 (Aircraft Clearance) in accordance with SAC Regulation 51-6 and appropriate annexes thereto.

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(4) On reaching the HHCL all ECM receivers including the APS-54, will be placed in the ON position. All intercepted signals will be entered on the SAC Form 76, as outlined on reverse side of the form. The APS-54 will be utilized to augment the fire control radar in A-I fighter detection.

(5) On leaving the target area all ECM equipment will be placed in the OFF position.

q. AIR REFUELING: (C)

(1) The Air Refueling C&R Plan will be NEAC/ALFA ANN and BETTY procedures of SAC Manual 100-1, figure 1B.

(2) Call signs will be the cell color designator suffixed by a number corresponding to aircraft position in the cell. (Example: "RED LEAD", "RED TWO", "RED THREE" and "RED FOUR")

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
18 MARCH 1957

ANNEX D

TO

OPERATIONS ORDER

SERIAL NUMBER 217-57

ROUTE, FLIGHT AND PERFORMANCE DATA,

CHARTS AND SCHEDULES

INCL #1 Navigation-Performance, Mission Flight Plan

#2 Route Chart

#3 Take-Off Data

#4 Refueling Tactics

#5 Fuel Decision

#6 Aircraft Schedules

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MISSION FLIGHT PLAN | J. O. AND NICKNAME: IRON CLAD | UNIT: 42 BMG | TYPE ACFT: B-52 | WAVE: 1st | CELL CALL SIGN: | REMARKS: March 26-27-28

	POUNDS				POUNDS		
ACFT BASIC	167760			BOMBS		1st Acft	
CREW	2560			AMMO			
OIL	986			WATER AUG		Page 1 of 2	
ATO	--			STATIC			
RACK	--				400,000	NR FULL ATO REQUIRED	Take-off
EXT TANKS WEIGHT (Empty)	2550			START ENGINES AND TAXI FUEL ALLOWANCE			
MISCELLANEOUS	800				-5,000	NR EMPTY ATO REQUIRED	16:52Z
CHAFF	--						
OPERATING	174656	TOTAL FUEL	225,344	TAKE-OFF GROSS	395,000	ATO FIRING SPEED	Dep Plan #1

RUNWAY: PRESSURE ALT 750' | LENGTH 12,100' | AIR TEMP 35° F
CRITICAL FIELD LENGTH: 7600' | CRITICAL AIR TEMP
TAKE-OFF DISTANCE: 6600' | TAKE-OFF SPEED: 149K
CRITICAL WIND COMPONENT: 1ST LEG | 2ND LEG | 3D LEG

APOLOGY (PRIMARY AR) — PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	GROSS WT
	LORING AFB															225344	400000
	STETTO											10	:03	10		9740	9740
	L/O Houlton VOR			220/50								56	:15	105		215604	390260
A	46-02N 67-51W	CL	193	+3	196	+22	218	30.0		420	370	66	:18	115		10500	10500
	East Point			220/80								235	:26	181		205104	379760
B	46-28N 61-59W	CR	081	+8	089	+24	113		.72		475	301	:44	296		8400	8400
				220/80								210	:25	176		196704	371360
C	48-42N 58-05W	CR	050	+2	052	+27	079				500	511	1:07	472		8070	8070
				220/80								124	:15	105		188634	363290
	50-00N 55-30W	CR	050	+2	052	+29	181		↓	↓	500	635	1:22	577		4720	4720
				220/80								96	:11	81		183914	358570
D	51-34N 55-30W	CR	310	-6	354	+32	026		.77	445	505	731	1:33	658		3670	3670
	AR IP			220/80								93	:15	111		180244	354900
E	51-03N 58-05W	CR	242	-4	238	+31	269				370	824	1:48	769		5000	5000
	S/D			220/80								150	:25	186		175244	349900
F	49-56N 61-32W	CR	240	-4	236	+29	265	↓	↓	↓	368	974	2:13	955		8125	8125
	L/O			220/60								32	:05	34		167119	341775
G	49-41N 62-17W	DS	240	-4	236	+28	264	15.0		410	349	1006	2:18	989		400	400
	RENDZ			220/40								28	:06	30		166719	341375
H	49-28N 62-52W	Decel	240	-2	238	+28	266			300	261	1034	2:24	1019		1500	1500
	End A/R											130	:30	125		165219	339875
I	48-20N 65-45W	AR	240	-2	238	+28	266	↓		250	261	1164	2:54	1144		11150	11150
	ON LOA D															154069	328725
																60000	60000
				220/40								8	:02	10		214069	388725
J	48-13N 65-53W	Acc	226	0	226	+25	251	15.0		300	250	1172	2:56	1154		1250	1250
	L/O			220/60								70	:12	82		212819	387475
K	47-25N 67-15W	CL	226	0	226	+24	250	35.0		410	350	1242	3:08	1256		6500	6500
																206319	380975

SAC FORM 14 APR 56 14 FC 2720 INCL #1 ANNEX "D" CONFIDENTIAL W-1941-C Air Force-SAC, Offutt 0-1049(38)

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MISSION FLIGHT PLAN – CONTINUATION SHEET PAGE 2 OF 2

	FROM 47-27N 67-15W / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T.A.S.	G.S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	EL FLIGHT PLAN PRED FUEL REMAINING	EL FLIGHT PLAN GROSS WT
																206319	320975
	LAFB REASSEMBLE			220/80								43	:07	52		2175	2175
	46-47N 67-53W	CR	226	-1	225	+ 23	248	35.0	.77	445	362	1285	3:15	1306		204144	378800
	BCM			220/80								204	:33	245		10200	10200
M	43-54N 69-55W	CR	205	-3	208	+ 20	228				370	1489	3:48	1551		193944	368600
	BCM			220/80								176	:28	208		3700	8700
N	43-01N 73-48W	CR	252	-6	246	+16	262	↓			375	1665	4:16	1759		185244	359900
	BCM			230/65								324	:51	380		15200	15200
O	41-13N 80-34W	CR	251	-3	248	+ 8	256	36.0			380	1989	5:07	2139		170044	344700
	BCM			250/60								152	:24	178		6900	6900
P	40-23N 83-43W	CR	250	0	250	+ 3	253				380	2141	5:31	2317		163144	337800
	SF Benton Harbor			280/50								161	:24	178		6500	6500
Q	42-06N 86-28W	CR	314	-3	311	0	311				402	2302	5:55	2495		156644	331300
	OTTAWA ILL. RHCL			280/50								118	:18	134		5100	5100
R	41-20N 88-50W	CR	244	+4	248	-2	246				402	2420	6:13	2629		151544	326200
													:12	88		3200	3200
	TOP							↓	↓	↓			6:25	2717		148344	323000
	P.I.P. BURLINGTON			280/50								108	:16	125		5300	5300
S	40-48N 91-08W	CR	253	+3	256	-4	252	41.0	.82	470	400	2528	6:41	2842		143044	317700
	IP Abeam Brook Fld			280/50								110	:15	118		4900	4900
T	39-51N 93-10W	CR	237	+4	241	-6	235				430	2632	6:56	2960		138144	312800
	TOT F			280/50								82	:12	94		3800	3800
U	Kansas City	BR	238	+4	242	-8	234				430	2720	7:08	3054		134344	309000
	P.I.P.			270/60								340	:49	384		15500	15500
V	41-14N 101-44W	CR	292	-3	289	-10	279				413	3060	7:57	3438		118844	293500
	I.P. Abeam Ft.Morgan			270/60								112	:16	125		5200	5200
W	40-15N 103-48W	CR	240	+4	244	-13	231				418	3172	8:13	3563		113644	288300
	TOT X			270/60								62	:09	70		6300	6300
X	Denver Colo	BR	240	+4	244	-14	230		↓	↓	418	3234	8:22	3633		107344	282000
	Start Nite X			280/50								74	:10	74		2200	2200
Y	Cheyenne, Wyo	CR	015	-7	008	-15	353		.77	445	450	3308	8:32	3707		105144	279800
				280/50								790	1:35	700		21800	21800
Z	46-04N 97-00W	CR	072	-3	069	-7	062				500	4098	10:07	4407		83344	258000
	End Nite X			280/50								722	1:22	610		17750	17750
AA	48-07N 69-34W	CR	082	-2	080	+11	091	↓			500	4820	11:29	5017		65594	240250
	Houlton VOR			220/80								140	:20	148		3500	3500
AB	46-02N 67-41W	CR	150	+10	160	+22	182	35.0	↓	↓	410	4960	11:49	5165		62094	236750
												57	:10	57		250	250
AC	LAFB	DS	355			+22				400	400	5017	11:59	5222		61844	236500
													:15			7000	7000
	Land and Taxi	LD											12:14			54844	229500

SAC FORM 10 APR 58 1b FC: 2720 INCL. #1 ANNEX "D" CONFIDENTIAL W-1941-C Air Force - SAC, Offutt O-1850(56)

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MISSION FLIGHT PLAN	O. O. AND NICKNAME		UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
	IRON CLAD		42 BWG	B-52	1st Wave		March 26-27-28

	POUNDS				POUNDS		RUNWAY		
ACFT BASIC	167760		BOMBS			1st Acft	PRESSURE ALT	LENGTH	AIR TEMP
CREW	2560		AMMO						
OIL	996		WATER AUG			PAGE 1a of 2	CRITICAL FIELD LENGTH		CRITICAL AIR TEMP
ATO	-		STATIC		400000	NR FULL ATO REQUIRED	Take-Off		
RACK	-		START ENGINES AND TAXI FUEL ALLOWANCE		-5000	NR EMPTY ATO REQUIRED	16:33Z		
EXT TANKS WEIGHT (Empty)	2550						TAKE-OFF DISTANCE	TAKE-OFF SPEED	
MISCELLANEOUS	800						CRITICAL WIND COMPONENT		
CHAFF	-	TOTAL FUEL	TAKE-OFF GROSS		395000	ATO FIRING SPEED	1ST LEG	2ND LEG	3D LEG
OPERATING	174656	225344					DEPARTURE PLAN 1		

PEPPER BOX (Alternate A.R.)

PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
	LORING AFB															225344	400000
	T															9740	9740
	SETTO											10	:03	10		215604	390260
	L/O			220/50								113	:15	105		10500	10500
A	48-42N 67-32W	CL	009	-3	006	+23	029	30		410	451	123	:18	115		205104	379760
	T.P.			220/80								42	:05	42		1530	1530
B	40-19N 67-23W	CR	009	-5	004	+25	029		.72	420	510	165	:23	157		203574	378230
	Huntington Is. T.P.			220/80								450	:54	370		16550	16550
C	53-48N 56-50W	CR	054	+3	057	+35	092				498	615	1:17	527		187024	361680
	T.P. Comp PT			220/80								111	:18	126		5300	5300
D	55-12N 59-28W	CR	308	-11	297	+34	331		↓	↓	410	726	1:35	653		181724	356380
	I.P. A/R			220/80								92	:15	111		4625	4625
E	54-10N 62-05W	CR	228	-1	227	+32	259		.77	445	368	818	1:50	764		177099	351755
	S/D			220/80								350	:24	179		7400	7400
F	52-30N 65-10W	CR	228	-1	227	+30	257	↓	↓	↓	368	968	2:14	943		169699	344355
	L/O			220/60								32	:05	35		400	400
G	52-06N 65-47W	DS	225	-1	224	+28	252	15		410	350	1000	2:19	978		169299	343955
	RENDV			220/40								28	:06	30		1500	1500
H	51-46N 66-21W	DEC	225	-1	224	+28	252			300	260	1028	2:25	1008		167799	342455
	End A.R.			220/40								130	:37	154		11635	11635
I	50-11N 68-48W	AR	225	-1	224	+26	250	↓		250	216	1158	3:02	1162		156164	330820
																60000	60000
	ON LOAD															216164	390820
				220/40								8	:02	10		1250	1250
J	50-03N 68-46W	Acc	170	+6	176	+24	200	15		300	270	1166	3:04	1172		214914	389570
	L/O			220/60								74	:12	82		7000	7000
K	49-00N 68-28W	CL	170	+7	177	+24	201	35		410	370	1240	3:16	1254		207914	382570
	LAFB Rassemble Pt.			220/80								120	:18	133		5770	5770
L	46-58N 67-53W	CR	170	+8	178	+23	201	↓	.77	445	390	1360	3:34	1387		202144	376800

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MISSION FLIGHT PLAN – CONTINUATION SHEET PAGE 2A of 2

	FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	JEL FLIGHT PLAN PRED FUEL REMAINING	GROSS WT
	46-58N 67-53W															202144	376800
	ECM			220/80								204	:33	245		10500	10500
M	43-54N 69-55W	CR	205	+3	208	+20	228	35.0	.77	445	370	1564	4:07	1632		191644	366300
	ECM			220/80								176	:28	208		8000	8000
N	43-01N 73-48W	CR	252	-6	246	+16	262	↓			375	1740	4:35	1840		183644	358300
	ECM			230/65								324	:51	380		15000	15000
O	41-13N 80-34W	CR	251	-3	248	+ 8	256	36.0	.		380	2064	5:26	1220		168644	343300
	ECM			230/65								152	:24	178		7000	7000
P	40-23N 83-43W	CR	250	0	250	+ 3	253				380	2216	5:50	2398		161644	336300
	* Benton Harbor			280/50								161	:24	178		6750	6750
Q	42-06N 86-28W	CR	314	-3	311	0	311				402	2377	6:14	2576		154894	329550
	OTTAWA ILL HHCL			280/50								118	:18	134		4750	4750
R	41-20N 88-50W	CR	244	+4	248	-2	246				402	2495	6:32	2710		150144	324800
													:12	88		3100	3100
	TCP							↓	↓	↓			6:44	2798		147044	321700
	P.I.P. Burlington			280/50								108	:16	125		5300	5300
S	40-48N 91-08W	CR	253	+3	256	-4	252	41.0	.82	470	400	2603	7:00	2923		141744	316400
	I.P. Abeam Brook Fld			280/50								110	:15	118		4800	4800
T	39-51N 93-10W	CR	237	+4	241	- 6	235				430	2713	7:15	3041		136944	311600
	Tgt "F"			280/50								82	:12	94		3800	3800
U	Kansas City	BR	238	+4	242	- 8	234				430	2795	7:27	3135		133144	307800
	P.I.P.			270/60								340	:49	384		15500	15500
V	41-14N 101-44W	CR	292	-3	289	-10	279				413	3135	8:16	3519		117644	292300
	I.P. Abeam Ft. Morgan			270/60								112	:16	125		4500	4500
W	40-16N 103-48W	CR	240	+4	244	-13	231				418	3247	8:32	3644		113144	287800
	Tgt "E"			270/60								62	:09	70		6470	6470
X	Denver Colo	BR	240	+4	244	-14	230		↓	↓	418	3309	8:41	3714		106674	281330
	Start Nite X			280/50								74	:10	74		2530	2530
Y	Cheyenne, Wyo.	CR	015	-7	008	-15	353		.77	445	450	3383	8:51	3788		104144	278800
				280/50								790	1:35	700		21500	21500
Z	46-04N 87-00W	CR	072	-3	069	- 7	062				500	4173	10:26	4488		82644	257300
	End Nite X			280/50								722	1:22	610		17500	17500
AA	48-07N 69-34W	CR	082	-2	080	+11	091	↓			500	4895	11:48	5098		65144	239800
	Houlton VOR			220/80								140	:20	148		3500	3500
AB	46-02N 67-41W	CR	150	+10	160	+22	182	35.0	↓	↓	410	5035	12:08	5246		61644	236300
												57	:10	57		250	250
AC	LAFB	DS	355			+22				400	400	5092	12:18	5303		61394	236050
													:15			7000	7000
	LAND & TAXI	LD											12:33			54394	229050

SAC FORM 16 APR 54 1b FC: 3703 INCL #1 ANNEX "D" CONFIDENTIAL W-1941-C Air Force-DoC, OFFSET O-1000(340)

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MISSION FLIGHT PLAN – CONTINUATION SHEET PAGE 5 OF 5

FROM CELL BREAK-UP / BENTON-HARBOR / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	L FLIGHT PLAN: PRED FUEL REMAINING	L FLIGHT PLAN: GROSS WT
#2 ACFT			280/50								104	:14	104			
40-26N 87-00W	CR	187	+6	193	-2	191		.77	445	445	2406	6:21	2653			
			280/50								96	:14	104			
41-20N 88-50W	CL	304	-3	301	-2	299	44			400	2502	6:35	2757			
#3 ACFT			280/50								143	:19	141			
39-47N 86-53W	CR	182	+6	188	-2	186		.77	445	450	2445	6:26	2690			
OTTAWA ILL			280/50								128	:19	141			
41-20N 88-50W	CL	317	-4	313	-2	311	41			405	2573	6:45	2831			
#4 ACFT			280/50								180	:24	178			
39-11N 86-44W	CR	179	+6	185	-2	183		.77	445	450	2482	6:31	2727			
OTTAWA ILL			280/50								164	:24	178			
41-20N 88-50W	CL	325	-5	320	-2	318	44			410	2646	6:55	2905			

SAC FORM 16 APR 54 16 FC 1720 INCL #1 ANNEX "D" CONFIDENTIAL W-1941-C Air Force-SAC, Offset O-1050(50)

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TAKE-OFF CONDITIONS-HEAVIEST AIRCRAFT

TYPE AIRCRAFT	B-52D
TAKE-OFF GROSS WEIGHT	400,000#
RUNWAY AVAILABLE	12100
OUTSIDE AIR TEMPERATURE	35° F
PRESSURE ALTITUDE (WHEN APPLICABLE)	750
EQUIVALENT GROSS WEIGHT	N/A
CRITICAL FIELD LENGTH	7600

INCL #3 ANNEX D 42d BW OPS OPD 217-57 W1941C

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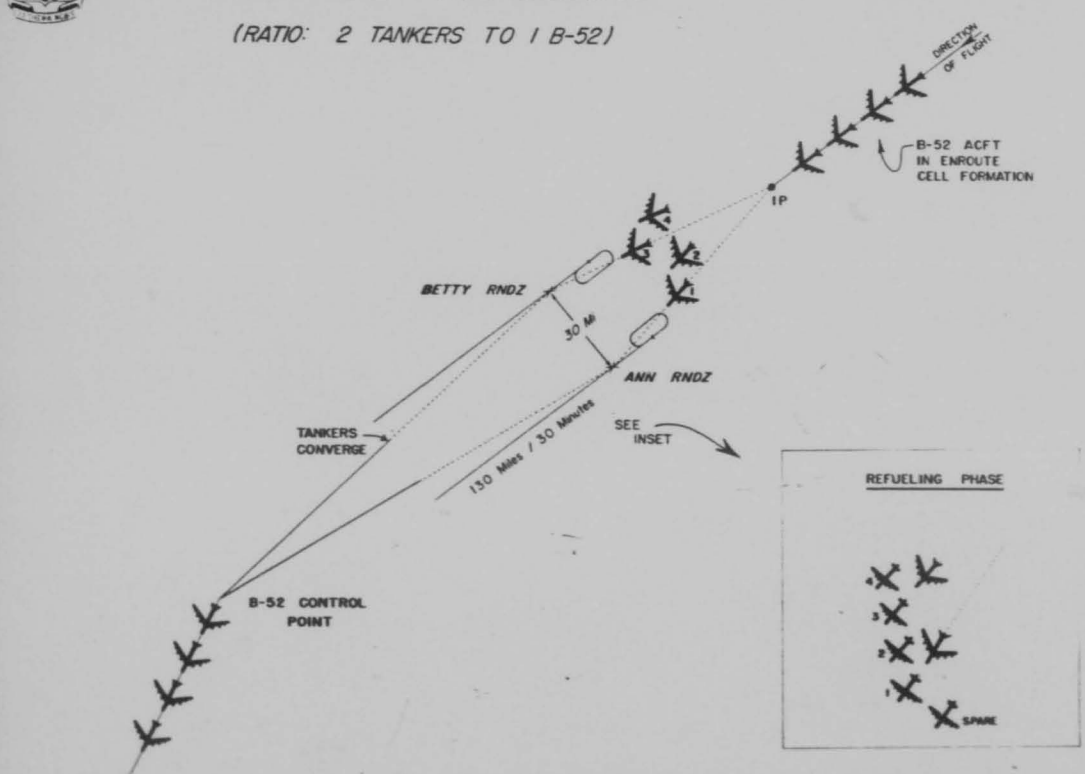
MULTIPLE REFUELING

(RATIO: 2 TANKERS TO 1 B-52)

8 AF 00 217-57



Incl "4" Annex D 42d BW Ops Ord 217-57 CONFIDENTIAL W 1941C

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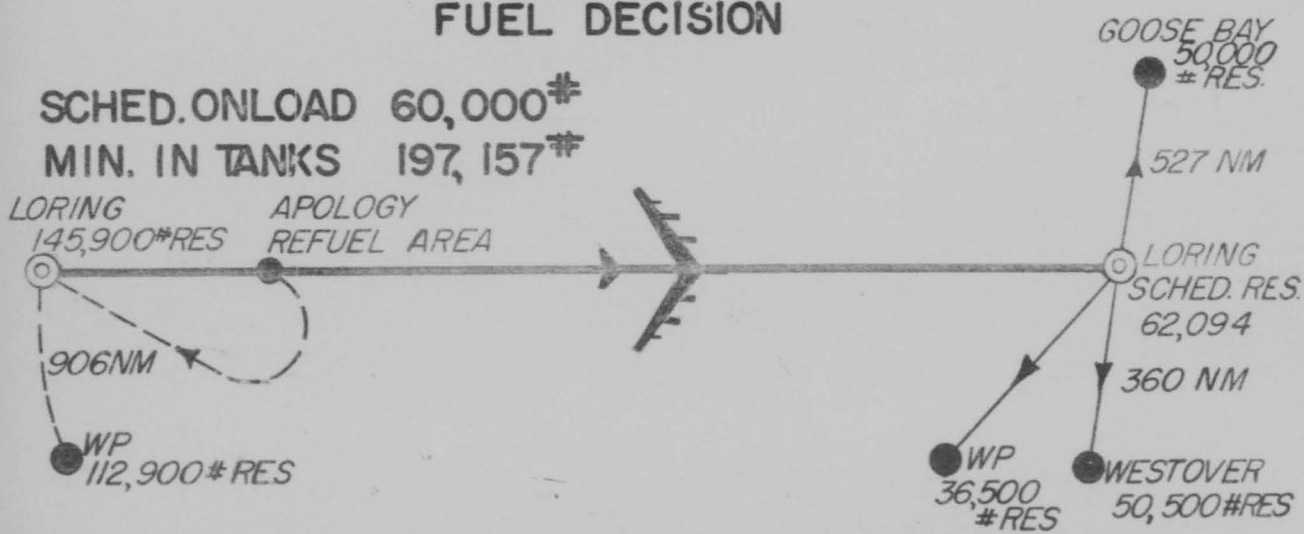
Iron Clad

FUEL DECISION

SCHED. ONLOAD 60,000#

MIN. IN TANKS 197, 157#



RESERVES BASED ON #1 ACFT

UCL #5 ANNEX D 42d BW ops ord 217-57

W1941C

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AIRCRAFT SCHECULES

"IRON CLAD" - WAVE I - 26 MARCH 1957
(ALL TIMES ZULU)

CELL COLOR	PILOT	TAIL NR	C/S	T/O ** TIME	APOLOGY ETA	PEPPER BOX ETA	H-HOUR CONT TIME
1. RED	*			1652	1916	1858	2315
2.							2325
3.							2335
4.							2345
5. GRAY				1752	2016	1958	27/0015
6.							27/0025
7.							27/0035
8.							27/0045
9. YELLOW				1852	2116	2058	27/0115
10.							27/0125
11.							27/0135
12.							27/0145

* Air Commander

** One minute and one half between individual aircraft

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AIRCRAFT SCHEDULES

"IRON CLAD" - WAVE II - 27 MARCH 1957
(ALL TIMES ZULU)

CELL	COLOR	PILOT	TAIL NR	C/S	T/O ** TIME	APOLOGY ETA	PEPPER BOX ETA	H-HOUR CONT TIME
1.	BLUE	*			1652	1916	1858	2315
2.								2325
3.								2335
4.								2345
5.	ORANGE				1752	2016	1958	28/0015
6.								28/0025
7.								28/0035
8.								28/0045
9.	WHITE				1852	2116	2058	28/0115
10.								28/0125
11.								28/0135
12.								28/0145
13.	ROSE				1952	2216	2158	28/0215
14.								28/0230
15.								28/0245

* Air Commander

** One minute and one half between individual aircraft

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AIRCRAFT SCHEDULES

"IRON CLAD" - WAVE III - 28 MARCH 1957
(ALL TIMES ZULU)

CELL	COLOR	PILOT	TAIL NR	C/S	T/O ** TIME	APOLOGY ETA	PEPPER BOX ETA	H-HOUR CONT TIME
1.	COPPER				1652	1916	1858	2315
2.								2325
3.								2335
4.								2345
5.	BLACK				1752	2016	1958	29/0015
6.								29/0025
7.								29/0035
8.								29/0045
9.	GREEN				1852	2116	2058	29/0115
10.								29/0125
11.								29/0135
12.								29/0145
13.	PURPLE				1952	2216	2158	29/0215
14.								29/0230
15.								29/0245

* Air Commander

** One minute and one half between individual aircraft

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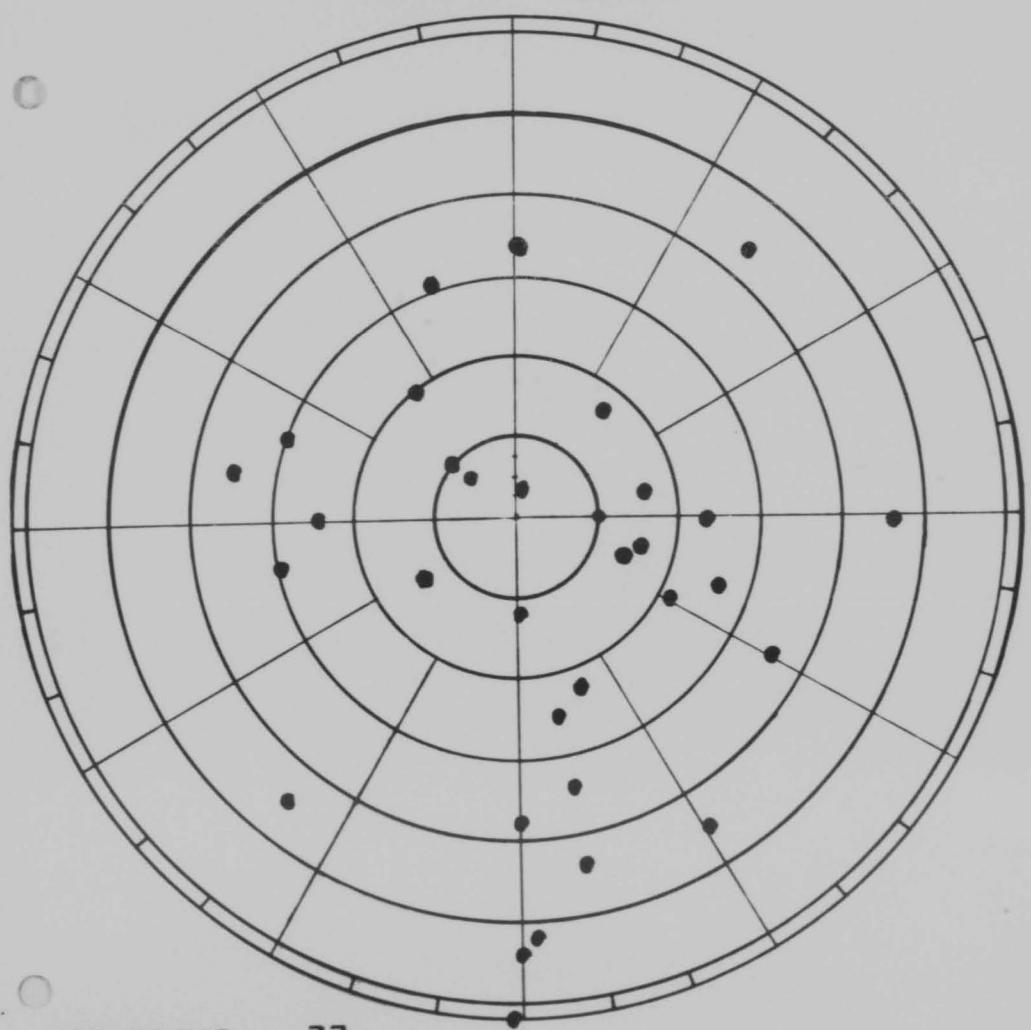

NO. RUNS	33
CEA	1445
CEP	1320
RELIABILITY	100%

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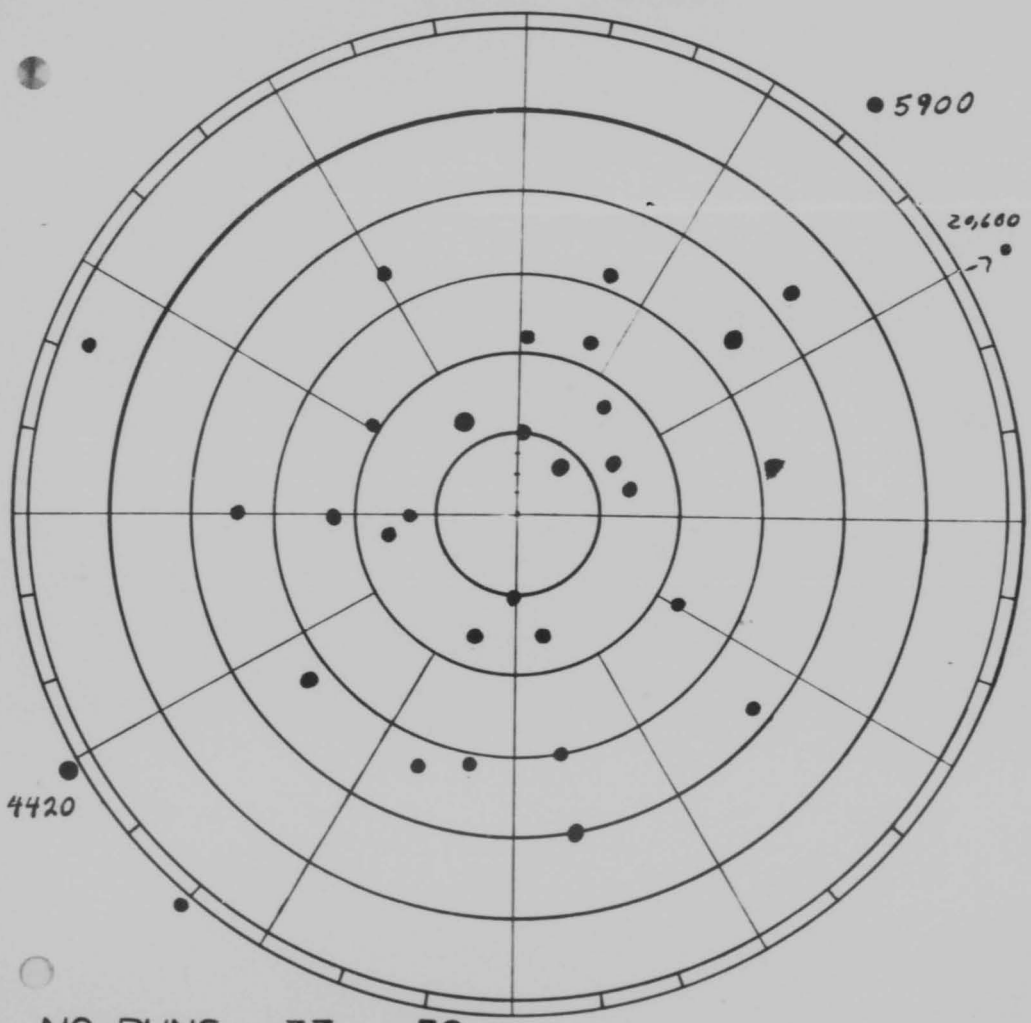
TARGET DENVER



NO. RUNS	33	32
CEA	2146	569
CEP	1500	150
RELIABILITY	91%	93.8%

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CREW COMPETITION
"IRON CLAD"
TAKE OFF AND REFUELING

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AIRCRAFT COMDR.	T.O. DEV.	REFUELING SCHEDULED	REFUELING ACTUAL	REFUELING POINTS
Britton	0	60,000	60.000	125
Tucci	0	60,000	60,000	125
Roberts	0	60,000	60,000	125
Douglas	0	60,000	58.000	125
Southwick	0	60,000	60,000	125
Warren	0	60,000	60,000	125
Howard	0	60,000	60,300	125
Deaton	0	60,000	60,000	125
Risher/Bubb	0	60,000	60,000	125
Confer	0	60,000	35,000	50
Bruce	0	60,000	60,000	125
Maloney	0	70,000	70,000	125
McDonnell	0	70,000	70,000	125
Scannell/Batson	0	70,000	70,000	125
Hudlow	0	70,000	70,000	125
Wright	0	70,000	70,[illegible]	125
Sandac	0	70,000	70,000	125
Bell	0	70,000	70,000	125
[illegible]	0	70,000	70,000	125
Curtis	0	70,000	70,000	125

AIRCRAFT COMDR.	T.O. DEV.	REFUELING SCHEDULED	REFUELING ACTUAL	REFUELING POINTS
Hirsch/Horstman	0	70,000	70,000	125
Williams	0	70,000	70,000	125
Evans	0	60,000	60,000	125
Riordan	LTO	60,000	61,400	125
Childs	0	60,000	60,000	125
Orth	LTO	60,000	60,000	125
Miller	0	60,000	60,000	125
Anastasia	0	60,000	60,000	125
Mailander	0	60,000	40,000	75
Penzien	0	60,000	60,000	125
Smith	LTO	60,000	60,000	125
Halnan	0	60,000	60,000	125
Stickler	0	60,000	60,000	125
Morgan	0	60,000	60,000	125
Barney	0	60,000	50,000	75
Owens	0	60,000	60,000	125

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CREW COMPETITION
"IRON CLAD"
BOMBING

CREW STAND	CREW ACFT. COMDR.	CREW RIP. OBSERVER	KANSAS CITY CE	KANSAS CITY PTS	DENVER CE	DENVER PTS	ALL TARGETS CEA	ALL TARGETS PTS
1	Britton	Everett	500	108	500	108	500	216
2	Tucci	Norman	170	119	870	96	520	215
9	Confer	Helms	1250	83	650	103	950	186
10	Roberts	McCarty	1050	90	1050	90	1050	180
13	Warren	Bensey	700	101	1670	69	1185	170
16	Douglas	Johnson	1170	86	1600	71	1385	157
17	Howard	Raindoldi	1320	81	1500	75	1410	156
18	Southwick	Ahlstedt	1700	68	1120	87	1410	155
23	Risher/Bubb	Dennis	1550	73	1720	67	1635	140
26	Deaton	Stocks	2270	49	1550	73	1910	122
31	Bruce	Scott	1550	73	20,620	1	11,085	74
5	Maloney	Massie	1250	83	370	112	810	195
7	Scarnell/Batson	Martizen	1120	87	700	101	910	188
8	McDonnell	Hart	720	101	1170	86	945	187
11	Hudlow	Bossert	420	111	1720	67	1070	178
14	Sandacz	Sulkowski	1850	63	670	102	1260	165
19	Wright	Townely	1000	91	2000	58	1500	149
20	Curtis	Phelps	2300	48	770	99	1535	147
21	Suprenant	Gibbons	2320	47	800	98	1560	145
22	Bell	Breyhill	1570	72	1710	46	1640	140
[illegible]	[illegible]	Gillespie	700	101	5900	1	3300	102

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CREW COMPETITION
"IRON CLAD"
BOMBING

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CREW STAND	CREW ACFT. COMDR.	CREW BDR. OBSERVER	KANSAS CITY OS	KANSAS CITY PTS	DENVER OS	DENVER PTS	ALL TARGETS OS	ALL TARGETS PTS
33	Hirsch/Farnham	Busbee	2200	51	4420	1	3310	52
3	Riordan	Martin	620	104	770	101	660	205
4	Evans	Boone	850	96	570	106	710	202
6	Owens	Wendt	500	108	1150	86	825	194
12	Orth	Kimball	800	98	1550	73	1175	171
15	Penzien	McGowan	1820	64	800	98	1310	162
24	Childs	Brolin	1720	67	1920	61	1820	128
25	Miller	Gallessich	2770	32	1050	90	1910	122
27	Mailander	Daniel	2200	51	2170	52	2185	103
29	Smith	Aguilar	3170	19	1780	65	2475	84
30	Morgan	Morris	1920	61	3270	16	2595	77
32	Anastasia	Lang	2600	38	2850	30	2725	68

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(3)

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CREW COMPETITION
"IRON CLAD"
NAVIGATION - HHCL - RADAR PHOTOGRAPHY

CREW		NITE X	NITE X		HHCL	PHOTO RESULTS		
ACFT. COMMANDER	OBSERVER NAV	STANDING	DEA	PTS	DEV	RC	DVR	NAV LEG
Williams	Brown	33	28	13	OK	OK	OK	OK
Riordan	Heckendorn	7	2	117	OK	OK	OK	OK
Owens	Taylor	6	2	117	OK	OK	OK	OK
Evans	Mauro	5	2	117	OK	OK	OK	OK
Smith	Doyle	10	3	113	OK	OK	OK	OK
Orth	Watnee	11	4	109	OK	OK	OK	OK
Anastasia	Hewes	12	4	109	OK	OK	OK	OK
Wilman	Longstreet	20	7	97	OK	OK	OK	OK
Mailander	Corroppolli	24	9	89	OK	OK	OK	OK
Child's	Sperry	25	10	85	OK	OK	OK	OK
Miller	Werner	28	12	77	OK	OK	OK	OK
Barney	Brage	27	12	77	OK	OK	OK	OK
Pension	Jackson	29	13	73	OK	OK	OK	OK
Stickler	Dodd	31	14	69	OK	OK	OK	OK

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CREW COMPETITION
"IRON CLAD"
NAVIGATION - HHCL - RADAR PHOTOGRAPHY

CREW		NITE X	NITE X		HHCL	PHOTO RESULTS		
ACFT. COMMANDER	OBSERVER NAV.	STANDING	CEA	PTS	DEV	EC	DVR	NAV LEG
Roberts	Baily	9	3.0	113	OK	OK	OK	OK
Douglas	Best	13	4.0	109	OK	OK	OK	OK
Britton	McManus	14	4.0	109	OK	OK	OK	OK
Tucci	Burnett	19	7.0	97	OK	OK	OK	OK
Southwick	Pullen	21	8.0	93	OK	OK	OK	OK
Deaton	Parrish	22	8.0	93	OK	OK	OK	OK
Howard	Yeskovich	26	12.0	77	OK	OK	OK	OK
Warren	Warrington	30	14.0	69	OK	OK	OK	OK
Risher/Bubb	Brown	32	17.0	57	OK	OK	OK	OK
Confer	Wiseman	NA	NONE	0	OK		NONE	
Bruce	Kolby	NA	NONE	0	OK		NONE	
McDonnell	Searle	1	1	121	OK	OK	OK	OK
Hirsch/Horstman	Javurek	2	2	117	OK	OK	OK	OK
Maloney	Demond	3	2	117	OK	OK	OK	OK
Bell	Rees	4	2	117	OK	OK	OK	OK
Scannell/Batson	Beal	8	3	113	OK	OK	OK	OK
Wright	Maushart	15	4	109	OK	OK	OK	OK
Hudlow	Hamm	16	4	109	OK	OK	OK	OK
Suprenant	Coffey	17	5	105	OK	OK	OK	OK
Curtis	Veber	18	6	101	OK	OK	OK	OK
Sandaca	Hentschel	23	8	93	OK	OK	OK	OK

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CREW COMPETITION
"IRON CLAD"
OUTSTANDING CREWS

ACFT. COMMANDER	OBSERVER RADAR	OBSVR. NAV.	BCM'S POINTS
Britton	Everett	McManus	50
Evans	Boone	Mauro	50
Tucci	Norman	Burnett	50
Maloney	Massie	Demond	50
Owens	Wendt	Taylor	50
McDonnell	Hart	Searle	50
Scannell	Maritzen	Beal	50
Roberts	McCarty	Reiley	50
Riordan	Martin	Heckendorn	50

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CREW COMPETITION
"IRON CLAD"
SUMMARY

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Crew Stand	Crew Acft. Comdr.	POINTS EARNED T.O.	REF.	VHCL	BBS KC	BBS DV	PHOTO	NITE A	SUB TOTAL	BONUS	TOTAL
1	Britton	75	125	75	108	108	50	109	650	50	700
3	Tucci	75	125	75	119	96	50	97	637	50	687
8	Roberts	75	125	75	90	90	50	113	618	50	668
11	Douglas	75	125	75	86	71	50	109	591		591
17	Southwick	75	125	75	68	87	50	93	573		573
18	Warren	75	125	75	101	69	50	69	564		564
19	Howard	75	125	75	81	75	50	77	558		558
20	Deaton	75	125	75	49	73	50	73	540		540
24	Risher/Bubb	75	125	75	73	67	50	57	522		522
33	Confer	75	50	75	83	103	NONE	NONE	386		386
36	Bruce	75	125	75	73	1	NONE	NONE	349		349
4	Maloney	75	125	75	83	112	50	117	637	50	687
6	McDonnell	75	125	75	101	86	50	121	633	50	683
7	Scannell/ Batson	75	125	75	87	101	50	113	626	50	676
10	Hudlow	75	125	75	111	67	50	109	612		612
12	Wright	75	125	75	91	58	50	89	583		583
7	Sandacz	75	125	75	69	102	50	93	583		583
22	Bell	75	125	75	72	68	50	117	582		582
15	Supernant	75	125	75	47	38	50	105	575		575

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W-2260C
PAGE 7

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CREW COMPETITION
"IRON CLAD"
SUMMARY

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Crew Stand	Crew Acft. Comdr.	POINTS EARNED T. O.	Ref	PHOL	RBS KO	RBS DW	PHOTO	NITE K	SUB TOTAL	BONUS	TOTAL
16	Curtis	75	125	75	[illegible]	99	50	101	573		573
26	Hirsch-Horstman	75	125	75	51	1	50	117	[illegible]		454
30	Williams	75	125	75	101	1	50	13	440		440
[illegible]	Evans	75	125	75	96	106	50	117	[illegible]	50	[illegible]
9	Riordan	0	125	75	104	101	50	117	[illegible]	50	[illegible]
[illegible]	Childs	75	125	75	67	61	50	85	538		538
22	Orth	0	125	75	98	73	50	109	530		530
23	Miller	75	125	75	32	[illegible]	50	77	524		524
25	Anastasia	75	125	75	38	30	50	109	502		502
27	Mailander	75	75	75	51	52	50	89	467		467
28	Ponzien	75	125	75	64	98	50	73	460		460
29	Smith	0	125	75	19	65	50	113	447		447
31	Halnan	75	125	75	Equip. Malfunction		50	97	422		422
32	Stickler	75	125	75	Equip. Malfunction		50	69	394		394
35	Morgan	75	125	75	Equip. Malfunction		0	0	352		352
34	Barney	75	75	75	Equip. Malfunction		50	77	352		352
5	Owens	75	125	75	108	86	50	117	636		686

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8

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HISTORY

RETURN TO:
Director
Research Studies Institute
Attn: Archives Branch
Maxwell AFB, Alabama

K-WG-42-H
March 1957
Vol. II

STRATEGIC AIR COMMAND

MICROFILMED

RM—57—

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SECRET

42D BOMBARDMENT WING, HEAVY

1-31 March, 1957
(Unclassified Title)

Part 2 of 2 Parts

MICROFILMED
RM—57— 19
4-13823-11

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—SECRET—

Final Report 42D B.W.

OPERATIONS ORDER 214-57

42D BOMBARDMENT WING (H)

Loring A.F.B.

MAINE

72346

W-23975

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COUNTRY CLUB

GENERAL COMMENTS

1. The purpose and objectives of the mission and ground rules pertaining thereto, were clearly outlined in SAC Letter DOPLT, Subject: "Test Directive", dated 9 November 1956.

2. The mission was well planned and executed.

3. The "Live Aboard" concept is sound and refueling operations with limited support at Frobisher are practical.

4. The provisions of the test directive eliminated almost all of the problems areas connected with "Apple Cider". A "weak spot" in HF communications still exists in Northern areas.

5. Detailed report on all phases of operations are contained in this report.

D E Stillman

DONALD E STILLMAN
Colonel USAF
Wing Commander

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TABLE OF CONTENTS

SECTION I	Complete Summary of Information Contained in Interim Reports
SECTION II	Degree of Accomplishment on Test Purposes
SECTION III	Evaluation of Concept
SECTION IV	Evaluation of Equipment
SECTION V	Copies of Radio Logs (Separate Attachment)
SECTION VI	SOPS Including Recommendations for Change in T/O 1C-97(K)G-1, SAC Manuals 55-6, 55-10.
SECTION VII	"Live Aboard" Check Lists
SECTION VIII	Itemized List of all Equipment and Recommendations for Change
SECTION IX	Recommended Crew Training
SECTION X	Check Lists for Daily Operation
SECTION XI	"Improvised Methods of Doing"
SECTION XII	Climatic Conditions
SECTION XIII	Specific Listing of Ground Support Items
SECTION XIV	Summary of Crew Comments
SECTION XV	Comments and Recommendations of Project Officer

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REPORT ON "COUNTRY CLUB"

SECTION I. SUMMARY

Initial testing began on 4 February 1957 and was completed on 6 February 1957. A total of 10 test sorties were scheduled and 9 successful take-offs were made after the crews and aircraft were in place for 44 hours.

Of the 9 take-offs made, 9 refueling sorties were sucessfully completed. One ground abort was caused by failure of magneto drive shaft during operational check prior to take-off.

Recovery from the first phase was made at Frobisher due to Thule weather being zero zero obscured and the planned alternate of Sondrestrom being marginal with 2-3 miles in blowing snow. Return to Thule was made on 7 February 1957.

The alert message containing refueling timing was received by the Task Force Commander by telephone from the Frobisher Base Commander; one hour and thirty six minutes prior to first tanker take-off.

No HF transmissions were received during this period addressed to "Country Club" aircraft. Communications were not established with receiver aircraft prior to tanker take-off. Communications were satisfactory after tanker take-offs to accomplish rendezvous.

The second phase began on 13 February 1957 (one day late due to phase II conditions at Thule from 11/1600Z to 12/0900Z) and was completed on 18 February 1957. A total of 20 test sorties were scheduled and 18 sucessful aircraft were in place for 44 hours. 8 sorties were flown on 18 February 1957 after crews and aircraft were in place for an additional 60 hours.

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Of the 10 take-offs made on 15 February, 9 refueling sorties were sucessfully completed. One air abort was caused by severe vibration of #3 engine due to partial ignition failure after take-off and loss of power on #2 engine due to failure of Carburetor Ram Air Duct Flexible Coupling Clamp.

Of the 8 take-offs made on 18 February, 8 refueling sorties were sucessfully completed. Two ground aborts were caused by propeller govener failures encountered during operational check prior to take-off.

Recovery from the mission on 15 February was made at Frobisher.

Recovery from the mission on 18 February was made at Thule.

The alert message containing refueling timing for the mission on 15 February was received from Frobisher tower one hour and twenty five minutes before take-off. The alert message containing refueling timing for the misssion on 18 February was received from Loring Airways by HF transmission two hours and fifty six minutes before take-off.

No HF transmission were received during the period 13-15 February, addressed to Country Club aircraft. Communications were not established with receiver aircraft prior to tanker take-off. Communications were satisfactory after tanker take-off to accomplish rendezvous.

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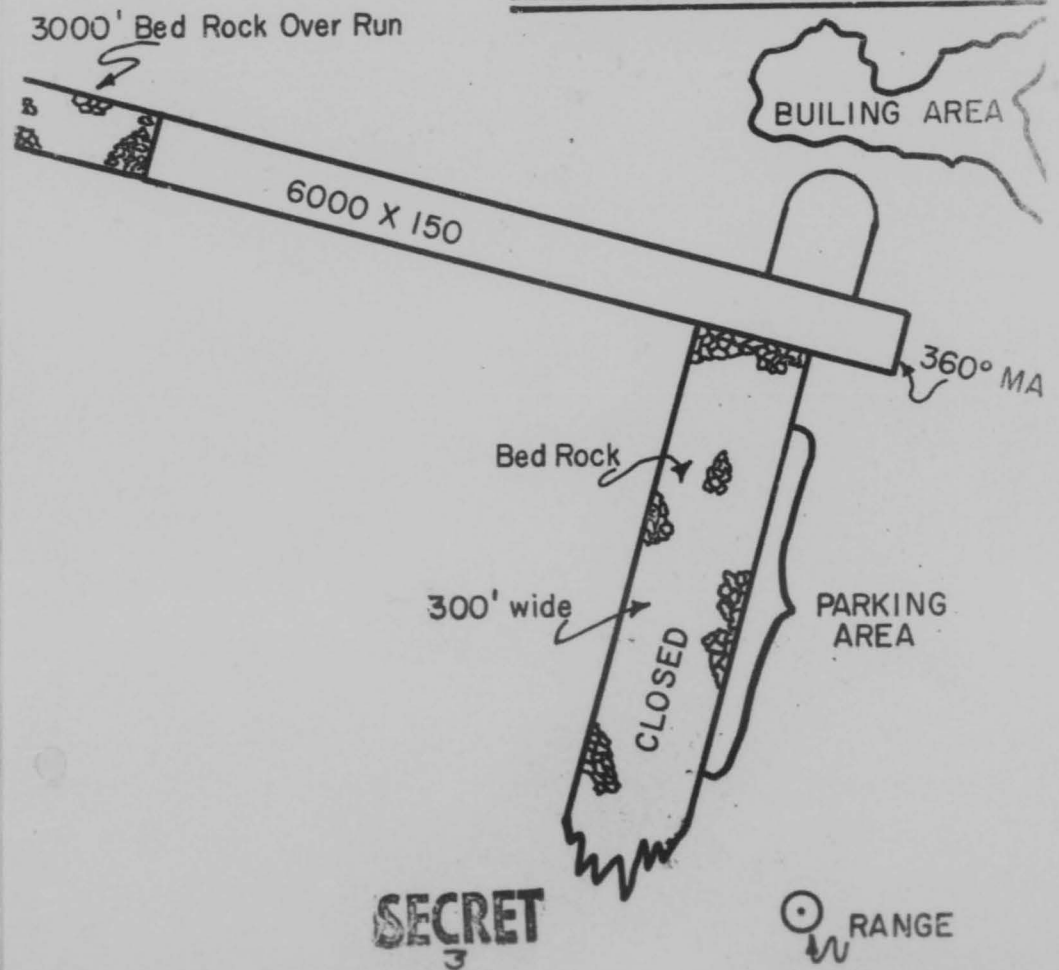
8 AF 214-57

BASE LAYOUT FROBISHER BAY



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REPORT ON "COUNTRY CLUB"

SECTION II. DEGREE OF ACCOMPLISHMENT OF TEST PURPOSES

The application of the "Live Aboard" concept was highly successful from a tanker crew standpoint. The KC-97G has sufficient room to accomodate a minimum crew and selected specialists, however not more than 12 people should be planned for on an actual or test basis.

- Due to the mild weather encountered at Frobisher during both test periods (lowest temp minus 21°F, highest temp plus 10°F), no specific dependability rate for air refueling sorties could be determined. Wing heaters received greater test at Thule than at Frobisher due to the temperatures encountered. Body heaters properly controlled maintained a satisfactory living condition aboard the aircraft. Installation of engine plugs, heater ducting and preparations for ground operation of wing heaters varied only slightly with each crew. All crews were highly efficient in the installation and removal of heating equipment due to experienced gained during normal operation at Thule. In no case does the entire operation consume more than 20 minutes.

The solar power unit is capable of sustained operation and furnishes sufficient electrical power to operate all equipment necessary for such a mission. Some difficulty was encountered in restart of Solar units after ground refueling due to low battery voltages. Replacement batteries are not considered practical. Since the solar unit will operate on the aircraft buss without a battery installed, another aircraft with an operational solar unit could remove their battery for a solar start on the aircraft having difficulty. It is feasible for one aircraft solar unit to furnish power to two aircraft for live aboard purpose only, should one aircraft have a solar unit failure and external power was not available. This is practical but

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not tested due to the required power plugs and power cables not being available. For live aboard in an emergency rather than evacuate the aircraft, consideration of this method should be given on future tests.

HF Communications was a weak area. Monitoring was planned to cover all standard USAF air/ground frequencies. Reception was spasmodic and could not be depended upon to furnish refueling information on two out of three occasions. Aircraft were parked so that several planes of antenna coverage were possible. Information is not available to determine whether refueling timing was transmitted on HF by the Foxtrot method on 6 February and 15 February since no aircraft reported traffic for "Country Club" on these dates. During the period 16/1200Z to 17/1200Z a communications test resulted in favorable reception on the following frequencies: 6730.5, 11228, and 15016 KCs. On 18 February refueling information was received at 18/1431Z from Loring, Andrews and Goose Airways on these same frequencies. It is believed that refueling information would be known far enough in advance for all selected USAF air/ground stations to start simultaneous Foxtrot broadcasts at least three hours prior to tanker take-offs. Using SAC monitoring procedures "ALPHA" aircraft stations would have three periods per hour when it would be possible to receive refueling timing information.

During the entire period no difficulty was encountered in preparing for take-off with the minimum warning, however, ideal conditions existed wherein deicing of aircraft was not necessary. On 18 February, with timing information received two hours and 56 minutes before tanker take-off, de-icing would have been possible if necessary. On 6 February and 15 February, insufficient warning was given for de-icing prior to take-off and would have

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seriously effected reliability had de-icing been necessary.

Refueling of aircraft was highly satisfactory with pre-positioned equipment. Turn around time for 10 aircraft on 4 February was 10 hours, for 10 aircraft on 13 February was 10 hours, and for 10 aircraft on 15 February was 12 hours. Initial staging required less refueling time due to the fly in of 105,000 # of JP-4 fuel on 4 February and on 13 February. Fuel reserves for tanker use were computed on 60-16 minimums, with a 90% worst wind factor using Sondrestrom as an alternate on all missions.

Take off gross weight was computed at 155,000 #. It was necessary to increase initial 115/145 fuel loads approximately 4,000 # to allow for solar and heater operation, and pre-take off operational check based on a 36 hour minimum turn around time. The procedure followed in servicing in excess of 155,000 # gross weight to allow for ground operation could have caused a problem in meeting take-off times with minimum warning unless either take-off gross weight was exceeded or tanker fuel reserve was sacrificed. After 36 hours, all aircraft were re-serviced to take-off gross weight plus operational check requirements ever 12 hours. This procedure is satisfactory but not desirable since air refueling timing may have precluded re-servicing with aircraft lacking as much as 2000 # of 115/145 flight planned fuel.

Procedures for engine start, operational checks, and take-off as outlined in T.O. 1C-97(K)G-1 were considered satisfactory for operation "Country Club". Airfield layout precluded in place engine start and operational checks of all aircraft. Four aircraft were towed to and from a rock surfaced parking area to prevent propeller damage. Six aircraft were parked on hard surfaced areas where engine start and operational checks were possible.

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Launching a single tanker for an air refueling mission under the "Live Aboard" concept proved to be routine. Minimum time from alert to take-off for a single tanker would be one hour and twenty minutes under the conditions encountered. Preparing a single tanker requiring de-icing on Wing empennage surfaces, and re-servicing 115/145 fuel to compensate for solar and wing heaters burn off, would require a minimum additional forty minutes.

Launching a five tanker cell would require a minimum time from alert to first tanker take-off of one hour and twenty minutes under the conditions encountered. Preparing five tankers for a one minute take-off separation when de-icing and re-servicing is necessary would require a minimum additional one hour and twenty minutes.

Airfield layout has some effect on take-off interval. On the first two air refueling missions wind direction and velocity allowed a North take-off. With the tankers parked just off the run way at the South end, take-off interval of one minute was possible.

On the third mission, wind direction and velocity required a South take-off with aircraft required to use the active runway to taxi to take-off position. Minimum take-off interval was seven minutes. This advanced the 1st tanker take-off twenty eight minutes in order to form a five tanker cell and meet the rendezvous time in the alert message. Fortunately, the alert message for this mission was received two hours and fifty-six minutes before take-off, allowing ample time to adjust for take-off direction. On the previous missions this adjustment would have caused the tankers to be late at the rendezvous point and a possible missed refueling.

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All take-offs were made using the recommended short field procedures in T.O. 1C-97(K)G-1 using 55% flaps. This resulted in shortest take-off roll and best rate of climb to clear surrounding terrain. No difficulty was encountered with rough runway surface or packed snow. Normal landing procedures were used with inboard engines in idle reverse.

Air Traffic Control including GCA was satisfactory for two cells of five tankers. Best landing interval, with a conventional tower approach control feeding aircraft to GCA, was eleven minutes. VFR conditions would permit an expedited recovery, with landing intervals approximately five minutes. More than five aircraft arriving for a mass recovery would cause excessive holding and during instrument conditions would greatly effect fuel reserves. Computing flight plans on a 90% worst wind factor is highly satisfactory and is recommended for all such tests.

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REPORT ON "COUNTRY CLUB"

SECTION III. EVALUATION OF CONCEPT

The overall evaluation of the live aboard concept during a mission such as "Country Club" was completely satisfactory. The problems and difficulties encountered, personnel and maintenance wise, were only slightly greater than those experienced while operating from the deployment base. The fact that certain equipment and facilities were limited or lacking completely added to the operating difficulties; however, these difficulties were overcome by extra effort and ingenuity on the part of flight crews and maintenance personnel. The time intervals between sorties allowed ample time for ground servicing of aircraft and performance of necessary maintenance; therefore, the ground support for the mission was adequate. The personnel involved in this test did not encounter any major difficulties or hardships. The aircraft proved to be satisfactory for living quarters and equipment provided for crew necessity and comfort was adequate to keep the flight crews and ground personnel operating efficiently.

Taking into consideration all factors which affected the mission "Country Club", the conclusion is that the concept of this mission is practical.

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REPORT ON COUNTRY CLUB

SECTION IV. EVALUATION OF EQUIPMENT

The Mars turbine generator exceeded anticipated dependability during both phases of Country Club, since up until this time numerous troubles had been experienced. Running from regulation voltage output to fuel leaks. It is now believed that many of these problems existed due to the accelerated installation of the units. Mr. John Delvin technical representative for the Solar Company, accompanied the first phase in the capacity of observer and to further qualify two airmen in maintenance on the unit. In this regard, it is recommended that factory training be utilized to train technicians on the Mars generator. During each phase, two spare units were carried; on the first phase one unit was changed for excessive oil usage and on the second phase, two units were changed for the same reason (excessive, was generally about one (1) gallon each six hours). No cause factors can be determined at this level due to lack of adequate facilities; however, to date, all units changed have been at the 200 hour mark. A fact deemed significant on this oil usage is that some of most trouble free units, using perhaps a pint of oil in a 24 hour period, might all of a sudden jump to three quarts in a six hour period and then go back to a pint in 24 hours. If this case was isolated no mention would be made; but the fact is, that it happened quite frequently for no apparent reason. One unit was changed immediately after return to Thule for excessive high decibel reading. This condition had persisted since installation but gradually grew worse. The 400 amp current limiter presently installed has given no appreciable trouble and is therefore considered adequate.

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The over all evaluation of the aircraft Stewart-Warner type heater system from the point of being adequate to support a mission such as Country Club is satisfactory. There are some apparent weaknesses in the system which would probably become more apparent over a sustained period of operation. The outside air temperature during the entire operation was relatively moderate ranging from -20 to 0°; therefore, there was no need to operate all of the wing heaters continuously. This type of heater operations allowed the heaters to be purged over a period of time which tended to clean the ignition plug and the heater combustion chamber; therefore, a minimum of difficulty was encountered with heater ignition failure due to excessive carbon deposits. It is believed that the air flow through the combustion chamber is somewhat limited due to blower output or back pressure and this factor contributes to improper combustion due to an improper fuel/air ratio. This contention is supported by the fact that at times the exhaust from the heaters is sooty and pieces of red hot carbon are discharged through the exhaust outlets. A number of aircraft had raw fuel discharged through the heater fuel drain which indicated that more fuel was going into the chamber than could be burned. At some time during the operation nearly every aircraft experienced heater malfunctions while operating in normal position; when the heater switch was placed to the emergency position, the heaters would operate normally. This would indicate that the differential pressure switch and/or control wasn't operating properly. This could be caused by insufficient air flow and/or malfunction of the differential pressure switch.

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There was only one incident of a wing heater blower malfunction. It was found that the brushes were worn completely and there was excessive wear of the armature.

The body heater difficulties consisted of two incidents of ground blower malfunctions and some incidents of fuel being discharged through the fuel drain which resulted in a couple of fuel drain fires.

Since this was not a conclusive test of the aircraft preheat system a definite evaluation of the heater system cannot be formulated. By using specific procedures of heater operation to fit the need of the mission, the heater system performance was adequate and satisfactory; the areas of weakness can only be formulated opinions without conclusive proof.

It is recommended that other units deploying on this type mission check the following, to lessen the probability of system malfunction:

a. All blowers brushes and armatures.

b. Check and replace as needed all heater ignition plugs.

c. Check the ignition voltage output at the ignition cable lead to the ignition plug.

d. If the auxiliary fuel pump is bypassed, check the fuel pressure at the heater fuel discharge nozzle.

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REPORT ON "COUNTRY CLUB"

SECTION V. COPIES OF CREW RADIO LOGS

1. Included in this section are the detailed copies of individual crew radio logs which were maintained during the project "Country Club". (ONE COPY OF THE RADIO LOGS WILL BE SENT AS A SEPARATE ITEM TO SAC, DIRECTOR OF COMMUNICATIONS AND ONE COPY TO EIGHTH AIR FORCE, DIRECTOR OF COMMUNICATIONS.)

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REPORT ON "COUNTRY CLUB"

SECTION VI. STANDARD OPERATING PROCEDURES AND RECOMMENDED CHANGES TO T.O. 1C-97(K)G-1 AND SAC MANUAL 55-10.

Crews were briefed to operate exclusively in accordance with T.O. 1C-97(K)G-1, SAC Manual 55-10 and SAC Manual 66-5. Procedures outlined in these publications were satisfactory and no changes are recommended.

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REPORT ON "COUNTRY CLUB"

SECTION VII. ORGANIZATION "LIVE ABOARD" CHECK LIST AND INDIVIDUAL CREW CHECK LIST

The following check lists were used during this project to insure that each crew cover all desired items and to standardize operating procedures. These check lists proved to be adequate and are recommended for use in future operations involving this concept.

WEAPONS SECURITY CHECK LIST

1. Weapons storage box in aircraft.
2. Pick up crew weapons.
3. Passengers pick up weapons.
4. Draw ammunition.
5. Collect weapons at aircraft. Maintain armorers check sheet.
6. Maintain weapons in box.
7. Re-issue and turn in weapons on return.

LIVE ABOARD CHECK LIST

1. Apply engine pre-heat immediately after shut down (Engine Pre-heat check list).
2. Establish engineers station watch and radio monitor. (Engineers station watch check list).
3. Establish outside guard (Outside guard check list).
4. Prepare rear cabin area for living aboard.
   a. Establish galley.
   b. Set up sleeping area.
5. Scramble check list.
6. Solar APU 50 & 100 hour inspection check list.

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7. Solar unit failure check list.

8. Solar unit restart check list.

ENGINE PREHEAT CHECK LIST

1. Open number 1 and number 4 nacelle and install door separators located inside doors.

2. Test blowers by holding blower test switch (in nacelles).

3. Install leading edge adapter.

4. Attach 9" duct from blower to leading edge adapter.

5. Remove capt from heater hot-air take off adapter.

6. Attach 9" duct from hot air adapter to octopus.

7. Attach 6" duct from one side of octopus to nose plug in number 1 engine.

8. Install 6" duct in engines number 2, 3 and 4 in same manner.

9. Turn "on" engine pre-heat switch in nacelle (blowers).

10. Turn "on" essential enverter.

11. Wait a minimum of 3 minutes and turn on anti-ice master switch.

12. Turn combustion heater valve "on" (have fire guard - both wings).

13. Allow cylinder head and oil temperature to rise to 0°C temperature but do not allow temperature to exceed plus 20°C.

14. When engine heat reaches pre-determined temperature, it may be necessary to turn off one, two or even all three heaters to keep engine temperature from going over plus 20°C.

15. Important: If, for any reason, APU stops running - turn battery switch off to save battery voltage for restart of APU. Do not attempt to restart APU until all electrical equipment is turned off, also be sure wing

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heater blowers are turned off at nacelle and anti-ice switch is in off position. After APU is restarted and generator is on the line, turn wing heater blowers on for minimum of 5 minutes to allow air from blowers to evaporate residual fuel in wing heaters.

16. To heat auxiliary oil tank, remove 6" duct from oil vent of number 1 engine and install cap on open duct of octopus. Attach 6" duct taken off octopus to open end of 6" duct from number 2 engine oil vent and direct heat into hell hole.

17. If more heat is required in auxiliary oil tank; remove two 6" ducts from number 3 and 4 engine oil vents and install caps on open ports of octopus. Remove cap from octopus between number 1 and 2 engines and install ducts to direct added heat into hell hole or where heat is required.

18. Direct heat to brakes, etc; connect ducts as in item number 17 and direct heat as required. It is also possible to connect four 6" diameter ducts together to convey heat as far back as the boom for maintenance at that area. It is also permissable to use the 9" diameter ducts from one wing and attach to opposite 9" ducts for even greater heat.

19. Every 24 hours APU must be shut down for oil level check. Use MIL-L 7808 oil only. Before APU is stopped turn off all heaters and allow to operate for a minimum of 3 minutes to evaporate residual fuel in heaters. Turn off all electrical equipment, lights, radio and stoves before shuting down APU and immediately turn battery switch to off position. REMEMBER: With the wing blowers and essential inverter on, the battery will discharge to zero volts in less than 60 seconds. If the APU fails or when any malfunction occurs, your first action is to turn off the battery.

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ENGINEERS STATION WATCH CHECK LIST

1. Monitor wing heaters to keep engine oil and cylinder h at within pre-determined temperatures.

2. Be on the alert to turn battery switch off in event of APU malfunction.

3. Every half-hour record carbon monoxide indicator reading.

4. Observe gauges for any malfunctions of fire warning lights.

5. Awaken A/C of aircraft if in doubt about anything.

6. Maintain log records as required.

7. Monitor radios and maintain radio log.

OUTSIDE GUARD CHECK LIST

1. Draw weapon and serviceable flash light.

2. Check heater ducts for tightness.

3. Enter aircraft every thirty minutes.

4. Monitor body heater air inlets.

5. Report all malfunctions to panel watch or aircraft commander.

REAR CABIN CHECK LIST

1. Establish galley.

   a. Pre-position food boxes.

   b. Maintain record of individual consumption.

   c. Locate food warmers.

   d. Position water cans in galley area.

   e. Position trash cans in galley area.

   f. Establish messing schedule and menu.

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2. Establish sleeping area.

   a. Assign sleeping position on cots or troop seats.

   b. Issue cot and/or air mattress.

   c. Isolate sleeping area with blanket to exclude lights.

3. Position cargo in front cabin area.

SCRAMBLE CHECK LIST

1. If message received by your watch, advise control ship immediately.

2. Alert crew.

3. A/C and navigator remain on control ship frequency for weather briefing.

4. Remove heat.

5. Stow heating ducts, etc.

6. Ready aircraft for engine start.

7. Prepare for take-off.

8. Call for isopropyl or apply as necessary.

9. Start engines, take-off 1 hour.

10. Run-up in position.

11. Taxi take-off, 20 minutes.

12. Take-off on time

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SOLAR APU 50 HOUR INSPECTION

1. Tailpipe alignment. Adjust as required.
2. APU fire warning discharge plug (on fuselage).
3. Exhaust pipe flapper valve and air inlet door.
4. Air inlet door micro switch adjustment.
5. Clean oil filter - replace crush washer and gasket.
6. Clean and regap spark plug to 1/8 inch (.125") (no life given).
7. Clean and inspect burner (do not plug nozzle) life of burner does not exceed 250 hours - replace burner if necessary.
8. Take off fuel control box cover and inspect fittings for fuel leaks.
9. Inspect all electrical wires for wear, breaks, loose cannon plugs and grounds. Check generator terminals.
10. Drain fuel water filter on bulkhead 230.
11. Check and replenish oil if necessary. Use MIL-L 7808 only.
12. Tighten all oil - air and fuel lines.
13. Restart APU and check oil leak at filter - fuel leaks at fuel filter inside fuel control box.
14. APU tachometer should read 102% with no load. All warning lights should go out before 70% - check pyrometer (temperature) for excessive high readings.

SOLAR APU 100 HOUR INSPECTION

1. Follow items no. 1 to no. 14 inclusive under 50 hour inspection.
2. Clean, inspect and replace fuel filter (check if fuel residue is in bottom of fuel control box).
3. Disconnect fire discharge (electrical solenoid) head from CO2 bottle

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and pull fire discharge switches to see if solenoid pin extends. NOTE: It is assumed that 5 LB CO2 bottle has been weighed and inspected.

4. Remove rear panel from fuel pump governor assembly and turn adjusting screw counter clock wise until APU automatically shuts off at 108% plus .8%. If not, adjust fine adjust screw on 0' speed governor. Reset speed to 102 plus .5% with no load. NOTE: Make sure cannon plug on pyrometer is not disconnected before speed test.

5. Drain and refill oil (approx. 5 qts. MIL-L 7808 only).

6. Reinstall lockwire as required.

7. Record inspection and sign your name in Form 1.

SOLAR UNIT FAILURE

1. MASTER SWITCH . . . . . OFF
2. BATTERY SWITCH . . . . . OFF
3. ANTI-ICE MASTER SWITCH . . . . . OFF
4. COMBUSTION HEATER FUEL VALVES . . . . . OFF
5. BODY HEATER SWITCHES . . . . . OFF
6. AIR CONDITIONING MASTER SWITCH . . . . . OFF
7. ALL INVERTER SWITCHES . . . . . OFF
8. APP SWITCH . . . . . OFF
9. INTERPHONE CIRCUIT BREAKERS . . . . . PULLED
10. UHF SET . . . . . OFF
11. VHF SET . . . . . OFF
12. ARC/21 (if appbl) . . . . . OFF
13. BC-348 RECEIVER . . . . . OFF
14. APP GENERATOR SWITCH . . . . . OFF
15. WING HEATER GROUND BLOWER SWITCHES . . . . . OFF

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SOLAR UNIT RESTART

1.	APP OIL QUANTITY	CHECKED
2.	APP INTAKE AND EXHAUST PORT	OPEN
3.	APP RELAY PANEL CIRCUIT BREAKERS	IN
4.	APP GENERATOR SWITCH	OFF
5.	ALL LIGHTS OFF	OFF
6.	AIRPLANE MASTER SWITCH	ON
7.	BATTERY SWITCH	ON BUS
8.	APP SWITCH	RUN
9.	APP START SWITCH	START
10.	APP WARNING LIGHTS (When APP reaches 102%)	CHECKED
11.	APP GENERATOR SWITCH	RESET, THEN ON
12.	APP VOLTMETER	28 VOLTS
13.	MASTER AIR CONDITIONING SWITCH	ON
14.	WING HEATER GROUND BLOWER SWITCHES	ON
15.	ESSENTIAL INVERTER SWITCH	ON
16.	INTERPHONE CIRCUIT BREAKERS	ON
17.	ARC/21 (if appl)	ON
18.	VHF SET	ON
19.	UHF SET	ON
20.	BC-348 RECEIVER (if appl)	ON
21.	ANTI-ICE MASTER SWITCH	ON

WARNING: AIR CONDITION MASTER SWITCH AND WING HEATER GROUND BLOWERS MUST BE ON 3 TO 5 MINUTES PRIOR TO TURNING ON HEATERS.

22.	COMBUSTION HEATER FUEL VALVES	ON
23.	BODY HEATERS	ON

NOTE: MONITOR TEMPERATURES AND APP LOADMETER.

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REPORT ON "COUNTRY CLUB"

SECTION VIII. LIST OF EQUIPMENT CARRIED WITH RECOMMENDED CHANGES.

NOMENCLATURE	CARRIED	RECOMMENDED
Cord, Ext. 100'	5	5
Floodlight	1	1
Light, Ext.	5	5
Fire Ext. 15# Cap.	20	20
Fire Ext. 4 Gal.	20	20
Ladder, Folding 72"	10	10
Canvas Front Entrance Covers	10	10
Solar Exhaust Deflectors	10	10
Magneto Timing Light	1	2
50 Ton Jack	1	1
Brooms, Straw	40	40
Mops	40	40
G.I. Cans, 20 Gal	20	20
Rope, Manila $\frac{1}{4}$"	1200'	1200'
Cups, Drinking	120	120
Disinfectant	100 oz.	100 oz.
Deodorizer	60 oz.	60 oz.

STOCK NO.	NOMENCLATURE	REQUIRED	CARRIED	RECOM	USED
Prop Mix. (80-20)			50 gal.	20 gal	
9150-223-4134	Hyd. Fluid		60 gal	40 gal	
9150-270-0056	Turbine Oil		50 gal	50 gal	
1 AFB-1560-025-4584	Nozzle, Boom	2	1	1	0
1AFH-1560-213-4184	Fitting, Man. Drain	4	0	4	0
1 AFH-12-1569-1157	Shelter Air Door	6	2	2	0
1 AFH-12-1569-1341	Shelter Air Door	6	2	2	0
1 AFH-12-1569-1339	Shelter Air Door	10	2	2	0
1 AFH-1560-230-7379	Pane, L.H.	1	1	0	0
1 AFH-1560-235-7381	Pane, R.H.	1	1	0	0
0235-128460	Seal, Generator	10	2	2	1
0235-176225	Valve, Fuel Feed	2	1	1	0
0235-220897	Valve, Fuel Feed	6	2	2	0
0235-72964	Seal, Starter	8	1	1	0
2319-8TJ18LRF	Transmitter, Oil Qty.	4	4	1	0
2332-RG7021A4	Power Unit, Fuel Qty.	4	0	0	0
2366-164-010	Amplifier, IFR Fuel Qty.	4	1	1	0
3360-072835660	Switch.htr Diff Press	4	3	4	0
3360-073943140	Thermostat	6	3	3	0
4013-322080	Sync Assy	1	1	2	1
4013-79721-A	Block Assy	24	6	5	0
4013-79796	Ring Assy	8	0	0	0
4013-8429W	Solenoid	8	0	4	0
4103-147635M-ST-1	Brake Assy	1	1	1	1
4224-GR28	Regulator	8	0	3	0
4224-12640R3	Starter	4	2	4	1

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SECRET

STOCK NO.	NOMENCLATURE	REQUIRED	CARRIED	RECOM	USED
5227-157AY1	Actuator (Inter)	3	3	2	0
4227-158AY1	Actuator (Cowl Flap)	3	1	3	0
4213-1634-3E	Alternator	2	1	2	0
4227-39423-040-00	Drive (Cowl Flap)	24	0	10	1
4235-NC-666-154	Relay(Inv. Changeover)	3	2	3	0
4224-F46-2	Inverter (Ess)	2	4	2	0
4246-A24A0266	Box Control (Nesa)	4	4	2	0
4259-CYLC2506-1	Balance Control	2	2	2	1
4259-CYZC2793-2	Box Cont. (Htrs)	4	3	4	0
1272-SE2-2	Inverter (Ess)	1	1	1	0
4280-25456-100	Actuator(Oil Cooler)	-	3	1	0
4295-1-100A115D-1	Inverter (Instr)	1	1	2	0
4305-391082-8	Carburetor	2	3	2	0
4305-391107	Primer Solenoid	6	2	2	0
4406-RG7002A-1	Amplifier (Turbo	2	2	2	1
4515-68102PW	Plug (Htr Ignition)	8	11	6	1
4519-28703	Cable (Htr Ignition)	8	2	6	2
4704-10-76720-1	Harness	4	1	4	1
4704-10-76750-1	Coil	16	14	16	4
4708-AC281	Plug, Spark	250	250	250	27
4101-23500-2	Valve Assy	3	0	0	0
4811-AA25503	Gear Box	2	0	2	1
4811-9159AAC	Fuel Pump	6	6	3	0
4815-101191	Valve (IFR Fuel Shutoff)	2	2	2	0
4831-1356-512473	Accumulator	2	0	2	0
4832-101002-040-4	Pump, (HL)	2	0	2	0
4832-121072-014-03	Pump, (Booster)	2	0	2	0
4836-RD850CG-4A	Pump (ADI)	1	1	1	1
4836-RG10180	Pump (Oil Trf)	2	1	2	0
4839-TF31600-19	Pump (Booster)	2	0	2	0
4841-PF40-3915-5252-2	IFR Hyd. Pump	3	2	3	1
4849-K1270B	Valve (Shutoff)	16	16	16	0
4849-WE400-1½D	Valve (Secondary)	2	0	2	0
4869-67UC300-1	Hyd. Pump	2	1	1	0
4872-4556-1	Valve (#7 IFR)	2	0	1	0
6034-14602-1J-C1	Indicator (Attitude)	2	1	2	0
6034-16800-1A-1A1	Indicator (D/G)	4	1	2	1
6119-8DJ43AAM	Indicator (Tach)	6	6	3	0
6119-8DJ43BAE	Indicator (TACH)	2	0	2	0
6119-2GM5AFE	Gen. (Tach)	4	2	4	0
6122-H60-103	Gen. (Tach, Master)	2	1	2	1
6134-25CCA6A1-1B1	Ind. TOP	6	2	3	1
6143-AN231B2	Gage, (M.P.)	2	0	2	0
8870-212000-275	Fuse	100	-	-	-
4224-G300-4	Generator	0	2	2	1
4704-10-54200-1	Magneto	0	6	6	4
0230-13C42-100	Generator (Solar)	0	4	4	3
4245-13-2500-3A	Inv. (Auto Pilot)	0	2	0	0

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STOCK NO.	NOMENCLATURE	REQUIRED	CARRIED	RECOM	USED
4213-40825-2B	Regulator (AC)	0	0	2	0
3380-574150-4755	Reverse Curr Relay	0	0	2	0
3340-063650260	Transformer (Nese)	0	0	1	0
0430-MG7012C1	Waste gate motor	0	6	6	4
4406-JG7034A3	Governor	0	4	4	3
4406-PG700A8	Pressuretorol	0	3	2	0
4708-44	Sp. Plugs	0	5	5	0
4860-AV1B1370	Valve Solenoid	0	2	2	0
4248-15268	Control Box	0	1	1	0
4248-15269	Relay Box	0	1	1	0
0230-10990	Gasket (Fuel Box)	0	6	2	0
3360-072834498	Fuel Press. Sw.	0	2	2	0
3360-072834501	Oil Press. Sw.	0	2	1	0
0230-105660100	Fuel Pump	0	1	1	0
0230-6362-400	Burner Assy.	0	5	5	1
0230-6301	Gasket (Burner)	0	5	5	0
0230-10754	Valve Assy. Relief	0	1	1	0
4704-10-106822-1	Wire Assy. Ignitor	0	1	1	0
4704-10-80225-2	Exciter Assy.	0	1	1	0
4334-10905-100	Control Assy. Speed	0	1	1	0
4344-400960	Gov. Assy.	0	2	2	0
4224-G32-6D	Starter Gen. Assy.	0	2	2	0
4862-A15333-7	Gasket (Oil Filter)	0	10	10	0
4862-21750P	Nut Seal	0	5	2	0
-26207	Gasket (Oil Filter)	0	15	10	0
0230-10277	Gasket (Fuel Pump)	0	5	5	0
4013-80145	Metering Assy.	0	1	2	0
4013-233116	Step Head Motor	0	3	2	3
4013-504301	Blade Seals	0	16	16	0
4013-504302	Blade Seals	0	16	16	0
4013-79216	Dome Nut Seal	0	3	3	1
4013-79293	Brush Assy.	0	10	4	0
4013-80311	Connectors	0	10	4	0
4515-044A2	Heater	0	1	2	1
4227-571AR	Actuator, Shelter Air Door	0	0	2	0
4227-571AL	Actuator, Shelter Air Door	0	0	2	0
1600-215157921	Receiver R-77/ARC3	0	1	1	0
1600-224643270	Trans. T-67/ARC3	0	1	1	1
1600-218997125	RT-178/ARC-27	0	1	1	1
1600-013570075	RT-128/ARC-21	0	1	1	1
1600-013424175	R-104/APN-6	0	1	1	1
1660-038670088	RT-275/APS-42	0	2	2	2
1660-039250130	SN-50/APS-42	0	2	1	0
1660-218993234	RT-316/APN-12	0	1	0	1
1600-038670202	RT-316/APN-76	0	1	0	0
1660-038670084	R-227/APN-70	0	1	1	0
1660-038670191	BC-788E/SCR-718	0	1	1	1
3300-235476000	Tube-829	0	2	2	0

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STOCK NO.	NOMENCLATURE	REQUIRED	CARRIED	RECOM	USED
3370-427000-8345	Tube-832	0	2	2	1
3370-436000-3185	Tube-3B24	0	2	2	0
3370-403000-3145	Tube-3B29	0	2	2	0
3370-451000-8377	Tube-811	0	2	2	0
3370-445000-8135	Tube-313	0	2	2	0
3370-451000-2235	Tube-2C39	0	1	2	1
3370-451000-2265	Tube-2C43	0	0	2	0
3370-286000-6227	Tube-6AK5	0	6	6	0
3370-286000-1415	Tube-12SG7	0	2	2	0
1600-3473410C	J-68/ARC-3	0	1	0	0
1600-21625950C	BC-348	0	1	0	0
1600-014480135	T-412/ART-13	0	1	0	0
1600-011526965	CU-138/ARC-21	0	1	0	0

The following list contains the equipment and supplies recommended for individual aircraft requirements participating on a mission such as "Country Club":

STOCK NO.	NOMENCLATURE	RECOMMENDED
	Cord, Ext. 100'	1
	Floodlight	1
	Light, Ext.	1
	Fire Ext. 15# Cap.	2
	Fire Ext. 4 gal.	2
	Ladder, Folding 72"	1
	Canvas Front Entrance Covers	1
	Solar Exhaust Deflector	1
	Magneto Timing Light	1
	Brooms, Straw	4
	Mops	4
	G.I. Cans, 20 gal.	2
	Rope, Manila ½"	120'
	Cups, Drinking	12
	Disinfectant	10 oz.
	Deodorizer	6 oz.
	Prop Mixture (80-20)	2 gal.
9150-223-4134	Hyd. Fluid	4 gal.
9150-270-0056	Turbin Oil	5 gal.
4013-79721-A	Block Assy.	1
4224 12640B3	Starter	1
4227-39423-040-00	Drive (Cowl Flap)	2
4224-F462	Inverter (Ess)	1
4259-CYLC2506-1	Balance Control	1
4259-CYZC2793-2	Box Contr. (Htr)	1
4515-68102PW	Plug (Htr Ignition)	2
4519-28703	Cable (Htr Ignition)	2
4704-10-76720-1	Harness	1

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STOCK NO.	NOMENCLATURE	RECOMMENDED
4707-1076750-1	Coil	3
4708-AC28D	Plugs, Spark	56
4013 79203	Brush Assy.	1
4013-80311	Connectors	1
1600-281997125	RT-178/ARC-27	1
1660-038670088	RT-275/APS-42	1
4704-1054200-1	Magneto	2
4708-44	Plugs, Spark	1
0230-6362-400	Burner Assy.	1
0230-6301	Gasket, (Burner)	1
4811-915°AAC	Fuel Pump	1
4832-121072-014-03	Pump (Booster)	1
4849-K1270B	Valve (Shut Off)	1
6034-14602-1J-C1	Indicator (Attitude)	1
6034-16800-1A-1A1	Indicator (D/G)	1
6119-2CM5AFE	Gen. (Tach)	1
6122-H60-103	Gen.(Tach Master)	1

The following is a list of maintenance personnel recommended for deployment similiar to operation Country Club:

TITLE	AFSC	REQUIRED	RECOMMENDED	
Maintenance Officer	4344	1	1	
Flight Chief	43171B	1	1	
Crew Chief	43171B/51	10	10	
Aircraft Mechanic	43151B/31	5	5	
Engine Mechanic	43251/31	15	10	
Electrical Spec	42350/30	2	4	
Instrument Spec	42250/30	2	2	
Hydraulic Spec	42152/32	2	1	
Propeller Spec	42151/31	4	2	
IFR Hyd. Spec	42152/32	2	1	
Magnaflux & Sonic Spec	********	0	4	
Job Controller	43171	0	1	
Solar Spec	43171B	0	1	
Driver (Coleman)	43171B	0	1	(If required)
Supervisor Radio & Radar	30170	1	1	
Nab Aid Spec	30151A	2	2	
Radio Spec	30150B	1	1	
Auto Pilot (N-1 Comp)	42350	0	1	
	TOTAL	48	49	

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REPORT ON "COUNTRY CLUB"

SECTION IX. RECOMMENDED CREW TRAINING:

The greatest potential danger to aircraft and crews was the use of the aircraft combustion heaters. These were required to maintain engine temperature at a satisfactory level for starting and cabin temperatures at a satisfactory level for "Live Aboard".

Nineteen Combat ready crews participated in this "Live Aboard". They gained invaluable knowledge of aircraft general and aircraft combustion heaters. Each crew had received some training on the solar unit and ground heating with the wing combustion heaters prior to deployment on 29 December 1956. Practical application was not available to any extent prior to deployment due to concurrent installation of the solar unit and deployment to Thule.

Practical application began at Thule with the solar unit and wing combustion heaters used exclusively for pre-heat on each normal training mission. Although some additional heater maintenance was required due to ground operation prior to "Country Club", this was considered normal for the two to three hours pre-heat requirement on normal training missions.

During the 30-day period prior to "Country Club" all participating crews were thoroughly familiar with pre-heat procedures. Aircrew members have a general knowledge of the combustion heaters; however, detailed explanation of controls, fire warning systems fuel system and ignition must be given by the crew flight engineers prior to solo panel watch during ground operation.

Heater malfunctions and Solar Unit failure require rapid analysis and action to prevent fire and explosion in the heaters. Detailed check lists were furnished each crew and no serious incidents were encountered.

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Ground crew personnel were assigned to duties as outside fire guard and it was necessary that they be thoroughly briefed on potential fire hazards and carbon monoxide dangers from Solar Unit and combustion heater exhausts.

Aircrew members, other than pilots, would normally require additional training in communications in order to maintain a listening watch on H F and other selected frequencies, keeping a radio log, and determining radio equipment malfunctions.

Although all crew members are familiar with basic first aid, a serious illness would be beyond the capability of most, both in diagnosis and treatment. If such an operation was planned without a medical team present, at least two of the most intelligent crew members should be well trained in emergency treatment of common illnesses.

In order to test equipment and SOP's pertaining to live aboard concept, prior to departure on the "Country Club" mission, a crew was assigned to live aboard the aircraft for a period of 36 hours at Thule A.B. Greenland. This test was instrumental in establishing the feasiability of existing SOP's and formulating new SOP's to fit the need of such an operation as "Country Club".

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REPORT ON "COUNTRY CLUB"

SECTION X. RECOMMENDED CHECK LISTS FOR OPERATION WHEN LIVING ABOARD.

The check lists outlined in Section VII of this report were used by this organization and proved to be satisfactory: Therefore, they are recommended for use when living aboard.

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REPORT ON "COUNTRY CLUB"

SECTION XI. SUMMARY OF "IMPROVISED METHODS", IMPROVEMENTS, "RULE OF THUMB".

Check lists and SOP's formulated prior to departing on the project, combined with the following publications, T.O. 1C-97(K) G-1, SAC Manual 55-10, and SAC Manual 66-5 proved to be satisfactory; therefore, it was not necessary to improvise or depart from these existing procedures.

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REPORT ON "COUNTRY CLUB"

SECTION XII. CLIMATIC CONDITIONS.

Weather conditions were good during the entire Country Club test. The lowest temperature experienced during the first phase was - 21°F. The maximum wind velocity was 20 knots. Sky conditions were for the most part clear. At take off and during periods of intensive activity moderate ice fog was created but soon dissipated, moderate frost developed on wing and tail surfaces, but was easily cleared with iso-propyl.

During the second phase the coldest temperatures recorded was -15°F. Highest wind velocity was 9 knots. The sky was obscure only once for a period of about twelve hours with a 1300 feet overcast. Moderate ice crystals and frost were experienced.

Excellent weather conditions throughout this test undoubtedly contributed to the success of the mission, and to crew comfort during the live aboard period. Adverse weather and extreme temperatures were not a factor during this operation; therefore, conclusions as to their effect on operating difficulties under the live aboard concept can not be made from this test.

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REPORT ON "COUNTRY CLUB"

SECTION XIII. LIST OF GROUND SUPPORT ITEMS AND RECOMMENDED CHANGES.

	POSITIONED			
(a)	Stand B-5a	5 ea.	*Stand B-4	10 ea.
(b)	Mag. Insp. Unit	1 ea.	Mag. Insp. Unit	1 ea.
(c)	Gen. Set B6B	1 ea.	Gen. Set B6B	1 ea.
(d)	Compressor MC-1A	2 ea.	Compressor MC-1A	1 ea.
(e)	Gen. Set B-12	1 ea.	Gen. Set B-12	1 ea.
(f)	Decontamination Unit (For deicing)	1 ea.	Decontamination Unit	1 ea.
(g)			**Tug Towing	1 ea.
(h)			***Gen. Set C-26	2 ea.
(i)			****Stand B-2	1 ea.

* The B-4 type stand is recommended for its compactness, maneuverability, and durability over the B-5 type.

** The tug is needed for positioning stands or more important for pulling the magnaflux equipment between aircraft.

*** The C-26 power units are highly recommended since failure of a Solar unit can render an aircraft non-effective, whereas the C-26 can support all normal load requirements including heaters, radios, etc. and engine starting if repairs have not been completed prior to a scramble order.

**** The B-2 stand is recommended since it alone is of sufficient height to gain access to the tail surfaces and empennage heaters for repairs.

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REPORT ON " COUNTRY CLUB"

SECTION XIV. SUMMARY OF CREW COMMENTS.

This report is based on an analysis of individual crew comments on legs of the mission, and answers to a questionnaire designed to direct attention to problem areas, and to specific items in each problem area. there were no significant differences in the comments made by crews in the first and second missions.

It is generally agreed by most crews that with certain changes, twelve crew members could live indefinitely aboard the KC-97.

The food rations consisted of IF-7's only, no other food was consumed. In order to sustain operations utilizing this type ration as the basic diet, it is recommended that it be augmented with fruit juice, canned soup, ground coffee, and canned milk.

For two weeks operation the following would be considered an adequate minimum food supply:

IF-7 (20 box case).....30 cases.

Fruit Juice (24 can case).....13 cases.

Coffee (5# can)..... 4 cases.

Canned Vegetable (24 can case)..... 5 cases.

Water was carried in five gallon Jerry cans. On the first phase due to the newness of these cans, the water became unpalatable in a very short period of time. The cans were washed in soap and hot water prior to the second phase, and improved this situation slightly. For sustained operation, water have to be provided by the in-plane installation.

The food warmers and hot cups worked very well.

Crew rest was no serious problem. The sleeping bags, air mattresses,

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cots, and troop seats proved adequate to handle twelve persons. It was found that dividing the compartment into sleeping, living, and messing areas aided considerably in enabling people off duty to sleep.

The aircraft lavatory and toilet were used for abolution. The deodorants provided were adequate to eliminate odor. It was found that an occasional application of heat from an outside duct was needed to keep the relief can and tube from freezing. Due to the nearness of the parking area to hangers, a waste truck was used to pick up garbage and waste daily. It is recommended however, that plastic bags be manufactured to fit into the can of the toilet. After use it becomes a simple matter to fold it up and lay it outside to freeze. This eliminates any odor problem.

During the period of both phases of this test no severe climatic conditions were encountered. The wind was calm and the temperature never below -24°F. With operational body heaters the interior of the aircraft was warm and comfortable. With heater malfunctions, it soon became like the inside of a refrigerator. It would be mandatory for the heaters to be maintained in operation if a crew were to live aboard.

Morale was high throughout both operations, and everyone was anxious to "get them off the ground".

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SECTION XV. COMMENTS OF PROJECT OFFICER.

1. The " Country Club" concept is feasible for use under wartime operations.

2. Crew fatigue would not be a governing factor in relationship to sortie rate.

3. Sortie rate and dependability would be contingent on:

   a. Ground refueling capability.

   b. Availability of aircraft parts.

   c. Ground de-icing capability.

4. Communications is considered a "Soft Spot" in the Country Club concept. It is not believed that HF method of communication is sufficiently reliable in Arctic locations for insurance of successful operation.

5. The Solar APU and associated heating equipment is considered reliable and adequate for any temperature to be expected in the Arctic.

6. Engine nose plugs are not considered necessary for ground heating operation with Solar APU modification. The damage to props experienced during installation and removal offsets the valve of above plugs. Scramble time could be reduced if plugs were not used.

7. The experienced gained on the "Country Club" concept was invaluable to the unit for future missions.

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SECRET 8 cy

HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
Loring Air Force Base
Maine
20 December 1956

OPERATIONS ORDER

214 - 57

"COUNTRY CLUB"

SECRET

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SECRET

TABLE OF CONTENTS

BASIC

ANNEX A - AIR OPERATIONS AND COMMUNICATIONS

ANNEX B - ADMINISTRATION AND LOGISTICS

ANNEX C - COMMUNICATIONS

ANNEX D - REPORTS

ANNEX E - FLIGHT SURGEON DUTIES

ANNEX F - SPECIAL REPORT FROM FROBISHER

CFCRD 214-57
20 Dec 56

SECRET W-07335

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
Loring Air Force Base
Maine
20 December 1956

OPERATIONS ORDER 214-57 (NICKNAME "COUNTRY CLUB" IS UNCLASSIFIED)

TASK ORGANIZATION

42AREFS	Major Willie H. Sonntag
69th BS	Lt Col Scott
70th BS	Lt Col Jack R Rischer
75th BS	Lt Col Walter Stewart

1. GENERAL SITUTATION: The 42AREFS will operate out of Frobisher during its TDY period at Thule. During period 1 Feb - 1 March 42AREFS will test the "live-aboard" concept and exercise air refueling capability. The 69th, 70th, and 75th Bomb Squadrons will provide B-52 receiver acft as required herein.

a. Intelligence: Omitted

b. Friendly Forces:

(1) MEAC

(a) Provide base facilities at Frobisher

(b) Necessary search and rescue within area of operation

(2) 820th AD

(a) Provide 6 B-47 weather sortie acft.

(3) Human Factor OES (Mr Hans K Siewers will arrive Thule C/A 8 Jan.

(4) Arctic crew research and indoctrination personnel

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2. MISSION:

a. To determine 42AREFS in-flight refueling capability if established northern bases are unexpectedly denied.

b. To test practical application of the arctic "live aboard" concept for tanker crews.

c. To test practicability of operating from a remote site with limited pol (pre-positioned maintenance equipment and pol only) for a specified period of time. This capability must include being able to launch refueling missions with minimum warning.

d. To determine the off load and sortie capability if tankers are staged forward for preplanned bomber range extension. Each combat ready crew will participate in a minimum of one and a maximum of two test missions.

3. TASK FOR SUBORDINATE UNITS:

a. 42AREFS - accomplish tasks as outlined.

b. 69th, 70th, and 75th BS provide aircraft as required with necessary ground spares as back-up.

(1) SCHEDULE:

(a) Ten KC-97 of the 42AREFS will deploy to Frobisher Bay, to arrive prior to 2100Z on 4 Feb and 12 Feb 57. If weather forecast indicates unfavorable weather on these dates, aircraft may be deployed on preceding day. These deployments will be executed by Headquarters 8AF.

(b) After these acft have been on the ground at Frobisher for a period of 36 to 96 hours undergoing a "Cold Soak" 8AF will execute an order directing an Air Refueling Mission.

W-07335

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(c) Aircraft deployed on 4 Feb 57 will return to Thule upon completion of Air Refueling Mission. Acft deploying to Frobisher on 12 Feb will return to Frobisher upon completion of Air Refueling Mission. SAF will execute a second refueling mission after another 36 to 96 hours on the ground "Cold Soak", and upon completion of a second refueling, acft will return to Thule AB.

(2) The following items are covered in Annex A "Country Club" Refueling missions.

(a) Refueling areas

(b) C/R plan

(c) Rendezvous time

(d) Altitude

(e) Routes

(f) Max gross weight take off for B-52 and KC-97

(g) Off loads

(h) Alternates

(i) Fuel reserves for both B-52 and KC-97

(j) WX Scout procedure

(3) General Briefing for 42AREFS will be conducted 1400 EST 21 Dec 56 at the Training and Briefing Auditorium. Pre-take off briefings will be announced at later date. General Briefing for 42D Bomb Wing will be announced in Jan 1957.

(4) FLYING SAFETY:

(a) Adherence to flying safety priniciples will be emphasized. In the event of an emergancy, safety of light has precedence over mission accomplishment.

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(b) Mission is planned to insure terrain clearance by two thousand (2000) feet within twenty five (25) nautical miles of course except during take off and landing.

(c) Pilots will be briefed thoroughly on let-down procedures at destination and alternates.

(d) The crew navigator will monitor let-down and landing approach phase of flight with radar.

(e) A designated Control Tower Officer will be in place for the mission.

(f) At least one crew member other than primary observer will flight follow the aircraft to assure compliance with ARTC instructions, AFR 60-22 and ADIZ tolerances.

(5) The 42D Air Refueling Squadron Commander and Bomb Squadron Commanders will insure:

(a) The availability of crews at scheduled briefings and critiques.

(b) That provision foradequate crew rest for all crew members is obtained.

(c) That crews are equipped with personal equipment and over-water equipment required for the mission.

(d) That all aircraft are equipped with current Radio Facility Charts, Pilot's Handboods, Dash one Technical Orders, and maps to include possible diversionary areas.

(e) That all aircraft have Aldis Lamps or flashing Beacons with colored lenses.

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(f) That all aircraft have the flare gun and flares for the mission.

(g) That aircraft security procedures, including anti-sabotage inspections of aircraft prior to flight are conducted in accordance with applicable directives. In the event of an emergency landing, aircraft commanders are responsible for the security of their aircraft

(h) That aircraft commanders conduct a briefing on emergency and survival procedures for all crew members and passengers prior to flight.

(i) That participating crew members are qualified in accordance with SAC Regulation 51-19 and other directives.

(6) (a) Minimum of 5 sorties will be ordered airborne ASAP after receiving the alert. Rendezvous times for other sorties will be provided the tankers in the alert message. Timing of the alert messages will be such as to give the tankers 2 to 4 hours to get airborne. Rendezvous times will not be given to the tankers prior to execution order.

(7) Project Officers for the mission are:

	Major Ernest E Booth	SOCS	Ext 1	26173 - 2133
Operations	Lt Col Joseph T. McCourt	SOCS	Ext 1	26173 - 2133
	Major Jerry J Hunt	SOCS	Ext 1	26173 - 2133
Communication	Major Frank M Deville			2145
Logistics	Major Robert F Linn			25147
Flight Surgeon	Captain William H Lippy			24165

W-07335

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
Loring Air Force Base
Maine
20 December 1956

ANNEX A

TO

OPERATIONS ORDER

214 - 57

This annex consists of 4 pages

Annex A
OPORD 214-57
20 Dec 56

SECRET

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
Loring Air Force Base
Maine
20 December 1956

ANNEX A, OPERATION ORDER 214-57, (NICKNAME "COUNTRY CLUB" IS UNCLASSIFIED)

1. Parking plan, taxi plan, order and interval of take-off, and take-off en-route instructions will be announced at the final weather briefing of both the 42nd AREFS and the 42nd Bomb Wing.

2. Tactics: In accordance with SAC Manual 55-10 Tactical Doctrine.

3. B-52 Route

(Primary Rendezvous)		(Secondary Rendezvous)	
From Loring	T/O		
TO: 49-19N 67-22W	0:23	TO: 49-19N 67-22W	+23
TO: 63-48N 68-34W (Frobisher Radio)	2:21	TO: 63-48N 68-34W (Frobisher Radio)	2:21
TO: 64-20N 68-35W	2:26	TO: 65-22N (TP) 61-55W	2:48
TO: 64-48N 68-35W (Rendezvous)	2:32	TO: 67-02N 6230W (Padloping Island)	3:01
TO: 67-17N 68-35W (End Refuel)	3:08	TO; 67-33N 62-45W	3:06
TO: 66-32N 66-17W	3:22	TO: 68-03N 62-55W (Rendezvous)	3:12
TO: 50-14N 66-17W (Seven Island)	5:37	TO: 70-29N 64-00W (End Refuel)	3:48
TO: 46-58N 67-53W (Loring VOR)	6:05	TO: 70-38N 64-05W	3:54
B-52's will resume normal training		TO: 69-44N 65-35W	4:02
after return over Loring VOR.		TO: 63-48N 68-34W (Frobisher)	4:52
		TO: 50-14N 66-17W (Seven Islands)	6:44
		TO: Loring VOR	7:12

4. KC-97 Routes (Frobisher to Thule)

Primary	Alternate
From Frobisher	From Frobisher (Orbit)
TO: 63-10N 67-20W	TO: 67-02N 62-30W (Padleping Island)
TO: Frobisher REN (Orbit)	TO: 68-03N 62-55W (Rendezvous)

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TO: 64-48N 68-35W (Rendezvous)

TO: 67-17N 68-35W (End Refuel)

TO: 67-30N 69-02W (End 45° Left)

Cape Christian RBN

74-05N 66-04W (Pt. Bravo)

Sanders Island

Thule

TO: 70-29N 64-00W
(End Refuel)

TO: 70-40N 64-35W
(End 45° Left)

TO: 74-05N 66-04W
(Pt Bravo

TO: Sanders Island

TO: Thule

Frobisher - Frobisher

Primary

From Frobisher

TO: Frobisher RBN

63-10N 67-20W (Orbit)

TO: 64-48N 68-34W (Rendezvous)

TO: 67-17N 68-35W (End Refuel)

TO: 67-30N 69-02W (End 45° Left)

TO: Frobisher

Secondary

From Frobisher

TO: 67-03N 62-33W
(Orbit-Padloping Island)

TO: 68-03 62-55W
(Rendezvous)

TO: 70-29N 64-00W
(End Refuel)

TO: 70-40N 65-35W
(End 45° Left)

TO: Frobisher.

5. Air Refueling:

a. Pre target refueling tactics will be utilized in the primary and alternate area. (Frobisher - Frobisher)

b. Off load in the primary area for the Frobisher to Frobisher mission is 30,000 # with a planned fuel reserve of 6,300 # over the alternate (Sonestrom); off lead in the secondary area for the Frobisher to Frobisher mission is 30,000 # with a planned fuel reserve of 6,000 # over the alternate (Sondestrom).

c. Off load in both the primary and secondary area for the Frobisher to Thule Missions is 25,000 # with a planned fuel reserve of 6,000 # over the

W-07335

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alternate (Sondestrom).

d. Ratio is planned for 1 tanker to one receiver.

e. Base altitude is 15,000 feet.

6. Refueling Information	Primary		Alternate	
Orbit	63-48N 68-34W	(Frobisher Radio)	67-02N 62-30W	(Padloping Island)
Rendezvous PT	64-48N 68-35W		68-03N 62-35W	
End Refuel	67-17N 68-35W		70-29N 64-00W	
Refuel Track	045 TC		041 TC	

7. Altimeters to be set at 29-92 for Air Refueling.

8. Wx Scout B-47 acft (820th AD, Plattsburg) are under the operational control of 8AF. The following procedure is recommended for relay of T-18 weather reports. Reports will be transmitted every half-hour by UHF radio. These reports should be relayed thru control rooms at Harmon or Goose or thru the nearest GCI site to Hq 8AF or Squad Car Control.

9. Wx minimum

a. Wx minimum will be as contained in AFR 60-16 as amended, or locally established minimum, whichever is higher.

10. Mission Code Words: (Sample - not official)

Milk Run - Operation normal, will execute as briefed

Flash Flood 1700Z - ETA receivers at rendezvous area 1700Z

Maple Nut - Use primary refueling area

Mickey Finn - Use secondary refueling area

Grape Juice - Mission cancelled.

11. Gross weight of KC-97's will not exceed 155,000#.

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12. Planned alternate for refueling missions are Sondestrom, (Primary) Thule, Goose, Narsarssuak

13. Rendezvous times are based on an E plus factor, E hour to be provided by Hq SAF at time of execution.

2 Incls
1. Primary Refueling Area
2. Secondary Refueling Area

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MISSION FLIGHT PLAN

O. C. AND NICKNAME	UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
COUNTRY CLUB	42 B. Wg.	B-52			SECONDARY REFUEL AREA

	POUNDS
ACFT BASIC	167504
CREW 9	2070
OIL	986
ATO	—
RACK	—
EXT TANKS WEIGHT (EMPTY)	2550
MISCELLANEOUS	—
CHAFF	—
OPERATING	173,110

		POUNDS
BOMBS		—
AMMO		—
WATER AUG		—
STATIC		430,710
START ENGINES AND TAXI FUEL ALLOWANCE		4000
TAKE-OFF GROSS		426,710
TOTAL FUEL	257,600	

NR FULL ATO REQUIRED	OPTIMUM
NR EMPTY ATO REQUIRED	—
ATO FIRING SPEED	—

RUNWAY		
PRESSURE ALT	LENGTH	AIR TEMP
700'	11,900	20°
CRITICAL FIELD LENGTH		CRITICAL AIR TEMP
8000'		-
TAKE-OFF DISTANCE	TAKE-OFF SPEED	
7000'	156K	
CRITICAL WIND COMPONENT		
1ST LEG	2ND LEG	3D LEG

PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT	
	LORING AFB															257600	430710	
																8700	8700	
	STETTO & ACCEL											10	:03	10		248900	422010	
	4/0 START GRID											132	:20	132		12900	12900	JN
A	49-19N 67-22W	EL	006			+23		34.5		400		142	:23	142		236000	409110	30
	FROBISHER		G.C.									870	1:58	870		37110	37110	JN
B	63-48N 68-34W	CR	051					34.5	.77	440		1012	2:21	1012		198890	372000	19
	TP											195	27	195		8000	8000	
C	65-22N 61-55W	CR	112					34.5	.77	440		1207	2:48	1207		190890	364000	
	PAULOPING IS. CRCIT 3/0											100	13	100		3950	3950	
D	67-02N 62-30W	CR	041					34.5	.77	440		1307	3:01	1307		186940	360050	
	4/0											32	:05	32		500	500	
	67-33N 62-45W	DS	041					15		410		1339	3:06	1339		186440	359550	
	RENDV.											28	:06	28		1500	1500	
E	68-03N 62-55W	CR	041					15		300		1367	3:12	1367		184940	358050	
	D REFUL-											150	:36	150		13400	13400	
F	70-29N 64-00W	AR	041					15		250		1517	3:48	1517		171540	344650	
																40000	40000	
	ON LOAD															131540	384650	
	ACCL											8	:06	28		1960	1960	+4
	70-38N 64-05W	AC	041					15				1525	3:54	1545		179580	382690	
												55	08	55		7650	7650	
G	4/0											1580	4:02	1600		171930	375040	
	69-44N 65-35W	CL	243					37		410		362	:50	362		14800	14800	
	FROBISHER											1942	4:52	1962		157130	360240	
H	63-48N 68-34W	CR	243					37	.77	440		820	1:52	820		33000	33000	
	SEVEN ISLANDS											2762	6:44	2782		124130	327240	
I	50-14N 66-17W	CR	227					37	.77	440		204	28	204		7500	7500	JN
			T.C.															
J	LORING AFB	CR	197			+23		37	.77	440		2966	7:12	2986		116 0319790		30

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MISSION FLIGHT PLAN	O. O. AND NICKNAME	UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
	Country Club	42 B.Wg	B-52			Primary Refuel AREA

	POUNDS				POUNDS			RUNWAY		
ACFT BASIC	167,509			BOMBS	—			PRESSURE ALT 700'	LENGTH 11,900'	AIR TEMP 20°
CREW	2070			AMMO	—			CRITICAL FIELD LENGTH 8000'		CRITICAL AIR TEMP —
OIL	986			WATER AUG	—					
ATO	—			STATIC	430,710	NR FULL ATO REQUIRED		TAKE-OFF DISTANCE 7000'		TAKE-OFF SPEED 156K
RACK	—									
EXT TANKS WEIGHT (Empty)	2550			START ENGINES AND TAXI FUEL ALLOWANCE	4000	NR EMPTY ATO REQUIRED		CRITICAL WIND COMPONENT		
MISCELLANEOUS	—									
CHAFF	—	TOTAL FUEL	257,600	TAKE-OFF GROSS	426,710	ATO FIRING SPEED	OPTIMUM	1ST LEG	2ND LEG	3D LEG
OPERATING	173,110									

PRE-FLIGHT PLAN

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT	
	RING AFB															257,600	430,710	
	Stetto +															8700	8700	
	ACCEL											10	:03	10		248,900	422,010	
	L/O Start Grid											132	:20	132		12,900	12,900	JN
A	49-19N 67-22W	CI	606			+23		34.5m		400		142	:23	142		236,000	409,110	30
	Frobisher (ORBIT)	S/O	G.C.									870	1:58	870		37,110	37,110	JN
B	63-48N 68-34W	CR	051					34.5	.77	440		1012	2:21	1012		198,890	372,000	19
	L/O											32	:05	32		500	500	
	64-20N 68-35W	DS	054					15m		410		1044	2:26	1044		198390	371,500	
	RENDV											28	:06	28		1500	1500	
C	64-48N 68-35W	CR	054					15m		300		1072	2:32	1072		196890	370,000	
	Comp Pt											150	:36	150		13700	13700	
D	67-17N 68-35W	AR	054					15m		250		1222	3:08	1222		183,190	356300	
																40,000	40,000	
	ON LOAD															223,190	396,300	
												8	:06	28		1960	1960	+4
	CCEL	ACC	054									1230	3:14	1250		221230	394340	
												55	:08	55		7850	7850	
E	L/O 66-32N 67-34W	CL	230					37m		410		1285	3:22	1305		213380	386490	
												975	2:15	975		40190	40190	
F	SEVEN ISLANDS 50-14N 66-17W	CR	230					37m	.77	440		2260	5:37	2280		173190	346300	
												204	:28	204		7900	7900	JN
G	LORING AFB 46-58N 67-53W	CR	T.C. 197			+23		37m	.77	440		2464	6:05	2484		165290	338400	30

W-0733S

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AF Form 51
Approved 1 June 48

AIR FORCE NAVIGATOR'S LOG

PILOT _____ NAVIGATOR _____ CREW NO. _____ PLANE NO. _____ ORGANIZATION H2d AREFS TYPE KC97G DATE _____

ENG. START	T. O.	LAND	FLIGHT TIME

FORMATION POSITION: COUNTRY CLUB #1 JN19

GROSS WT. AT T. O. LB./GAL. ABOARD AT T. O.

ALTERNATE — SONDESTROM AB

TIME TO ALTERNATE — HRS. M.

FUEL REQUIRED TO ALT. — GAL.

SUN RISES	SUN SETS	MOON RISES	MOON SETS	TWILIGHT A. M.	TWILIGHT P. M.

WATCH _____ FAST SLOW

AT _____ GCT (DATE)

Rate sec/hr _____ GAIN LOSS

Departure FROBISHER AB Destination THULE AB

OFFICIAL _____ (NAVIGATOR) (NAME) (RANK)

ALT. SETT. DEP. DEST.

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FLIGHT PLAN

FROM— TO—	GRD COURSE	DRIFT	WIND USED D/V	TRUE HEADING	VAR	MAG. HEADING	TEMP. °C / ALT.	IAS / TAS (K)	G. S. (K)	DISTANCE THIS LEG	TIME	ELAPSED TIME	FUEL CONSUMED	FUEL REMAINING
FROBISHER 63-10N 67-20W	192°		90%	WORST			C.O.C.	200	176	44	+15	+03 +15		
" FROBISHER RBN	012°		WIND	FACTOR			C.O.C. 17m	200	176	44	+15	+33		
ORBIT	05-° 234°			-22			17m	234			+15	+48		
" 64-48N 68-35W RDZ. PT	054°						16.5	234	212	64	+18	1+06		
" 67-17N 68-35W END REF	054°						16.5	264	242	150	+37	1+43		
" 67-30N 69-02W END 45° LEFT	009°						16.5	213	191	16	+05	1+48		
" CAPE CHRISTIAN RBN	055°						13.5	201	179	182	+59	2+47		
" 74-05N 66-04W PT. BRAVO	064°						13.5	198	176	217	1+14	4+01		
" SAUNDERS ISLAND	035°						13.5	197	175	160	+55	4+56		
" THULE AB.	154°						13.5	197	175	12	+05	5+01		
										889				
THULE AB 74-32N 62-40W PT. ALPHA	195°						13.5	195	173	152	+53	+53		
" UPERNAVIK RBN	180°			-22			13.5	194	172	155	+54	1+47	889	
" SONDESTROM RBN	205°						13.5	192	170	363	2+08	3+55	670	
										670		8+56	1559	
										LETDOWN		+25 9+21	+ LAND	

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INCL #3 ANNEX A LIZ OPORD 214-56

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AF Form 51
Approved 1 June 52

AIR FORCE NAVIGATOR'S LOG

PILOT _____ NAVIGATOR _____ CREW NO. _____ PLANE NO. _____ ORGANIZATION 42d AREFS TYPE KC97G DATE _____

ENG. START	T. O.	LAND	FLIGHT TIME

FORMATION POSITION: COUNTRY CLUB #1 ALT. JN19

GROSS WT. AT T. O. / LAUGAL. ABOARD AT T. O.

ALTERNATE: SOUDESTROM AB.

TIME TO ALTERNATE— / FUEL REQUIRED TO ALT.—

SUN		MOON		TWILIGHT	
RISES	SETS	RISES	SETS	A. M.	P. M.

WATCH _____ FAST SLOW _____ Rate sec/hr _____ GAIN LOSE _____

AT _____ GCT (DATE) _____

Departure FROBISHER AB. Destination THULE A.B.

OFFICIAL _____ (NAVIGATOR) (NAME) (RANK) ALT. SETT. DEP. DEST.

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FLIGHT PLAN

FROM— / TO—	GRID COURSE	DRIFT	WIND USED D / V	TRUE HEADING	VAR.	MAG. HEADING	TEMP. °C / ALT.	IAS / TAS (K)	G. S. (K)	DISTANCE THIS LEG	TIME	ELAPSED TIME	FUEL CONSUMED	FUEL REMAINING
FROBISHER → L.O.							COC.	198	176	99	+33	+33		
67-03N 62-33W	089°		90%	WORST			17m	234	212	147	+45	1+18		
ORBIT 67 02 62 50W (Pastopine Island)	041° / 221°		WIND	FACTOR			17m	234	—	—	+15	1+33		
" 68-03N 62-55W RDZ. PT.	041°		—	22			16.5	234	212	64	+18	1+51		
" 70-29N 64-00W END REF.	041°						16.5	264	242	150	+36	2+27		
" 70-40N 64-35W END 45° LEFT	356°						16.5	264	242	16	+05	2+32		
" 74-05N 66-04W PT. BRAVO	044°						13.5	200	178	210	1+11	3+43		
" SAUNDERS ISLAND.	035°						13.5	197	175	160	+55	4+38		
" THULE	154°						13.5	197	175	12	+04	4+42		
										858				
THULE 74-32N 62-40W PT. ALPHA	195°						13.5	195	173	152	+53	+53		
" UPERNAVIK RBN.	180°						13.5	195	173	155	+54	1+47	858	
" SOUDESTROM RBN.	205°						13.5			363	2+22	4+09	670	
										670		8+51	1528	
										LETDOWN		+10	+ LAND	
												9+01		

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INCL # 4 ANNEX A LIZ ORORD 214-56

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AF Form 14
Approved 1 June 6

AIR FORCE NAVIGATOR'S LOG

PILOT _____ NAVIGATOR _____ CREW NO. _____ PLANE NO. _____ ORGANIZATION 42d AREFS TYPE KC97G DATE _____

ENG. START	T.O.	LAND	FLIGHT TIME

FORMATION POSITION: COUNTRY CLUB #2 JN #19

GROSS WT. AT T.O. / LB. GAL. ABOARD AT T.O.

ALTERNATE: SONDESTROM

TIME TO ALTERNATE — HRS. M.

FUEL REQUIRED TO ALT — GAL.

SUN		MOON		TWILIGHT	
RISES	SETS	RISES	SETS	A.M.	P.M.

WATCH _____ FAST SLOW Rate sec/hr _____ GAIN LOSS

AT _____ OCT (DATE)

Departure FROBISHER AB Destination FROBISHER AB

ORIGINAL: _____ (NAVIGATOR) (RANK) (RANK)

ALT. SETT. DEP. DEST.

SECRET

FLIGHT PLAN

FROM— TO—	TRUE COURSE	DRIFT	WIND USED D / V	TRUE HEADING	VAR	MAG. HEADING	TEMP. °C / ALT	IAS / TAS (K)	G.S. (K)	DISTANCE THIS LEG	TIME	ELAPSED TIME	FUEL CONSUMED	FUEL REMAINING
FROBISHER RBN. 63-10N 67-20W	192°		90% WORST				COC → COC	200	178	44	+15	+03 +15		
" FROBISHER RBN.	012°		WIND FACTOR				17M	200	178	44	+15	+33		
ORBIT	054° 234°		— 22				17M	234		—	+15	+48		
" 64-48N 68-35W RDZ PT.	054°						16.5	234	212	64	+18	1+06		
" 67-17N 68-35W END RU.	054°						16.5	264	242	150	+35	1+42		
" 67-30N 69-02W END 45° LEFT	009°						16.5	213	191	16	+05	1+47		
" FROBISHER	230°						13.5	197	175	226	1+17	3+04		
										544				
FROBISHER HOLSTEINBORG RBN	111°						13.5	192	170	427	2+30			544
" SONDESTROM RBN	127°						13.5	188	166	64	+22	2+52		491
										491		5+56		1035
							DESCENT - LETDOWN					+25	+ LAND	
												6+21		

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INCL #5 ANNEX A ZIZ OPORD 214-56

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AIR FORCE NAVIGATOR'S LOG

42d AREFS, KC97G

COUNTRY CLUB #2 ALT.
JN #19

Departure FROBISHER Destination FROBISHER

SECRET

FROBISHER LEVEL OFF	089°		90% WORST				COC 17M	198	176	99	+03 +30	+33		
" 67-03N 62-33W	089°		WIND FACTOR				17M	234	212	147	+45	1+18		
ORBIT	041° / 221°		-22				17M	234	212	—	+15	1+33		
" 68-03N 62-55W RDZ PT.	041°						16.5	234	212	64	+18	1+51		
" 70-29N 64-00W END REF.	041°						16.5	264	242	150	+37	2+28		
" 70-40N 64-35W END 45° LEFT	356°						16.5	264	242	16	+04	2+32		
" FROBISHER RBN.	245°						13.5	196	174	426	2+27	4+59		
										902				
FROBISHER RBN.	111°						13.5	194	172	427	2+29			902
HOLSTEINBORG RBN	127°						13.5	189	167	64	+23	2+52		491
" SONDESTRUM RBN										491		7+51		1393

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INCL #6 ANNEX #6 LIZ OPORD 214-56

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ENGINEER'S FLIGHT PLAN

DATE OF MISSION	TYPE(S) OF MISSION
FEB 1956	COUNTRY CLUB #1

WING	SQUADRON	AIRCRAFT: TYPE-MODEL-SERIES	COMPLETE SERIAL NO.
42D B.W.	42D ARFES	KC-97G	ALL

FIRST ENGINEER (Name & Grade):

SECOND ENGINEER (Name and Grade):

1. WEIGHT COMPUTATIONS	
a. ACFT BASIC WT	90000
b. OIL, ENG (On 'dg)	635
c. OIL, JET	
d. CREW 10@350	3500
e. AMMO (50%)	
f. CARGO	1000
g. MISC	300
h. FUEL RESERVE	6990
i. MIN LANDING WT	102425
j. OFF-LOAD FUEL	25000
k. AMMO (50%)	
l. BOMBS	
m. CHAFF	
n. OIL USED	635
o. FUEL EXPENDABLE	26940
p. TAKE-OFF GROSS WT	155000

2. FUEL DATA	
a. DENSITY (Lbs)	6.13 per Gal
b. TOTAL LOAD (Lbs)	33930
c. REQUIRED (Lbs)	26940
d. RESERVE (Lbs)	6990
e. ON-LOAD (Lbs)	25000

3. TAKE-OFF DATA

NoWind ←

NoWind ←

4. REMARKS
1. START ENG. 1:00 BEFORE T.O.
2. TEMP 6° COLDER THAN NACA
3. F/F 47% OF CHARTED.
4. FUEL RESERVES BASED ON TIME AT CUT ENGINES.
5. ASTERISK (*) IN R.H. MARGIN = OVER THULE

A	B	C	D	E	F	G	H	I	J	K	L
				NO WIND PLAN					WIND PLAN		
CONDITION	Hp / OAT / $\sqrt{\sigma}$	BHP / RPM / ENG F/F	TOTAL FUEL FLOW	Δ TIME / TOTAL	Δ FUEL USED / TOTAL USED	GROSS WEIGHT	EAS / V_T (K) / GS	AIR DIST / TOTAL	Δ TIME / TOTAL	Δ FUEL USED / TOTAL USED	GND DIST / TOTAL
J AT %						155000					
1. RTTO	100	3500	R 720°/15 MIN	(1:00)	+ 1920	- 1920			(1:00)	+ 1920	
	-4	2700	: 25°/MIN								
			T	:03	1920	153080			:03	1920	
2. CL #1	12140	2650	R	:30	+ 3750	- 3750	167	99	:30	3750	88
	-5	2550	: AR				198				
	1.1879	1875	T 7500	:33	5670	149330	176	99	:33	5670	88
3. ORBIT CR #1	17000	2025	R	:15	+ 920	- 920	182	59	:15	+ 920	-
	-25	2340	: AL				234				
	1.2879	920	T 3680	:48	6590	148410	212	158	:48	6590	-
4. RENDZ CR #2	17000	2025	R	:15	+ 920	- 920	182	64	:18	+ 1105	64
	-25	2340	: AL				234				
	1.2879	920	T 3680	1:03	7510	147490	212	222	1:06	7695	152
5. REFUEL CR #3	17000	2650	R	:38	+ 4750	- 4750	205	166	:41	+ 5120	166
	-25	2550	: AK				264				
	1.2879	1875	T 7500	1:41	12260	142740	242	388	1:47	12815	318
6.			R (INCLUDE OIL			-25635				+	
	OFF LOAD		:								
			T 635 LBS)			117105					
7. DS #1	15500	495	R	:06	+ 200	200	170	21	:06	+ 200	21
	-22	1900	: AL				213				
	1.2546	500	T 2000	1:47	12460	116905	191	409	1:53	13015	339
8. CR #4	14000	1380	R	:47	+ 1950	- 1950	167	161	:53	+ 2160	167
	-19	1900	: AL				204				
	1.2245	620	T 2440	2:34	14410	114955	182	570	2:46	15175	500
9. CR #5	14000	1350	R	1:04	+ 2580	- 2580	167	217	1:12	+ 2900	217
	-19	1900	: AL				204				
	1.2245	605	T 2420	3:38	16990	112375	182	787	3:58	18075	717
10. CR #6	14000	1330	R	:51	+ 2020	- 2020	166	172	:57	+ 2260	172
	-19	1900	: AL				203				
	1.2245	595	T 2380	4:29	19010	110355	181	959	4:55	20335	889 *
11. CR #7	14000	1300	R	:45	+ 1740	- 1740	165	152	:51	+ 1970	152
	-19	1900	: AL				202				
	1.2245	580	T 2320	5:14	20750	108615	180	1111	5:46	22305	1041
12. CR #8	14000	1260	R	:47	+ 1750	- 1750	163	155	:53	+ 1980	155
	-19	1900	: AL				199				
	1.2245	560	T 2240	6:01	22500	106865	177	1266	6:39	24285	1196
13. CR #9	14000	1220	R	1:29	+ 3240	- 3240	162	293	2:04	+ 4510	363
	-19	1900	: AL				198				
	1.2245	545	T 2180	7:30	25740	103625	176	1559	8:43	28795	1559
14. DS #2	7500	495	R	:15	+ 450	- 450	170	47	:15	+ 450	
	-6	1900	: AL				188				
	1.1073	450	T 1800	7:45	26190	103175	166	1606	8:58	29245	155[illegible]

SAC FORM 316 REPLACES SAC FORM 89-14, 1 AUG 51, WHICH IS OBSOLETE.

INCL #7 ANNEX A LIZ OPORD 214-56 W-07335

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PAGE 2 OF 2 PAGES
COUNTRY CLUB #1

A	B	C	D	E	F	G	H	I	J	K	L
				NO WIND PLAN					WIND PLAN		
CONDITION	H_p / OAT	BHP / RPM	TOTAL FUEL FLOW	Δ TIME	Δ FUEL USED	GROSS WEIGHT	EAS / V_T (K)	AIR DIST	Δ TIME	Δ FUEL USED	GND DIST
J AT %	$\sqrt{\theta}$	ENG F/F		TOTAL	TOTAL USED		GS	TOTAL	TOTAL	TOTAL USED	TOTAL
15.			R		+	-				+	
			J								
			T	7:45	26190	103175		1606	8:55	29245	1559
16.	3000/100		R	:10	+ 500	- 500			10	+ 500	
LD	-5	2350	150#/MIN								
			T	7:55	26690	102675		1606	9:08	29745	1559
17.	100		R	:10	+ 250	- 250			:10	+ 250	
RET	-4		125#/MIN								
			T	8:05	26440	102425			9:18	29995	1559
18.			R		+	-				+	
			J								
			T								
19.			R		+	-				+	
			J								
			T								
20.			R		+	-				+	
			J								
			T								
21.			R		+	-				+	
			J								
			T								
22.			R		+	-				+	
			J								
			T								
23.			R		+	-				+	
			J								
			T								
24.			R		+	-				+	
			J								
			T								
25.			R		+	-				+	
			J								
			T								
26.			R		+	-				+	
			J								
			T								
27.			R		+	-				+	
			J								
			T								
28.			R		+	-				+	
			J								
			T								
29.			R		+	-				+	
			J								
			T								
30.			R		+	-				+	
			J								
			T								
31.			R		+	-				+	
			J								
			T								
32.			R		+	-				+	
			J								
			T								
33.			R		+	-				+	
			J								
			T								
34.			R		+	-				+	
			J								
			T								
35.			R		+	-				+	
			J								
			T								
36.			R		+	-				+	
			J								
			T								

INCL #7 ANNEX A LIZ OPORD 214-56 W-07335

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PAGE 1 OF 2 PAGES.

ENGINEER'S FLIGHT PLAN

DATE OF MISSION	FEB 1956
TYPE(S) OF MISSION	COUNTRY CLUB #1 (ALT)
WING	42D B.W.
SQUADRON	42D AFRES
AIRCRAFT TYPE-MODEL-SERIES	KC-97G
COMPLETE SERIAL NO.	ALL
FIRST ENGINEER (Name and Grade)	
SECOND ENGINEER (Name and Grade)	

1. WEIGHT COMPUTATIONS	
a. ACPT BASIC WT	90000
b. OIL, ENG (On Lds)	635
c. OIL, JET	
d. CREW 10 @ 350	3500
e. AMMO (30%)	
f. CARGO	1000
g. MISC	300
h. FUEL RESERVE	6510
i. MIN LANDING WT	101945
j. OFF-LOAD FUEL	25000
k. AMMO (30%)	
l. BOMBS	
m. CHAFF	
n. OIL USED	635
o. FUEL EXPENDABLE	27420
p. TAKE-OFF GROSS WT	155000

2. FUEL DATA	
a. DENSITY (Lbs)	6.8/ per Gal
b. TOTAL LOAD (Lbs)	33930
c. REQUIRED (Lbs)	27420
d. RESERVE (Lbs)	6510
e. ON-LOAD (Lbs)	25000

3. TAKE-OFF DATA

NO WIND

NO WIND

4. REMARKS 1. START ENGS 1:00 BEFORE T.O.
2. TEMP 6° COLDER THAN NACA
3. F/F 97% OF CHARTED.
4. FUEL RESERVE BASED ON TIME AT CUT ENGS.
5. ASTERISK (*) IN RH MARGIN = OVER THULE.

A	B	C	D	E	F	G	H	I	J	K	L
				NO WIND PLAN					WIND PLAN		
CONDITION	Hp / OAT / √θ	BHP / RPM / ENG F/P	TOTAL FUEL FLOW	Δ TIME / TOTAL	Δ FUEL USED / TOTAL USED	GROSS WEIGHT	EAS / VT (K) / GS	AIR DIST / TOTAL	Δ TIME / TOTAL	Δ FUEL USED / TOTAL USED	GND DIST / TOTAL
						155000					
1. RTTO	100	3500	R 720/:15	(1:00)	+ 1920	- 1920			(1:00)	+ 1920	
	-4	2700	; 25³/MIN								
		|	T	:03	1920	153080			:03	1920	
2. Cr #1	120[illegible]0	2650	R	:30	+ 3750	- 3750	167	99	:30	+ 3750	88
	-1[illegible]	2550	; AR				198				
	1.18[illegible]9	1875	T 7500	:33	5670	149330	176	99	:33	5670	88
3. Cr #1	17000	2025	R	:38	+ 2330	- 2330	182	147	:45	+ 2760	158
	-25	2340	; AL				234				
	1.2879	92[illegible]	T 3680	1:11	8000	147000	212	246	1:18	8430	246
4. DEBIT Cr #2	17000	2025	R	:15	+ 920	- 920	182	59	:15	+ 920	—
	-25	2340	; AL				234				
	1.2879	920	T 3680	1:26	8970	146080	212	305	1:33	9350	246
5. RENDZ Cr #3	17000	2025	R	:15	+ 920	- 920	182	64	:18	+ 1105	64
	-25	2340	; AL				234				
	1.2879	920	T 3680	1:41	9840	145160	212	369	1:51	10455	310
6. REFUEL Cr #4	17000	2650	R	:38	+ 4750	- 4750	205	166	:41	+ 5120	166
	-25	2550	; AR				264				
	1.2879	1875	T 7500	2:19	14590	140410	242	535	2:32	15575	476
7.			R (INCLUDE OIL			-25635				+	
	OFF	LOAD	; 635 LBS)								
			T			114775					
8. DS #1	15500	995	R	:06	+ 200	- 200	170	21	:06	+ 200	19
	-22	1900	; AL				213				
	1.2546	500	T 2020	2:25	14790	114575	191	556	2:38	15775	495
9. CR #5	14000	1360	R	:57	+ 2300	- 2300	167	189	1:03	+ 2540	191
	-18	1900	; AL				204				
	1.2245	605	T 2420	3:22	17090	112275	182	745	3:41	18295	686
10. CR #6	14000	1330	R	:51	+ 2020	- 2020	166	172	:57	+ 2250	172
	-18	1900	; AL				203				
	1.2245	590	T 2360	4:13	19110	110255	181	917	4:38	20545	858
11. CR #7	14000	1300		1:32	+ 3560	- 3560	165	307	1:42	+ 3950	307
	-18	1900	AL				202				
	1.2245	580	2320	5:45	22670	106695	180	1224	6:20	24495	1165
12. CR #8	14000	1285	R	1:31	+ 3500	- 3500	164	304	2:02	+ 4690	363
	-18	1900	; AL				201				
	1.2245	575	T 2300	7:16	26170	103195	179	1528	8:22	29185	1528
13. DS #2	7500	995	R	:15	+ 500	- 500	170	47	:15	+ 500	—
	-6	1900	; AL				188				
	1.1073	500	T 2000	7:31	26670	102695	166	1575	8:37	29685	-
14. LD	2000/120		R	:10	+ 500	- 500			:10	+ 500	-
	-5	2350	; 50°/MIN								
			T	7:41	27170	102195		1575	8:47	30185	1528

SAC FORM 316, 10 MAY 54 — REPLACES SAC FORM 60-14, 1 AUG 51, WHICH IS OBSOLETE.

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Air Force-SAC Offutt [illegible]

INCL #8 ANNEX A LIZ OPORD 214-56 W-07335

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PAGE 2 OF 2 PAGES.
COUNTRY CLUB #1 (ALT)

A	B	C	D	E	F	G	H	I	J	K	L
				NO WIND PLAN					WIND PLAN		
CONDITION	H_p OAT	BHP RPM	TOTAL FUEL FLOW	Δ TIME	Δ FUEL USED	GROSS WEIGHT	EAS V_T (K)	AIR DIST	Δ TIME	Δ FUEL USED	GND DIST
J AT %	V_T	ENG F/F		TOTAL	TOTAL USED		GS	TOTAL	TOTAL	TOTAL USED	TOTAL
15.			R		+	-				+	
			J								
			T	7:41	27170	102195		1575	8:47	30185	1528
16.	100		R								
RET	-4		25#/MIN	:10	+ 250	- 250			:10	+ 250	
			T	7:51	27420	101945		1575	8:57	30435	1528
17.			R		+	-				+	
			J								
			T								
18.			R		+	-				+	
			J								
			T								
19.			R		+	-				+	
			J								
			T								
20.			R		+	-				+	
			J								
			T								
21.			R		+	-				+	
			J								
			T								
22.			R		+	-				+	
			J								
			T								
23.			R		+	-				+	
			J								
			T								
24.			R		+	-				+	
			J								
			T								
25.			R		+	-				+	
			J								
			T								
26.			R		+	-				+	
			J								
			T								
27.			R		+	-				+	
			J								
			T								
28.			R		+	-				+	
			J								
			T								
29.			R		+	-				+	
			J								
			T								
30.			R		+	-				+	
			J								
			T								
31.			R		+	-				+	
			J								
			T								
32.			R		+	-				+	
			J								
			T								
33.			R		+	-				+	
			J								
			T								
34.			R		+	-				+	
			J								
			T								
35.			R		+	-				+	
			J								
			T								
36.			R		SECRET					+	
			J								
			T								

INCL #8 ANNEX A ZIZOPORD 214-56 W-07335

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ENGINEER'S FLIGHT PLAN — DATE OF MISSION: FEB 1956 — TYPE(S) OF MISSION: COUNTRY CLUB #2

WING: 42D BW — SQUADRON: 42D ARFES — AIRCRAFT: TYPE-MODEL-SERIES: KC 97G — COMPLETE SERIAL NO.: ALL

FIRST ENGINEER (Name and Grade) — SECOND ENGINEER (Name and Grade)

1. WEIGHT COMPUTATIONS

a. ACFT BASIC WT	90000
b. OIL, ENG (On Leg)	635
c. OIL, JET	
d. CREW 10 @ 350	3500
e. AMMO (20%)	
f. CARGO	10000
g. MISC	300
h. FUEL RESERVE	5965
i. ADV LANDING WT	101400
j. OFF-LOAD FUEL	32345
k. AMMO (20%)	
l. BOMBS	
m. CHAFF	
n. OIL USED	635
o. FUEL EXPENDABLE	20620
p. TAKE-OFF GROSS WT	155000

FUEL DATA: a. DENSITY (Lbs): 6.4 per Gal — b. TOTAL LOAD (Lbs): 26585 — c. REQUIRED (Lbs): 20620 — d. RESERVE (Lbs): 5965 ← NO WIND — e. OFF-LOAD (Lbs): 32345 ← NO WIND

2. TAKE-OFF DATA

4. REMARKS
1. START ENGS. 1:00 BEFORE T.O.
2. TEMP 6° COLDER THAN NACA
3. F/E 97% OR CHARTED.
4. FUEL RESERVES BASED ON TIME AT OUT ENGS.

	A CONDITION / ALT'S	B Wt / GAT	C BHP / RPM / ENG F/F	D TOTAL FUEL FLOW	NO WIND PLAN: E Δ TIME / TOTAL	F Δ FUEL USED / TOTAL USED	G GROSS WEIGHT	H TAS Vt (K) / GS	I AIR DIST / TOTAL	WIND PLAN: J Δ TIME / TOTAL	K Δ FUEL USED / TOTAL USED	L GND DIST / TOTAL
1.	RTTO	100 / -4	3500 / 2700 / —	R 7200 @ 1:15 ; 754/MIN T	(1:00)	- 1920	- 1920			1:00	+ 1920	
					:03	1920	153080			:03	1920	
2.	CR #1	12046 / -15	2650 / 2550	R ; AR	:30	+ 3750	- 3750	167 / 198	99	:30	+ 3750	88
		1.1877	1875	T 7500	:33	5670	149330	176	99	:33	5670	88
	BRKT CR #1	17000 / -25	2025 / 2340	R ; AL	:15	+ 920	- 920	182 / 234	57	:15	+ 920	-
		1.2879	920	T 3680	:48	6590	148410	212	158	:48	6590	-
3.	BNDR CR #2	17000 / -25	2025 / 2340	R ; AL	:15	+ 920	- 920	182 / 236	64	:18	+ 1105	64
		1.2879	920	T 3680	1:03	7510	147490	212	222	1:06	7695	152
	BRKT CR #3	17000 / -25	2650 / 2550	R ; AR	:38	+ 4750	- 4750	205 / 244	166	:41	+ 5120	166
		1.2879	1875	T 7500	1:41	12760	142740	242	388	1:47	12875	318
4.		OFF LOAD		R (INCLUDE OIL)			- 32975				+	
				T 635 LBS			109765					
5.	DS #1	15500 / -22	995 / 1900	R ; AL	:06	+ 200	- 200		21	:06	+ 200	19
		1.2546	580	T 2000	1:47	12460	109565		409	1:53	13015	337
6.	CR #4	14000 / -19		R ; AL	1:04	+ 2350	- 2350	161 / 197	207	1:11	+ 2600	207
		1.2345	550	T 2200	2:51	14810	107215	175	616	3:04	15615	544
7.	CR #5	14000 / -9	1200 / 1900	R ; AL	1:20	+ 2850	- 2850	160 / 196	260	1:30	+ 3200	260
		1.2345	535	T 2140	4:11	17660	104360	174	876	4:34	18815	804
8.	CR #6	14000 / -19	1160 / 1900	R ; AL	:50	+ 1760	- 1760	158 / 193	159	1:22	+ 2880	231
		1.2345	535	T 2100	5:01	19420	107600	171	1035	5:56	21695	1035
9.	DS #2	7500 / -6	995 / 1900	R ; AL	:15	+ 450	- 450			:15	+ 450	
		1.1073	450	T 1800	5:16	19870	107150			6:11	22145	
10.	LD	5000 / -5	2350	R ; 50%/MIN T	:10	+ 500	- 500			:10	+ 500	
					5:26	20370	101650			6:21	22645	
11.	RET	100 / -4		R ; 25%/MIN T	:10	+ 250	- 250			:10	+ 250	
					5:36	20620	101400			6:31	22895	
12.				R ; T		+	-				+	

SAC FORM 214 REPLACES SAC FORM 214, 1 AUG 51, WHICH IS OBSOLETE. AF Form 648, Office Symbol

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INCL 9 ANNEX A HQ OPORD 214-56 W-07355

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PAGE 1 OF 2 PAGES.

ENGINEER'S FLIGHT PLAN

DATE OF MISSION: FEB 1956 | TYPE(S) OF MISSION: COUNTRY CLUB # 2 (ALT.)

WING: 42D BW | SQUADRON: 42D AREFS | AIRCRAFT — TYPE-MODEL-SERIES: KC-97G | COMPLETE SERIAL NO.: ALL

FIRST ENGINEER (Name and Grade) | SECOND ENGINEER (Name and Grade)

1. WEIGHT COMPUTATIONS

a. ACFT BASIC WT	90000
b. OIL, ENG (On Lg)	635
c. OIL, JET	
d. CREW 10 @ 350	3500
e. AMMO (20%)	
f. CARGO	1000
g. MISC	300
h. FUEL RESERVE	6000
i. MIN LANDING WT	101435
j. OFF-LOAD FUEL	28285
k. AMMO (20%)	
l. BOMBS	
m. CHAFF	
n. OIL USED	
o. FUEL EXPENDABLE	25280
p. TAKE-OFF GROSS WT	155000

2. FUEL DATA

a. DENSITY (Lbs): 6 LB/ per Gal
b. TOTAL LOAD (Lbs): 31280
c. REQUIRED (Lbs): 25280
d. RESERVE (Lbs): 6000 — No Wind
e. OFF-LOAD (Lbs): 27650 — No Wind

3. TAKE-OFF DATA

4. REMARKS 1. START ENGS 1100 BEFORE T.O.
2. TEMP 6° COLDER THAN NACA.
3. F/E 97% OF CHARTED.
4. FUEL RESERVE BASED ON TIME AT CUT ENGS.
5. ASTERISK (*) IN RH MARGIN = OVER FRONTSWEEP.

A CONDITION / AT S	B H_p / OAT / V_T	C RPM / ENG F/F	D TOTAL FUEL FLOW	NO WIND PLAN E Δ TIME / TOTAL	F Δ FUEL USED / TOTAL USED	G GROSS WEIGHT	H EAS V_T (K) / GS	I AIR DIST / TOTAL	WIND PLAN J Δ TIME / TOTAL	K Δ FUEL USED / TOTAL USED	L GND DIST / TOTAL
1. RTTO	100	3520	R	(1:09)	+ 1920	- 1920		—	(1:09)	+ 1920	—
	-4	2700	L								
		←	T	:03	1920	153080		—	:03	1920	—
2. Cr #1	12040	2650	R	:30	+ 3750	- 3750	167 / 198	99	:30	+ 3750	88
	-15	2550	L: AR								
	1.1879	1775	T 7500	:33	5670	149330	176	99	:33	5670	88
3. Cr #1	17000	2025	R	:38	+ 2380	- 2330	182 / 234	147	:45	+ 2760	158
	-25	2340	L: AL								
	1.2879	920	T 3680	1:11	8000	147000	212	246	1:18	8430	246
Reset Cr #2	17000	2025	R	:15	+ 920	- 920	182 / 234	59	:15	+ 920	-
	-25	2340	L: AL								
	1.2879	920	T 3680	1:26	8920	146080	212	305	1:33	9350	246
Delete Cr #3	17000	2025	R	:15	+ 920	- 920	182 / 234	64	:18	+ 1105	64
	-25	2340	L: AL								
	1.2879	920	T 3680	1:41	9840	145160	212	369	1:51	10455	310
Refuel Cr #4	17000	2650	R	:38	+ 4750	- 4750	205 / 264	166	:41	+ 5120	166
	-25	2550	L: AR								
	1.2879	1775	T 7500	2:19	14590	140410	242	535	2:32	15575	476
			R			- 28285				+	
	OFF LOAD (INCL 635 LBS OIL)		L								
			T			112125					
6. DS #1	15500	795	R	:06	+ 200	- 200	170 / 213	21	:06	+ 200	19
	-22	1900	L: AL								
	1.2546	500	T 2000	2:25	14790	111925	191	556	2:38	15775	495
7. Cr #5	14000	1280	R	:100	+ 2280	- 2280	163 / 200	200	1:07	+ 2540	200
	-19	1900	L: AL								
	1.2345	570	T 2280	3:25	17070	109845	177	756	3:45	18315	695
10. Cr #6	14000	1230	R	1:05	+ 2360	- 2360	162 / 198	207	1:12	+ 2610	207
	-19	1900	L: AL								
	1.2345	585	T 2340	4:30	19430	107285	176	963	4:57	20925	902*
11. Cr #7	14000	1202	R	1:17	+ 2650	- 2650	160 / 196	250	1:26	+ 3060	249
	-19	1900	L: AL								
	1.2345	535	T 2140	5:47	22080	104635	170	1213	6:23	23985	1151
12. Cr #8	14000	1165	R	:56	+ 1950	- 1950	159 / 185	180	1:25	+ 2940	242
	-19	1900	L: AL								
	1.2345	570	T 2280	6:43	24030	102685	173	1393	7:48	26925	1393
DS #2	2500	795	R	:15	+ 500	- 500	170 / 172	47	:15	+ 500	
	-6	1900	L: AL								
	1.1075	500	T 2000	6:58	24530	102185	166	1440	8:05	27425	
14. LD	13000		R	:10	+ 500	- 500			:10	+ 500	
	-5	2350	L: 35° FLAPS								
			T	7:08	25030	101685			8:13	27925	

SAC FORM 214 REPLACES SAC FORM 69-16, 1 AUG 51, WHICH IS OBSOLETE.

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INCL #10 ANNEX A LTR OPORD 214-56 W07535

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PAGE 2 OF 2 PAGES
COUNTRY CLUB #2 (ALT)

A CONDITION J AT %	B H_p OAT V_T	C BHP RPM ENG F/P	D TOTAL FUEL FLOW	NO WIND PLAN E Δ TIME TOTAL	F Δ FUEL USED TOTAL USED	G GROSS WEIGHT	H EAS V_T (K) GS	I AIR DIST TOTAL	WIND PLAN J Δ TIME TOTAL	K Δ FUEL USED TOTAL USED	L GND DIST TOTAL
15.			R		+	-				+	
			J								
			T	7:08	24535	94035			8:16	27880	
16. RET	100		R 25#/MIN	:10	+ 250	- 250			:10	+ 250	
	-4		J								
			T	7:18	24785	93785			8:26	27630	
17.			R		+	-				+	
			J								
			T								
18.			R		+	-				+	
			J								
			T								
19.			R		+	-				+	
			J								
			T								
20.			R		+	-				+	
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23.			R		+	-				+	
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24.			R		+	-				+	
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25.			R		+	-				+	
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26.			R		+	-				+	
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27.			R		+	-				+	
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34.			R		+	-				+	
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36.			R		+	-				+	
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INCL #10 ANNEXALIZ OPORD 214-56 W 07335

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FROM: CCMAIRRFLGSQ 42 THULE AFB GREENLAND

TO: CINCSAC OFFUTT AFB NEBR

INFO: CCMAF 8 WESTOVER AFB MASS

CCMAF 2 BARKSDALE AFB LA

CCMAF 15 MARCH AFB CALIF

CCMAIRDIV 45 LORING AFB ME

/SECRET/ZIPPO_____. ATTN: DOPLT. This is "Country Club" interim report for period_____.

A. Number of live-aboard missions accomplished_____.

B. Number of live-aboard missions resulting in aircraft being airborne on time to meet a refueling requirement_____.

C. Number of live-aboard missions resulting in successful air refueling _____.

D. Number of ground/air aborts_____. Reasons for each_____ _____.

E. Reasons for delayed take-offs (if any), with amount of delay._____ _____.

F. Time required from alert receipt to aircraft airborne_____.

G. Time required from initiation of alert message to receipt at Frobisher _____.

H. Major operational problems with recommended solutions.

I. Major equipment problem areas and recommended solutions.

Incl # 1 Annex D 42BW OPORD 214-57

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HEADQUARTERS 45TH AIR DIVISION
LORING AIR FORCE BASE, MAINE
20 DECEMBER 1956

ANNEX B

TO

OPERATIONS ORDER

214 - 57

This annex consists of 4 pages

W- 0)33S

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Headquarters, 45th Air Division
Loring Air Force Base, Maine
20 December 1956

Administration and Logistics

Annex B, Operations Order 214-57 (Unclassified nickname, "Country Club")

1. General: To test the possible need of operations from a remote site with limited support, the 42d Air Refueling Squadron will deploy aircraft, as directed in the Operations Annex, to Frobisher Bay. Ground and aircrews will live in the aircraft during their stay, and problems arising from messing, sleeping, aircraft maintenance etc. will be noted. The suitability of all items of available equipment necessary will be determined. Included in this annex are materiel and personnel needs. (S)

a. Materiel

(1) Areas to be tested during this program are:

(a) Average time required for complete installation of engine plugs, covers and heater ducting. (U)

(b) Ability of wing heaters to keep engine temperatures at a satisfactory level for engine starting, desirability of the ducting and blower motors, and the resultant additional maintenance of wing heaters due to ground operations. (U)

(c) Adequacy of heating and ventilating the crew compartment. (U)

(2) Enroute type boxes of spares have been assembled and will be placed on board all KC-97 aircraft. Of necessity, the spares are limited, but they represent items that are most commonly needed. (U)

(3) Maintenance items which will be carried aboard the unit aircraft will be limited to the following: (C)

Stock No.	Nomenclature	Quantity for 10 acft
7700-247110	Cord, ext. 100'	5 ea
333245	Flood light	1 ea
529794	Light, extension	5 ea
8200-245016	Fire ext. 15#	20 ea
245098	Fire ext. 4 gal	20 ea
490000	Ladder, folding	2 ea

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Annex B, Operations Order 214-57, 45th ADiv, 20 Dec 56

(4) The following list of standard Air Force items will be onboard each KC-97 in the quantities indicated: (C)

Stock No.	Nomenclature	Quantity
1600-013570005	Radio URC-4	1 ea
4510-485-5115	Toilet, chemical	1 ea
4523-STDS-HT24C	Cup, hot	6 ea
6230-283-9757	Flash light	1 per/CM
6921-613400	Outfit, Off fld mess	1 ea
7CAC-271200	Detector, CO, type B-1	1 ea
7105-254-8886	Mattress, Pneu.	1 per/CM
7240-242-6153	Can, 5 gal, #20	6 ea
8465-238-8107	Bag, sleeping	1 per/CM
	Oven, B-3	2 ea
	Cot, canvas	10 ea
	Rations - IF-6 and 7	

(5) Survival kits carried aboard the aircraft will not be used during the test except in an emergency and authorized by the Task Force Commander. (U)

(6) The following items of equipment will be pre-positioned at Frobisher Bay, no changes to this listing are authorized unless approved by Eighth Air Force. Goose Bay will supplement Frobisher with items not in place: (S)

Stock No.	Nomenclature	Quantity
5001-240000	Truck, Decon	1 ea
7CAD-444500	Magnetic inspection	1 ea
8100-221822-64	Compressor, MC-1A	1 ea
8200-321410	Generator set B-12	2 ea
8200-630168-3	Maint Stand B-5A	10 ea
8210-324900	Generator set B-6B	1 ea

(7) Resupply: No resupply provisions are made for this test. Those grounding items which are not available in the deployed kit of spares will be forwarded to the 42d Air Refueling Squadron Commander at Thule AFB by the most expeditious means, giving aircraft tail number, stock number and nomenclature. The 42d AREFS will supply requested items, utilizing available air transportation from Thule, or assigned tactical aircraft. (C)

(8) Reparables: Reparable items generated during this test will be returned to the 42d Air Refueling Squadron at Thule for processing in accordance with Volume XVI, AFM 67-1. (C)

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Annex B, Operations Order 214-57, 45th ADiv, 20 Dec 56

b. Personnel: Personnel for the purpose of testing this operational "Live Aboard" concept, at a remote site, with limited support for a specified period of time in addition to the flight crews will be limited to the following list. Exceptions to these AFSC's will not be made without approval of Eighth Air Force: (C)

AFSC	TITLE	Quantity
4344	Eng officer	1
43171B	Flight chief	1
43151/71B	Crew chief	10
43131/51V	Acft mech	5
43231/51	Eng mech	15
4235/50	Elect spec	2
42230/50	Instr spec	2
42132/52	Hydr spec	2
42131/51	Prop spec	4
42132/52	IFR spec	2
30171	Radio, radar supv	1
30151A	Nav aids spec	2
30150B	Radio Spec	1
	TOTAL	48

(2) All personnel deploying on tactical aircraft for this operation will be considered crew members. (U)

(3) Subsistence will consist of IF-6 and IF-7 rations. 350 cases of rations will be taken for this operation from the assets of Loring AFB. Officers and aircrew on separate rations will be required to pay for rations consumed during the test. (C)

(4) Each person will deploy with gas mask, authorized weapon, one base load of ammunition, and all required arctic clothing and field equipment. (U)

(5) Three members of the Eighth Air Force Arctic Indoctrination Team will accompany the aircraft during this test operation. This team will render assistance as required, observe the operation and develop new or additional arctic maintenance and survival techniques, the 42d AREFS will provide. (U)

(6) All maintenance support required at Frobisher will be furnished by the deployed 42d AREFS team. The only maintenance facilities deployed personnel are authorized to use, except in an emergency, are as follows: (S)

W-42335

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(a) Refueling Equipment
(b) Pre-positioned maintenance equipment
(c) Water resupply

(S)

(7) All maintenance personnel will deploy with all authorized tools in their individual tools boxes and a minor stock of selected expendables to support their specialty. All personnel will be thoroughly familiar with SAC Manuals 66-5 and 55-6, in addition to KC-97 tech orders. (U)

(8) In addition to personnel action above, the following will be complied with:

(a) Personnel records will not accompany personnel. (U)

(b) Mail will be held at Thule AFB pending return of "Country Club" personnel. (C)

(c) No Air Police will be taken from Thule, security will be the responsibility of deployed personnel. (C)

c. Reports: A final written report will be submitted to Eighth Air Force within thirty (30) days after return of the 42d AREFS to Loring. This report is exempt from RCS. (U)

W-07335

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
Loring Air Force Base
Maine
20 December 1956

ANNEX C

TO

OPERATIONS ORDER

214 - 57

Forwarded under separate cover

ANNEX C
CFCORD 214-57
20 Dec 56

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
Loring Air Force Base
Maine
20 December 1956

ANNEX E

TO

OPERATIONS ORDER

214 - 57

This annex consists of 4 pages

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
Loring Air Force Base
Maine
20 December 1956

ANNEX E, OPERATIONS ORDER 214-57, (NICKNAME "COUNTRY CLUB" IS UNCLASSIFIED)

1. GENERAL SITUATION:

a. The flight surgeon who is deployed with the tanker squadron will plan and monitor the medical aspects of the operation, and assist the project officer on the general human factor problems involved.

b. The squadron surgeon will accompany the first increment of ten aircraft to Frobisher and return to Thule with the third increment. While at Frobisher he will participate in the mission of the second increment, including living aboard with the crew from time of arrival at Frobisher until its departure for Thule.

c. The squadron surgeon will participate in the operation at Frobisher only as an Observer and member of the test project group. He will not act in the usual capacity of squadron surgeon; he will not take sick call, made sanitary inspections or supervise the health of participating crews except in case of a medical emergency or a potentially serious illness or injury.

d. Routine medical matters will be handled by Aircraft Commanders in order to simulate a situation actually isolated from normal ground support.

e. In addition to referring only serious medical problems to the squadron surgeon provided for in subparagraph c above, Aircraft Commanders will utilize the advice of the surgeon if necessary to avoid a possible compromise of flight safety.

2. MISSION: The mission of the squadron surgeon and the purpose of the medical testing and observation will be:

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W-07335

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a. To determine what limiting factors, if any, exist to preclude the successful operation of the "Live Aboard" concept.

b. To identify any feasible approches to improving the efficiency of such an operation in the future.

3. SPECIFIC TASKS:

a. During the pre-mission planning phase the surgeon will:

(1) Draw up recommended SOP instructions for personal hygiene, including but not limited to washing, shaving, mouth care, changes of underclothing, exercise, and the avoidance of overdressing.

(2) Advise commanders on eating, caloric consumption, fluid intake and messing problems.

(3) Provide, fit and advise on the use of ear defenders as an aid to proper sleep when noise is prevalent. Eye occluders may be considered as an additional aid to sleep.

(4) Assist Commanders in the planning of daily schedules of work and relaxation which will allow for adequate sleep and regular meals and foster the maximum of alertness and efficiency.

(5) Brief all personnel on frostbite and the necessity for ground crews to watch each other for signs of it during high wind chill factor weather. Checks with flashlight will be necessary during hours of darkness. Provide aircraft commanders with instructions for treating frostbite.

(6) Recommend SOP's for general sanitation and waste disposal to be implemented by Aircraft Commanders.

(7) Frequent carbon monoxide determinations will be made aboard all aircraft. The squadron surgeon will train designated personnel to do the testing. More frequent testing is recommended during hours when a majority are asleep.

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Surgeon will work with command to establish abandon aircraft procedures in case a potentially dangerous carbon monoxide reading is obtained.

b. During the frobisher phase of the operation observations and studies will be made upon:

(1) The overall health, medical and human factors aspects of the operation.

(2) Food requirements, to include needs for increased liquids, suitability of the type rations used and adequacy of the containers.

(3) The hazards of carbon monoxide and other atmospheric contaminants in the aircraft.

(4) The minimal facilities required for personal hygiene and comfort.

(5) Adequacy of heating facilities.

(6) All aspects of the fatigue and sleep problem.

(7) Problems encountered in use of chemical toilets.

c. Additional tasks may be forwarded by HQ SAC and will be accomplished and reported upon as part of this annex.

4. GENERAL INSTRUCTIONS:

a. First Aid materials and supplementary medications will be in the possession of and issued only by the Aircraft Commander or officer in charge while the aircraft commander is asleep. List of materials of this type to be provided by the surgeon for all aircraft.

b. Briefings by the surgeon on the medical and human factors aspects will be accomplished before departure from Thule.

c. The monitoring of medical aspects will not be limited to items covered in this annex. Ideas for additional tasks and test monitoring are encouraged and should be implemented if feasible.

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d. Special emphasis will be placed on covering aspects omitted from or only partially tested in operation Apple Cider.

e. Constant attention will be given by Aircraft Commanders as well as the surgeon to signs of fatigue, conditions preceding it and its effect on the operation. Aircraft Commanders will take appropriate action as indicated. Surgeon will observe and will interfere only in case of possible compromise of flight safety.

5. ADMINISTRATION AND LOGISTICS:

a. All aspects of the operation will be reported upon in as complete detail as possible.

b. Mission report required by SAC Regulation 160-2 will make reference only to the fact that Country Club was accomplished during the temporary duty.

c. All medical and human factor results will be reported only as part of the overall Country Club report.

d. Report will include drafts of all SOP's recommended for future use in an operation of this type.

e. Medical materiel used aboard aircraft will be limited to items available from the squadron dispensary assembly. Deficiencies in quantities will be made up from stocks at Thule Air Force Base Hospital and reported upon.

6. Command and Communications will be as established for the temporary duty squadron and as otherwise established for the test operation in the operations order.

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
Loring Air Force Base
Maine
20 December 1956

ANNEX F

TO

OPERATIONS ORDER

214 - 57

This annex consists of 2 pages

ANNEX F
OPORD 214-57
20 Dec 56

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
Loring Air Force Base
Maine
20 December 1956

ANNEX F, OPERATIONS ORDER 274-57, (NICKNAME "COUNTRY CLUB", UNCLASSIFIED)

1. During a normal month of operation there are an average of 1200 flights into the base that must be serviced.

2. The servicing of aircraft in any quantity as would conceivably be required during a SAC exercise offers a major problem. The rate of flow of AV gas into F-6 units is 70 gallons per minute resulting in a one hour turn around for each F-6. Only one unit may be refueled at a time. A two hour turn around is required for oil trucks. As of 1 Dec 56 there was one serviceable F-6 unit.

3. At the present time, contractors and commercial aircraft are receiving priority over military aircraft for servicing.

4. Advance notice will be required in order to convert F-6 units for use with JP-4 fuel.

5. Ground handling equipment augmentation will be necessary, including de-icing equipment.

6. There are no tow bars and only one Coleman tractor available.

7. There are two O-11A fire trucks inplace.

8. Hanger space is not adequate for engine work. It is recommended that engine enclosures accompany the unit.

9. Security must be furnished by the unit.

10. The one available mess hall can handle 500 personnel on a 24 hour schedule, however, augmentation of kitchen police will be necessary.

11. Housing is extremely limited. Sufficient facilities are not available to house assigned personnel.

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12. In the event it became necessary to house personnel, there is an engineer camp used during the shipping season that can accommodate 200. The condition of the camp is considered substandard, but could be used as an alternate. Transportation to and from camp would be a problem due to the limited number of vehicles and the remoteness of the area.

13. White-Outs during January and February caused by drifting snow last up to forty-eight hours.

14. The CGA and beacon are considered satisfactory. The radio range is minimum acceptable, particularly on the south leg where beam refraction is experienced.

15. By January it is expected that 2500 feet of unused runway will be available for parking.

16. Briefing facilities for briefing 125 individuals are available.

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
19 December 1956

ANNEX "C" (COMMUNICATIONS) TO 42D BOMBARDMENT WING OPERATIONS ORDER 214-57, "COUNTRY CLUB" (UNCLASSIFIED)

1. GENERAL:

a. Applicable CEI's, appropriate ACP's, SAC Manuals of the 55-8 series, JANAP's, Radio Facility Charts, Supplementary Flight Information Documents and ICAO Documents apply unless modified herein. (U)

2. ADMINISTRATIVE COMMUNICATIONS:

a. Point-to-point communications will be conducted over the following facilities in the priority listed. (U)

(1) SOCS (for command and operational traffic only) (U)

(2) SACCOMNET (U)

(3) AIRCOMNET (U)

(4) Radioteletype and CW Manual radio (to be used only in event of failure or non-availability of landlines. (U)

b. All task force commanders will coordinate with the AACS Commander to alert their facilities and insure SAC operational traffic is given expeditious and preferential handling. (U)

c. Message handling procedures outlined in appropriate ACP's, JANAP's, SACCEI and appropriate SAC Manuals of the 55-8 series apply. (U)

3. AIRBORNE COMMUNICATIONS:

a. Identification and Recognition will be in accordance with SACCEI 2404.2a.

b. IFF will be in accordance with SAC Regulation 55-23, as amended, and/or CEI of the Northeast Air Command. (C)

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j. Communications security will be observed and no clear text transmissions will be made that would reveal unit designation, location, aircraft type or the nature of the mission. (U)

k. The transmit-receive guard (TR/G) position of the UHF radio will be utilized at all times except when necessary to discontinue the monitor of guard channel while actually communicating on another channel. (U)

l. Position Reports.

(1) In any formation of two or more aircraft, the number two (2) aircraft will make the necessary CAA/DOT and ICAO reports. (U)

(2) Aircraft will use the tactical call sign with two digit suffixes and the mission nickname as the first word of the text for civil reporting.

(3) Procedure ALPHA (SAC Manual 55-8M as amended) will be used while flying in all areas requiring position reports.

4. IN PLACE MONITORING:

a. Tanker aircraft at Frobisher will be used as HF receiver stations. A frequency monitor plan has been developed to insure that the 10 aircraft at Frobisher, functioning as ground receiver stations, are guarding the entire family of standard USAF HF Air/Ground frequencies. The frequencies to be guarded, by the number of aircraft, are as follows:

(1)	15016 kcs	2 aircraft
(2)	11228 kcs	2 aircraft
(3)	6738 kcs	2 aircraft
(4)	6730.5 kcs	1 aircraft

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(5) 4724.5 kcs 1 aircraft

(6) 3144 kcs 1 aircraft

(7) 3067 kcs 1 aircraft (U)

b. Each tanker functioning as an HF monitor station will keep an abreviated radio log. Tanker aircraft commanders will be provided with sufficient copies of AF Form 35. Radio logs will include, but not be limited to, date-time groups for each entry, frequency, station transmitting message, message text, quality of signal to include type of interference, and local weather conditions. Duplicate logs will be forwarded to Eighth Air Force as an enclosure to the final narrative report. (C)

c. Copies of all messages received by the Frobisher Tanker Task Force, by normal point-to-point means, showing time of receipt at Frobisher and time of delivery to the Tanker Task Force Commander, will be forwarded to Eighth Air Force with the final narrative report. (C)

d. One tanker aircraft will be designated as primary air/ground facility for tactical control purposes; frequency 311.0 mcs primary, 321.0 mcs secondary. This aircraft will act essentially as the Task Force Control Room. In the event a fixed UHF/VHF air/ground facility is operational at Frobisher, the aircraft will act as a back-up. (C)

e. A common UHF frequency, 341.4 mcs, will be monitored for local communications between tanker aircraft on the ground at the operating location. The VHF frequency 119.7 mcs will be monitored by all tanker aircraft on the ground at the operating location. This procedure will facilitate rapid tower to aircraft communications. (C)

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c. Authentication will be in accordance with the current edition of KAC-1( ). (U)

d. Emergency procedures will be in accordance with ACP's 130 and 135, current Radio Facility Charts and the Supplementary Flight Information Document. (U)

e. VHF/UHF frequencies and channelization will be in accordance with SACCEI, current Radio Facility Charts, as prescribed in the Refueling Section of this operations order, and/or in accordance with 42d Bombardment Wing Operations Order 100-56. (U)

f. The use of HF frequencies will be restricted to the following.

(1) Actual aircraft emergency. (C)

(2) Mandatory Air Traffic Control reports to CAA/DOT and ICAO. (C)

g. All aircraft crossing a Canadian CADIZ will monitor joint and combined air interception control common frequency 364.2 MCS. Contact is to be made with Canadian ADC Radar Stations on this frequency and monitored continuously thereafter. IFF will be operated as requested by ground stations. Inflights of more than one aircraft, the above monitor responsibility will be assigned to the number three (3) aircraft. (C)

h. Call Sign:

(1) Air/ground - GUMDROP - - (U)

(2) Air/Air - GUMDROP - - (U) or as outlined in the refueling charts of SAC Manual 100-1, as amended. (U)

i. Navigational aids will be in accordance with appropriate Radio Facility Charts. (U)

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5. SPECIAL SECURITY INSTRUCTIONS:

a. Air/air and air/ground communications will be limited to UHF/VHF communications except for emergencies.

b. Pre-flight and post-flight of aircraft HF radio transmitting equipment is not authorized.

c. In order to provide the desired simplicity and brevity, messages passed by the FOXTROT method will utilize the following brevity code: (Phrases enclosed in parentheses are examples) (S)

CODE WORD	MEANING
Gun Boat	Operation normal; will execute as briefed.
House Fly (1700Z)	ETA of receivers to rendezvous area is (1700Z)
Finger Nail	Use of primary refueling area
Labor Union	Use secondary refueling area
Hard Shell	Mission cancelled
Coon Skin (1600Z)	"E" Hour (1600Z)
Card Game (Wave I 24)	Delay times (Wave I 24 hours)
Buck Eye (Wave I 24)	Advance times (Wave I 24 hours)

(Remarks in parenthesis are examples)

The current edition of KAC-1( ), will be used to encode messages not covered in the brevity code. The instructions apply to air/air air/ground and point-to-point communications.

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
3 January 1957 (Page 1 of 1 Page)

AMENDMENT NUMBER I, COMMUNICATIONS FLIMSY, HEADQUARTERS 42D BOMBARDMENT WING OPERATIONS ORDER 214-57, "COUNTRY CLUB" (UNCLASSIFIED):

1. Due to the addition of paragraph 3 below, the classification of the "COUNTRY CLUB" Communications Flimsy is changed to SECRET. The classification marking of each page must be changed accordingly. The control number (W-0727C) is changed to W-0727S. (U)

2. Change the first sentence of paragraph 12 to read: "GROUND INTER-PLANE frequency is 341.4 mcs". (C)

3. Replace paragraph 14e(1) with the following:

(1) For the purpose of expediting the handling and transmission of messages, the Brevity Code below will be used on this exercise. The current edition of KAC-1( ) will be used to encode messages not provided for by this code. These instructions apply to air/ground, air/air, and point to point communications. The classification of this code is SECRET.

CODE WORD	MEANING
Gunboat	Operation normal; will execute as briefed
House Fly (1700Z)	ETA of Receivers to randezvous area is (1700Z)
Finger Nail	Use primary refueling area
Labor Union	Use secondary refueling area
Hard Shell	Mission cancelled
Coonskin (1600Z)	"E" hour (1600Z)
Card Game (Wave I 24)	Delay times (Wave I 24 hours)
Buck Eye (Wave I 24)	Advance times (Wave I 24 hours)

(Remarks in parenthesis are examples)

70214S

W-0727C attached SECRET W-0727S-1

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HEADQUARTERS 42D BOMBARDMENT WING (H) (SAC)
LORING AIR FORCE BASE
MAINE
19 December 1956

COMMUNICATIONS ANNEX FOR OPERATIONS ORDER 214-57, CODE NAME "COUNTRY CLUB". (U)

1. IDENTIFICATION AND RECOGNITION: will be by flight plan, IFF, aldis lamp and ACP 156 and ACP 158 extracts, KAC-1 air/ground code and, if required, in the NEAC area by identification maneuvers. (U)

2. IFF SETTINGS: will be in accordance with 42d Bomb Wing Operations Memo PT100-42 or as directed by the controlling agency at Thule. (U)

3. AUTHENTICATION: may be accomplished by use of the current KAC-1, air/ground code. (U)

4. AIRCRAFT RECALLS: will be relayed through USAF HF air/ground stations, CAA/DOT and/or GCI sites. Recall messages will in turn be relayed by and to each aircraft. The recall word is "WATERTANK". (C)

5. MONITORING PROCEDURES:

a. UHF control units will be sit on the TR/G position at all times except as other wise required for receipt of messages.

b. Aircraft with ATC reporting responsibilities will monitor the air/ground frequencies in use except as otherwise required.

c. Number three (3) aircraft of the cell will monitor 364.2 mcs while over Canada and/or NEAC territory. On single aircraft flights, 364.2 mcs will be monitored at all times. (C)

d. All aircraft will monitor the VHF interplane frequency (obtained from SAC Manual 100-1 for C/R plan being used) except as otherwise required.

6. POSITION REPORTING:

a. Reports are to be transmitted by use of UHF/VHF to CAA/DOT or GCI radar sites. These reports are to be sent by the the number two (2) aircraft of the cell. Each aircraft will report while participating in individual flights.

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b. If out of UHF/VHF range of the above facilities, cross band procedures may be used for CAA/DOT position reporting.

c. Addressees are to be the control agency for one or more of the following: (U)

(1) The area being overflown

(2) The area just departed if no report has been sent since departure from that area.

(3) The area to be entered prior to the next planned report.

d. Reports sent just prior to entry into a CADIZ or ADIZ should include an estimate to the boundary. (U)

7. REFUELING RENDEZVOUS PROCEDURES:

a. All rendezvous points and C/R plans and procedures will be in accordance with figure 1B of SAC Manual 100-1 Confidential dated September 1956. (C)

b. Call signs for receiver aircraft will be given in the execution order. (U)

c. All rendezvous and refueling will utilize the NEAC FFA procedures with ANN being the key rendezvous point and C/R plan. (C)

8. IN PLACE HF MONITORING:

a. While on the ground at Frobisher, tanker aircraft will be HF receiver stations as back-up for normal point-to-point communications circuits. The HF FOXTROT broadcast system will be utilized.

b. To provide complete coverage, and double guard on the best of the USAF HF air/ground frequencies, the following monitor schedule is prescribed for use at all times while aircraft are on the ground.

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FREQUENCY	NO. AIRCRAFT
15016 KCS	2 ACFT
11228	2 ACFT
6738	2 ACFT
6730.5	1 ACFT
4724.5	1 ACFT
3144	1 ACFT
3067	1 ACFT

NOTE: The Task force Commander is authorized to deviate from the above schedule in event of HF radio receiver malfunction or adverse receiving conditions on any or all of the first three(3) frequencies. However, all seven(7) frequenies must be guarded at all times by at least one radio station and operator.

c. Aircraft Commanders will assure personnel assigned to "radio watches" are familiar with ARC-21 and ARC-8 radio equipment operating procedures, have a basic understanding of voice operating procedures, are briefed on type messages to expect, and are familiar with and have this flimsy available to them. (U)

d. Length and rotation of "watches" will be at the discretion of Aircraft Commanders. It is, however, suggested "watches" do not exceed four hours duration. (U)

e. Each aircraft monitor station will maintain an abbreviated radio log. For this purpose, each aircraft is to carry one full tablet of AF Forms 35. Radio logs are to be kept in duplicate, in a neat and legible manner with all entries in block capital letters. Aircraft Commanders will insure a type carbon paper is available and used, that will make carbon copies of logs as legible as the origional. (carbon paper included as part

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of log books is not suitable) Logs will include, but will not be limited to the following: (U)

(1) Heading

(a) Aircraft tactical call sign

(b) Date log started (GMT)

(c) Mission Nick Name ("Country Club")

(d) Type equipment used (ARC-21, ARC-8) in the "EQUIP CN" block.

(e) Page number (The back side of log forms will not be used. The operator on watch will print and sign the following on the back of each page except the last: THIS SIDE LEFT BLANK

(f) Squadron

(g) Aircraft number

(h) Aircraft Commander

NOTE: The heading, as prescribed above, is to be filled out on each page of the running log.

(2) Entries each twenty (20) minutes (at 10, 30 and 50 minutes past each hour) to consist of the following:

(a) Time (GMT)

(b) Frequency

(c) Receiving condition - If adverse, indicate the cause (heavy traffic or static) if static is the cause, make note of local weather conditions.

(3) Entries on message to the Task Force to include the following:

(a) Time (GMT)

(b) Station Transmitting message

(c) Frequency

(d) Message text (and authentication, if any)

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(e) Quality of signal (as defined by USAF Supplement to ACP 125 or SACCEI)

(f) Type and degree of interferance, if any.

(g) Local weather conditions

(4) End of radio day entries.

EXAMPLE: 072400Z; 11228 (Freq.); END RADIO DAY

080000Z; 11228, ON WATCH (SIGNED)

(5) Change of frequency

EXAMPLE: 0215Z; 6738; (give reason for change)

(6) "ON" and "OFF WATCH"

EXAMPLE: 0400; 6738; OFF WATCH; SIGNATURE

0401; 6738; ON WATCH; SIGNATURE; NAME; RANK; SERIAL NUMBER.

(7) Aircraft Commander will sign the log following the last entry on the last page.

NOTE: A new log will be started if there is a break in continuity of monitor and operation is resumed. In all cases of discontinuance of monitor, the reason there-fore will be entered on the log prior to the Aircraft Commander' signature.

9. Minumum log classification will be Confidential. (U)

10. Copies of all messages received by the Frobisher Tanker Task Force through normal point-to point means (teletype, etc), showing the time of receipt at Frobisher and the time of delivery to the Task Force Commander, will be turned in to the debriefing team at Thule. These copies will in turn be returned to Loring and will be included as a part of the final narrative report. (U)

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11. IN PLACE TACTICAL CONTROL:

a. One Tanker Aircraft will be designated by the Task Force Commander as the primary air/ground facility for tactical control. Primary frequency: 311.0 mcs; secondary: 321.0 mcs. This aircraft will act essentially as the Task Force Control Room. In event a fixed UHF/VHF air/ground facility is operational at Frobisher, the aircraft will function as a back-up.

12. GROUND INTERPLANE frequency is 341.0 mcs. This frequency will be used for interplane communications while in place, on the ground at Frobisher.

13. VHF MONITOR will be maintained by all aircraft in place on 119.7 mcs. This will facilitate rapid tower to aircraft communications.

14. SPECIAL SECURITY INSTRUCTIONS:

a. Air/air and air/ground communications will be limited to UHF/VHF except for emergencies.

b. With three radios (HF, VHF and UHF) "ON" at all times, care must be exercised to avoid inadvertant keying of HF radios. (U)

c. Pre-flight and post-flight of HF radio transmitters is not authorized.

d. TACTICAL CALL SIGNS: will be changed for the duration of this exercise. Call signs to be used will be specified in a change or attachment to this flimsy.

e. CODES:

(1) For the purpose of expeditious handling and transmittion of messages, a brevity type code will be used on this exercise. This code will be included in a change or attachment to this flimsy. The current edition of KAC-1( ) will be used to encode messages not provided for by the brevity code.

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The above instructions apply to air/ground, air/air, and point-to-point communications.

(2) Aircraft Commanders will assure they have sufficient editions of KAC-1( ) air/ground codes to cover their intended mission duration plus five (5) days.

BY ORDER OF THE COMMANDER:

DON W. BAILEY
Colonel., USAF
Wing Director of Operations

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base, Maine

20 March 1957

SUBJECT: Final Mission Report Operation "Cold Wave"

TO: Commander
8th Air Force
Westover Air Force Base, Mass

1. Forwarded herewith is the Final Mission Report for Operation "Cold Wave".

2. If inclosures are withdrawn or not attached, classification of this correspondence will be down graded to UNCLASSIFIED in accordance with AFR 205-1.

FOR THE COMMANDER:

James T. Leyden
JAMES T. LEYDEN
MO, W-1, USAF
Assistant Adjutant

DISTRIBUTION:

5 ea COMDR 8AF
1 ea COMDR SAC
1 ea COMDR NEAC, PEPPERREL AB, N.F.
1 ea COMDR ABW, THULE, GRNLD
1 ea COMDR SAC TASK FORCE, THULE, GRNLD
1 ea COMDR SAC OBOE

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HEADQUARTERS
42ND BOMBARDMENT WING (H)
LORING AIR FORCE BASE, MAINE
15 MARCH 1957

TITLE

FINAL MISSION REPORT (M-27) FOR 42ND AIR REFUELING SQUADRON
ON EIGHTH AIR FORCE OPERATIONS ORDER 100-56, "COLD WAVE"

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NARRATIVE OF MISSION

1. HEADQUARTERS 8TH AF OPERATIONS ORDER 100-56, "COLD WAVE" AND 220-57, "DOG SLED" COVERED THE TDY OF THE 42 AREFS TO THULE, GREENLAND DURING PERIOD 28 DECEMBER 56 THROUGH 7 MARCH 1957.

2. THE UNIT WAS DIRECTED TO ACCOMPLISH 50-8 TRAINING REQUIREMENTS AND SPECIAL MISSIONS AS INDICATED BELOW:

a. "BOLD BOY" - REQUIRED SIX (6) TANKER SORTIES EACH WEEK DURING JANAURY 57 FOR REFUELING OF B-52 AIRCRAFT FROM LORING AFB IN THE THULE AREA.

b. "BUSY BEE" - "SUN DOG" - REQUIRED AN AVERAGE OF THREE (3) TANKER SORTIES EACH WEEK IN SUPPORT OF RB-47 AIRCRAFT TDY THULE DURING JANUARY, FEBRUARY AND FIRST WEEK MARCH 57.

c. "COUNTRY CLUB" - REQUIRED THIRTY (30) TANKER SORTIES TO BE FLOWN DURING FEBRUARY 57 FROM FROBISHER AB, SUBSEQUENT TO A SPECIFIED GROUND TIME.

3. SUPPORT OF THE AFOREMENTIONED SPECIAL MISSIONS WAS CONSIDERED TO BE SUCCESSFUL BY THE UNIT. IN CONNECTION WITH 50-8 ACCOMPLISHMENTS, 65.6% WAS REQUIRED DURING THE TDY; 81.3% WAS ACCOMPLISHED. APPROXIMATELY 1625 FLYING HOURS WERE FLOWN DURING THE ENTIRE TDY.

PERSONNEL AND ADMINISTRATION

1. THIS AREA OF OPERATIONS EXPERIENCED NO SIGNIFICANT PROBLEMS THAT TENDED TO DECREASE UNIT EFFECTIVENESS. HOWEVER, AND UNUSUAL ADMINISTRATIVE WORK LOAD WAS ENCOUNTERED THROUGH THE PREPARATION AND PROCESSING OF SEVENTY THREE (73) OFFICERS EFFECTIVENESS REPORTS OF WHICH FIFTY NINE (59) WERE ASSOCIATED WITH APPLICATION FOR REGULAR AIR FORCE APPOINTMENTS.

2. IN SOME INSTANCES THE UNIT WAS CRITIZED BY HIGHER HEADQUARTERS IN CONNECTION WITH RCS AND COMBAT CREW REPORTING. THIS IS CONSIDERED A NORMAL FUNCTION OF THE WING ANALYSIS & COMBAT CREW REPORTING SECTION AND AS A RESULT THE UNIT IS NOT ADEQUATELY FAMILIAR WITH ALL REQUIREMENTS DURING TDY.

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OPERATIONS AND TRAINING

1. THE UNIT'S IMMEDIATE TURN AROUND CAPABILITY AND THE BEGINNING OF NORMAL TRAINING AT THULE WAS CURTAILED SINCE ARRIVAL OF THE MAIN FORCE SPREAD OVER A PERIOD OF APPROXIMATELY SIX (6) DAYS. THIS WAS CAUSED PRIMARILY BY ADVERSE WEATHER AT LORING.

2. ONLY 85 AIR REFUELING SORTIES WERE MADE AVAILABLE TO THE UNIT FOR THE ENTIRE PERIOD OF TDY. SIXTY NINE (69) WERE ACCOMPLISHED; NON-ACCOMPLISHMENT WAS CAUSED BY RECEIVER CANCELLATIONS. THE ABOVE ALONG WITH THE NATURE OF THE SORTIES PREVENTED ACCOMPLISHMENT OF STANDARDIZATION FLIGHT CHECKS AND CURTAILED IM-CREW AS WELL AS INDIVIDUAL 51-19 CHECK-OUT ACCOMPLISHMENTS.

3. INACCURATE AND UNRELIABLE WEATHER FORECASTING SERVICE FOR THULE AB PRESENTED A SERIOUS OPERATIONAL PROBLEM RELATED TO RECOVERY OF AIRCRAFT.

LOGISTICS

1. MAINTENANCE:

a. MANNING FOR THIS TDY IN MAINTENANCE, AS AUTHORIZED BY HEADQUARTERS 8TH AF, WAS SATISFACTORY FOR ARCTIC OPERATIONS.

b. A "SOFT SPOT" WAS NOTED IN THE MAINTENANCE OF STEWART WARNER TYPE HEATERS AND SYSTEM AS WELL AS THE SOLAR APU. ELECTRICIANS GIVEN ON THE JOB TRAINING ON HEATERS ARE OFTEN CONFRONTED WITH OTHER PROBLEMS THAT REQUIRE HIT AND MISS PROCEDURES.

2. SUPPLY:

a. THE SUPPLY OF REPLACEMENT ITEMS UNDER PROJECT BIG TIN WAS UNSATISFACTORY. THE AVERAGE DELIVERY TIME OF AOCP ITEMS WAS 9.9 DAYS. THE AVERAGE DELIVERY TIME FOR ROUTINE ITEMS WAS 15.6 DAYS.

b. NO ENGINES (4360-59A) WERE RECEIVED SPECIFICALLY EARMARKED FOR THE UNIT. THE ENGINES USED IN REPLACEMENT OF [redacted] ENGINES DURING THE TDY WERE THOSE FURNISHED TO THE BASE FOR USE AS STRAGETIC RESERVE.

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W-21045

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c. SUB-DEPOTS CO-MINGLED BIG TIN ITEMS WITH THULE AB ITEMS AND SHIPPED SAME ACCORDINGLY. THIS INCREASED PIPELINE TIME SINCE ITEMS WERE NOT MARKED BIG TIN AND ENDED UP IN BASE STOCKS.

d. DOVER SHOULD BE NOTIFIED OF "CUT OFF DATE" FOR EACH UNIT UNDER BIG TIN. ITEMS WERE NOT RECEIVED AT THULE UNTIL DEPARTURE.

3. TRANSPORTATION:

a. THE AMOUNT OF TRANSPORTATION ESTABLISHED BY SAC THULE TASK FORCE SOP WOULD HAVE BEEN ADEQUATE HAD IT BEEN FURNISHED. THE HIGH OUT OF COMMISSION RATE OF GENERAL PURPOSE VEHICLES REQUIRED CONTINUEOUS POOLING OF VEHICLES TO MEET MINIMUM DAILY REQUIREMENTS. AS AN EXAMPLE, DURING THE MONTH OF FEBRUARY, 10 VEHICLE/DAY WERE ESTABLISHED IN THE MONTHLY UNIT MAINTENANCE ORDER AS THE REQUIREMENT; 6.5 VEHICLE/DAY WERE FURNISHED BY THE 6607TH MOTOR VEHICLE SQUADRON. THE FOREGOING HAMPERED ESTABLISHMENT OF SMOOTH DAILY OPERATION; IT ALSO CAUSED THE UNIT CONCERN AND QUESTION AS TO THE EXISTING CAPABILITY TO SUPPORT SUSTAINED EWP OPERATIONS.

b. THE OIL TRUCKS AVAILABLE ARE ANTIQUATED; THEY BROKE DOWN COMPLETELY ON ONE OCCASSION. THIS NECESSITATED SERVICING OF THE AIRCRAFT BY JERRY CAN METHOD. THE RELIABILITY OF SERVICING AIRCRAFT WITH OIL BY JERRY CANS WAS NOT ACCEPTABLE, SINCE THE OIL CONGEALED PRIOR TO COMPLETION OF SERVICING EACH AIRCRAFT.

c. DURING THE MONTH OF FEBRUARY THE NUMBER OF M-52 TRACTORS AVAILABLE TO POL WAS UNSATISFACTORY. DURING THIS TIME PERIOD POL AVERAGED APPROXIMATELY 3 TRACTORS PER DAY.

4. BASE FACILITIES:

a. BASE SUPPORT FROM A POL STANDPOINT WAS CONSIDERED UNSATISFACTORY, REFERENCE PARAGRAPH 3B & C ABOVE. THE CONDITIONS NOTED IN THE FOREGOING PARAGRAPHS WERE FURTHER AGGRAVATED BY OUT-COMMISSION RATE OF FUEL HYDRANTS. FUEL HYDRANTS REPORTED AS IN COMMISSION WERE OFTEN FOUND TO BE UNSERVICEABL

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DUE TO ICE OR SNOW CLOGGING THE HYDRANTS, HOSES AND CONTROL MECHANISAMS. A REFUELING HOSE PROBLEM WAS ENCOUNTERED BECAUSE HOSES WERE LEFT AT THE HARD STAND RESULTING IN MALFUNCTIONS CAUSED BY ICE AND SNOW COLLECTING IN THE NOZZLE. THE COLD TEMPERATURE CAUSED THE HOSES TO DETERIORATE AND CRACK.

b. THE ENGINE BUILD-UP SHOP WAS OPERATED IN A SPLIT OPERATION. THE ENGINES WERE MATED TO THE QEC IN HANGAR 6 AND THEN MOVED TO EBU SHOP FOR COMPLETION. THIS WAS NECESSARY BECAUSE OF INADEQUATE HEAD ROOM FOR A CRANE IN THE EBU SHOP AND DUE TO NO INSTALLATION OF A MONARAIL. ACTION HAS BEEN TAKEN, HOWEVER, BY SAC THULE TASK FORCE TO RECTIFY THE ABOVE CONDITION.

RECOMMENDATIONS

1. THE FOLLOWING RECOMMENDATIONS/ACTIONS ARE MADE FOR CONSIDERATION:

a. PERSONNEL:

(1) AN AIRMAN FAMILIAR WITH RCS AND COMBAT CREW REPORTING SHOULD ACCOMPANY AIR REFUELING UNITS ON TDY.

ACTION: RECOMMEND HEADQUARTERS SAC INCLUDE ABOVE IN SAC MANUAL 400-1B, DATED JULY 1956.

(2) A NEED EXISTS TO FACTORY TRAIN SPECIALISTS ON THE STEWART WARNER HEATERS/SYSTEM AND THE SOLAR APU.

ACTION: RECOMMEND HEADQUARTERS 8TH AF CONSIDER TRAINING A MINIMUM OF TWO AIRMEN ELECTRICIANS TO ACCOMPANY EACH REFUELING SQUADRON EQUIPPED WITH THE SOLAR APU AND ASSOCIATED GROUND HEATING INSTALLATION.

(3) THE MAINTENANCE ORGANIZATIONS AND MANNING APPROVED BY HEADQUARTERS 8TH AF FOR THE TDY WAS CONSIDERATE ADEQUATE AND ESPECIALLY APPLICABLE TO ARCTIC OPERATIONS.

ACTION: RECOMMEND THAT HEADQUARTERS SAC APPROVE THE MAINTENANCE ORGANIZATION USED BY THE 42 AREFS AS STANDARD MANNING FOR ALL TANKER UNITS OPERATING IN THE ARCTIC DURING

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TDY. IT IS ALSO BELEIVED THAT THE MANNING USED FOR THIS TDY WOULD FACILITATE EWP OPERATIONS.

b. OPERATIONS:

(1) AN INSUFFICIENT NUMBER OF AIR REFUELING SORTIES ARE MADE AVAILABLE TO TANKER UNITS TDY AT THULE. IN THE LAST FIVE MONTHS 273 SORTIES HAVE BEEN PROVIDED BY THE TANKER UNITS WITHOUT A MISSED REFUELING.

ACTION: RECOMMEND HEADQUARTERS 8TH AF SCHEDULE A MINIMUM OF 75 SORTIES PER MONTH FOR THULE. THIS WILL ENABLE TANKER UNITS TO MAINTAIN PROFICIENCY, CONTINUE STANDBOARD CHECK RIDES AND TRAIN NEW CREWS.

c. SUPPLY:

(1) THE PIPELINE TIME SHOULD BE REDUCED IN SUPPLYING PARTS UNDER PROJECT BIG TIN.

ACTION: IT IS BELEIVED THAT DELAY IN DELIVERY OF AIRCRAFT PARTS IS PRIMARILY DUE TO BACKLOG AT DOVER AFB, DELEWARE. RECOMMEND HEADQUARTERS 8TH AF CONSIDER THE FEASIBILITY OF PLACING AN NCO TDY AT THAT BASE TO MONITOR SAC MOVEMENTS. IF NOT, THEN PERIODIC VISITS SHOULD BE MADE TO DOVER TO CHECK ON THE STATUS OF FLOW UNDER PROJECT BIG TIN.

(2) IT IS BELEIVED THAT A MIS_UNDERSTANDING EXISTS RELATED TO DELIVERY OF AIRCRAFT ENGINES.

ACTION: RECOMMEND HEADQUARTERS 8TH AF CLARIFY WHETHER OR NOT ENGINES ARE DELIVERED DIRECTLY TO THE BASE OR TO THE UNIT DURING TDY AT THULE.

d. TRANSPORTATION:

(1) OIL TRUCKS:

ACTION: IT IS UNDERSTOOD THAT NEW OIL TRUCKS HAVE BEEN

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REQUISITIONED FOR SOME TIME AND ARE ON THE WAY TO THULE.
RECOMMEND HEADQUARTERS 8TH AF MONITOR EXPEDITIOUS DELIVERY
OF THE TRUCKS TO INSURE SATISFACTORY SUPPORT AT THULE.

(2) M-52 TRACTORS:

ACTION: THE TRANSPORTATION SQUADRON AT THULE SHOULD INSURE PRIORITY MAINTENANCE OF THESE VEHICLES AND ROUND THE CLOCK MAINTENANCE, IF REQUIRED.

(3) GENERAL PURPOSE VEHICLES:

ACTION: PRESENT VEHICLES SHOULD BE EXAMINED FOR RELIABILITY. IT IS BELEIVED THAT SOME OF THE JEEPS, 6 X 6 TRUCKS AND WEAPONS CARRIERS HAVE SERVED THEIR PURPOSE AND SHOULD BE DISCARDED. IT IS ALSO RECOMMENDED THAT THE LIFE EXPECTANCY OF VEHICLES BE ESTABLISHED FOR ARCTIC OPERATIONS AND REPLACEMENT VEHICLES BE PROVIDED ACCORDINGLY. A VEHICLE OPERATING IN THE ARCTIC WILL NOT LAST AS LONG AS THOSE OPERATING IN WARM CLIMATES. IT IS ALSO SUGGESTED THAT THE REQUISITIONS AND SUBSEQUENT AVAILABILITY OF VEHICLE PARTS BE CLOSELY MONITORED, SINCE THE LACK OF SAME WAS CONSIDERED A SIGNIFICANT REASON FOR THE LOW IN-COMMISSION STATUS OF VEHICLES. IT IS ALSO BELEIVED THAT VEHICLE MAINTENANCE POLICIES SHOULD BE EXAMINED TO EFFECT REQUIRED MAINTENANCE ON VEHICLES CONSISTENT WITH THEIR DAILY USE.

e. POL:

(1) REFUELING HOSES; THE PRESENT REFUELING HOSES SHOULD BE REPLACED WITH MH-1 HOSE CARTS. SAC THULE TASK FORCE COMMANDER HAS TAKEN REQUIRED ACTION IN CONJUNCTION WITH ABOVE; ALSO SAC HEADQUARTERS TWX, DM3B3 761 DATED 2 FEB 56 ALLOCATED SUFFICIENT HOSE CARTS FOR THULE AB.

Secret W-21045

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ACTION: RECOMMEND HEADQUARTERS 8TH AF INSURE DELIVERY OF HOSE CARTS WITH OUT FURTHER DELAY.

f. MAINTENANCE:

(1) THE CONSOLIDATION OF MAINTENANCE CONTROL, THAT IS NOW IN PROGRESS, IS EXPECTED TO BE COMPLETED BY 15 MARCH 1957; THIS WILL SMOOTH OUT THE OVERALL OPERATIONS.

(2) THE MONARAIL IN THE ENGINE BUILD-UP FACILITY SHOULD BE COMPLETED AT THE EARLIST POSSIBLE DATE TO PRECLUDE A SPLIT OPERATION IN THIS MAINTENANCE ACTIVITY.

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—BOMBING PROFICIENCY— 31 MAR 57

CREW	VO	RADAR CEA MONTH	RADAR CEA QUARTER	RADAR CEA LAST QUARTER	VISUAL CEA MONTH	VISUAL CEA QUARTER	VISUAL CEA LAST QUARTER
14	Marcott	2	18	13	4		1
15	Daniel	5	6	20	2		-
16	KIMBALL	4	10	15			-
17	Aguilar	4	3	15			-
18	Massie	7	5	12		6	
19	Ramoldi	4	8	-			
20	Scott	12	2	30			7
21	Ahlstadt	3	10	11			
22	NORMAN	7	6	25		2	
23	YESKOVICH	5	7	-			
25	Gillespie	8	4	7			
26	Martin	4	10	11			
27	KAMERER	4		3			
28	Bushee	4	7	9			
29	Lang	10	2	22			
30	Reus	2	6	-			

—NAVIGATION PROFICIENCY— 31 MAR

NAVIGATOR	NITE X MONTH	NITE X QUARTER	NITE X LAST QUARTER	[illegible] MONTH	[illegible] QUARTER	[illegible] LAST QUARTER
Taylor, R.	1	1	-	1	3	2
Corroppoli	1		4		2	4
Watnee	2		2		3	7
Doyle	3	2	3	2	1	7
Demond	3	1	-	2	1	6
PULLEN	3			1	1	-
Rahn	2				2	
CANTWELL	2			1		
Burnett	2	2	4	3		6
Schwright	2	1	-		2	
BROWN	1	2	-	1	3	4
HECHENBURN	1	2	2	4	3	2
Chenoer	1	2	2	1	2	4
Jaworek	3		3	1	2	3
Hewes	2	1	1	1	2	2
Russell		2	-	1	2	-

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BOMBING PROFICIENCY

CREW	VO	RADAR GEA LAST			VISUAL			GEA LAST
		MONTH	QUARTER	QUARTER	MONTH	QUARTER	QUARTER	QUARTER
72	Mannia	3'	4	11				-
73	Gibbons	4'	6	26				-
74	Montesa	5	9'	20			1	16
75	Bussey	2	6	10				-
76	Tawney	9'	5	10				-
77	Phelps	6	8	17				1
78	Bennett	6'	7'	7				-
79	McCarty	7'	3	13				-
80	Boelio	3'	14	24			1	-
81	Smith	5	8	10			2	-
82	Gallowa h	7	9'	11				-
83	Cantrell	4	2'	-				-
84	Sulkowski	5	6'	16				3
85	Ford	2	6	15				-
86	SHOTGREN			17				1
87	Bowe	7	2	-	1			-
88	Hill	2	5	2				-

NAVIGATION PROFICIENCY

NAVIGATOR	NITE X LAST			GRID		
	MONTH	QUARTER	QUARTER	MONTH	QUARTER	QUARTER
HIRSCHMANN	1	1	2	1	3	13
Curtiss	2	1	3	1	1	4
Beal	1	2	3		2	7
Warrington	3		4	2		1
Thurber	3	2	-	1	1	2
Mason	3	2	-	1	2	6
Mann	2	1	2	1	1	4
Bailey	3	3	4	1		4
Sonny	1	1	1	3		6
Dodd	2		2		2	5
Brown	2	2	-	1	4	2
RYAN	-		1	1		3
Hartsel	2	1	2		2	1
Bauer	1		1		2	3
MULLIGAN						
MAURO		2	-		2	-
Cannon		1	-	1	2	2

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FLYING TRAINING

POSTED AS OF 17 Mar

CREW AC & NUMBER	RADAR OBS	NAVIGATOR	AIR REFUELING	GUN	ECM OPERATOR	PILOT PROF	CREW REQUIREMENTS
N-4 [illegible]							
N-16 MALONEY							
N-19 HOWARD							
N-22 TUCCI							
N-27 LANDIS							
N-30 EDGE							

PROBATION CHART

CREW	RADAR RES 1	VISUAL RES 2	NITE CEL 2	GRID 2	ECM 1	MAX 2 G.N LOAD	AIR WEAP SIM 1	AIR WEAP MISSION	AIR REFUEL	PILOT PROF	REMARKS

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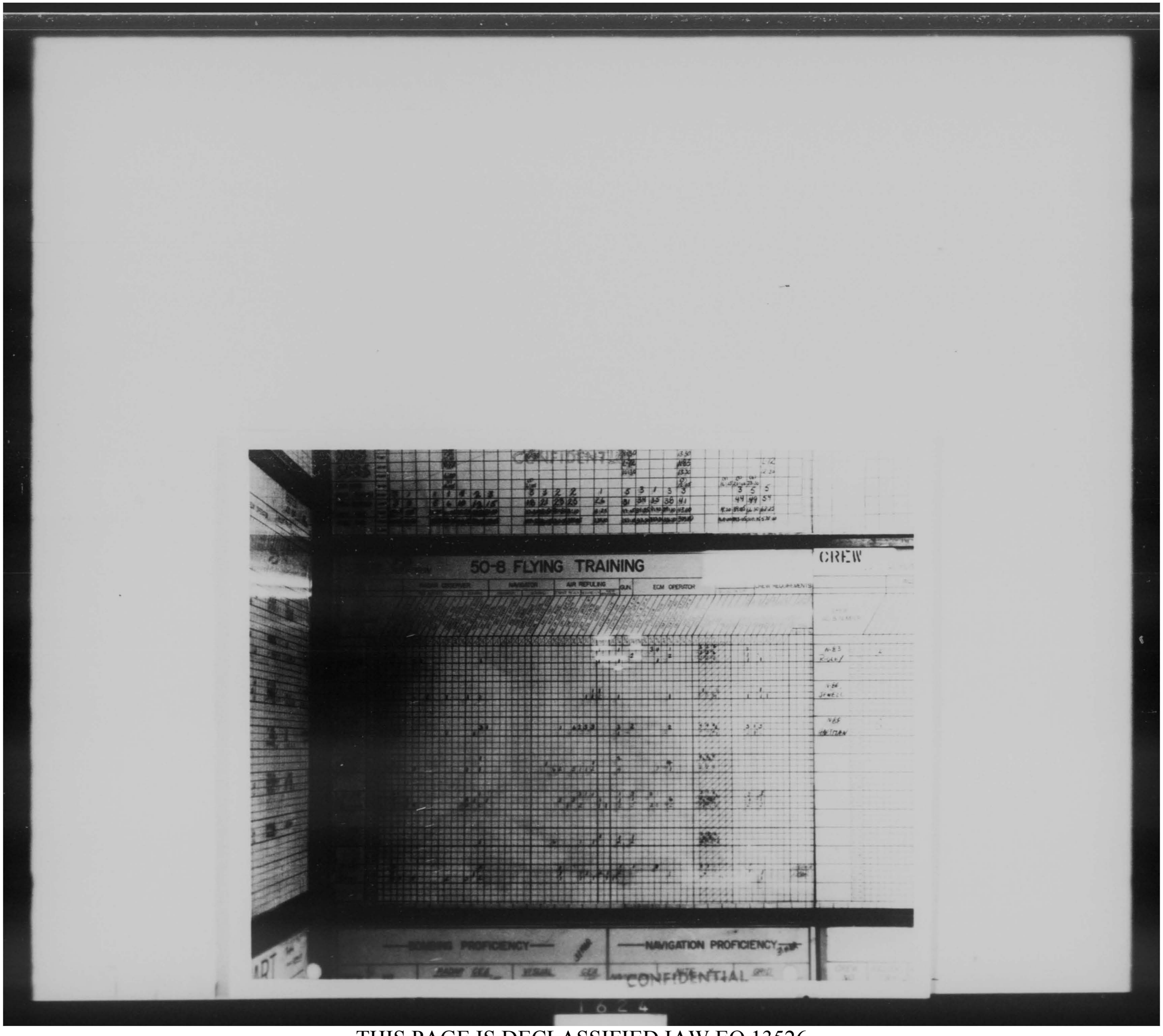

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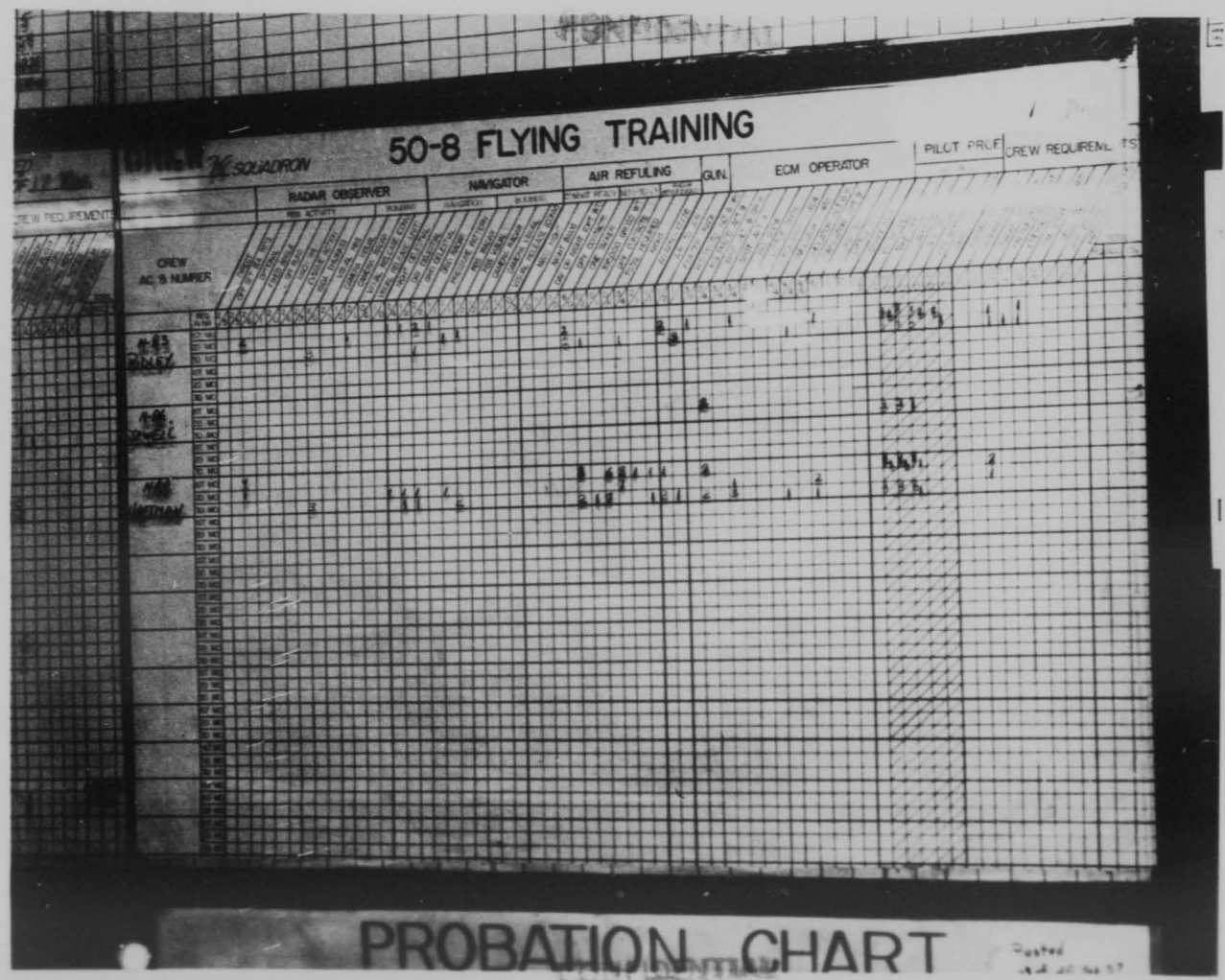

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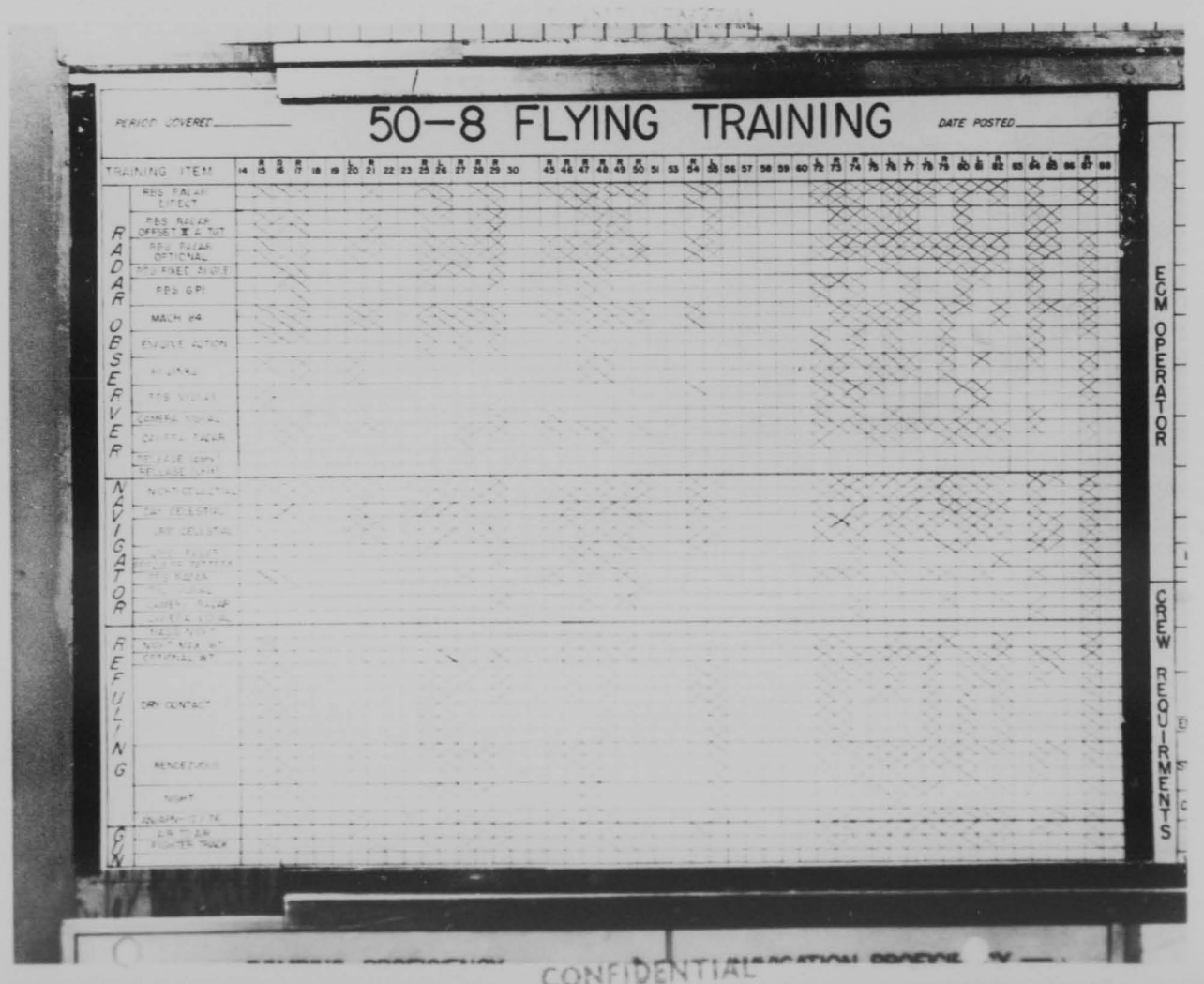

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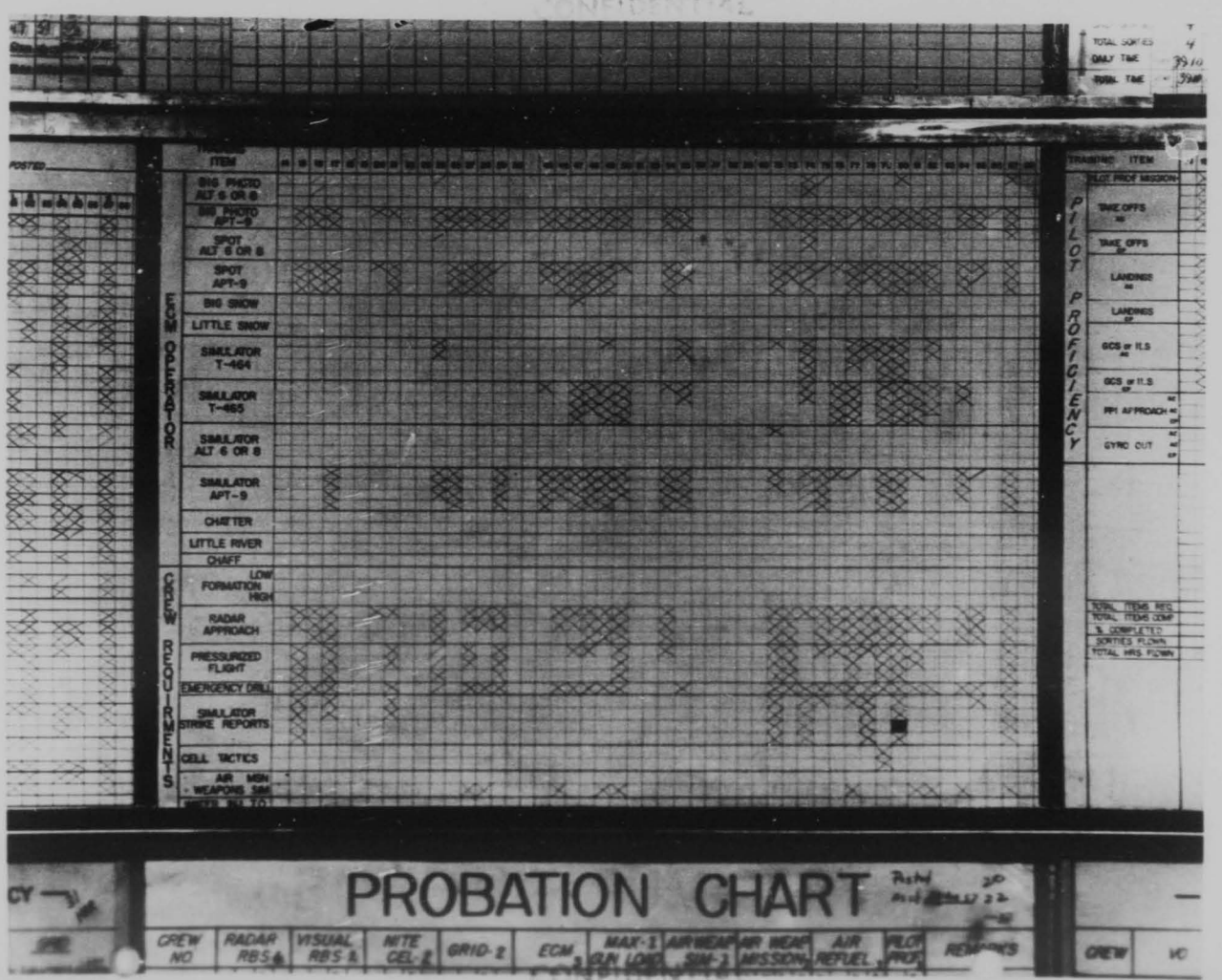

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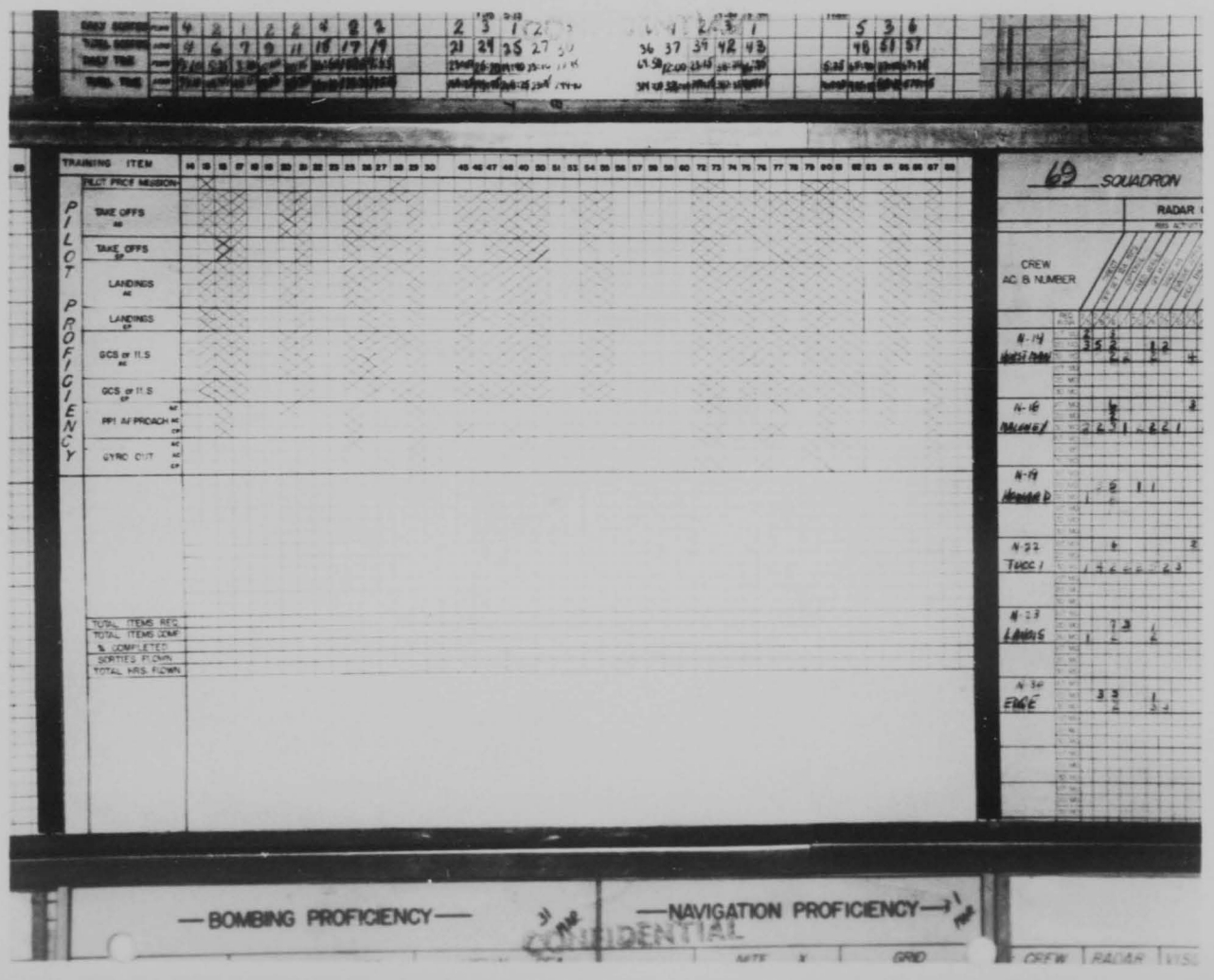

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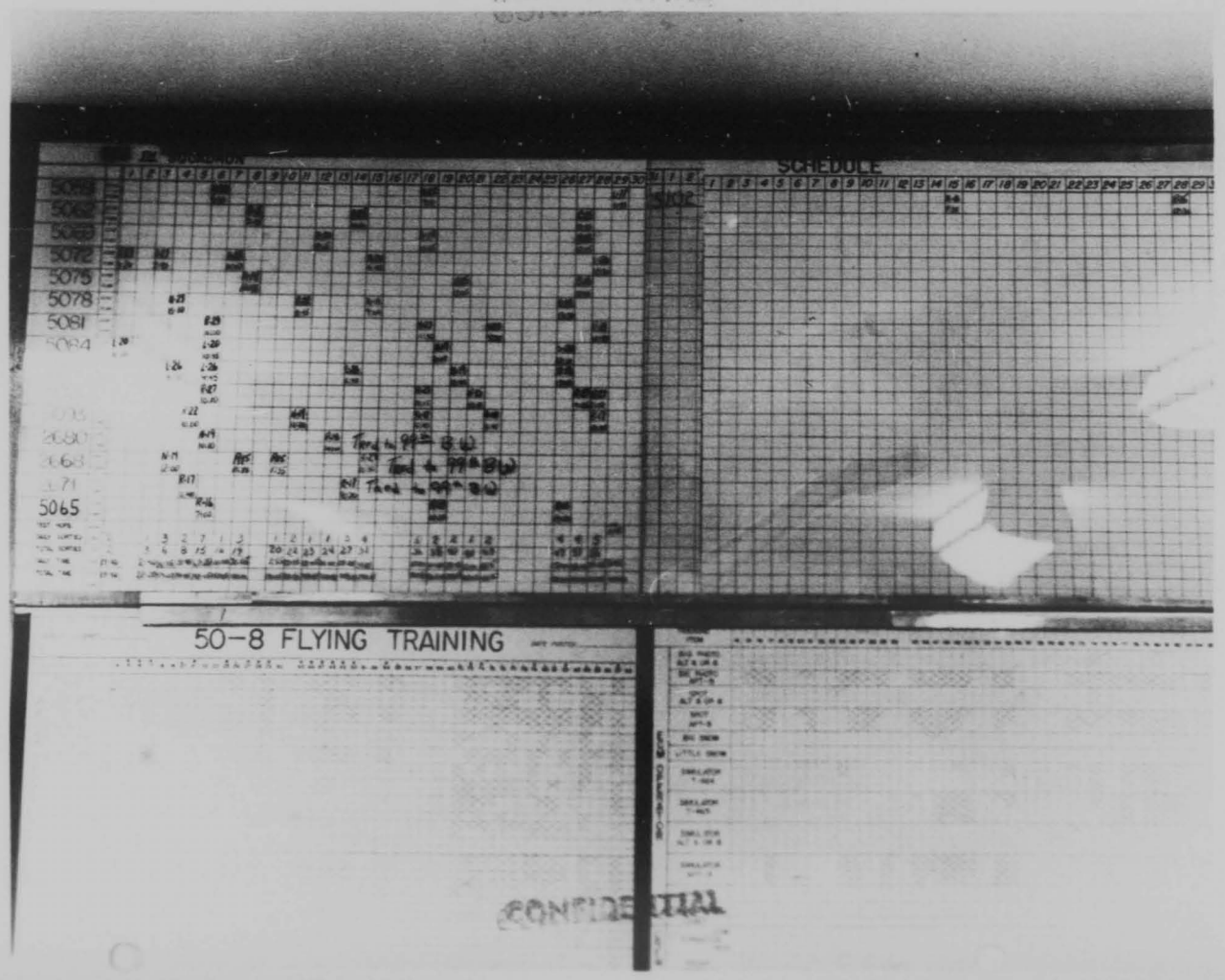

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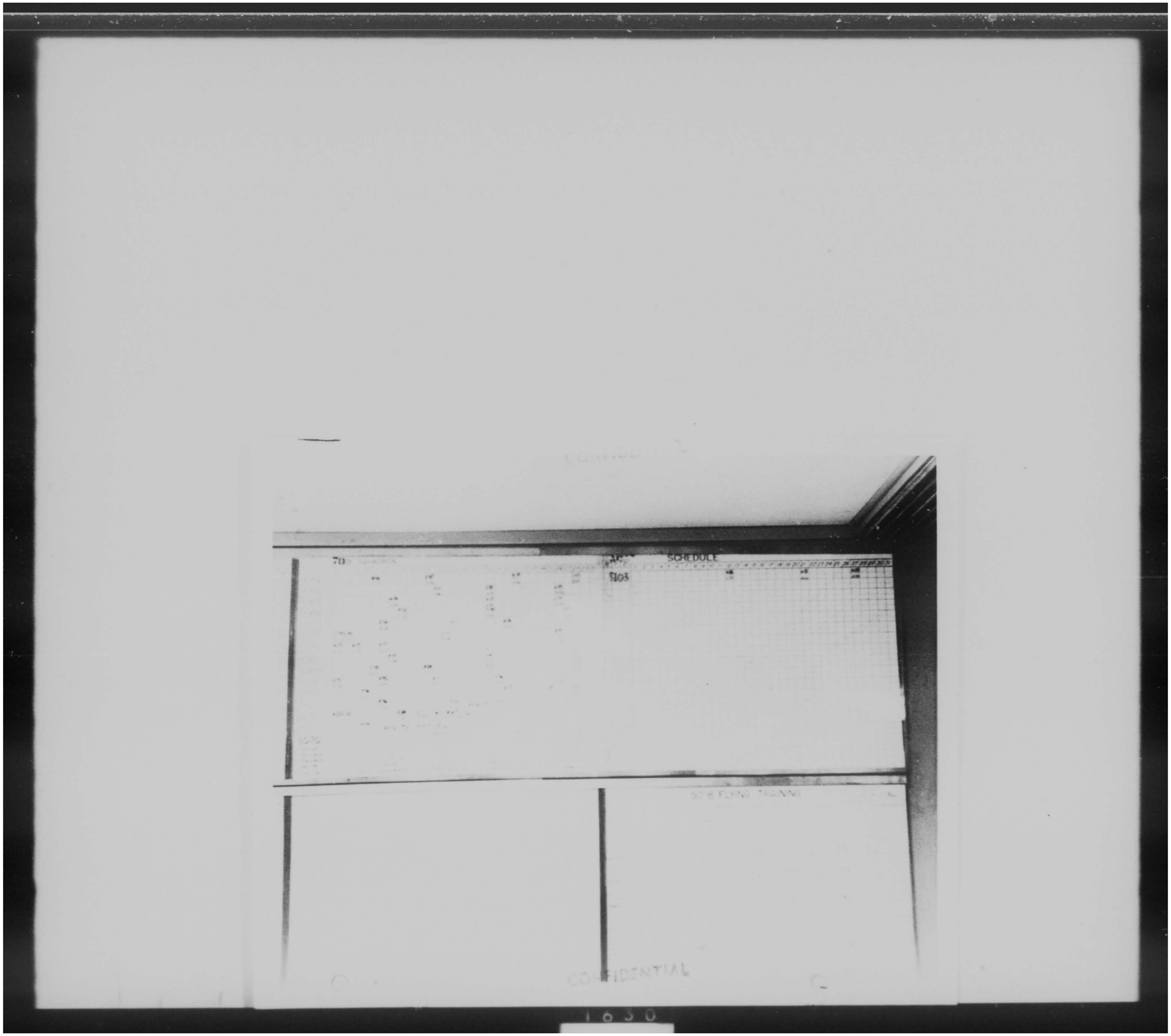

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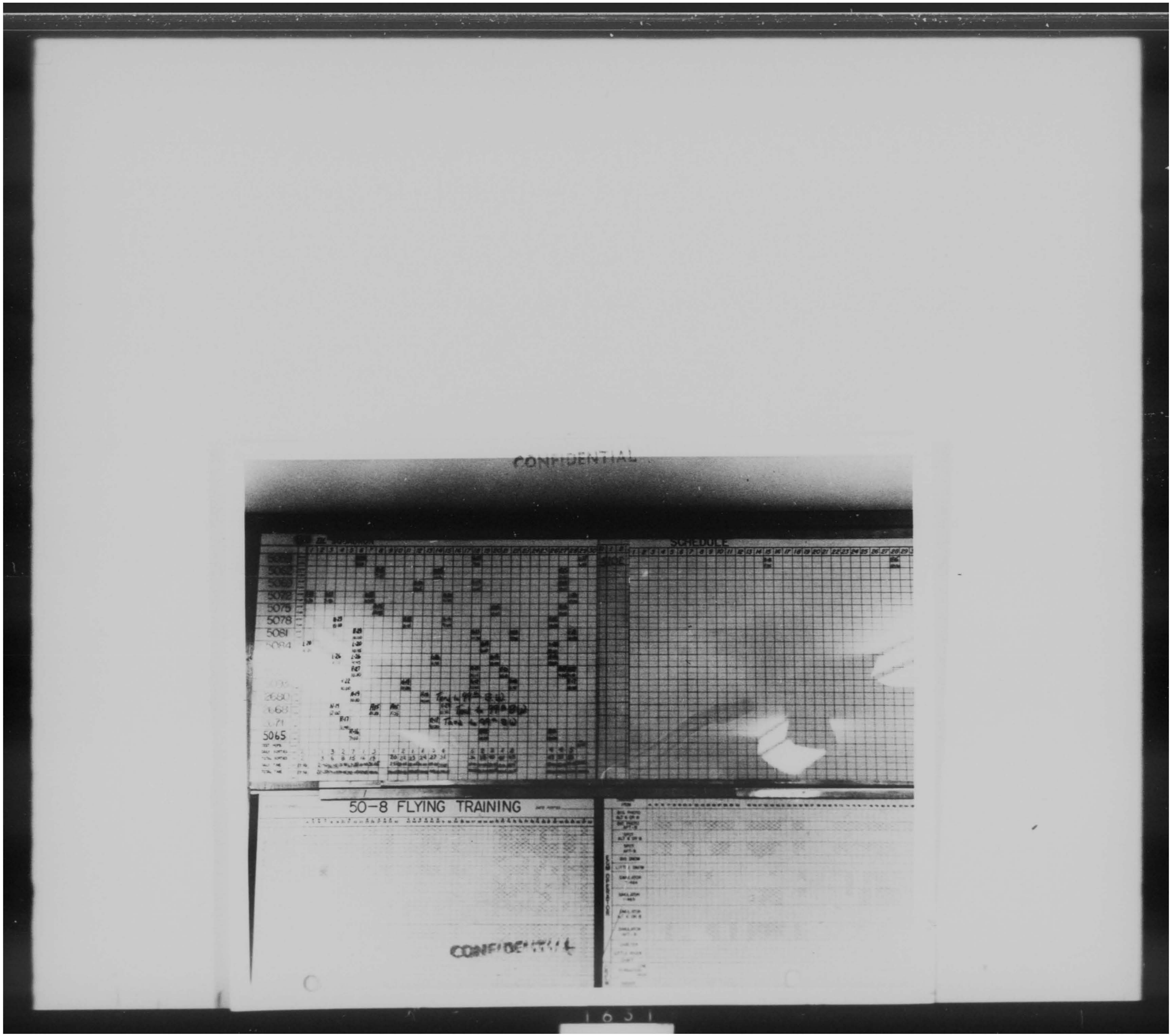

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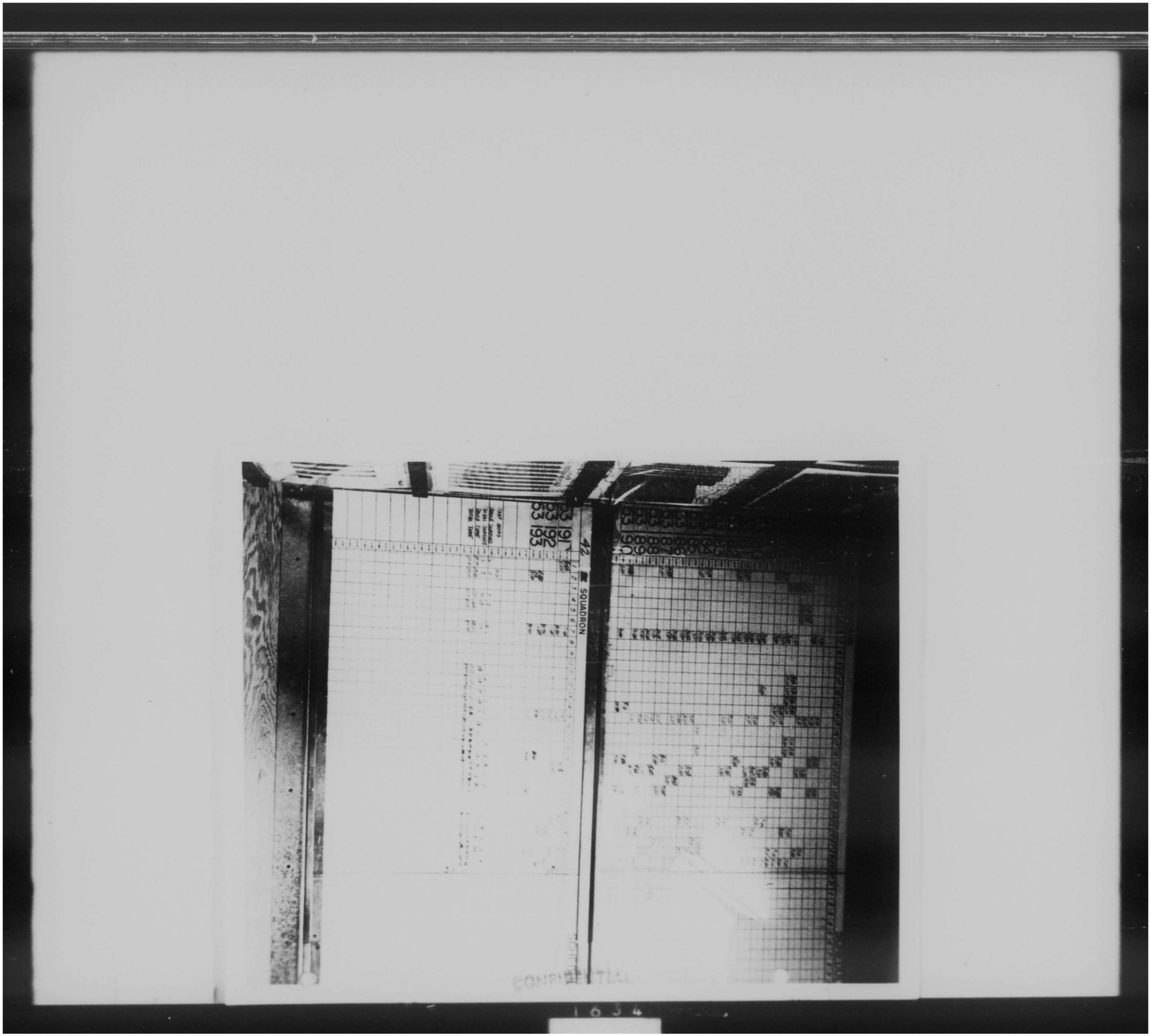

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PROBATION CHART

Posted 20 22 -10

CREW NO.	RADAR RBS-4	VISUAL RBS-2	NITE CEL-2	GRID-2	ECM-3	MAX-1 GUN LOAD	AIR WEAP SIM-1	AIR WEAP MISSION-1	AIR REFUEL-1	PILOT PROF-3	REMARKS
R-15	3 5 5 3	- 2 -	2	1 1 -	3 -	- 1 -					
R-16	1 3 -	2	1 1	2 - -	3 -	- 1 -					
R-17	- 3 1 2	2	1 1 -	1 - - 1	2 - 1	- 1 -					
L-20	- 2 - 5	2	- 2	- 2 -	1 - 2	1					
R-21	5 1 -	2	1 1	1 1	3 - - -	1					
R-25	4 - 6	2	2 -	1 1 -	- 3	1 - -					
L-26	- 6 -	2	- 2 -	- 2 -	3 -	1					
R-27	1 5	2	2 - -	2 - -	2 1 -	1 - -					
R-28	5 2 -	2	2 - 2 -	3 -	1 -	1					
R-29	- 2 - 7	2	- 1 -	- 2 -	3 -	1					

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10	85	FORD	6	1527

BOMBING PROFICIENCY									NAVIGATION PROFICIENCY						
CREW	VO	RADAR CEA			VISUAL CEA				NAVIGATOR	NITE X			GRID		
		MONTH	QUARTER	LAST QUARTER	MONTH	QUARTER	LAST QUARTER			MONTH	QUARTER	LAST QUARTER	MONTH	QUARTER	LAST QUARTER
72	Morris	3'	4	11				–	WURSCHINGER	1	1	3	1	3	3
73	Gibbons	4'	6	25				–	Coffee	2	1	3	1	1	4
74	Mantzen	5	9'	22		1		6	Beal	1	2	3		2	7
75	Bensey	2	6	10				–	Wearington	3		4	2		1
76	Townly	9'	5	10				–	Mowbrook	3	2	–	1	1	2
77	Phelps	6	8	17				1	Vener	3	2	–	1	2	6
78	Bossert	6'	7'	7				–	Hamm	2	1	2	1	1	4
79	McCarty	7'	3	13				–	Reiley	3	3	4	1		4
80	Boulin	3'	14	24		1		–	Sorrey	1	1	1	3		6
81	Smith	5	8	10		2		–	Dodd	2		2		2	5
82	Galloway	7	9'	11				–	Whence	2	2	–	1	4	2
83	Cantwell	4	2'	–				–	RYAN	·		1	1		3
84	Sulkowski	5	6'	16				3	Hentschel	2	1	2		2	5
85	Ford	2	6	8				–	Bange	1		1		2	3
86	SHOTGREN			9				1	MULLIGAN						
87	Boone	7	2	–	1			–	MAURD		2	–		2	–
88	Hill	2	5	2				–	Comeau		1	–	1	2	2

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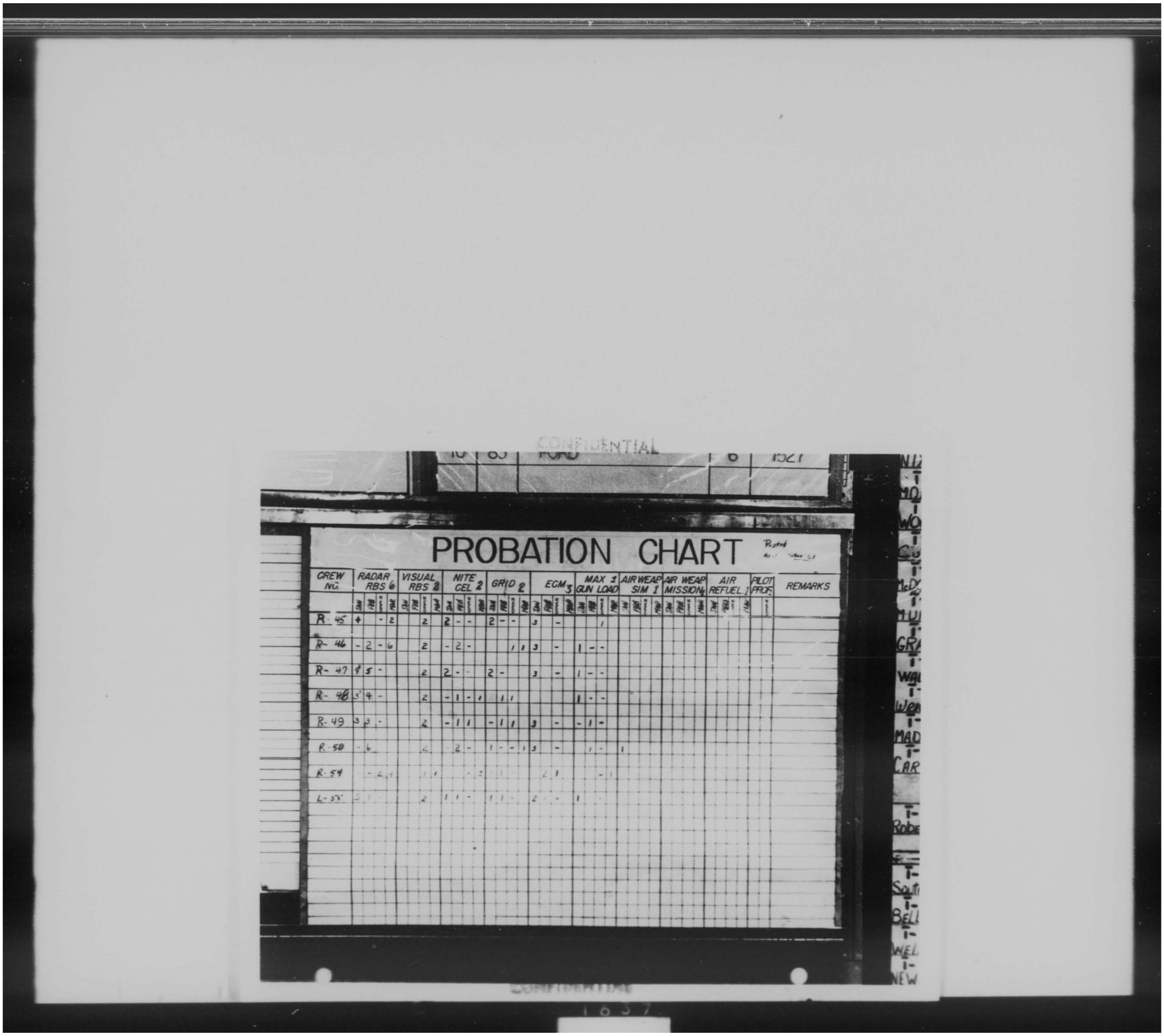

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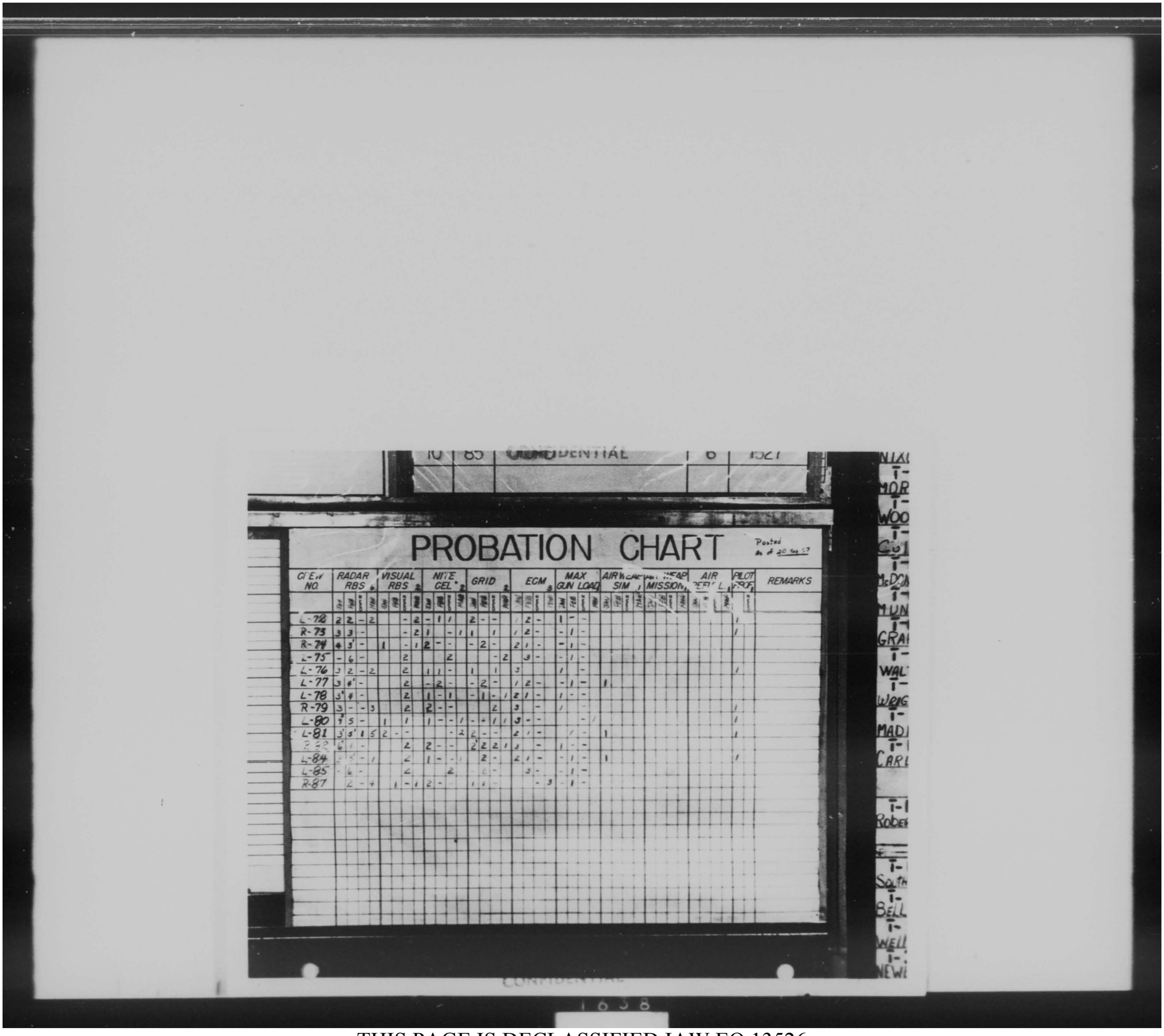

PROBATION CHART

Posted As of 20 Nov 57

CREW NO.	RADAR RBS 6				VISUAL RBS 2				NITE CEL 2				GRID 2				ECM 3				MAX GUN LOAD				AIR WEAP SIM 1				AIR WEAP MISSION 1				AIR REFUEL 1				PILOT PROF 1		REMARKS
	JAN	FEB	MAR		JAN	FEB	MAR		JAN	FEB	MAR		JAN	FEB	MAR		JAN	FEB	MAR		JAN	FEB	MAR		JAN	FEB	MAR		JAN	FEB	MAR		JAN	FEB	MAR				
L-72	2	2	-	2			-	2	-	1	1		2	-	-		1	2	-		1	-	-														1		
R-73	3	3	-				-	2	1		-	1	1		1		1	2	-		-	1	-														1		
R-74	4	3'	-		1		-	1	2	-	-		-	2	-		2	1	-		-	1	-																
L-75	-	6	-				2				2				-	2		3	-		-	1	-																
L-76	3	2	-	2			2		1	1	-		1		1		3				1		-														1		
L-77	3	4'	-				2		-	2	-		-	2	-		1	2	-		-	1	-		1														
L-78	3'	4	-				2		1	-	1		-	1	-	1	2	1	-		1	-	-																
R-79	3	-	-	3			2		2	-	-				2		3		-		1		-														1		
L-80	4'	5	-		1		1		1	-	-	1	-	-	1	1	3	-	-				-	1													1		
L-81	3'	5'	1	5	2	-	-				-	2	2	-	-		2	1	-			1	-		1												1		
R-82	6'	1	-				2		2	-	-		2'	2	2	1	3		-		1	-	-																
L-84	3	3'	-	1			2		1	-	-	1		2	-		2	1	-		-	1	-		1												1		
L-85	-	6	-				2				2		-	2	-			3	-		-	1	-																
R-87		2	-	4		1	-	1	2	-	-		1	1	-				-	3	-	1	-																

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MONTHLY REPORT OF STANDARDIZATION ACTIVITIES "RCS: SAC-D-52(BAF-1)	REPORTING PERIOD 1 Mar 57 ——— 31 Mar 57	DATE PREPARED 1 Apr 57
TO: Commander Eighth Air Force ATTN: Standardization Division Westover Air Force Base, Massachusetts	FROM: Commander 45th Air Division (DOS) Loring Air Force Base, Maine	

ITEM	B/RB 47	B/RB 52	KC-97	KC 135	C-124	ADM ACFT	B-36
1. TOTAL CREWS ASSIGNED, ALL MEMBERS OF WHICH HAVE SUCCESSFULLY COMPLETED INITIAL CHECK-OUT IAW SAC REG 51-19.		42	22				
2. TOTAL CREWS PASSING STANDARDIZATION CHECKS DURING THE REPORTING PERIOD.		3	3				
3. TOTAL INDIVIDUALS ADMINISTERED STANDARDIZATION CHECKS DURING REPORTING PERIOD.		19	18				
4. TOTAL INDIVIDUALS FAILING STANDARDIZATION CHECKS DURING REPORTING PERIOD.		0	0				
5. TOTAL RATED STAFF PERSONNEL ASSIGNED.		45	8				
6. TOTAL RATED STAFF PERSONNEL PASSING STANDARDIZATION CHECKS DURING REPORTING PERIOD.		2	1				
7. TOTAL RATED STAFF PERSONNEL FAILING STANDARDIZATION CHECKS DURING REPORTING PERIOD.		0	0				
8. TOTAL AIRCREW MEMBERS AND RATED STAFF PERSONNEL DELINQUENT IN STANDARDIZATION CHECKS ON "AS OF" DATE OF THIS REPORT.		0	0				23

9. STANDARDIZATION SECTION AIR CREW PERSONNEL CHANGES

CREW POSITION	CREW NR	AIRCREW MEMBER BEING REPLACED		REPLACED BY	
		NAME	GRADE	NAME	GRADE

10. REMARKS (*Enter any remarks necessary to clarify an entry above. Also, a short summary of standardization activities will be included*).

S/Sgt Sweeney, gunner on B-22 has successfully completed a recheck and is no longer on student status.

Col. Welke and Capt. Batson successfully completed their standardization checks and are no longer delinquent. Twenty-three staff members listed as delinquent in B-36's have either completed training at Castle AFB or are scheduled for check out in B-52's at this station.

Two entire KC-97 crews are delinquent as of 31 March 57. Crew T-07 and T-22. T-22 has completed all of the standardization check except for retake of exams. Lt. Warren, Navigator on crew T-16 is delinquent and will be checked with his crew in April. Maj.

OFFICER IN CHARGE STANDARDIZATION SECTION	SIGNATURE
ROBERT O. HARRY, Major, USAF Chief, Standardization Division	

SAF FORM 17

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H.B. Wells A/C is DNIF and will be rechecked as soon as practical. Capt. O.H. McCarty ..ttra navigator is delinquent as of 26 March and will be given a check the first week .n April. Lt. West, Navigator, who failed to satisfactorily pass a standardization check on 4 November 56 and still hasn't been re-scheduler.

1. The following personnel have completed training in B-52 type aircraft.

NAME	RANK	AERO RATING	STAFF POS	DATE LAST STR	ACFT
Martin, W.K.	B/Gen.	Pilot	45AD Cmdr	5 Aug 55	B-36
Hillman, D.B.	Col.	Pilot	42BW Cmdr	No Records	
Wolke, G.G.	Col.	Pilot	42ABG Cmdr	2 Mar 57	B-52
Stewart, W.C.	Col.	Pilot	42BW DO	8 Feb 57	B-52
Risher, J.R.	Lt. Col.	Pilot	70BS Cmdr	7 Sep 55	B-36
Scott, R.R.	Lt. Col.	Pilot	69BS Cmdr	28 Feb 55	B-36
Brofft, R.E.	Lt. Col.	Pilot	75BS Cmdr	7 Feb 55	B-36
Southwick, W.H.	Maj.	Pilot	42BW Fly Safe	9 Jan 57	B-52
Mosher, F.L.	Maj.	Pilot	75BS Ops Off	23 Aug 55	B-36
Edenbo, J.W.	Maj.	Pilot	70BS Ops Off	No Records	
Wood, W.M.	Maj.	Pilot	69BS Ops Off	No Records	
Magrill, A.H.	Maj.	Pilot	ABG Sim Off	6 May 55	B-36
Gregg, J.R.	Maj.	Pilot	42BW Qual Cont	15 Sep 55	B-36
Batson, G.W.	Capt.	Pilot	42BW Plans	2 Mar 57	B-52
Beno, K.R.	Lt. Col.	Obs	42BW OIC Plans	13 Mar 56	B-36
McMahanon, W.E.	Lt. Col.	Obs	42 Chf Ops & Tng	8 Sep 55	B-36
Hanger, H.H.	Maj.	Obs	42 Staff Obs	12 Dec 55	B-36
Hutchinson, P.	Maj.	Obs	45AD Staff Obs	19 Sep 55	B-36
Goris, W.E.	Maj.	Obs	42 Staff Obs	18 Feb 57	B-52
Harrington, T.E.	Maj.	Obs	42 Staff Obs	18 Feb 57	B-52
Carpenter, T.E.	Capt.	Obs	42 Staff Obs	18 Feb 57	B-52
Pettigrew, J.D.	Maj.	Obs	70BS Obs	8 Jul 55	B-36
Thomas, G.H.	Maj.	Obs	42 Gnd Tng	No Records	
Grady, R.F.	Capt	Obs	75BS Obs	4 Jan 55	B-36
Sullivan, J.H.	Capt.	Obs	69BS Obs	5 Apr 55	B-36
Kridner, J.D.	Capt.	Obs	42 Staff Obs	26 Apr 55	B-36
Koslenich, P.	Capt.	Obs	42 Staff Obs	7 Apr 55	B-36
Williamson, W.G.	Capt.	Obs	42 Staff Obs	12 Apr 55	B-36
James, H.E.	Capt.	Obs	42 OIC EWP Sty	16 Feb 56	B-36
Hendrix, A.F.	Capt.	Obs	42 Intel Off	23 Feb 56	B-36

2. The following named personnel have completed B-52 training at Castle AFB, Calif., but are not complete due to lack of Air Refueling phase.

Miner, W.D.	Lt. Col.	Pilot	45AD DM	No Records	
Malmgren, V.P.	Maj.	Pilot	42 Cont Off	25 Jan 56	B-36
Spearman, J.E.	Capt.	Pilot	42 Safety Off	7 Apr 55	B-36

3. The following staff personnel have completed B-52 MTD at this station.

Hedin, C.J.	Maj.	Pilot	42 Jeb Cont Off	1 Mar 56	B-36

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4. The following named personnel attended B-52 MTD but did not complete training.

NAME	RANK	AERO RATING	STAFF POS	DATE LAST STR	ACFT
Barr, S.L.	Col.	Pilot	45AD DO	No Records	
Stewart, T.B.	Lt. Col.	Pilot	42BW DM	No Records	
Linko, G.A.	Lt. Col.	Pilot	42 A&E Cmdr	No Records	
Hunt, J.J.	Maj.	Pilot	42 OIC Fly Tng	13 Jan 56	B-36
Thorossen, D.	Maj.	Pilot	42 PMS Main Off	No Records	
Hessler, E.B.	Maj.	Obs	42BW DOI	No Records	

5. The following named staff personnel are in the B-52 program but not currently undergoing training.

Bailey, D.W.	Col.	Pilot	42 D/WC	17 Jan 56	B-47
McCourt, J.	Lt. Col.	Pilot	42 D/DO	No Records	
McLeod, R.E.	Maj.	Obs	42 Plans Div	1 Sep 55	B-36
Newman, F.D.	Maj.	Obs	42 Staff APE	25 Jan 56	B-36

6. The following staff personnel are from the 42nd Air Refueling Squadron.

Smith, H.	Lt. Col.	Pilot	42 DP	No Records	
Sonntag, W.H.	Maj.	Pilot	42ARS Cmdr	27 Mar 57	KC-97
Pittman, W.F.	Maj.	Pilot	42ARS Ops Off	28 Feb 56	KC-97
Hubbard, P.F.	Maj.	Pilot	42ARS Main Off	21 Sep 56	KC-97
Garner, T.D.	Maj.	Pilot	42 D/DP	No Records	
Bangerter, E.F.	Capt.	Pilot	42 PMS	18 Jul 56	KC-97
Pachetti, A.T.	Maj.	Nav.	42 Intell Off	17 Aug 56	KC-97
Campbell, J.E.	Capt.	Nav.	42ARS Nav.	17 Aug 56	KC-97

ROBERT J. GITTHENS
A/2C USAF
Reporting Airman

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base,
Maine

42DOT 15 April 1957

SUBJECT: (Unclassified) Heavy Jet Bombardment Air Training Report for March 1957, RCS: 2-SAC-T-12

TO: Commander
Eighth Air Force
Westover Air Force Base
Massachusetts

1. Submitted herewith is page 1, of Part V, Wing Commanders Remarks for March 1957, of the Heavy Jet Bombardment Air Training Report, RCS: 2-SAC-T-12. Due to administrative error, this page was omitted from report as previously submitted.

2. If inclosures are withdrawn or not attached, the classification of CONFIDENTIAL on this correspondence may be cancelled in accordance with Air Force Regulation 205-1.

FOR THE COMMANDER:

1 Incl
A/S

JOSEPH H. JACOBY
Major, USAF
Adjutant

72348

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HEADQUARTERS 42D BOMBARDMENT WING (H) (SAC)
MARCH 1957

PART V - WING COMMANDER'S REMARKS FOR MARCH 1957

1. Hours flown performing missions ordered by:

a. Higher Headquarters:

COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1) Ferrying Aircraft	00:00	153:55
(2) Static Display at McDill AFB, Florida	17:00	17:20
(3) "Country Club"	150:00	169:45
(4) SES	30:00	26:05
(5) Demonstration at Schilling AFB, Kansas	20:00	17:25
(6) "Iron Clad"	432:00	470:35
	649:00	855:05

a. Reference commitment (1): Due to indefinite delivery schedule it was impractical to program specific time for this item. (41:25 accomplished in March).

b. Eighth Air Force Priorities:

(1) Programmed and accomplished for current month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
1	AFR 60-2	00:00	Note (a)
2	Non Ready Training	270:00	343:55
3	Combat Ready and Above	378:00	775:20
4	Test Hops		46:40
	TOTAL	648:00	1165:55
	HIGHER HEADQUARTERS	482:00	555:30
	GRAND TOTAL	1130:00	1721:25

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42DOW

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base
Maine

42DOT 6 April 1957

SUBJECT: (Unclassified) Heavy Jet Bombardment Air Training Report for March 1957, RCS: 2-SAC-T12

TO: Commander
Eighth Air Force
Westover Air Force Base
Massachusetts

1. Submitted herewith in accordance with Annex II, SAC Regulation 50-23, dated 1 May 1956, is the Heavy Jet Bombardment Air Training Report, RCS: 2-SAC-T12.

2. If inclosures are withdrawn or not attached, the classification of CONFIDENTIAL on this correspondence may be cancelled in accordance with Air Force Regulation 205-1.

FOR THE COMMANDER:

JOSEPH H. JACOBY
Major, USAF
Adjutant

5 Incls
1. SAC Form 493 (8 pgs)
2. SAC Form 493a (7 pgs)
3. SAC Form 493b (6 pgs)
4. SAC Form 493c (8 pgs)
5. Comdrs Remarks (12 pgs)

cc: CINCSAC
ATTN: DOTRS (T12) (1 cy incl 1 thru 5)
COA (T12) (1 cy incl 1 thru 5)
D/Pers (1 cy incl 5 only)
D/Mat (1 cy incl 5 only)

COMDR 8AF
ATTN: OD14 (1 cy incl 1 thru 4, 10 cys incl 5)
COM (1 cy incl 1 thru 4, 5 cys incl 5)

72048

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W-2369C

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(a) Reference commitment (1): A proportionate share of requirements under AFR 60-2 was accomplished on all flights.

(b) Reference grand total flying time: The total flying time accomplished by the 42d Bomb Wing was higher than the programmed due to flying time accomplished on newly assigned aircraft and ferry flights.

(2) Flying time programmed for the following month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED
1	AFR 60-2	00:00
2	B-52 "FIT" Test	15:00
3	"Last Stand"	360:00
4	"Pace Setter VII	320:00
5	"Large Charge:	30:00
6	Non Ready Training	238:00
7	Combat Ready and Above	537:00
		1500:00

2. Weather or Local Conditions:

a. Twelve (12) B-52's were diverted to alternate bases due to weather.

b. All flying cancelled 27 February due to weather. Loss of eight sorties.

3. Air Traffic Control Delay Information:

a. Not applicable for this reporting period.

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4. Restrictive Directives:

a. SAC message DM4A1-7-12-7466, dated 29 January 1957, suspensed flying of eighteen (18) B-52's that were equipped with Bendix Main Landing Gear Struts. Action required by this message completed 16 February 1957.

b. Eighth Air Force message DMM4A 36522, dated 31 January 1957, placed weight limitation of 370,000 maximum weight on B-52 aircraft equipped with Bendix Main Landing Gear Struts. As of 1 April 1957 fourteen (14) aircraft are affected by this directive.

5. Combat Crew Member Gains and Losses:

a. Crew members gained:

(1) 8 co-pilots

(2) 5 Gunners

(3) 2 Navigators

b. Crew Members lost:

(1) 3 Aircraft Commanders - deceased

(2) 4 Co-Pilots - one deceased, one to 42D OPRON, two discharged.

(3) 5 Observers - two deceased, three Hq 42BW.

(4) 6 ECM Officers - one deceased, one to 3380th Tech. Trng. Wg. (ATC) Keesler AFB, Miss., three discharged, one to 107 Med. Ser. Sq. Walter Reed Hosp.

(5) 1 Gunner - deceased.

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6. Crew Member Changes:

a. 4 Aircraft Commanders

b. 11 Co-Pilots

c. 14 Observers

d. 5 ECM Officers

e. 4 Gunners

7. New Crews:

a. N-90 formed from disbanded crew members.

8. Crew Status Changes:

a. R-26 to L-26, 9 January 1957, Upgraded.

b. R-81 to L-81, 9 January 1957, Upgraded.

c. N-52 disbanded 10 January 1957 - Five crew members deceased.

d. N-21 to R-21, 14 January 1957 - Upgraded.

e. N-29 to R-29, 14 January 1957 - Upgraded.

f. N-24 disbanded 16 January 1957 - Aircraft Commander and Co-Pilot deceased. No replacements available.

g. N-28 to R-28, 22 January 1957 - Upgraded.

h. N-50 to R-50, 22 January 1957 - Upgraded.

i. N-16 to R-16, 1 February 1957 - Upgraded.

j. N-17 to R-17, 1 February 1957 - Upgraded.

k. N-27 to R-27, 1 February 1957 - Upgraded.

l. N-46 to R-46, 1 February 1957 - Upgraded.

m. N-15 to R-15, 4 February 1957 - Upgraded.

n. N-25 to R-25, 4 February 1957 - Upgraded.

W-2367C

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o. N-47 to R-47, 11 February 1957 - Upgraded.

p. N-48 to R-48, 11 February 1957 - Upgraded.

q. N-87 to R-87, 11 February 1957 - Upgraded.

r. N-45 to R-45, 15 February 1957 - Upgraded.

s. N-49 to R-49, 15 February 1957 - Upgraded.

t. N-82 to R-82, 15 February 1957 - Upgraded.

u. L-20 to S-20, 26 February 1957 - Upgraded.

v. L-75 to S-75, 26 February 1957 - Upgraded.

w. L-78 to S-78, 26 February 1957 - Upgraded.

x. L-85 to S-85, 26 February 1957 - Upgraded.

y. N-18 to R-18, 1 March 1957 - Upgraded.

z. N-19 to R-19, 1 March 1957 - Upgraded.

aa. N-22 to R-22, 1 March 1957- Upgraded.

ab. N-60 to R-60, 1 March 1957 - Upgraded.

ac. N-86 disbanded 15 March 1957. Loss of CP due DOS no replacement available.

ad. N-58 to R-58, 29 March 1957- Upgraded.

ae. N-30 to R-30, 29 March 1957 - Upgraded.

af. N-23 to R-23, 29 March 1957 - Upgraded.

ag. R-74 disbanded 29 March 1957 - Pilot downgraded to Non-Combat Ready and removed from crew. CP TDY to Squadron Officers School.

9. Standardization Crews:

a. S-75 assigned July 1956.

b. S-85 assigned July 1956.

W-2369C

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c. S-20 assigned October 1956.

d. L-26 assigned December 1956.

e. S-78 assigned January 1957.

f. L-55 assigned February 1957.

10. Additional Material and Personnel Problems:

a. Supply

(1) Depot support continued to be unsatisfactory during the period 15 February to 15 March. Only 68% of priority 2, 53% of priority 7 and 49% of priority 16 requisitions were received. Pipeline time on both priority and routine requisitions was excessive during the same period.

(2) MD-9 Bench Mockup. A serious deficiency exists in that the bench required to convert the A3A Bench Mockup to the MD-9 Bench Mock-up will be on automatic shipment. To date no EDD is available. This is a "Z" Account item. Since B-52D aircraft are equipped with the MD-9 fire control system maintenance of this system is greatly hampered.

(3) Bomb-Navigational (MA6A) Deficiencies. Deficiencies still exist in the MA6A Bomb Nav System. These deficiencies have been reported in previous T-12 Remarks.

(4) ECM Deficiencies. Deficiencies reported in previous T-12 Remarks still exist. AN/APT-9 and AN/ALT-7 is the only ECM capability now available in 42BW B-52 aircraft. The AN/APT-9 capability is not available in the last four (4) aircraft received; (55-095, 55-102, 55-103, 55-104).

(5) Trainer Difficulties: The AN/APQ-T2A ultrasonic trainer continues to be a problem area for crew training due to the lack of MA-6A configuration.

W-2369C

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The original projection date for this modification was November 1956, later changed to January 1957 and now scheduled for completion thirty days after arrival of the Otis Elevator Company technical represenatives. This arrival date is dependent upon receipt of all necessary items of equipment by this station. As of 3 April 1957, eight (8) of thirty-one (31) items due on automatic shipment from WRAMA have been received, ten (10) of fourteen (14) items requisitioned through Base Supply at Loring AFB have been received. This is a total of eighteen (18) of the forty-five (45) required items have been received with the dates for completing shipment of the remaining twenty-seven (27) items unknown.

b. Maintenance:

(1) TOC Requirements for Dye Check of Landing Gear Struts continues to create an excessive maintenance work load. Conversion to Cleveland Pneumatic struts would alleviate this requirement.

c. Personnel:

(1) The following are shortages of Airmen Direct Support Skills under the 45 B-52 UMD:

AFSC	AUTH	ASGD	PROJ 120 DAY LOSSES
301X3A	14	7	0
323X1G	73	59	0
431X1E	630	*592	15

* Shortages continue to exist in 431X1E career field and as stated previously the KC-135 conversion will require additional inputs.

W-2369C

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(2) The following are shortages of Airmen Indirect Support Skills under the 45 B-52 UMD:

AFSC	AUTH	ASGD
641X1/73	103	88

11. Refueling Data:

	Jan	Feb	Mar
a. Number of refueling sorties scheduled and confirmed	104	64	64
b. Number of sorties:			
(1) Airborne:	68	56	64
(2) Effecting complete electronic rendezvous:	19	40	27
(3) Transferring required fuel:	29	38	59
c. Number of aborts due to:			
(1) Adverse weather:	1	0	0
(2) Aircraft Malfunction:	36	8	0
(3) Electronic rendezvous equipment malfunction:	0	0	0
(4) Refueling equipment malfunction:	1	3	1
(5) Other causes:			
(a) Weather Cancellation by tankers:	20	1	1
(b) Aircraft aborts and maintenance cancellations by tankers:	15	14	3
(c) Higher headquarters cancellations:	2	0	0

d. In addition to the above, twenty (20) tanker sorties given as a planning factor were not received due to the inability of tanker units to support the program.

W-2369c

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12. Comments and Recommendations by the Wing Commander:

a. The 42d Bombardment Wing has forty-seven (47) combat crews assigned as of 31 March 1957. The following is the projected crew status of the 42d Bombardment Wing until 1 June 1957:

As of Date	Combat Ready	Non-Ready
(1) 1 April	38	9

The total of 40 combat ready originally forecast for 1 April was not achieved due to:

(a) R-74 - Pilot downgraded to co-pilot. Crew was disbanded and N-90 formed.

(b) N-14 - was not upgraded due to co-pilot being on extended TDY.

(c) During April, four (4) additional crews will not be available due to transfer to Ellsworth AFB; however, EDCSA is 17 May 57.

(2) 1 May	41	6

(a) Crews N-14, N-51, and N-83 to be upgraded prior to 1 May 57.

(3) 1 June	41	2

(a) Crews N-56, N-59, N-53, N-88 to be upgraded prior to 1 June 57.

(b) Loss of four (4) Instructor crews to Ellsworth AFB, EDCSA 15 May.

b. B-52 Crew Resources:

W-2367C

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The following are crew resources by AFSC:

	As of 1 Apr. 57		Known Projections	
	Auth.	Asgd.	Gains	Losses
1245				
1234	145	105	15 *	13
1525	155	112	10	8
3024	74	56	6	13

* This includes 6 inputs who will have received B-52 Ground Training only.

(1) Loss of one crew due to accident on 10 January 1957 with a replacement crew programmed to arrive on or about 1 August 1957.

(2) Loss of four (4) Instructor crews to Ellsworth AFB, replacement crews are programmed to arrive approximately 1 October 1957.

(3) In summary, the number assigned and known inputs versus authorized is critically short. Additionally the projected losses will further aggreviate this problem. In planning for crew personnel replacements for this station, particular emphasis should be placed on allowing sufficient time for individual training to preclude regression of combat ready crews.

c. Crew Rest and Transition:

(1) This headquarters feels that the limitations imposed by SAC Regulation 62-19 is not realistic for B-52 operations and restricts available transition training for combat crews. Recommendations for changes in this regulation were forwarded to Eighth Air Force, Headquarters in 45AD Unclassified Message 42DO 1324, dated 5 February 1957. Request consideration be given to this problem.

W-2369C

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13. Ground Training:

a. Not applicable for this reporting period.

14. Hi Jinks Tactics:

CREW NUMBER	GROUND SCHOOL COMPLETED	CHECKED OUT FOR SOLO
N-14	Yes	No
N-16	Yes	No
N-19	Yes	No
R-21	Yes	No
N-25	Yes	No
N-27	Yes	No
R-28	Yes	No
R-29	Yes	No
N-45	Yes	No
N-46	Yes	No
R-49	Yes	No
N-51	Yes	No
R-54	Yes	No
N-56	Yes	No
N-57	Yes	No
N-58	Yes	No
N-59	Yes	No
R-82	Yes	No
N-83	Yes	No

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15. Incomplete Combat Maintenance Crews:

Crew Number	Name	Position	Duty AFSC	Standboard Date	Flying Time in Tac Acft
ICM-31	Gregg	P	4331	27 Aug 56	29:00
ICM-31	Hedin*	CP	4351	None	None
ICM-61	Fisher	N	3231	November 56	18:40
ICM-61	Duden	P	4311	October 56	15:55
ICM-61	Estes*	CP	3216	None	None
ICM-89	Classon*	P	4311	None	18:00
ICM-89	Brown* -	CP	3231	None	None

* The above listed officers are not yet fully qualified but have completed varying phases of SAC Regulation 51-19.

for Donald E. Bailey
DONALD E. HILLMAN
Colonel, USAF
Commander

PART VI - DIVISION COMMANDER'S REMARKS, 45TH AIR DIVISION (SAC)

I concur with the remarks and the recommendations of the Wing Commander.

W. K. Martin
W. K. MARTIN
Brigadier General, USAF
Commander

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I

UNIT: 42D Bombardment Wing (H)

MONTH: March 57 | PAGE NR: 1 | NR OF PAGES: 8 | REPORTS CONTROL SYMBOL: 2-SAC-T-12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RNS AT MACH.84	MACH.84 IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	NR OF REL.	C.E.	TOTAL	NR OF REL.	C.E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54
S85	B52D	002	018	-	01	002	-	-	-	-	-	-	-	-	-	-	-	-	001	015	-	-	-	-	-	-	-	-	-
S20	B52D	003	033	-	01	006	-	-	-	-	-	-	-	-	-	-	-	-	002	011	012	-	-	001	-	-	-	-	-
S75	B52D	002	023	-	01	002	-	-	-	-	-	-	-	-	-	-	-	-	003	014	014	025	-	-	002	006	012	-	-
S78	B52D	003	033	-	01	-	001	001	-	-	-	-	-	-	-	-	-	-	002	004	020	-	-	-	001	008	-	-	-
L25	B52D	007	072	-	01	002	-	-	-	-	-	-	-	-	-	-	-	-	003	004	006	005	-	001	002	017	025	-	-
L26	B52D	009	092	-	01	002	-	-	-	-	-	-	-	-	-	-	-	-	003	002	009	012	-	001	002	007	006	-	-
																									002	010	011		
																									002	013	075		
																									002	031	032		
L85	B52D	002	021	-	-	001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	002	015	023	-	-
L20	B52D	001	011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	002	008	024	-	-
L75	B52D	002	023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L78	B52D	002	021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	010	-	-	-	-	001	000	-	-	-
R26	B52D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
StdBd Total	-	003	347	-	06	015	001	001	-	-	-	-	-	-	-	-	-	-	015	060	060	049	-	003	015	109	164	-	-
L77	B52D	011	114	-	01	002	001	-	001	-	-	001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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UNIT: 42D Bombardment Wing (H) | MONTH: March 57 | PAGE NR: 2 | NR PAGES: 4 | REPORTS CONTROL SYMBOL: 2-SAC-T-12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							Radar Atks - Camera Scored				Visual Atks Camera Scored Mach.84		Visual Releases - Mach.84						Night Celestial						Celestial Grid				
							Radar Obs.		Navigator				Radar Observer			Navigator				Circular Error						Circ. Error			
Crew Number	Type and Model Aircraft	Number of Sorties	Flying Time	USCM	Bomber Stream	RBS at Mach.84	Mach.84 IBDA	Fixed Angle	Mach.84 IBDA	Fixed Angle	Radar Obs.	Navigation	Total	M-19 Nr of Rel.	M-19 C.E.	Total	M-19 Nr of Rel.	M-19 C.E.	Total Legs	1	2	3	4		Total Legs	1	2	Number of Radar Grid Nav. Legs	Nr of Press. Pattern Nav. Legs
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33	37-39	41-43	45-47	49-51	53-54
																			002	015	019	-	-	002	002	008	011	-	-
																									002	018	030		
L76	B52D	010	097	-	01	005	001	001	-	001	001	-	-	-	-	-	-	-	004	003	004	004	005	001	002	002	003	-	001
																									001	018	-		
L77	B52D	010	095	-	01	001	-	-	-	-	-	-	-	-	-	-	-	-	004	003	006	007	011	001	002	022	023	001	-
																			001	011	-	-	-		001	027	-		
L80	B52D	013	113	-	01	001	001	001	-	-	001	-	-	-	-	-	-	-	003	008	010	010	-	003	002	005	021	001	001
L81	B52D	007	063	-	01	002	003	-	001	-	003	001	-	-	-	-	-	-	003	009	014	017	-	002	-	-	-	001	001
L84	B52D	010	089	-	01	001	001	001	-	-	-	-	-	-	-	-	-	-	003	005	008	025	-	001	002	008	009	002	-
SL Total	-	061	571	-	06	012	007	003	002	001	005	002	-	-	-	-	-	-	020	053	061	063	016	010	014	108	097	005	003
R81	B52D	003	017	-	-	002	002	-	-	-	003	001	-	-	-	-	-	-	-	-	-	-	-	-	002	016	023	-	-
R15	B52D	007	067	-	01	003	-	-	-	-	-	-	-	-	-	-	-	-	001	009	-	-	-	001	001	009	-	002	-
R16	B52D	006	057	-	01	003	-	-	-	-	-	-	-	-	-	-	-	-	002	004	010	-	-	001	001	006	-	-	-
R17	B52D	007	072	-	01	005	-	-	001	-	-	-	-	-	-	-	-	-	004	000	007	009	010	001	002	011	015	-	001
																			001	014	-	-	-						
[illegible]	B52D	[illegible]	036	-	01	003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	003	-	-	-

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UNIT: 42D Bombardment Wing (H) | MONTH: March 57 | PAGE NR: 1 | NR PAGES: 8 | REPORTS CONTROL SYMBOL: 2-SAD-T-12

A. GENERAL						B. BOMBING												C. NAVIGATION									
1	2	3	4	5	6	7	8 RADAR ATKS - CAMERA SCORED				9 VISUAL ATKS CAMERA SCORED MACH.84		10 VISUAL RELEASES - MACH.84						11 NIGHT CELESTIAL					12	13 CELESTIAL GRID			14	15
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR			TOTAL LEGS	CIRCULAR ERROR					TOTAL LEGS	CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCH	BOMBER STREAM	REL AT MACH.84	MACH.84 IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	NR OF REL.	C. E.	TOTAL	NR OF REL.	C. E.		1	2	3	4			1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS ALTITUDE NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	60-62	13-15	17-19	21-23	25-27	29-31	35	37-39	41-43	45-47	49-51	52-54
																			*						*				
																			002	007	006	-	-	-	001	015	-	-	-
B25	B52D	005	055	-	01	003	-	-	-	-	-	-	-	-	-	-	-	-	003	012	028	029	-	001	-	-	-	001	-
B27	B52D	006	039	-	01	002	-	001	-	-	-	-	-	-	-	-	-	-	001	008	-	-	-	001	001	002	-	-	-
B28	B52D	004	039	-	01	004	-	-	-	-	-	-	-	-	-	-	-	-	003	008	015	023	-	-	002	006	014	-	-
																									001	016			
B29	B52D	009	092	-	01	003	-	001	001	-	001	001	-	-	-	-	-	-	003	004	005	018	-	005	002	007	010	-	001
																									001	023	-		
B45	B52D	004	040	-	01	004	-	-	-	-	001	-	-	-	-	-	-	-	002	000	008	-	-	-	002	003	008	-	-
B46	B52D	005	052	-	01	004	-	-	-	-	-	-	-	-	-	-	-	-	004	004	004	005	028	001	002	005	013	-	001
B47	B52D	006	063	-	01	004	-	-	001	-	-	-	-	-	-	-	-	-	003	001	003	011	-	003	002	007	009	-	-
B48	B52D	006	070	-	01	005	-	-	001	-	-	-	-	-	-	-	-	-	004	001	006	010	018	001	001	005	-	-	-
B49	B52D	005	050	-	01	003	-	-	001	-	-	-	-	-	-	-	-	-	003	017	019	021	-	001	001	005	-	-	-
B50	B52D	007	068	-	01	004	-	-	-	-	-	-	-	-	-	-	-	-	004	002	007	020	002	002	002	005	008	001	-
B51	B52D	009	074	-	01	003	-	-	-	-	-	-	-	-	-	-	-	-	002	008	025	-	-	001	002	003	010	001	-
																									001	015	-		
B52	B52D	007	066	-	01	005	-	-	-	-	-	-	-	-	-	-	-	-	003	002	005	018	-	001	002	003	002	-	-
B54	B52D	008	07[illegible]	-	01	CREW DISBANDED 29 MARCH 1957													003	003	007	012	-	002	007	008	010	002	001
		005	002			005	002	-	001	-	002	001	-	-	-	-	-	-											

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CONFIDENTIAL (When Filled In)

HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART I

UNIT: 42D Bombardment Wing (H)

MONTH: [illegible] 57 | PAGE NO.: 4 | NR OF PAGES: 8 | REPORTS CONTROL SYMBOL: 2-SAC-I-12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	MACH.84 INDA	FIXED ANGLE	MACH.84 INDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	18-19 MR OF REL.	18-19 C. E.	TOTAL	18-19 MR OF REL.	18-19 C. E.	TOTAL LEGS	1	2	3	4	NR OF DAY RELEASES NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	53-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54
R79	B52D	009	092	-	01	002	-	001	001	-	-	-	-	-	-	-	-	-	004	003	005	005	007	003	001	005	-	001	001
																			001	010	-	-	-						
R82	B52D	004	041	-	01	006	-	001	001	-	-	-	-	-	-	-	-	-	002	009	010	-	-	001	001	006	-	-	-
R87	B52D	006	055	-	01	004	-	-	001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
																			* 001	001	-	-	-	* 003	* 002	005	021	-	* 001
R18	B52D	004	042	-	01	001	-	-	001	-	001	-	-	-	-	-	-	-	003	002	004	015	-	-	002	006	009	001	-
R19	B52D	003	036	-	01	002	-	-	-	-	-	-	-	-	-	-	-	-	003	001	001	012	-	-	001	018	-	001	-
R22	B52D	004	044	-	01	008	-	-	001	-	-	-	-	-	-	-	-	-	002	007	016	-	-	-	002	006	014	001	-
																									001	028	-		
R23	B52D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R30	B52D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R58	B52D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R60	B52D	004	039	-	01	003	-	-	-	-	-	-	-	-	-	-	-	-	002	007	018	-	-	002	008	014	-	-	
CR Totals	-	141	1383	-	24	091	004	004	011	-	007	003	-	-	-	-	-	-	066	139	207	198	083	031	044	256	180	010	002
R[illegible]	B52D	006	051	-	-	002	001	001	-	-	-	-	-	-	-	-	-	-	001	010	-	-	-	001	-	-	-	-	-
R[illegible]	B52D	007	076	-	-	001	-	001	001	-	-	-	-	-	-	-	-	-	002	004	010	-	-	002	-	-	-	-	-

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CONFIDENTIAL (When Filled In)

HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART I	UNIT: 42D Bombardment Wing (H)	MONTH: March 57	PAGE NR	NR OF PAGES: 8	REPORTS CONTROL SYMBOL: 2-SAC-D-12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	MACH.84 IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL	M-19 NR OF REL.	M-19 C. E.	TOTAL LEGS	1	2	3	4	NR OF DAYS DELIVERING NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54
																								* 001	* 001	005	–	–	–
N22	B52D	006	049	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	002	012	012	–	–	001	–	–	–	–	–
N23	B-52D	010	098	–	–	004	001	–	–	–	–	–	–	–	–	–	–	–	003	012	015	020	–	002	002	003	017	001	001
N30	B-52D	007	072	–	–	005	–	–	–	–	–	–	–	–	–	–	–	–	003	013	015	040	–	001	002	005	010	–	–
																									002	022	024		
N58	B-52D	010	101	–	01	007	–	–	–	–	–	–	–	–	–	–	–	–	004	004	013	018	019	002	002	006	009	001	–
																									001	019	–		
N60	B-52D	004	038	–	–														–	–	–	–	–	001	002	018	019	–	–
N15	B-52D	004	043	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	001	001	018	–	–	–
N16	B-52D	004	046	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	001	013	–	–	–
N17	B52D	002	020	–	–														001	014	–	–	–	–	–	–	–	–	–
N21	B-52D	001	009	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																			"NO ACCOMPLISHMENTS BY THIS CREW MEMBER".										
N25	B-52D	002	018	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	002	008	008	–	–
																									001	022	–		
N27	B-52D	003	028	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	002	005	011	–	–	–	002	005	014	–	–
N28	B-52D	001	007	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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CONFIDENTIAL (When Filled In)

HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART I	UNIT: 42D Bombardment Wing (H) (SAC)	MONTH: Mar 57	PAGE NO: 6	NO OF PAGES: 8	REPORTS CONTROL SYMBOL: 2-SAC-T12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	MACH.84 IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	M-15 NR OF REL.	M-15 C.E.	TOTAL	M-15 NR OF REL.	M-15 C.E.	TOTAL LEGS	1	2	3	4	NR OF DAY NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	48-51	52-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54
N29	B-52D	001	012	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N45	B-52D	005	048	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	003	004	015	027	–	001	002	004	009	–	–
N46	B-52D	004	031	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N47	B-52D	005	062	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	002	009	021	–	–	002	002	009	018	–	–
																									001	023	–		
N48	B-52D	004	042	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	001	015	–	–	–
N49	B-52D	004	040	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	001	021	–	–	–
N50	B-52D	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N82	B-52D	006	061	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	002	020	020	–	–	001	002	003	012	–	001
																									002	017	065		
N87	B-52D	004	037	–	–	–	001	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																			* 002	026	029	–	–	–	* 001	021	–	–	–
N14	B-52D	010	007	–	–	003	–	004	–	–	–	–	–	–	–	–	–	–	002	002	028	–	–	–	002	005	010	–	–
																									002	011	015		
																									001	026	–		
N[illegible]	B-52D	001	007	–	–	CREW DISBANDED 16 FEBRUARY 1957.													–	–	–	–	–	–	001	014	–		–
N[illegible]	B-52D	008	081	–	–	002	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I

UNIT: 42D Bombardment Wing (H) (SAC) | MONTH: Mar 57 | PAGE NR: | NR OF PAGES: 8 | REPORTS CONTROL SYMBOL: 2-SAC-T-12

A. GENERAL						B. BOMBING														C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	JSCM	BOMBER STREAM	RBS AT MACH.84	MACH.84 IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	NR OF REL.	C. E.	TOTAL	NR OF REL.	C. E.	TOTAL LEGS	1	2	3	4	NR OF GRID NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	48-51	53-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54
																									*001	018	-		
N52	B-52D	001	005	-	-	CREW DISBANDED 10 JANUARY 1957.																							
N53	B-52D	006	051	-	-	004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
																			*001	032	-	-	-		*001	008	-		
N56	B-52D	008	071	-	-	004	-	-	-	-	-	-	-	-	-	-	-	-	002	002	-	-	-	003	002	007	010	-	-
																									002	013	020		
																									001	025	-		
N57	B-52D	005	045	-	-	003	-	-	-	-	-	-	-	-	-	-	-	-	001	009	-	-	-	-	002	019	038	-	-
																									001	019	-		
N59	B-52D	004	034	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N83	B-52D	006	060	-	-	003	-	-	-	-	-	-	-	-	-	-	-	-	001	029	-	-	-	-	002	005	005	001	-
																									001	039	-		
																			*001	012	-	-	-	*002	*001	013	-	-	*001
N86	B-52D	001	007	-	-	CREW DISBANDED 14 JANUARY 1957.																							
N88	B-52D	008	088	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	002	010	[illegible]	-	-	[illegible]	[illegible]	006	043	-	001
[illegible]	B-52D	-	-	-	-	CREW FORMED FROM DISBANDED CREW MEMBERS.																							

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART I

UNIT: 427 Bombardment Wing (H) | MONTH: March 57 | PAGE NR: 6 | NR OF PAGES: 8 | REPORTS CONTROL SYMBOL: 2-SAC-T-12

A. GENERAL						B. BOMBING													C. NAVIGATION										
1	2	3	4	5	6	7	8				9		10						11					12	13			14	15
							RADAR ATKS - CAMERA SCORED				VISUAL ATKS CAMERA SCORED MACH.84		VISUAL RELEASES - MACH.84						NIGHT CELESTIAL						CELESTIAL GRID				
							RADAR OBS.		NAVIGATOR				RADAR OBSERVER			NAVIGATOR				CIRCULAR ERROR						CIRC. ERROR			
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	BOMBER STREAM	RBS AT MACH.84	MACH.84 IBDA	FIXED ANGLE	MACH.84 IBDA	FIXED ANGLE	RADAR OBS.	NAVIGATION	TOTAL	NR OF REL.	C.E.	TOTAL	NR OF REL.	C.E.	TOTAL LEGS	1	2	3	4	NR OF DAY CELESTIAL NAV. LEGS	TOTAL LEGS	1	2	NUMBER OF RADAR GRID NAV. LEGS	NR OF PRESS PATTERN NAV. LEGS
6-10	11-15	17-19	21-23	26-27	30-31	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	46-47	49-51	53-54	57-58	59-62	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54
													-																
NCB Total	-	158	1542	-	01	038	003	006	001	-	-	-	-	-	-	-	-	-	036	234	203	105	019	023	053	485	346	003	004
Wing Total	-	393	3843	-	37	156	015	014	014	001	012	005	-	-	-	-	-	-	137	485	531	415	118	067	129	958	787	018	014
5X Trng.	-	003	033	-	-	001	-	-	-	-	-	-	-	-	-	-	-	-	001	-	-	-	-	003	004	-	-	002	-
Pract. Trng.	-	-	-	-	-	-	003	-	-	-	003	001	-	-	-	-	-	-	015	-	-	-	-	007	023	-	-	002	002

IN-14 CO-PILOT TDY MAXWELL AFB. 1-31 MAR. 57

IN30 VO DNIF - 13-31 MARCH 57.

IN56 TG EMERGENCY LEAVE - 18-25 MARCH 57.

IN57 PILOT DNIF - 1-9 MARCH 57.

IN59 ECM TDY ALTITUDE CHAMBER - 4-6 MARCH 57; PILOT TDY ALTITUDE CHAMBER - 10-13 MARCH 57.

IN83 PILOT TDY CASTLE - 10-18 MAR 57; TG LEAVE 19-24 MARCH 57.

IN38 CO-PILOT TDY ALTITUDE CHAMBER - 26-31 MARCH 57.

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II

UNIT: 42 Bombardment Wing (H) | MONTH: March [illegible] | PAGE NR: [illegible] | NR OF PAGES: [illegible] | REPORTS CONTROL SYMBOL: 2-SAC-T-[illegible]

D. GEN (16) – E. AIR REFUELING (Combat Ready and Above): 17 Total Refuelings; 18 Mass Night-Multiple Cell Rendezvous; 19 Darkness Max In-Flight Gross Weight; 20 Optional Gross Wt 20 Min. Contact – F. AIR REFUELING (Non Combat Ready): 21 Total Refuelings; 22 One Tanker-40 Minute Contact; 23 395,000 Lbs; 24 Dry Contacts Minutes – G. RADAR RENDEZVOUS: 25 Total Rendezvous; 26 In Darkness; 27 AN/APN-12-76 – H. GUNNERY: 28 Maximum Load Missions (Total Missions; Percent Fireout 1, 2); 29 S.E.G. Gunnery Missions; 30 Fighter Attack Missions

Crew Number	17 Total Refuelings Att.	17 Succ.	18 Att.	18 Succ.	19 Att.	19 Succ.	20 Att.	20 Succ.	21 Total Refuelings Att.	21 Succ.	22 Att.	22 Succ.	23 Att.	23 Succ.	24 Dry Contacts Minutes	25 Total Rendezvous Att.	25 Succ.	26 In Darkness Att.	26 Succ.	27 AN/APN-12-76 Att.	27 Succ.	28 Total Missions	28 Percent Fireout 1	28 Percent Fireout 2	29 S.E.G. Gunnery Missions	30 Fighter Attack Missions
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
S25	002	003	–		–	–	–	–	–	–	–	–	–	–	–	002	001	–	–	002	002	–	–	–	–	002
S20	003	003	–	–	–	–	–	–	–	–	–	–	–	–	–	002	001	–	–	002	002	[illegible]	100	–	–	–
S75	002	002	–	–	–	–	–	–	–	–	–	–	–	–	002	–	–	–	–	–	–	–	–	–	–	005
S78	003	003	–	–	–	–	–	–	–	–	–	–	–	–	007	003	003	001	001	001	001	–	–	–	–	010
L55	009	009	–	–	–	–	–	–	–	–	–	–	–	–	020	004	004	003	003	004	004	001	076	–	–	–
L26	007	007	–	–	–	–	001	001	–	–	–	–	–	–	006	003	003	001	001	002	002	[illegible]	[illegible]	072	01	–
L85	003	003	–	–	–	–	–	–	–	–	–	–	–	–	003	001	001	–	–	–	–	[illegible]	[illegible]	–	–	–
L20	003	003	–	–	–	–	–	–	–	–	–	–	–	–	002	[illegible]	002	–	–	[illegible]	002	–	–	–	–	–
L75	002	002	–	–	–	–	–	–	–	–	–	–	–	–	002	002	002	–	–	–	–	001	075	–	–	–
L78	002	002	–	–	–	–	001	001	–	–	—	–	–	–	018	[illegible]	001	001	001	–	–	001	100	–	–	–
R26	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Std Bd Total	037	037	–	–	–	–	002	002	–	–	–	–	–	–	060	015	018	006	006	011	011	002	[illegible]	071	1	[illegible]
L72	[illegible]	008	–	–	–	–	002	002	–	–	–	–	–	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
L7[illegible]	[illegible]	[illegible]	–	–	–	–	002	002	–	–	–	–	–	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
L7[illegible]	[illegible]	[illegible]	–	–	–	–	–	–	–	–	–	–	–	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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W-73694

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CONFIDENTIAL (When Filled In)

HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II

UNIT: 42D Bombardment Wing (H)

MONTH: March 57

PAGE NR:

NR OF PAGES:

REPORTS CONTROL SYMBOL:

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 8 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
L80	009	009	-	-	-	-	001	001	-	-	-	-	-	-	011	003	003	-	-	002	002	[illegible]	[illegible]	[illegible]	-	1
L81	003	003	-	-	-	-	001	001	-	-	-	-	-	-	002	001	001	001	001	001	001	[illegible]	[illegible]	-		
L84	009	009	-	-	-	-	003	003	-	-	-	-	-	-	013	003	003	-	-	003	003	[illegible]	[illegible]	[illegible]	-	1
SL Total	038	038	-	-	-	-	009	009	-	-	-	-	-	-	040	017	017	005	005	013	013	[illegible]	[illegible]	-		
R81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R15	004	004	-	-	-	-	-	-	-	-	-	-	-	-	004	-	-	-	-	-	-	[illegible]	[illegible]	-	-	-
R16	004	004	-	-	-	-	001	001	-	-	-	-	-	-	-	002	002	-	-	001	001	[illegible]	[illegible]	[illegible]	-	-
R17	005	005	-	-	-	-	004	004	-	-	-	-	-	-	-	001	001	001	001	001	001	[illegible]	[illegible]	-	-	-
R21	003	003	-	-	-	-	001	001	-	-	-	-	-	-	001	-	-	-	-	-	-	[illegible]	[illegible]	[illegible]	-	-
R25	004	004	-	-	-	-	-	-	-	-	-	-	-	-	-	[illegible]	[illegible]	-	-	-	-	[illegible]	-	-	-	-
R27	004	004	-	-	-	-	-	-	-	-	-	-	-	-	-	001	001	-	-	-	-	[illegible]	[illegible]	-	-	-
R28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	001	-	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-
R29	012	012	-	-	-	-	002	002	-	-	-	-	-	-	022	002	002	-	-	-	-	[illegible]	[illegible]	-	-	-
R45	004	004	-	-	-	-	-	-	-	-	-	-	-	-	-	001	001	-	-	[illegible]	[illegible]	-	-	-	-	-

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CONFIDENTIAL *(When Filled In)*

HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART II	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42D Bombardment Wing (H) (SAC)	May 57		7	[illegible]

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-6 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 8 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-141/75		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
																						%				
R46	002	002	--	--	--	--	--	--	--	--	--	--	--	--	003	002	002	--	--	002	002	002	100	--	--	002
R47	004	004	--	--	--	--	--	--	--	--	--	--	--	--	--	001	001	--	--	001	001	--	--	--	--	008
R48	004	004	--	--	--	--	--	--	--	--	--	--	--	--	032	002	002	--	--	002	002	--	--	--	--	032
R49	003	003	--	--	--	--	--	--	--	--	--	--	--	--	--	001	001	--	--	--	--	--	--	--	--	--
R50	002	002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	002	075	--	--	008
R54	004	004	--	--	--	--	--	--	--	--	--	--	--	--	003	--	--	--	--	--	--	001	100	--	--	002
R73	005	005	--	--	--	--	004	004	--	--	--	--	--	--	006	002	002	--	--	002	002	002	046	079	--	014
R74	008	008	--	--	--	--	001	001	--	--	--	--	--	--	002	004	004	--	--	001	001	001	000	--	--	002
R79	003	003	--	--	--	--	002	001	--	--	--	--	--	--	--	002	002	--	--	002	002	001	000	--	--	001
R80	002	002	--	--	--	--	--	--	--	--	--	--	--	--	--	001	001	--	--	001	001	--	--	--	--	004
R87	005	005	--	--	--	--	002	002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	030
R88	002	002	--	--	--	--	--	--	--	--	--	--	--	--	--	001	001	--	--	--	--	--	--	--	--	004
R89	002	002	--	--	--	--	--	--	--	--	--	--	--	--	--	002	001	--	--	001	001	001	100	--	--	--
R90	004	004	--	--	--	--	--	--	--	--	--	--	--	--	--	001	001	--	--	001	001	001	000	--	--	--
R92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SAC [illegible] 493 a FC: 3720

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II

UNIT: [illegible] Bombardment Wing (H) (SAC) | MONTH: [illegible] | PAGE NR: | NR OF PAGES: | REPORTS CONTROL SYMBOL: [illegible]

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		195,000 LBS		DRY CONTACTS 8 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS: TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2	S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.					
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
R60	[illegible]	002	-	-	-	-	-	-	-	-	-	-	-	-	-	001	001	-	-	001	001	[illegible]	[illegible]		-	[illegible]
CR TOTAL	[illegible]	092	-	-	-	-	015	016	-	-	-	-	-	-	073	027	027	001	001	018	[illegible]	[illegible]	1163		-	186
N18	-	-	-	-	-	-	-	-	009	009	-	-	001	001	011	003	003	001	001	-	-	[illegible]	[illegible]	-	-	-
N19	-	-	-	-	-	-	-	-	013	013	-	-	002	002	024	005	005	003	003	004	004	[illegible]	[illegible]	-	-	[illegible]
N22	-	-	-	-	-	-	-	-	014	014	-	-	001	001	010	005	005	005	005	004	004	[illegible]	[illegible]	-	-	-
N23	-	-	-	-	-	-	-	-	005	005	002	002	-	-	005	003	003	002	002	003	[illegible]	[illegible]	[illegible]	[illegible]	-	-
N30	-	-	-	-	-	-	-	-	012	012	002	002	001	001	023	004	004	004	004	004	004	[illegible]	[illegible]	[illegible]	-	-
																						[illegible]	[illegible]	[illegible]		
N58	-	-	-	-	-	-	-	-	008	008	-	-	001	001	003	005	005	002	002	001	001	[illegible]	[illegible]	[illegible]	-	
N60	-	-	-	-	-	-	-	-	003	003	001	001	-	-	-	001	001	001	001	-	-	[illegible]	[illegible]		-	
N15	-	-	-	-	-	-	-	-	012	012	-	-	001	001	006	004	004	004	004	004	004	-	-	-	-	
N16	-	-	-	-	-	-	-	-	006	006	-	-	001	001	006	001	001	001	001	001	[illegible]	-	-	-	-	
[illegible]	-	-	-	-	-	-	-	-	004	004	[illegible]	[illegible]	001	001	-	002	002	002	002	002	002	[illegible]	[illegible]	-	-	-
[illegible]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	[illegible]	[illegible]	-	-	-
[illegible]	-	-	-	-	-	-	-	-	008	008	001	001	-	-	009	001	001	001	001	-	-	[illegible]	[illegible]	[illegible]	-	-
[illegible]	-	-	-	-	-	-	-	-	[illegible]	[illegible]	-		-	-	[illegible]	001	001	001	001	001	[illegible]	[illegible]	[illegible]	-	-	-

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART II

UNIT [illegible] | MONTH [illegible] | PAGE NR [illegible] | NR OF PAGES [illegible] | REPORTS CONTROL SYMBOL [illegible]

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 5 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
N28	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	001	001	001	001	–	–	–	–	–	–	–
N29	–	–	–	–	–	–	–	–	002	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N45	–	–	–	–	–	–	–	–	006	[illegible]	[illegible]	[illegible]	001	001	–	001	001	–	–	001	001	001	052	–	–	–
																						* 001	050	–		
N46	–	–	–	–	–	–	–	–	003	[illegible]	–	–	001	001	–	002	002	001	001	–	–	002	011	092	–	–
N47	–	–	–	–	–	–	–	–	006	[illegible]	–	–	001	001	–	003	003	002	002	002	002	002	080	081	–	–
																						001	086	–		
N48	–	–	–	–	–	–	–	–	005	[illegible]	–	–	[illegible]	[illegible]	–	–	–	–	–	–	–	002	085	087	–	–
N49	–	–	–	–	–	–	–	–	001	[illegible]	–	–	[illegible]	[illegible]	–	–	–	–	–	–	–	002	021	075	–	–
N50	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N82	–	–	–	–	–	–	–	–	[illegible]	[illegible]	[illegible]	[illegible]	001	[illegible]	004	001	001	001	001	001	001	002	067	079	–	–
																						002	100	100		
N87	–	–	–	–	–	–	–	–	005	[illegible]	[illegible]	[illegible]	003	003	010	002	002	001	001	002	002	001	090	–	–	–
N14	–	–	–	–	–	–	–	–	014	014	[illegible]	001	003	003	007	011	011	004	004	005	005	002	032	077	–	–
N24		SEE PART I.																								
N51	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	002	050	100	–	030
N52		SEE PART I.																								

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART II

UNIT: 42D Bombardment Wing (H) (SAC) | MONTH: [illegible] | PAGE NR: | NR OF PAGES: | REPORTS CONTROL SYMBOL: [illegible]

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. GUNNERY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 5 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
N53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	002	002	001	001	002	002	002	075	083	-	[illegible]
N56	-	-	-	-	-	-	-	-	006	006	006	006	001	001	023	004	004	-	-	-	-	001	094	-		
																						-	-	-	-	-
																						"NO ACCOMPLISHMENTS BY THIS CREW MEMBER".				
N57	-	-	-	-	-	-	-	-	003	003	-	-	-	-	013	003	003	002	002	003	003	001	078	-	-	-
N59	-	-	-	-	-	-	-	-	002	002	-	-	-	-	006	001	001	-	-	001	001	002	054	075	-	-
N83	-	-	-	-	-	-	-	-	002	002	001	001	-	-	002	003	003	-	-	002	002	002	083	100	-	[illegible]
N86	-	-	-	-	-	-	-	-	001	001	-	-	-	-	-	001	001	-	-	001	001	001	075	-	-	[illegible]
N88	-	-	-	-	-	-	-	-	010	010	001	001	002	002	[illegible]	006	006	003	003	003	003	-	-	-	-	-
																						* 001	100	-	-	* [illegible]
N90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NCR TOTAL	-	-	-	-	-	-	-	-	162	162	021	021	024	024	[illegible]	[illegible]	[illegible]	043	043	047	047	046	2031	1299	-	045
WING TOTAL	167	167	-	-	-	-	027	027	162	162	021	021	024	024	368	138	138	055	055	089	089	[illegible]	4206	1939	01	310
5X TRNG	031	031	-	-	-	-	001	001	-	-	-	-	-	-	058	003	003	-	-	002	002	006	-	-	-	002

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART II	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42D Bombardment Wing (H) (SAC)	Mar 59	7		

D. GEN	E. AIR REFUELING (Combat Ready and Above)								F. AIR REFUELING (Non Combat Ready)							G. RADAR RENDEZVOUS						H. SUMMARY				
16	17		18		19		20		21		22		23		24	25		26		27		28			29	30
CREW NUMBER	TOTAL REFUELINGS		MASS NIGHT-MULTIPLE CELL RENDEZVOUS		DARKNESS MAX IN-FLIGHT GROSS WEIGHT		OPTIONAL GROSS WT 20 MIN. CONTACT		TOTAL REFUELINGS		ONE TANKER-40 MINUTE CONTACT		395,000 LBS		DRY CONTACTS 8 MINUTES	TOTAL RENDEZVOUS		IN DARKNESS		AN/APN-12-76		MAXIMUM LOAD MISSIONS			S. E. G. GUNNERY MISSIONS	FIGHTER ATTACK MISSIONS
	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	TOTAL MISSIONS	PERCENT FIREOUT 1	PERCENT FIREOUT 2		
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	66-68	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	50-51	52-54
PRAUT																										
TRNG	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART III	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	4 D Bombardment Wing (B)	March 1957	1		2-SAC-[illegible]

I. GENERAL J. ECM

31	32				33				34		35		36								37		38		39	
CREW NUMBER	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
	ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)		ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)						T-464/ALT-7		T-465/ALT-7		ALT - 6 OR 8 (S-BAND)		APT-9 (C) ALT - 6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65
S85	–	–	001	020	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
S20	–	–	001	027	–	–	002	050	–	–	–	–	–	–	–	–	–	–	004	012	–	–	–	–	–	–
S75	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
S78	–	–	003	042	–	–	–	–	–	–	–	–	–	–	–	–	–	–	001	003	–	–	–	–	–	–
L55	–	–	005	081	–	–	003	059	–	–	–	–	002	012	002	011	–	–	005	019	–	–	–	–	–	–
L26	–	–	010	160	–	–	004	058	–	–	–	–	–	–	–	–	–	–	006	025	–	–	–	–	–	–
L85	–	–	006	118	–	–	001	027	–	–	–	–	–	–	–	–	–	–	001	006	–	–	–	–	–	–
L20	–	–	001	016	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
L75	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	–	–	* 002	027			* 001	000											* 007	029						
L78	–	–	002	034	–	–	003	048	–	–	–	–	002	012	–	–	–	–	–	–	–	–	–	–	–	–
R26	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
STD BD TOTAL	–	–	031	525	–	–	014	242	–	–	–	–	004	024	002	011	–	–	024	094	–	–	–	–	–	–
L72	–	–	003	039	–	–	003	051	–	–	–	–	001	006	–	–	001	000	002	006	–	–	–	–	–	–
L76	–	–	003	073	–	–	001	005	–	–	–	–	–	–	004	018	–	–	001	000	–	–	–	–	–	–
	"NO ACCOMPLISHMENTS BY THIS CREW MEMBER".																									
L77	–	–	002	038	–	–	005	085	–	–	–	–	002	009	004	024	–	–	009	046	–	–	–	–	–	–

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART III

UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
[illegible] Bombardment Wing [illegible]	[illegible]	[illegible]		[illegible]

ECM

L GENERAL 31	32				33				34		35		36								37		38		39	
	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SHOW		LITTLE SHOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
CREW NUMBER	ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)		ALT - 6 OR 8		APT-9 ALT - 6 OR 8 (L-BAND)						T-465/ALT-7		T-465/ALT-7		ALT - 6 OR 8 (S-BAND)		APT-9 (C) ALT - 6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-54	56-58	60-62	63-65
R47	–	–	003	001	–	–	001	019	–	–	–	–	–	–	005	015	–	–	002	012	–	–	–	–	–	–
R48	–	–	007	069	–	–	004	032	–	–	–	–	–	–	004	018	–	–	003	009	–	–	–	–	–	–
R49	–	–	004	056	–	–	001	011	–	–	–	–	–	–	004	024	–	–	006	024	–	–	–	–	–	–
R50	–	–	003	047	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	–	–	* 005	108	–	–	003	075	–	–	–	–	–	–	* 004	018	–	–	* 004	018	–	–	–	–	–	–
R54	–	–	001	027	–	–	004	039	–	–	–	–	–	–	–	–	–	–	006	024	–	–	–	–	–	–
R73	–	–	003	031	–	–	003	041	–	–	–	–	–	–	–	–	–	–	001	003	–	–	–	–	–	–
R74	001	018	007	147	002	036	004	058	–	–	–	–	004	017	002	010	–	–	004	013	–	–	–	–	–	–
R79	–	–	008	128	–	–	004	067	–	–	–	–	004	018	004	016	–	–	005	024	–	–	–	–	–	–
R82	–	–	002	012	–	–	001	020	–	–	–	–	–	–	004	024	–	–	001	006	–	–	–	–	–	–
R87	–	–	005	056	–	–	002	031	–	–	–	–	–	–	–	–	–	–	002	008	–	–	–	–	–	–
R18	–	–	002	032	–	–	002	020	–	–	–	–	–	–	–	–	–	–	003	015	–	–	–	–	–	–
R19	–	–	002	036	–	–	002	023	–	–	–	–	–	–	–	–	–	–	002	012	–	–	–	–	–	–
R22	–	–	–	–	–	–	001	001	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R23	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R30	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R58	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART III	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
		[illegible]	[illegible]	[illegible]	

I. GENERAL	J.	ECM																									
31	32				33				34		35		36								37		38		39	
	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS								BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
CREW NUMBER	ALT - 6 OR 8		APT-5 ALT - 6 OR 8 (L-BAND)		ALT - 6 OR 8		APT-5 ALT - 6 OR 8 (L-BAND)						T-464/ALT-7		T-465/ALT-7		ALT - 6 OR 8 (S-BAND)		APT-5 (C) ALT - 6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65
R60	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	–	–	[illegible]	[illegible]	–	–	–	–	–	–	–	[illegible]	011	006	002	012	–	–	001	000	–	–	–	–	–	–
CR TOTALS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	770	–	–	–	[illegible]	011	041	030	143	–	–	061	258	–	–	–	–	–	–
N18	–	–	006	[illegible]	–	–	002	045	–	–	–	–	–	–	002	006	–	–	001	003	–	–	–	–	–	–
N19	–	–	003	[illegible]	–	–	003	039	–	–	–	–	–	–	–	–	004	000	008	035	–	–	–	–	–	–
N22	–	–	[illegible]	[illegible]	–	–	003	[illegible]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N23	–	–	[illegible]	[illegible]	–	–	007	074	–	–	–	–	–	–	–	–	–	–	007	037	–	–	–	–	–	–
N30	–	–	[illegible]	[illegible]	–	–	[illegible]	[illegible]	–	–	–	–	–	–	–	–	–	–	009	036	–	–	–	–	–	–
N58	[illegible]	[illegible]	[illegible]	[illegible]	–	–	[illegible]	155	–	–	–	–	004	021	005	026	–	–	008	042	–	–	–	–	–	–
N60	[illegible]								–	–	–	–	–	–	003	018	–	–	001	000	–	–	–	–	–	–
	[illegible]									–	–	–	–	–	[illegible]	[illegible]	–	–	[illegible]		[illegible]	–	–	–	–	–
N15	–	–	007	[illegible]	–	–	[illegible]	[illegible]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N16	–	–	004	[illegible]	–	–	[illegible]	[illegible]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N17	–	–	[illegible]	[illegible]	–	–	[illegible]	[illegible]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N21	–	–	–	–	–	–	[illegible]	[illegible]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N2[illegible]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART III

UNIT | MONTH | PAGE NR | NR OF PAGES | REPORTS CONTROL SYMBOL

1. GENERAL	2.	ECM																									
31	32				33				34		35		36										37		38		39	
	BIG PHOTO RUNS				BIG PHOTO SPOT RUNS				BIG SNOW		LITTLE SNOW		SIMULATOR RUNS										BIG PHOTO CHATTEL RUNS		LITTLE RIVER RUNS		MAX CHAFF "DISPENSE OUT"	
CREW NUMBER	ALT – 6 OR 8		APT-9 ALT – 6 OR 8 (L-BAND)		ALT – 6 OR 8		APT-9 ALT – 6 OR 8 (L-BAND)						T-464/ALT-7		T-465/ALT-7		ALT – 6 OR 8 (S-BAND)		APT-9 (C) ALT – 6 OR 8 (L-BAND)							
	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	RUNS	POINTS	ATT.	SUCC.	RUNS	POINTS	ATT.	SUCC.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65
N27	–	–	002	047	–	–	001	017	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N28	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N29	–	–	003	060	–	–	–	–	–	–	–	–	–	–	–	–	–	–	004	009	–	–	–	–	–	–
N45	–	–	004	089	–	–	003	079	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N46	–	–	003	068	–	–	003	053	–	–	–	–	–	–	006	030	–	–	002	005	–	–	–	–	–	–
N47	–	–	008	136	–	–	004	080	001	022	–	–	–	–	–	–	–	–	003	003	–	–	–	–	–	–
N48	–	–	005	064	–	–	002	030	–	–	–	–	–	–	–	–	–	–	002	000	–	–	–	–	–	–
N49	–	–	004	064	–	–	006	082	–	–	–	–	001	000	002	012	–	–	002	000	–	–	–	–	–	–
N50	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N32	–	–	008	152	–	–	004	037	–	–	–	–	002	012	–	–	–	–	001	000	–	–	–	–	–	–
N57	001	027	–	–	002	021	001	027	–	–	–	–	–	–	–	–	–	–	002	012	–	–	–	–	–	–
N14	–	–	006	104	–	–	005	042	–	–	–	–	–	–	005	030	–	–	002	000	–	–	–	–	–	–
N24	–	–	002	018	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N51	–	–	003	052	–	–	001	023	–	–	–	–	003	014	010	056	–	–	003	009	–	–	–	–	–	–
N52	SEE PART I.																									
N53	–	–	004	064	–	–	–	–	–	–	–	–	–	–	–	–	–	–	005	027	–	–	–	–	–	–
N56	–	–	003	020	–	–	001	014	–	–	–	–	–	–	–	–	–	–	003	006	–	–	–	–	–	–

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART III

Unit: [illegible] Wing (SAC) | Month: March 1957 | Page No: [illegible] | No. of Pages: [illegible] | Reports Control Symbol: [illegible]

Crew Number	Big Photo Runs ALT-6 or B Runs	Big Photo Runs ALT-6 or B Points	Big Photo Runs APT-B ALT-6 or B (L-Band) Runs	Big Photo Runs APT-B ALT-6 or B (L-Band) Points	Big Photo Spot Runs ALT-6 or B Runs	Big Photo Spot Runs ALT-6 or B Points	Big Photo Spot Runs APT-B ALT-6 or B (L-Band) Runs	Big Photo Spot Runs APT-B ALT-6 or B (L-Band) Points	Big Show Runs	Big Show Points	Little Show Runs	Little Show Points	Simulator Runs T-?/ALT-? Runs	Simulator Runs T-?/ALT-? Points	Simulator Runs T-?/ALT-? Runs	Simulator Runs T-?/ALT-? Points	Simulator Runs ALT-6 or B (S-Band) Runs	Simulator Runs ALT-6 or B (S-Band) Points	Simulator Runs APT-B (C) ALT-6 or B (L-Band) Runs	Simulator Runs APT-B (C) ALT-6 or B (L-Band) Points	RBS Photo Chattel Runs Att.	RBS Photo Chattel Runs Succ.	Little River Runs Runs	Little River Runs Points	RBS Chaff "Dispense Out" Att.	RBS Chaff "Dispense Out" Succ.
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-55	56-58	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	53-55	56-58	60-62	63-65
E97	–	–	005	091	–	–	002	027	–	–	–	–	–	–	001	006	–	–	006	020	–	–	–	–	–	–
E99	–	–	003	047	–	–	002	043	–	–	–	–	–	–	–	–	–	–	001	000	–	–	–	–	–	–
E83	–	–	002	036	–	–	001	006	–	–	–	–	–	–	001	006	–	–	002	003	–	–	–	–	–	–
E86	–	–	002	027	CREW DISBANDED 15 MARCH 1957.																					
E88	–	–	007	121	–	–	003	039	–	–	–	–	–	–	001	003	–	–	004	012	–	–	–	–	–	–
E90	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
BCR TOTALS	002	042	121	1917	001	021	080	1151	001	022	–	–	010	047	036	193	004	000	074	259	–	–	–	–	–	–
WING TOTALS	006	120	255	4085	003	057	167	2468 (~~2449~~)	001	022	–	–	033	155	085	428	005	000	183	708	–	–	–	–	–	–
5X TRNG	–	–	010	–	–	–	003	–	–	–	–	–	001	–	–	–	–	–	012	–	–	–	–	–	–	–
PRACT TRNG.	–	–	002	–	–	–	002	–	–	–	–	–	005	–	026	–	–	–	013	–	–	–	–	–	–	–

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART IV

UNIT: [illegible] Bombardment Wing (H) (SAC) | MONTH: [illegible] | PAGE NR: 1 | NR OF PAGES: 8 | REPORTS CONTROL SYMBOL: [illegible]

K. GEN 40 CREW NUMBER 6-10	L. FORMATION 41 TOTAL HOURS 13-15	HOURS 30,000 FEET AND ABOVE 17-19	HOURS 10,000 FEET AND BELOW 21-23	M. P.P. 42 NR OF COMPL PILOT PROFICIENCY MISSIONS 25-27	N. CREW REQUIREMENTS 43 AIRBORNE RADAR DIRECTED APPROACH 29-31	44 PRESS. FLT IN COMBAT POSITION 33-35	45 MONTH LAST STAND. BD CK SUCC. COMPLETED	46 EMERGENCY PROCEDURE DRILL 37-39	47 SIMULATED STRIKE REPORTS 41-43	48 NIGHT CELL MISSIONS 45-47	49 AIR WEAPONS (IN FLIGHT) 49-51	50 WATER INJECTION TAKEOFF 53-54	O. MISCELLANEOUS 51 RADAR RBS-RADAR OBSERVER 57-58	52 RADAR RBS-NAVIGATOR 61-62	53 RBS VISUAL ATTACK-RADAR OBSERVER 64-65	54 RBS VISUAL ATTACK-NAVIGATOR 67-68	55 Sp Weapons Sim Msns	56 A/C Takeoffs & Ldg	57 CP Takeoffs & Ldg	58 A/C CCA or ILS	59 CP CCA or ILS	60 A/C PPI	61 CP PPI	62 A/C Gyro Out	63 CP Gyro Out	64	65	66	67
S95	–	–	–	–	001	–	N/A	–	001	–	–	–	–	–	–	–	–	001	–	001	001	–	–	–	–				
S20	–	–	–	–	001	120	NOV	001	–	–	–	–	012	–	–	–	–	014	–	003	–	–	–	–	–				
																		" NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (CO-PILOT)											
S75	–	–	–	–	001	–	SEP	–	001	–	–	–	004	–	–	–	–	–	002	–	003								
																		* 002											
S78	–	–	–	–	001	–	JAN	001	001	–	–	–	006	–	001	–	–	010	001	002	002	–	–	–	–				
L55	–	–	–	–	–	–	NOV	007	–	–	–	–	010	–	–	–	–	039	–	011	004	–	–	–	–				
L26	–	–	–	–	001	–	NOV	001	–	–	–	–	014	–	–	–	001	025	005	007	005	–	–	–	–				
L85	–	–	–	–	002	–	N/A	002	–	–	–	–	006	–	–	–	001	012	004	002	001	–	–	–	–				
L20	–	–	–	–	–	–	NOV	–	–	–	–	–	002	–	–	–	001	007	–	002	–	001	–	–	–				
																		" NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (CO-PILOT)											
L75	–	–	–	–	002	060	SEP	002	–	–	–	–	006	–	–	–	–	–	–	–	–	–	–	–	–				
																		* 010		* 003		* 001							
L78	–	–	–	–	002	–	JAN	002	–	–	–	–	007	–	–	–	–	019	001	001	001	–	–	–	–				
R26	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	004	–	–	–	–	–	–	–				
STD BD TOTAL	–	–	–	–	011	180	–	016	003	–	–	–	067	–	001	–	003	143	013	032	017	002	–	–	–				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART IV	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	[illegible] Bombardment Wing (B) (SAC)	[illegible]		[illegible]	

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O. MISCELLANEOUS																
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL. PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACKS-RADAR OBSERVER	RBS VISUAL ATTACKS-NAVIGATOR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	67-68													
L72	–	–	–	001	008	240	OCT	001	004	–	–	–	007	002	002	001	001	049	013	008	006	002	001	002	001				
L76	–	–	–	001	007	120	NOV	001	–	–	–	–	014	001	–	–	001	014	004	016	008	–	001	–	001				
L77	–	–	–	–	008	480	OCT	015	005	–	–	–	015	–	–	–	001	022	005	014	005	001	001	002	–				
L80	–	–	–	001	004	180	OCT	002	004	–	–	–	022	001	001	–	001	019	006	013	005	003	–	001	001				
L81	–	–	–	001	001	120	DEC	001	–	–	–	–	010	–	–	–	–	010	010	007	007	003	001	003	001				
L84	–	–	–	001	004	–	OCT	002	–	–	–	–	011	001	–	–	001	036	016	014	002	002	002	–	–				
S-L TOTAL	–	–	–	005	032	1140	–	022	013	–	–	–	079	005	003	001	005	150	052	072	033	011	006	008	004				
R81	–	–	–	–	–	–	DEC	–	–	–	–	–	003	001	002	–	001	004	002	001	001	–	–	–	–				
R15	–	–	–	–	002	240	JAN	004	004	–	–	–	008	–	002	–	–	023	–	007	002	–	–	–	–				
R16	–	–	–	–	003	150	JAN	001	–	–	–	–	007	–	–	–	–	016	–	007	–	003	–	–	–				
R17	–	–	–	–	003	240	JAN	001	002	–	–	–	007	–	–	–	–	006	–	002	001	–	–	–	–				
R21	–	–	–	–	001	120	JAN	001	002	–	–	–	008	–	–	–	–	010	002	005	002	–	–	–	–				
																		"NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (CO-PILOT)											
R25	–	–	–	–	006	240	JAN	001	–	–	–	–	012	–	–	–	001	013	002	008	001	002	001	001	–				
																			008										
R27	–	–	–	–	004	060	JAN	002	–	–	–	–	004	001	–	–	001	010		002	–	–	–	–	–				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART IV

UNIT: [illegible]D Bombardment Wing (H) (SAC) | MONTH: March 195[illegible] | PAGE NR: [illegible] | NR OF PAGES: 8 | REPORTS CONTROL SYMBOL: [illegible]

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O.				MISCELLANEOUS												
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. 3D CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACKS-RADAR OBSERVER	RBS VISUAL ATTACKS-NAVIGATOR	Sp Weapon Sim Mis[illegible]	A/C Ins[illegible] Offs & [illegible]	CP Take Offs & [illegible]	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro [illegible]	CP Gyro [illegible]				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	53-54	57-58	61-62	64-65	67-68													
R28	-	-	-	001	002	-		002	-	-	-	-	007	001	-	-	001	005	003	012	020	002	002	002	001				
R29	-	-	-	-	001	240		003	-	-	-	-	012	-	-	-	-	009	003	005	008	-	-	001	001				
R45	-	-	-	-	-	-		-	-	-	-	-	007	001	-	-	-	007	-	005	-	-	-	-	-				
																			* 008	* 005									
R46	-	-	-	-	002	-	JAN	001	-	-	-	-	010	-	-	-	001	013	004	002	-	-	-	-	-				
R47	-	-	-	-	001	060	JAN	001	-	-	-	-	014	-	-	-	001	020	008	007	002	-	-	-	-				
R48	-	-	-	-	005	240	JAN	004	-	-	-	-	015	002	-	-	-	013	008	004	006	-	001	001	001				
R49	-	-	-	-	001	-	FEB	002	-	-	-	-	009	002	-	-	001	004	002	002	002	001	-	-	-				
R50	-	-	-	-	007	120	DEC	003	-	-	-	-	010	001	-	001	001	018	006	007	002	001	-	-	-				
R54	-	-	-	-	004	060	NOV	-	-	-	-	-	006	-	002	-	-	030	-	011	002	-	-	-	-				
R73	-	-	-	001	004	300	NOV	003	-	-	-	-	010	003	012	-	001	012	007	013	012	001	001	001	001				
R74	-	-	-	-	002	060	NOV	005	004	-	-	-	013	002	002	-	-	026	-	008	-	-	-	001	-				
																	* NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (PILOT).												
																	* NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (CO-PILOT).												
R79	-	-	-	001	005	180	DEC	003	-	-	-	-	010	001	-	-	001	008	018	015	015	002	001	002	001				
R82	-	-	-	-	002	-	FEB	002	-	-	-	-	007	-	-	-	-	007	001	004	002	-	-	001	001				
R87	-	-	-	-	003	120	FEB	003	004	-	-	-	009	001	002	-	-	013	001	006	-	003	001	002	001				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART IV

UNIT: 42D Bombardment Wing (B) (SAC)

MONTH: March 1957

PAGE NR: 1

NR OF PAGES:

REPORTS CONTROL SYMBOL:

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O. MISCELLANEOUS																
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL. PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACK-RADAR OBSERVER	RBS VISUAL ATTACK-NAVIGATOR	Sp Weapons Sim Mis	A/C Tak Offs & Ldgs	CP Tak Offs & Ldgs	A/C Gun or ILS	CP Gun or ILS	A/C PPI	CP PPI	A/C Gun or ILS	CP Gun or ILS				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	53-54	57-58	61-62	64-65	67-68													
R18	–	–	–	–	004	180	JAN	004	003	–	–	–	005	–	–	–	–	012	–	005	–	002	–	001	–				
																			* 004		* 001		* 001						
R19	–	–	–	–	003	240	FEB	001	002	–	–	–	–	003	–	–	001	008	–	006	004	–	–	–	–				
													* 003																
R22	–	–	–	–	004	120	JAN	002	001	–	–	–	007	003	–	–	–	008	–	007	001	–	003	–	–				
																	" NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (CO-PILOT).												
R23	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				
																	" NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (RO).												
R30	–	–	–	–	–	–	MAR	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				
R58	–	–	–	–	–	–	MAR	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				
R60	–	–	–	–	001	–	–	001	–	–	–	–	004	–	–	–	–	–	–	–	002	–	–	–	–				
																			* 010		* 005		* 001						
CR TOTAL	–	–	–	003	070	2970	–	050	022	–	–	–	207	022	012	001	011	315	080	158	086	018	011	013	008				
N18	–	–	–	–	004	–	JAN	001	–	–	–	–	010	–	006	–	–	021	013	014	009	–	–	–	–				
																	" NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (CO-PILOT).												
N19	–	–	–	–	002	[illegible]	FEB	001	–	–	–	–	–	005	–	–	–	020	004	012	002	001	–	–	–				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART IV	UNIT: 42D Bombardment Wing (H) SAC	MONTH: March [illegible]	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL: [illegible]

K. GEN 40 CREW NUMBER (6-10)	L. FORMATION 41 TOTAL HOURS (13-15)	41 HOURS 10,000 FEET AND ABOVE (17-19)	41 HOURS 10,000 FEET AND BELOW (21-23)	M. P.P. 42 NR OF COMPL PILOT PROFICIENCY MISSIONS (25-27)	N. CREW REQUIREMENTS 43 AIRBORNE RADAR DIRECTED APPROACH (29-31)	44 PRESS. FLT IN COMBAT POSITION (33-35)	45 MONTH LAST STAND. BD CK SUCC. COMPLETED	46 EMERGENCY PROCEDURE DRILL (37-39)	47 SIMULATED STRIKE REPORTS (41-43)	48 NIGHT CELL MISSIONS (45-47)	49 AIR WEAPONS (IN FLIGHT) (49-51)	50 WATER INJECTION TAKEOFF (53-54)	O. 51 RADAR RBS-RADAR OBSERVER (57-58)	52 RADAR RBS-NAVIGATOR (61-62)	53 RBS VISUAL ATTACKS-RADAR OBSERVER (64-65)	54 RBS VISUAL ATTACKS-NAVIGATOR (67-68)	MISCELLANEOUS 55 Sp Weap Sim Mi[illegible]	56 A/O Take Offs & [illegible]	57 CP Take Offs & [illegible]	58 A/O GCA or ILS	59 CP GCA or ILS	60 A/O PPI	61 CP PPI	62 A/O [illegible]	63 CP Gyro [illegible]	64	65	66	67
													* 008																
N22	-	-	-		004	-	JAN	-	-	-	-	-	006	-	002	-	-	025	009	005	002	-	-	-	-				
																		" NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (CO-PILOT).											
N23	-	-	-	002	014	360	-	010	003	-	-	-	* 012	002	-	-	001	043	014	020	004	001	001	003	-				
N30	-	-	-	-	004	180	MAR	004	001	-	-	-	008	-	-	-	001	025	014	009	003	001	-	-	-				
N58	-	-	-	-	008	-	MAR	008	-	-	-	-	024	-	-	-	001	027	016	012	009	-	-	-	-				
N60	-	-	-	-	003	-	-	002	-	-	-	-	002	-	-	-	001	-	003	-	002	-	-	-	-				
																		* 024		* 009		* 001							
N15	-	-	-	-	-	-	JAN	002	-	-	-	-	003	-	-	-	-	011	002	006	001	-	-	-	-				
N16	-	-	-	-	001	-	JAN	-	-	-	-	-	007	-	-	-	-	020	012	008	003	004	001	-	-				
N17	-	-	-	-	002	-	JAN	-	-	-	-	-	-	-	-	-	-	010	006	004	004	-	-	-	-				
N21	-	-	-		-	-	JAN	-	-	-	-	-	005	-	-	-	-	012	006	002	003	-	-	-	-				
																		" NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (CO-PILOT).											
N25	-	-	-	-	004	-	JAN	-	-	-	-	-	-	-	-	-	-	003	002	003	001	002	001	-	-				
																		" NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (CO-PILOT).											
N27	-	-	-	-	-	-	JAN	001	-	-	-	-	-	-	-	-	-	002	010	003	001	-	-	-	-				
N28	-	-	-			-	DEC	-	-	-	-	-	005	-	-	-	-	-	-	-	001	-	-	-	-				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART IV	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	[illegible]	[illegible]		[illegible]	[illegible]

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O. MISCELLANEOUS																
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACK-RADAR OBSERVER	RBS VISUAL ATTACK-NAVIGATOR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	53-54	57-58	61-62	64-65	67-68													
N29	–	–	–	–	–	–	JAN	–	–	–	–	–	–	–	–	–	–	010	008	001	001	–	–	–	–				
N45	–	–	–	–	–	–	FEB	–	–	–	–	–	004	–	–	–	–	016	006	003	003	–	001	–	–				
																		" NO ACCOMPLISHMENTS BY THIS CREW MEMBER ". (CO-PILOT).											
N46	–	–	–	–	–	–	JAN	–	–	–	–	–	–	–	–	–	–	012	–	005	008	–	–	–	–				
N47	–	–	–	–	001	–	JAN	–	–	–	–	–	013	002	–	–	–	022	009	003	002	–	–	–	–				
N48	–	–	–	–	004	–	JAN	–	–	–	–	–	003	–	–	–	–	004	002	002	001	–	–	–	–				
N49	–	–	–	001	004	–	FEB	003	–	–	–	–	006	–	–	–	–	014	004	003	–	–	–	–	–				
N50	–	–	–	–	–	–	DEC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				
N82	–	–	–	–	005	–	FEB	004	–	–	–	–	009	–	–	–	001	025	006	009	001	–	–	–	–				
N87	–	–	–	001	003	060	FEB	004	–	–	–	–	–	–	–	–	001	012	004	003	002	–	–	–	–				
N14	–	–	–	–	014	300	MAR	–	–	–	–	–	020	–	004	–	–	031	–	018	–	001	–	–	–				
N24	See Part I																	002	–	001	–	–	–	–	–				
N51	–	–	–	–	006	–	–	001	–	–	–	–	011	–	001	–	–	014	–	007	–	–	–	–	–				
																		" NO ACCOMPLISHMENTS BY THIS CREW MEMBER" (Co-Pilot)											
N52	See Part I																												
N53	–	–	–	–	–	–	–	002	001	–	–	–	014	–	–	–	001	036	–	012	–	–	–	–	–				
N56	–	–	–	–	006	180	–	008	–	–	–	–	008	–	–	–	001	020	–	009	005	–	–	–	–				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT – PART IV

UNIT: [illegible]

MONTH: March 1957

PAGE NR

NR OF PAGES

REPORTS CONTROL SYMBOL

K. GEN 40 CREW NUMBER (6-10)	L. FORMATION 41 TOTAL HOURS (13-15)	41 HOURS 30,000 FEET AND ABOVE (17-19)	41 HOURS 10,000 FEET AND BELOW (21-23)	M. P.P. 42 NR OF COMPL PILOT PROFICIENCY MISSIONS (25-27)	N. CREW REQUIREMENTS 43 AIRBORNE RADAR DIRECTED APPROACH (29-31)	44 PRESS. FLT IN COMBAT POSITION (33-35)	45 MONTH LAST STAND. BD CK SUCC. COMPLETED	46 EMERGENCY PROCEDURE DRILL (37-39)	47 SIMULATED STRIKE REPORTS (41-43)	48 NIGHT CELL MISSIONS (45-47)	49 AIR WEAPONS (IN FLIGHT) (49-51)	50 WATER INJECTION TAKEOFF (53-54)	O. 51 RADAR RBS-RADAR OBSERVER (57-58)	52 RADAR RBS-NAVIGATOR (61-62)	53 RBS VISUAL ATTACKS-RADAR OBSERVER (64-65)	54 RBS VISUAL ATTACKS-NAVIGATOR (63-68)	MISCELLANEOUS 55 Sp Weapon Sim M…	56 A/C Take Offs & Ldgs	57 CP Take Offs & Ldgs	58 A/C GCA or ILS	59 CP GCA or ILS	60 A/C PPI	61 CP PPI	62 A/C Gyro O…	63 CP Gyro O…	64	65	66	67
N57	-	-	-	-	-	-	-	-	-	-	-	-	004	-	-	-	-	004	-	010	-	-	-	-	-				
																			* 006										
N59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	001	026	004	006	001	-	-	-	-				
N83	-	-	-	-	002	120	-	130	-	-	-	-	002	-	-	-		006	009	001	004	-	-	-	-				
																		* 008		* 002		* 001							
																		" NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (CO-PILOT).											
N86	SEE PART I.			-	003	060	-	001	-	-	-	-	-	-	-	-	-	002	-	001	002	-	-	-	-				
																		" NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (CO-PILOT).											
N88	-	-	-	-	003	-	-	-	-	-	-	-	008	002	-	-	001	027	004	009	003	-	-	-	-				
													" NO ACCOMPLISHMENTS BY THIS CREW MEMBER". (RO).																
N90	SEE PART I.																												
NCR TOTAL	-	-	-	003	097	1320	-	058	005	-	-	-	192	011	013	-	010	572	175	212	078	011	004	004	-				
WING TOTAL	-	-	-	011	21[illegible]	5610	-	146	043	-	-	-	545	038	029	002	029	1180	320	474	214	042	021	025	012				
SX TRNG	-	-	-	-	-	-	-	-	-	-	-	-	033	-	-	-	-	188	095	047	020	-	001	-	001				

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HEAVY JET BOMBARDMENT AIR TRAINING REPORT - PART IV	UNIT	MONTH	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
	42D Bombardment Wing (H) (SAC)	March 1957	[illegible]	[illegible]	[illegible]

K. GEN	L. FORMATION			M. P.P.	N. CREW REQUIREMENTS								O.				MISCELLANEOUS												
40	41			42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
CREW NUMBER	TOTAL HOURS	HOURS 30,000 FEET AND ABOVE	HOURS 10,000 FEET AND BELOW	NR OF COMPL PILOT PROFICIENCY MISSIONS	AIRBORNE RADAR DIRECTED APPROACH	PRESS. FLT IN COMBAT POSITION	MONTH LAST STAND. BD CK SUCC. COMPLETED	EMERGENCY PROCEDURE DRILL	SIMULATED STRIKE REPORTS	NIGHT CELL MISSIONS	AIR WEAPONS (IN FLIGHT)	WATER INJECTION TAKEOFF	RADAR RBS-RADAR OBSERVER	RADAR RBS-NAVIGATOR	RBS VISUAL ATTACKS-RADAR OBSERVER	RBS VISUAL ATTACKS-NAVIGATOR	Sp Wea [illegible] Sim [illegible]	A/C Take Offs & [illegible]	CP Take Offs & [illegible]	A/C GCA or ILS	CP GCA or ILS	A/C PPI	CP PPI	A/C Gyro [illegible]	CP Gyro [illegible]				
6-10	13-15	17-19	21-23	25-27	29-31	33-35		37-39	41-43	45-47	49-51	52-54	57-58	61-62	64-65	67-68													
FRACT TRNG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				

1. Average number of combat ready and higher category crews assigned (including standardization crews) - 27.9
2. Average number of combat ready and higher category crews available - 18.9
3. Average number of nor combat ready rews assigned - 20.2
4. Average number of non combat ready crews available - 15.5
5. Average number - standardization crews assigned by crew category - Select - 1.3 Combat Ready - 0

Lead - 4.3 Non Combat Ready - 0

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HEADQUARTERS
45TH AIR DIVISION (SAC)
Loring Air Force Base,
Maine

42DOT 5 April 1957

SUBJECT: (Unclassified) Refueling Air Training Report for March 1957, RCS: 9-SAC-T-12

TO: Commander
Eighth Air Force
Westover Air Force Base
Massachusetts

1. Submitted herewith in accordance with Annex IX, SAC Regulation 50-23, dated 1 May 1956, is Air Refueling Training Report, RCS: 9-SAC-I-12.

2. If inclosures are withdrawn or not attached, the classification of CONFIDENTIAL on this correspondence may be cancelled in accordance with Air Force Regulation 205-1.

FOR THE COMMANDER:

JOSEPH H. JACOBY
Major, USAF
Adjutant

3 Incls:
1. SAC Form 36 (3 pgs)
2. SAC Form 36a (3 pgs)
3. Comdrs Remarks (6 pgs)

cc: CINCSAC
ATTN: DOTRS (T12) (1cy Incl 1, Incl 2, and Incl 3)
COA (T12) (1cy Incl 1, Incl 2, and Incl 3)
D/Pers (1cy Incl 3 only)
D/Mat (1cy Incl 3 only)

COMDR 8AF
ATTN: ODT4 (1cy Incl 1, Incl 2, 10 cys Incl 3)
COM (1cy Incl 1, Incl 2, 5 cys Incl 3)

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PART III – SQUADRON COMMANDER'S REMARKS

1. Hours flown performing missions ordered by:

a. Higher headquarters:

	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
(1)	Cold Wave	00:00	130:50
(2)	Busy Bee	00:00	157:50
(3)	Sun Dog	120:00	168:50
(4)	Ferry (Thule Task Force)	00:00	21:45
(5)	Country Club	230:00	268:40
(6)	AACS Comm. Test	00:00	17:55
(7)	Dog Sled	171:00	181:25
(8)	Giant Killer	78:00	82:35
(9)	Bargain Day	00:00	43:50
(10)	Iron Clad	00:00	17:40
		599:00	1091:20

(a) Reference commitment (7): Programmed time was based on no wind flight plan.

(b) Reference commitment (8): Refueling area was changed to Northwind necessitating longer sorties.

(c) Reference commitment (9): Commitment received after completion of monthly programming.

(d) Reference commitment (10): Commitment received after completion of monthly programming.

b. Eighth Air Force Training Priorities:

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42D AIR REFUELING SQUADRON
MARCH 1957

(1) Programmed and accomplished for current month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED	HOURS ACCOMPLISHED
1	AFR 60-2	00:00	Note (a)
2	Dog Sled	171:00	181:25
3	Giant Killer	78:00	85:35
4	Non-Ready Training (Individual crew members included in number 5)	00:00	00:00
5	Combat Ready Training	334:00	371:20
6	Bargain Day	00:00	43:50
7	Iron Clad	00:00	17:40
	TOTAL	583:00	699:50

(a) Reference priority (1): Proportionate share of AFR 60-2 completed within other priorities.

(b) Reference priority (6): Commitment received after completion of monthly programming.

(c) Reference priority (7): Commitment received after completion of monthly programming.

(2) Flying time programmed for the following month:

PRIORITY	COMMITMENT	HOURS PROGRAMMED
1	AFR 60-2	00:00
2	Devil Fish	205:00
3	Combat Ready Training	515:00
4	Non-Ready Training (Individual crew member training included with priority 3)	00:00
	TOTAL	720:00

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2. Weather or local conditions:

a. Not applicable for this reporting period.

3. Air Traffic control delay information:

a. Not applicable for this reporting period.

4. Restrictive directives:

a. SAC TWX DO 1842, restricting all KC-97 aircraft to 155,000 pounds gross weight at take-off.

5. Combat Crew member gains and losses:

a. Crew members gained.

(1) 1 Aircraft Commander

(2) 0 Pilots

(3) 0 Observers

(4) 0 Engineers

(5) 0 Boom Operators

b. Crew members lost:

(1) One (1) CR and one (1) NCR aircraft commander to 42d Bombardment Wing.

(2) One (1) CR aircraft commander to 42d Air Base Group.

(3) One (1) CR pilot to 42d Air Base Group.

(4) One (1) radio operator discharged.

6. Crew member changes:

a. 5 Aircraft Commanders

b. 2 Pilots

c. 1 Observer

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d. 0 Engineers

e. 1 Boom Operator

7. New Crews:

a. Crew M-29 formed 1 February 1957.

8. Crew Status Changes:

a. Crew T-15 disbanded on 1 Feb 57 - Loss of engineer - PCS.

b. Crew M-29 formed on 1 Feb 57 - Addition of student engineer.

c. Crew M-28 disbanded on 1 Feb 57 - Reassignment of aircraft commander.

d. Crew M-29 disbanded on 26 Mar 57 - Loss of aircraft commander DOS.

9. Standardization crews:

a. T-02 assigned September 1955.

b. T-08 assigned April 1956.

10. Additional Materiel and personnel problems:

a. Not applicable for this reporting period.

11. Refueling data:

a. Number of refueling sorties scheduled and confirmed: 154

b. Number of sorties:

(1) Airborne: 143

(2) Effecting complete electronic rendezvous: 117

(3) Transferring required fuel: 121

c. Number of aborts due to:

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(1) Adverse weather: 0

(2) Aircraft malfunction: 21

(3) Electronic rendezvous equipment malfunction: 0

(4) Refueling equipment malfunction: 0

(5) Other causes:

(a) Receiver cancellation: 12

d. Mass night cell refueling:

(1) Confirmed sorties: 35

(2) Airborne sorties: 35

(3) Sorties effecting complete rendezvous: 33

(4) Sorties transferring required fuel: 34

e. Fuel transferred:

(1) Gallons: 416,691

(2) Pounds: 2,500,143

12. Comments and Recommendations of the Squadron Commander:

a. Local conditions (limited daylight hours and inclement weather) while at TDY location precluded accomplishing 100% of the quarterly requirement for co-pilot proficiency items.

b. Insufficient air refueling sorties were provided while at Thule AFB to permit completion of all air refueling requirements.

c. The 42d Air Refueling Squadron will drop below the SAC standard of twenty-five (25) assigned crews with the loss of three (3) student flight engineers to Randolph AFB in May 1957.

d. The unit completed 97.6% of SAC REG 50-8 requirements.

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13. Ground Training:

a. Combat ready crews attending SAC Regulation 50-24 requirement - 22

b. Combat ready crews completing SAC Regulation 50-24 requirements - 22

c. Combat ready crews scheduled to attend block training in accordance with SAC Regulation 50-24 during April - None

d. Factors precluding crews from completing ground training requirements during March 1957 - None

for WILLIE H. SONNTAG
Major, USAF
Commander

PART IV - WING COMMANDER'S REMARKS, 42D BOMBARDMENT WING (H) (SAC)

I concur with the remarks of the Commander of the 42d Air Refueling Squadron.

for DONALD E. HILLMAN
Colonel, USAF
Commander

PART V - DIVISION COMMANDER'S REMARKS, 45TH AIR DIVISION (SAC)

I concur with the remarks and recommendations of the Wing Commander.

W. K. MARTIN
Brigadier General, USAF
Commander

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AIR REFUELING AIR TRAINING REPORT – PART I	UNIT: 421 AIR REFUELING SQUADRON	MONTH: MARCH	PAGE NR: 3	NR OF PAGES	REPORTS CONTROL SYMBOL: 9-SAC-752

A. GENERAL					B. AIR REFUELING										C. RADAR RENDEZVOUS						D. NAVIGATION								
1	2	3	4	5	6		7		8		9		10		11		12		13		14	15					16	17	18
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	TOTAL REFUELINGS		DAY REFUELINGS		NIGHT REFUELINGS		IN RADIO SILENCE		KC-97 FIGHTER REFUELINGS 20,000 LBS		TOTAL RENDEZVOUS		MULTIPLE RENDEZVOUS PATTERN		AN/APN-12-76		NR OF DAY CELESTIAL NAVIGATION LEGS	NIGHT CELESTIAL					NUMBER OF RADAR NAVIGATION LEGS	NR OF PRESS. PATTERN LEGS (SCR-718)	NUMBER OF LORAN NAVIGATION LEGS
					ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		TOTAL LEGS	CIRCULAR ERROR						
																							1	2	3				
6-10	11-15	17-19	21-23	26-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-52	52-54	56-58	60-62	63-65
T02	KC-97G	012	073	–	006	006	004	004	002	002	006	006			004	004	002	002	004	004	–	–	–	–	–	004	–	002
T08	KC-97G	012	083	–	001	001	001	001	–	–	001	001			001	001	001	001	–	–	003	001	008	–	–	001	001	–
STBD TOTALS	KC-97G	024	156	–	007	007	005	005	002	002	007	007			005	005	003	003	004	004	003	001	008	–	–	005	001	002
T01	KC-97G	026	128	–	008	008	005	005	003	003	005	005			007	006	002	002	003	002	002	003	008	010	010	005	001	004
T03	KC-97G	020	094	–	008	007	004	004	004	003	004	004	NOT APPLICABLE	NOT APPLICABLE	008	008	004	004	003	003	001	001	013	–	–	004	001	003
T04	KC-97G	014	090	–	003	003	001	001	002	002	002	002			003	003	002	002	–	–	004	003	005	004	008	003	003	002
																						001	010	–	–			
T05	KC-97G	014	084	–	004	004	003	003	001	001	002	002			005	004	002	002	002	001	002	002	012	005	–	005	001	003
T-06	KC-97G	015	088	–	008	008	003	003	005	005	003	003			007	007	001	001	005	005	002	003	002	002	006	003	002	002
																						001	010	–	–			
T07	KC-97G	019	120	–	007	007	001	001	006	006	004	004			011	011	005	005	009	009	002	003	015	009	007	008	002	004
T09	KC-97G	020	111	–	006	006	003	003	003	003	004	004			005	005	003	003	002	002	001	003	003	003	009	004	002	005
																						001	013	–	–			
T10	KC-97G	016	099	–	008	008	006	006	002	002	004	004			009	009	006	006	003	003	001	003	014	014	004	008	001	002
																						002	008	010	–			
T11	KC-97G	010	059	–	002	002	002	002	–	–	–	–			003	002	–	–	003	002	001	–	–	–	–	005	–	001

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AIR REFUELING AIR TRAINING REPORT – PART I

UNIT: [illegible] AIR REFUELING SQUADRON

MONTH: MARCH

PAGE NR: 2

NR OF PAGES: [illegible]

REPORTS CONTROL SYMBOL: [illegible]

A. GENERAL					B. AIR REFUELING										C. RADAR RENDEZVOUS						D. NAVIGATION								
1	2	3	4	5	6		7		8		9		10		11		12		13		14	15				16	17	18
CREW NUMBER	TYPE AND MODEL AIRCRAFT	NUMBER OF SORTIES	FLYING TIME	USCM	TOTAL REFUELINGS		DAY REFUELINGS		NIGHT REFUELINGS		IN RADIO SILENCE		KC-97 FIGHTER REFUELINGS 20,000 LBS		TOTAL RENDEZVOUS		MULTIPLE RENDEZVOUS PATTERN		AN/APN-12-76		NR OF DAY CELESTIAL NAVIGATION LEGS	NIGHT CELESTIAL				NUMBER OF RADAR NAVIGATION LEGS	NR OF PRESS. PATTERNS LEGS (SCR-718)	NUMBER OF LORAN NAVIGATION LEGS
					ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.	ATT.	SUCC.		TOTAL LEGS	CIRCULAR ERROR 1	CIRCULAR ERROR 2	CIRCULAR ERROR 3			
6-10	11-15	17-19	21-23	26-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-52	52-54	56-58	60-62	63-65
T13	KC-97G	002	12.6	–	005	005	003	003	002	002	004	004			005	005	002	002	003	005	002	003	011	006	004	009	002	005
T14	KC-97G	016	094	–	004	004	003	003	001	001	004	004			005	005	002	002	004	004	003	002	000	005	–	003	002	002
T15	KC-97G	004	028	–	001	001	–	–	001	001	001	001			001	001	001	001	–	–	–	002	010	009	–	002	001	–
T16	KC-97G	012	067	–	003	003	001	001	002	002	003	003			003	003	001	001	002	002	002	002	008	006	–	004	001	003
T17	KC-97G	018	099	–	006	006	006	006	–	–	004	004	NOT APPLICABLE	NOT APPLICABLE	006	006	002	002	003	003	004	001	010	–	–	004	001	003
T18	KC-97G	006	110	–	008	008	004	004	004	004	007	007			009	008	005	005	003	002	002	003	010	004	007	003	–	–
																						002	004	006	–			
T19	KC-97G	008	061	–	004	004	002	002	002	002	002	002			004	004	–	–	004	004	001	003	008	015	010	002	001	003
T20	KC-97G	005	033	–	002	002	–	–	002	002	002	002			002	002	002	002	–	–	001	003	008	009	008	003	–	001
T21	KC-97G	024	130	–	005	005	002	002	003	003	004	003			006	006	004	004	001	001	001	003	008	019	003	004	001	002
																						001	006	–	–			
T23	KC-97G	019	102	–	009	009	005	005	004	004	006	006			008	008	003	003	005	005	001	003	009	018	010	004	001	004
																						002	006	014	–			
T24	KC-97G	013	070	–	005	005	003	003	002	002	001	001			005	005	003	003	002	002	002	003	012	009	018	002	002	004
																						001	019	–	–			
T22	KC-97G	010	123	–	007	007	004	004	003	003	005	005			010	009	004	004	006	005	007	003	016	007	010	009	002	005
																						001	012	–	–			

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AIR REFUELING AIR TRAINING REPORT - PART I

UNIT: AIR REFUELING SQUADRON | MONTH: [illegible] | PAGE NR: 3 | NR OF PAGES: 3 | REPORTS CONTROL SYMBOL: 9-SAC-[illegible]

A. GENERAL — B. AIR REFUELING

1 CREW NUMBER (6-10)	2 TYPE AND MODEL AIRCRAFT (11-15)	3 NUMBER OF SORTIES (17-19)	4 FLYING TIME (21-23)	5 USCM (26-27)	6 TOTAL REFUELINGS ATT. (29-31)	6 TOTAL REFUELINGS SUCC. (33-35)	7 DAY REFUELINGS ATT. (37-39)	7 DAY REFUELINGS SUCC. (41-43)	8 NIGHT REFUELINGS ATT. (45-47)	8 NIGHT REFUELINGS SUCC. (49-51)	9 IN RADIO SILENCE ATT. (52-54)	9 IN RADIO SILENCE SUCC. (56-58)	10 KC-97 FIGHTER REFUELINGS 20,000 LBS ATT. (60-62)	10 KC-97 FIGHTER REFUELINGS 20,000 LBS SUCC. (63-65)
GR TOTALS	KC-97G	321	1875	-	113	112	061	061	[illegible]	[illegible]	[illegible]	070		
M25	KC-97G	001	002	-	-	-	-	-	-	-	-			
M26	KC-97G	001	005	-	001	001	001	001	-	-	-			
M27	KC-97G	NO FLIGHT AS A CREW THIS QUARTER											NOT APPLICABLE	NOT APPLICABLE
M28	KC-97G	DISBANDED 1 FEB 57												
M29	KC-97G	DISBANDED 26 MAR 57												
WCR TOTALS	KC-97G	002	007	-	001	001	001	001	-	-	-	-		
WING TOTALS	KC-97G	347	2038	-	121	120	067	067	054	053	078	077		

C. RADAR RENDEZVOUS — D. NAVIGATION

CREW NUMBER	11 TOTAL RENDEZVOUS ATT. (13-15)	11 TOTAL RENDEZVOUS SUCC. (17-19)	12 MULTIPLE RENDEZVOUS PATTERN ATT. (21-23)	12 MULTIPLE RENDEZVOUS PATTERN SUCC. (25-27)	13 AN/APN-12-76 ATT. (29-31)	13 AN/APN-12-76 SUCC. (33-35)	14 NR OF DAY CELESTIAL NAVIGATION LEGS (37-39)	15 NIGHT CELESTIAL TOTAL LEGS (41-43)	15 CIRCULAR ERROR 1 (45-47)	15 CIRCULAR ERROR 2 (49-52)	15 CIRCULAR ERROR 3 (52-54)	16 NUMBER OF RADAR NAVIGATION LEGS (56-58)	17 NR OF PRESS. PATTERN LEGS (SCN-TM) (60-62)	18 NUMBER OF LORAN NAVIGATION LEGS (63-65)
GR TOTALS	122	117	054	054	063	058	042	064	280	284	107	094	027	058
M25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M26	-	-	001	001	-	-	-	-	-	-	-	-	-	-
M27														
M28														
M29														
WCR TOTALS	-	-	001	001	-	-	-	-	-	-	-	-	-	-
WING TOTALS	127	122	058	058	067	062	045	065	288	284	107	099	028	060

[illegible] CO-PILOT TYD TO ALTITUDE CHAMBER 26-29 MARCH 1957.

SAC FORM [illegible] APR 56 — PREVIOUS EDITIONS ARE OBSOLETE.

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AIR REFUELING AIR TRAINING REPORT – PART II

UNIT: [illegible] SQUADRON | MONTH: [illegible] | PAGE NR: 1 | NR OF PAGES: [illegible] | REPORTS CONTROL SYMBOL: [illegible]

E. GEN	F. CEL GRID NAV.			G. P.P.	H. LOADING		I. EMERGENCY PROCEDURE DRILLS					J. CELL MISSIONS			K. STD. BD	L. MISCELLANEOUS										
19	20			21	22	23	24	25	26	27	28	29			30	31	32	33	34	35	36	37	38	39	40	41
					KC-97																					
CREW NUMBER	TOTAL LEGS	CIRCULAR ERROR 1	CIRCULAR ERROR 2	NUMBER OF COMPLETE PILOT PROF. MISSIONS	LOAD. & UNLOAD. EXP PASS. OR CARGO	PRECOMPUTATION OF MAX LOAD	NUMBER OF SIMULATED BAIL-OUTS	NUMBER OF SIMULATED DITCHINGS	NR OF SIMULATED CRASH LANDINGS (AIRCREW)	NR OF SIMULATED CRASH LANDINGS (MAX PASS.)	PASSENGER EMERGENCY PROCEDURE BRIEFING	TOTAL CELL MISSIONS	DAY CELL MISSIONS	NIGHT CELL MISSIONS	DATE OF LAST STANDARDIZATION CHECK	No Long [illegible] Cruise [illegible] Missions	Performance Index	Performance Index	No Dry Contacts Accomplished	Airborne Radar Appr.	A/C Take-Off	OP Taxi [illegible] & Ldgs	A/C ILS or GCA	[illegible]	[illegible]	[illegible]
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65												
T02	–	–	–	001	001	–	010	009	010	007	007	004	002	002	JUN	–	–	–	005	–	026	001	007	01	– –	– –
T08	001	018	–	–	001	–	–	–	–	001	001	001	001	–	SEP	–	–	–	–	–	022	001	010	001	1 –	– –
STBD TOTALS	001	018	–	001	001	–	010	009	010	[illegible]	[illegible]	[illegible]	003	002	–	–	–	–	005	–	048	002	01[illegible]	002	1 –	– –
T01	001	009	–	–	001	006	003	003	003	–	003	001	001	–	AUG	001	091	–	039	003	036	013	005	005	– 1	1 1
T03	002	009	013	001	001	012	003	003	002	001	004	00[illegible]	001	005	FEB	001	096	–	011	009	017	[illegible]	010	007	2 3	2 1
T04	002	006	007	001	003	006	008	007	008	003	004	004	001	00	OCT	001	090	–	–	004	022	[illegible]4	009	003	2 1	1 –
T05	002	004	006	001	001	–	007	007	007	006	006	002	001	001	AUG	002	093	092	019	005	020	008	007	007	1 1	2 1
T06	002	019	019	001	001	006	003	003	003	002	004	004	002	002	DEC	001	100	–	–	007	01[illegible]	012	007	004	3 2	1 2
T07	002	006	006	001	004	006	018	018	018	018	018	005	001	005	JUL	002	090	096	012	018	046	013	019	001	2 1	2 1
	001	018	–													001	096	–								
T09	002	005	012	001	001	006	006	006	006	009	012	001	–	001	SEP	002	098	090	003	004	040	007	015	002	1 1	3 –
T10	002	008	008	001	003	006	013	013	013	004	004	005	004	002	NOV	002	092	097	020	013	023	009	012	005	2 2	2 3
	001	015	–																							
T11	001	017	–	001	–	006	007	007	007	002	005	–	–	–	MAR	001	09[illegible]	–	025	002	017	003	011	001	1 1	– –
T13	002	012	003	–	002	006	019	019	019	008	010	004	003	001	DEC	001	090	–	008	009	026	016	010	005	1 1	1 1
	001	003	–																							
T14	002	006	014	004	001	006	013	013	013	003	003	002	001	–	SEP	001	096	–	–	002	030	021	013	006	1 1	– 1

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AIR REFUELING AIR TRAINING REPORT – PART II

UNIT: AIR REFUELING SQUADRON | MONTH: MARCH | PAGE NR: 2 | NR OF PAGES: 3 | REPORTS CONTROL SYMBOL: [illegible]

E. GEN 19	F. CEL GRID NAV. 20			G. P.P. 21	H. LOADING 22	23	I. ENERGENCY PROCEDURE DRILLS 24	25	26	27	28	J. CELL MISSIONS 29			K. STD. BD 30	L. MISCELLANEOUS 31	32	33	34	35	36	37	38	39	40	41
CREW NUMBER	TOTAL LEGS	CIRCULAR ERROR 1	CIRCULAR ERROR 2	NUMBER OF COMPLETE PILOT PROF. MISSIONS	KC-97 LOAD & UNLOAD, EWP PASS. OR CARGO	KC-97 PRECOMPUTATION OF MAX LOAD	NUMBER OF SIMULATED BAIL-OUTS	NUMBER OF SIMULATED DITCHINGS	NR OF SIMULATED CRASH LANDINGS (AIRCREW)	NR OF SIMULATED CRASH LANDINGS (MAX PASS.)	PASSENGER EMERGENCY PROCEDURE BRIEFING	TOTAL CELL MISSIONS	DAY CELL MISSIONS	NIGHT CELL MISSIONS	DATE OF LAST STANDARDIZATION CHECK	No Long Range Cruise Control Missions	Performance Index	Performance Index	No Dry Contact Accounts	Airborne Radar Apps.	A/C Take-Off	GP Take-Off	A/C ILS or CCA	GP ILS or CCA	PFI	GYRO OUT
6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65												
T15	001	008	-	001	-	006	001	001	001	001	002	002	001	001	JUL	-	-	-	-	002	006	-	003	-	- -	- -
T16	002	008	016	001	001	006	004	004	004	003	004	002	-	002	AUG	002	096	090	-	-	015	007	004	004	2 1	- -
T17	002	012	018	002	007	006	005	004	005	005	007	003	003	-	SEP	001	100	-	035	003	028	019	010	005	1 -	- -
T18	002	014	018	001	003	006	005	002	003	001	005	004	002	002	MAR	001	096	-	009	005	057	009	012	002	- -	- -
T19	002	016	016	-	001	009	005	005	005	004	004	-	-	-	MAR	001	090	-	029	004	021	007	007	002	- 1	- 1
	002	004	016																							
T20	002	010	020	-	003	006	005	005	005	004	004	001	-	001	SEP	001	096	-	-	-	007	005	003	002	- -	- -
T21	002	008	003	-	001	008	019	019	019	011	012	004	002	002	OCT	002	090	094	007	004	029	011	014	007	1 2	1 1
	001	003	-																							
T22	002	014	014	001	001	006	018	018	018	016	016	003	002	001	JUL	002	098	097	035	003	032	010	015	007	1 -	2 1
	002	018	010													002	099	100								
T23	002	007	012	001	002	006	006	006	006	004	004	002	-	002	DEC	-	-	-	019	004	026	014	005	003	1 1	3 3
	002	011	012																							
T24	002	009	010	002	001	006	003	004	003	003	001	003	001	002	SEP	002	094	091	003	003	016	006	006	002	2 1	1 -
	001	004	-																							
CR TOTALS	050	[illegible]	253	021	038	131	171	167	168	108	132	058	[illegible]	[illegible]	-	030	[illegible]	[illegible]	274	103	530	212	197	080	24 21	22 17

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6-10	13-15	17-19	21-23	25-27	29-31	33-35	37-39	41-43	45-47	49-51	52-54	56-58	60-62	63-65												
												-	-	-	-	-	-	-	-	-	009	-	004	-	- -	- -
M25	-	-	-	-	-	-	-	-	-	-	-	001	001	-	-	-	-	-	-	-	002	-	-	001	- -	- -
M26	002	030	015	-	-	-	-	-	-	-	-															
M28	DISBANDED 1 FEB 5[illegible].																									
M29	DISBANDED 26 MAR [illegible].																									
NCR TOTALS	002	030	015	-	-	-	-	-	-	-	-	001	001	-	-	-	-	-	-	-	031	-	-	00[illegible]	- -	- -
WING TOTALS	053	3[illegible]1	268	022	039	131	181	176	178	116	140	064	030	034	-	030	1982	847	279	103	583	214	214	083	24 21	22 1[illegible]
SA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	034	002	011	-	- -	- -

1 AVERAGE NUMBER OF COMBAT READY AND HIGHER CATEGORY CREWS ASSIGNED (INCLUDING STANDBOARD CREWS). - 22.7

2 AVERAGE NUMBER OF COMBAT READY AND HIGHER CATEGORY CREWS AVAILABLE - 20.5

3 AVERAGE NUMBER OF COMBAT READY CREWS ASSIGNED - 3.7

4 AVERAGE NUMBER OF NON-COMBAT READY CREWS ASSIGNED - 0

5 AVERAGE NUMBER OF STANDARDIZATION CREWS ASSIGNED BY CREW CATEGORY - 2

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOC

SUBJECT: ECM Phase 50-24 Ground Training.

TO: ECM Officers

1. The ECM portion ofthe 50-24 Ground Training program is outlined below for your information and guidance.

SUBJECT	HOURS	METHOD OF PRESENTATION
I AN/APS-54 and Inflight Maintainence.	2½	Lecture
II Intelligence	4	Self Study 4 Intelligence Folders have been prepared and will be signed for in room 16 of Training and Briefing. These folders will be studied in room 12 and 13 (ECM Mockup). An open book questionaire will be completed and returned with the folder.
III Equipment	1	Student participartion will be accomplished in conjunotion with Intelligence portion -ie- one person will operate the equipment while the others review the intelligence folders Minimum of one hour operating time will be required.
IV AFM 101-7	1	Lecture
V Penetration Reconnaissance	2	Lecture
VI Tour of A&E Facilities	1	Student Participation

ELLWYN B. THOMAS
Lt. Colonel USAF
Wing ECM Officer

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COMMUNICATIONS GROUND TRAINING
SAC Regulation 50-24

SUBJECT: Communications Phase 50-24 Ground Training.

1. The Communications portion of the 50-24 Ground Training is outlined below for your information and guidance.

a. Communications General (1 hour). Stress given to teach the effective use of HF and UHF equipment. The method of presentation will be by lecture.

(1)	Operation of HF Set	10 Min.
(2)	Operation of UHF Set - ARA-25	10 Min.
(3)	Operation of IFF equipment	10 Min.
(4)	Propagation Characteristics	5 Min.
(5)	Reporting	10 Min.
(6)	SACADS, SACSUBS, Base designators	10 Min.

b. Emergency Communications equipment and procedures. The purpose ofthhs lecture (3 hours) is to teach the general purpose of each item of equipment and give the procedures for the use. The method of presentation will be by lecture and demonstration of the equipment.

(1)	General Emergency Information	30 Min.
(2)	URC-4	1 Hour
	(a) Purpose	
	(b) Description and function of major components	
	(c) Capabilities and Limitations	
	(d) Operating Instructions	
	(e) Operating Procedures	
(3)	RS-6	1 Hour
	(a) Purpose	
	(b) Description and function of major components.	
	(c) Capabilities	
	(d) Operating instructions	
	(e) Operating procedures	
(4)	Literal One Time Pad	30 Min.

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(a) Purpose and Use

(b) Practice by students

JARVIS A. STRONG JR
Major, USAF
Wing Communications Officer

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COMMUNICATIONS GROUND TRAINING
SAC Regulation 50-24

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	(a) Purpose	
	(b) Description and function of major components	
	(c) Capabilities and Limitations	
	(d) Operating Instructions	
	(e) Operating Procedures	
(3)	RS-6	1 Hour
	(a) Purpose	
	(b) Description and function of major components.	
	(c) Capabilities	
	(d) Operating instructions	
	(e) Operating procedures	
(4)	Literal One Time Pad	30 Min.

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(a) Purpose and Use

(b) Practice by students

JARVIS A. STRONG JR
Major, USAF
Wing Communications Officer

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42D BOMB WING
FLIGHT CREW FLIMSY

DO

FUR COLLAR IV
(WEDNESDAY 6 MARCH 1957)

FLYING SAFETY
"TWO AIRPLANES
FACE TO FACE
NEITHER GAVE WAY
NOW THERE'S NO TRACE"

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
4 MARCH 1957

PILOTS FLIMSY 216-57 "FUR COLLAR IV"

1. GENERAL:

a. On 9 and 10 April 1957 the 42BW will participate in the 8th AF bombing competition exercise "Pace Setter VII". 8th Air Force has allocated RBS time on 6 and 18 March and 1 April to the 42BW for bomber stream practice, on Atlanta and Little Rock. These are two of the targets to be bombed on Pace Setter VII.

b. In addition to normal training, those crews checked out in "Hi Jinks" and those crews with Instructor pilots aboard will execute "Hi Jinks" Maneuvers on "Fur Collar IV" on Atlanta and Little Rock RBS, and Schenectady camera attack.

2. BRIEFING AND DEBRIEFING:

a. Specialized Briefing: To be held immediately following the general briefing in the Training and Briefing Building.

b. Pre-Takeoff Weather Briefing:

CREWS 1 - 4	1600E	@	75TH BS
CREWS 5 - 8	1645E	@	75TH BS
CREWS 9 - 13	1730E	@	75TH BS

c. DEBRIEFING: Will be conducted at A&E. Pilots are requested to have all forms ready as there is little separation between landing times. Two debriefing teams will be utilized.

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3. GROUND AIRCRAFT MOVEMENT:

a. Parking and Taxi Plan: To be covered in pre-takeoff meeting.

b. Start Engines: 40 Minutes prior to takeoff.

c. Taxi: 20 Minutes prior to takeoff.

d. Takeoff Interval: 10 minutes between acft.

4. GENERAL: (See detailed attached "Aircraft Schedules".

PILOT	ACFT	T/O TIMES (E) (APPROX)	IP
SANDACZ	083	1830	
FRAZIER	090	1840	
DOUGLAS	091	1850	
CHILDS	080	1900	
ANASTASIA	081	1910	
ROBERTS	071	1920	
*BRUCE	084	1930	
*SUPRENANT	058	1940	BATSON
*BRITTON	079	1950	
*EDGE	059	2000	WARREN
*DEATON	672	2010	SWANCUTT
*HOWARD	680	2020	STEWART
*BELL	073	2030	HUDLOW

5. CLIMB PROCEDURE: * HI JINKS RUNS

a. North T/O

(1) Climb straight ahead.

(2) Raise flaps at 1000 feet.

(3) Execute 90° right turn 15° bank at end of four minutes from T/O roll, and climb 10,000 feet, then turn on course to Houlton VOR.

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(4) Proceed on course.

b. South T/O *

(1) Climb straight ahead

(2) Raise flaps at 1000 feet

(3) Execute 90° left turn at the end of four minutes and climb to 10,000 feet, then turn on course to Houlton VOR.

c. For both North and South T/O's. Climb A/S will be 310KIAS until reaching MACH .765 until level off. Maintain MACH .765 until level off.

6. PILOTS INFORMATION:

DEPART LORING:	ALTITUDE
TO: HOULTON	
TO: LEVEL OFF	34-37M
TO: LEWISTON - START GRID	
TO: END GRID - (2:06 LATER)	
TO: START CLIMB	39-42M
TO: MT AIRY - DOG LEG TO PRE-IP	
TO: HHCL BRISTOL, VA.	
TO: ASHVILLE, N.C. P.I.P.	
TO: TOCCOA, GA. I.P.	
TO: TGT ATLANTA - TGT "I"	
TO: TUSCALOOSA	
TO: LITTLE ROCK - TGT "J"	
TO: START NITE CELESTIAL	
TO: 42-00N 91-30W (TP)	40-43M
TO: HARRISBURG (END NITE X)	

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TO: READING

TO: SCHENECTADY (CAMERA ATTACK)

TO: "FOUNDER" (ACFT #1 - 3 - 5 - 7 - 9 - 11 - 13 ECM RUNS)

TO: LORING AFB

NOTE: True airspeeds as shown on the navigators flight plan will be used by all aircraft in order to preserve the ten (10) minute time interval of the bomber stream.

7. Reporting procedures for this mission are simple. (See Communications) The first and last aircraft will do the reporting to ATC.

8. Since aircraft involved in this mission vary as regards amount fuel aboard, it will be the responsibility of each pilot to determine at READING, PA, as to whether or not he will continue the planned mission, or file individual ATC clearance from READING, PA, direct to Bar Harbor, direct to Houlton and Loring AFB. The minimum fuel in tanks at Reading to continue the mission as planned is 69,000 lbs to reach Houlton VOR with 50,000 lbs fuel reserve.

9. HHCL times remain as assigned, regardless of other aborting aircraft in the bomber stream. Late take off slots will be assigned from the tower.

10. "Hi Jinks" procedures are listed in inclosure 2.

11. Clearance will be signed off by WX officer at pre-take-off briefing.

12. Recovery plan will be directed by Loring RAPCON.

13. Air aborts will turn 90° out of the bomber stream for two minutes, descend to a non-conflicting altitude and contact nearest ATC facility for further clearance.

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14. CLEARANCES: The Form 175 "D" section will include the remarks "As filed, FUR COLLAR IV" for those aircraft making ECM runs at "FOUNDER", the following information will be included in the remarks section: "PASS TO 32ADV, ONE BIG PHOTO RECORD RUN, FOUNDER, (TIME)Z.

15. Recall word is WATER TANK.

16. Alternate bases enroute are:

BASE	RUNWAY
WRIGHT PATTERSON	10,000X300
EGLIN	10,000X300
FORT WORTH	10,500X300
WESTOVER	11,600X300

17. The project officers for this mission are Lt Col McCourt (General) 26173 - 2133, Major Hunt (General) 26173- 2133, Capt Milligan (Navigator 24118, Major Goris - (Hi Jinks) 24118, M/Sgt Green (Communications) 5159 - 2145, L/Col Thomas (ECM) 5159 - 2145).

4 Incls
1. Acft Schedules
2. Hi Jinks procedures (Unclassified)
3. Nav Flt Plan
4. Communications.

DON W. BAILEY
Colonel USAF
Director of Operations

OFFICIAL:
FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

DISTRIBUTION:

42C	1 cy
42DO	10 cys
42DM	3 cys
69th BS	10 cys
70th BS	10 cys
75th BS	10 cys
ADO	1 cy
Base Operations	2 cys (less incl 2)
Base Weather	1 cy (less incl 2)
AACS (RAPCON)	3 cys (less incl 2)

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AIRCRAFT SCHEDULES

"FUR COLLAR IV"
(ALL TIMES ZULU)

NO	ACFT	C/S	PILOT	T/O	HHCL	ATLANTA	LITTLE ROCK	SCHENECTADY	REMARKS
1	083	90	SANDACZ		0234	0303	0420	0605	
2	090	32	FRAZER		0244	0313	0430	0615	
3	091	63	DOUGLAS		0254	0323	0440	0625	
4	080	89	CHILDS		0304	0333	0450	0635	
5	081	29	ANASTASIA		0314	0343	0500	0645	
6	071	86	ROBERTS		0324	0353	0510	0655	
7	084	30	BRUCE		0334	0403	0520	0705	HI JINKS - (SOLO)
8	058	82	SUPRENANT		0344	0413	0530	0715	HI JINKS - BATSON/GORIS
9	079	59	BRITTON		0354	0423	0540	0725	HI JINKS - (SOLO)
10	059	22	EDGE		0404	0433	0550	0735	HI JINKS - WARREN/BENSEY
11	072	46	DEATON		0414	0443	0600	0745	HI JINKS - SWANCUTT/CARPERTER
12	080	18	HOWARD		0424	0453	0610	0755	HI JINKS - STEWART
13	073	57	BELL		0434	0503	0620	0805	HI JINKS - HUDLOW/BOSSERT
*					0444	0513	0630	0815	
*					0454	0523	0640	0825	
*					0504	0533	0650	0835	
*					0514	0543	0700	0845	

NOTES: * Late take off slots

1. Minimum fuel in tanks at Reading, Pa to continue mission 69,000 lbs, otherwise delete Hi Jinks camera attack at Schenectady, and file individual ATC clearance direct to Bar Harbor, direct to Houlton, and Loring AFB. CAUTION: Contact Loring RAPCON for descent instructions as soon as possible after Bar Harbor.

2. Wind take off times to be completed at weather briefing.

INCLOSURE I

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"HI JINKS" PROCE

TIME	PILOT	CO-PILOT
Prior to Flight	(1) Normal Planning Procedures	(1) Normal Planning Procedures
Preflight	(1) Normal Preflight Procedures	(1) Normal Preflight Procedures
Before Pre-IP	(1) Bank angle and rate of turn determined. Bank angle should not exceed brief limits. (2) Check rate of turn to insure that minumum and maximum heading changes falls within limits. (3) Increase speed to MACH .82	(1) Make normal RBS call in but include with type of run the words "Hi Jinks" Maneuver right" (or left) obtain confirmation from RBS site on direction of turn.

Inclosure 2
PAGE 1

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"HI JINKS" PROCEDU

TIME	PILOT	CO-PILOT
Pre-IP	(1) Normal check list procedures	(1) Normal check list procedures
IP	(1) Normal check list procedures	(1) Normal check list procedures
Bomb Run	(1) 15 seconds prior to release transmit over interphone 15 sec, 10 sec, 5 sec, 4, 3 2, 1, bombs away starting turn. (caution: use bomb release light on instrument panel and not light on PDI as indication of bomb release)	(1) Normal check list procedures
Bomb Release	(1) On instruments initiate turn to computed bank angle. (2) Maintain bank angle and altitude until Radar Navigator requests roll out	(1) Be prepared to take over air plane in the event of an emergency.

Inclosure 2
PAGE 2

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"HI JINKS" PROCEDU

TIME	PILOT	CO-PILOT
Roll out turn	(1) Initiate roll out turn at Radar Navigators request. (2) When airplane is straight and level maintain heading	(1) When straight and level transmit bombing information to RBS site.
Bomb Burst	(1) Maintain roll out heading	
15 sec after bomb burst	(1) Maintain roll out heading	
2 min and 15 sec after bomb burst	(1) Turn to heading requested by navigator	

Inclosure 2
Page 3

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MISSION FLIGHT PLAN — O. C. AND NICKNAME: FUR COLLAR IV — UNIT: 42 B.W. — TYPE ACFT: B-52-D — WAVE: 1ST ACFT Bomber Stream — CELL CALL SIGN: HI-SINKS — REMARKS

	POUNDS
ACFT BASIC	167760
CREW	2560
OIL	976
ATO	-
RACK	-
EXT TANKS WEIGHT (Empty)	2550
MISCELLANEOUS	800
CHAFF	—
OPERATING	174656
TOTAL FUEL	257600

	POUNDS
BOMBS	
AMMO	
WATER AUG	
STATIC	432256
START ENGINES AND TAXI FUEL ALLOWANCE	-5000
TAKE-OFF GROSS	427256

NR FULL ATO REQUIRED: ON PAGE 3 T.O.
NR EMPTY ATO REQUIRED:
ATO FIRING SPEED: 23:15Z

RUNWAY: PRESSURE ALT 800' | LENGTH 12,100 | AIR TEMP 42°F
CRITICAL FIELD LENGTH 9650' DRY THRUST | CRITICAL AIR TEMP 68°F
TAKE-OFF DISTANCE 8650' | TAKE-OFF SPEED 155K IAS
CRITICAL WIND COMPONENT: 1ST LEG | 2ND LEG | 3D LEG

PRE-FLIGHT PLAN — PAGE 1 OF 2

	FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	GROSS WT	
	LORING AFB															257600	432256	
	STTA															9825	9825	
												10	:03	10		247775	422431	
A	HOULTON VOR 46-02N 67-51W	CL	175	270/40 +6	181	+21	202	↗		410	410	57	:17	111		-		+9
												67	:20	121		-		
B	L/O 45-30N 68-30W	CL	220	✓ +4	224	+20	244	34		410	380	30	:05	34		17100	17100	
												97	:25	155		230675	405331	
C	LEWISTON ST GR'D 44-06N 70-14W	CR	220	260/50 +4	224	+19	243	↓	.77	445	405	124	:18	134		3531	3531	
												221	:43	289		227144	401800	
D	T.P. 44-41N 80-40W	CR	274	✓ -2	272	+13	285				395	455	1:10	505		22150	22150	+2
												676	1:53	794		204994	379650	
E	END GR'D 37-30N 79-45W	CR	173	270/55 +7	180	+16	186				445	438	1:00	423		17500	17500	+2
												1114	2:53	1217		187494	362150	
F	S/C 36-53N 80-09W	CR	214	270/70 +8	222	+3	225	↓			400	46	:07	50		2150	2150	
												1160	3:00	1267		185344	360000	
G	MT. AIRY 36-32N 80-36W	NRT CL	214	✓ +8	222	+3	225	↗ 39	↓	↓	480	27	:04	30		2000	2000	
												1187	3:04	1297		183344	358000	
H	*HNCL Bristol VA 36 34N 82-11W	CR	276	✓ -1	275	+2	225		.82	470	410	79	:12	94		4300	4300	
												1266	3:16	1391		179044	353700	
I	ASHVILLE NC. P.P. 35-34N 82-34W	CR	195	✓ +9	204	+1	205				450	62	:08	63		2860	2860	
												1328	3:24	1454		176044	350840	
J	TOCCOA GA. IP 34 34N 83 20	CR	212	✓ +8	220	0	220				430	70	:10	78		3515	3515	
												1398	3:34	1532		172669	347325	
K	TGT ATLANTA	BR	228	270/65 +6	234	-1	233				420	76	:11	86		3820	3820	
												1474	3:45	1618		168849	343505	
L	TUSCALOOSA ALA 33-11N 87-34W	CR	258	+2	260	-2	258				400	160	:24	188		8140	8140	
												1634	4:09	1806		160709	335365	
M	GRENADA MISS P.P. 33-46N 89-50W	CR	287	270/60 -2	285	-5	280	↓	↓	↓	412	120	:30	245		9875	9875	
												1754	4:39	2141		150234	325490	

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MISSION FLIGHT PLAN – CONTINUATION SHEET

	FROM 33-46 N 89-50 W GRENADA, MISS. / ROUTE	ALT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	FUEL FLIGHT PLAN GROSS WT	
																150 [illegible]	325400	
	ST.			270/60								64	:09	71		2935	2935	
N	34-09N 90-58W	CR	292	-3	289	-6	283	39M	.82	470	412	1818	4:48	2212		147899	322555	
	TGT:			✓								78	:11	86		3515	3515	
O	Little Rock ARK	BR	301	-4	297	-7	290		.82	470	418	1896	4:59	2298		144384	319040	
	START Nite X			✓								80	:12	90		3640	3040	+2
P	36-01N 91-42W	CR	022	-7	015	-6	009		.77	445	465	1976	5:11	2378		141344	316000	
				✓								344	:47	348		13650	13650	
Q	42-00N 91-30W	CR	001	-8	353	-6	347				440	2320	5:58	2736		127694	302350	
	End Nite X HARRISBURG			✓				↓				674	1:21	600		23800	22200	
R	40-11N 76-51W	CR	099	+2	101	+1	102	39	↓	↓	440	2994	7:19	3336		104894	279550	
	READING PA. P.P.			✓								44	:05	39		1420	1420	
S	40-22N 75-56W	CR	083	-1	082	+9	091	40	.82	470	530	3038	7:24	3375		103474	278130	
	IP. Abeam PT. JARVIS			✓								82	:10	78		2815	2815	
T	41-22 N 75-00W	BR	030	-6	024	+10	034				500	3120	7:34	3453		100559	275315	
	TGT AIRfield			✓								86	:10	78		2785	2785	
U	Schenectady N.Y.	BR	030	-6	024	+12	036		↓	↓	500	3206	7:44	3531		97774	272530	
	UTICA N.Y.			✓								36	:09	71		1930	1930	+4
V	43-06N 75-15W	CR	263	+1	264	+12	278		.77	445	410	3242	7:53	3602		95844	270600	
	BERLIN N.H ECM IP			✓								190	:23	171		5415	5415	
W	44-28N 71-12W	CR	065	-3	062	+15	077				500	3432	8:16	3773		90429	265185	
				✓								94	:11	82		2545	2545	
X	"Founder"	CR	065	-3	062	+18	080				500	3526	8:27	3855		87884	262640	
	Houlton VOR			✓								82	:11	82		2515	2515	+1
Y	46-02N 67-51W	CR	042	-6	036	+20	056	35	↓	↓	480	3608	8:38	3937		85369	260125	
												57	:10	57		600	600	
	L A7 B	DS										3665	8:48	3994		84769	259525	
													:12			7000	7000	
	Land + TAXI												9:00			77769	252525	

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MISSION FLIGHT PLAN – CONTINUATION SHEET HI-JINKS PAGE 3

	FROM TGT ATLANTA / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	FUEL FLIGHT PLAN GROSS WT
	HI-JINKS RIGHT 34-17N 54-55W	NRT	–	—	FUEL FLOW @ NRT			34	.82	470	–	39 / 1513	:05 / 3:50	39 / 1657		1740 / 167109	1740 / 341765
L	TUSCALOOSA ALA 33-11N 87-34W	CR	242	270/60 +4	246	-2	244				410	148 / 1661	:22 / 4:12	172 / 1829		7450 / 159659	7450 / 334315
M	P.I.P. GRENADA MISS 33-46N 89-50W	CR	287	✓ -2	285	-5	280				412	120 / 1781	:30 / 4:42	235 / 2064		9875 / 149784	9875 / 324440
N	I.P. 34-09N 90-58W	CR	292	✓ -3	289	-6	283				412	64 / 1845	:09 / 4:51	71 / 2135		2935 / 146849	2935 / 321505
O	TGT LITTLE ROCK	BR	301	✓ -4	297	-7	290				418	78 / 1923	:11 / 5:02	86 / 2221		3515 / 143334	3515 / 317990
	HI-JINKS RIGHT 35-20N 91-45W	NRT	–	–	FUEL FLOW @ NRT				↓	↓	–	40 / 1963	:05 / 5:07	39 / 2260		1740 / 141594	1740 / 316250
P	START NITE X 36-10N 91-42W	CR	001	✓ -9	352	-6	346		.77	445	440	53 / 2016	:07 / 5.14	52 / 2312		2085 / 139509	2085 / 314165
Q	42-00N 91-30W	CR	001	✓ -9	352	-6	346				440	344 / 2360	:47 / 6:01	348 / 2660		13650 / 125859	13650 / 300515
R	END NITE X HARRISBURG PA	CR	099	✓ +2	101	+1	102	↓	↓	↓	500	674 / 3034	1:21 / 7:22	600 / 3260		22800 / 103059	22800 / 277715
S	READING PA P.I.P. 40-22N 75-56W	CR	083	✓ -1	082	+9	091	40	82	470	530	44 / 3078	:05 / 7:27	39 / 3299		1420 / 101639	1420 / 276295
T	I.A Abram Port Jarvis 41-22N 75-00W	CR	030	✓ -6	024	+10	034				500	82 / 3160	:10 / 7:37	78 / 3377		2815 / 98824	2815 / 273480
U	TGT AIR FIELD SCHENECTADY N.Y.	BR	030	✓ -6	024	+12	036				500	86 / 3246	:10 / 7:47	78 / 3455		2785 / 96039	2785 / 270695
V	HI-JINKS Left 43-06N 75-15W	NRT	–	–	FUEL FLOW @ NRT				↓	↓		40 / 3286	:05 / 7:52	39 / 3494		1740 / 94299	1740 / 268455
W	BERLIN N.H ECMIP 44-28N 71-12W	CR	065	✓ -3	062	+15	077		.77	445	500	190 / 3476	:23 / 8:15	171 / 3665		5415 / 88884	5415 / 263,540
X	FOUNDER 45-05N 69-06W	CR	065	✓ -3	062	+18	080	↓			500	94 / 3570	:11 / 8:26	82 / 3747		2545 / 86340	2545 / 260995
Y	HOULTON VOR 46-02N 67-51W	DS	042	✓ -6	036	+20	056	35	↓	↓	480	82 / 3652	:11 / 8:37	82 / 3829		2515 / 83824	2515 / 258480
	LAFB 46-57N 67-53W	DS	355	270/40 -6	349	+21	010	3		400	400	57 / 3709	:10 / 8.47	57 / 3886		600 / 83224	600 / 257880
													:13			7000	7000
	LAND + TAXI												9:00			76224	250880

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Air Force-SAC, Offset O-1050(34)

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HEADQUARTERS 42D BOMBARDMENT WING (H)
LORING AIR FORCE BASE
MAINE
1 March 1957

INCLOSURE #4, COMMUNICATIONS, OPERATIONS FLIMSY "FUR COLLAR IV"

1. Identification and Recognition will be in accordance with Operations Memo BT100-41, dated 14 September 1956. (U)

2. Authentication will be accomplished by use of the current edition of the Air/Ground Code. (U)

3. IFF Will be operated in accordance with Operations Memo BT100-42. For this purpose, aircraft in bomber stream are to be considered individual aircraft. (C)

4. Aircraft Recalls will be relayed through CAA and USAF HF Air/Ground Stations. The message will, in turn, be relayed by and/or to each aircraft of the bomber stream. The recall word is "WATERTANK". (C)

5. Monitoring Procedures:

a. UHF control units will be set on the "TR/G" position at all times except as otherwise required for receipt of messages. (U)

b. Aircraft with ATC reporting responsibility will monitor CAA or DOT frequencies except as otherwise required. (U)

c. Aircraft in the number four (4), seven (7) and ten (10) positions of the bomber stream will monitor 364.2 mcs. at all times while over Canadian territory except as may be otherwise required. This is necessary to facilitate ADC/Aircraft communications, if required, while overflying remote Canadian areas. (U)

d. The UHF Interplane Frequency (321.0 mcs. primary, 311.0 mcs. secondary) will be monitored at all times except as may be otherwise required for air/gnd. communications and monitor of 364.2 mcs. Crews not able to monitor

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interplane at all times will, when possible, monitor the interplane frequency for three (3) minute periods beginning on the hour and on the half hour. (C)

e. The HF Interplane Back-up (5710.5 kcs) will be monitored at all times except as otherwise required. HF is to be used ONLY in the event of UHF communications failure. (U)

f. ECM Observers will coordinate to insure a USAF HF A/G frequency is monitored for three (3) minute periods beginning at :05, :25 and :45 past each hour. To thoroughly cover the most usable frequencies, crews will follow the below schedule while aircraft are in bomber stream. The frequency to be monitored is listed opposite numbers corresponding to aircraft positions in the stream. (C)

1, 4, 7, 10: . . . . . 4724.5 kcs.

2, 5, 8, 11, 13: . . . 6738.0 kcs.

3, 6, 9, 12: . . . . . 11,228.0 kcs.

6. POSITION REPORTING will be the responsibility of the first and last aircraft of the bomber stream and individual aircraft. Aircraft not able to maintain communications with the stream will be considered individual aircraft for reporting purposes. Radio facilities, reporting points and frequencies are indicated on Attachment #1 to the Communications Flimsy. While aircraft are in stream, a phrase consisting of the mission nickname and the words "FIRST AIRCRAFT" or "LAST AIRCRAFT", as appropriate, will be included as the first part of message text. (U)

EXAMPLE: THIS IS - PEDDLAR 72 - FIRST "FUR COLLAR" AIRCRAFT - ATLANTA AT 30 - etc.

7. RBS AND ADC communications will require the phrase "FUR COLLAR RUN" be part of the information supplied on the initial call-up. (U) W1729C

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8. CALL SIGNS:

a. Call signs to be used on all air/ground communications will be the aircraft's assigned tactical call sign. (U)

b. Tactical call signs will also be used for interplane communications. (U)

c. ONLY AUTHORIZED SACADS will be used for relay of other than RBS and ECM scores. (U)

d. The encoded SACSUB "NY" will be used for relay instructions on all RBS and ECM scores. (C)

9. RADIO CHANNELIZATION will be in accordance with current Operations Memos with the exception of UHF as follows: (C)

CHAN	FREQ	USE
7	384.6	ATLANTA RBS PRIMARY
8	251.0	LITTLE ROCK RBS PRIMARY
9	356.8	ATLANTA RBS SECONDARY
12	321.0	INTERPLANE PRIMARY (C)

10. ADIZ/CADIZ procedures and tolerances will be strictly complied with. (U)

11. SCHENECTADY CAMERA ATTACK: The following procedure is required to assure proper aircraft spacing on the Schenectady Camera Attacks. When abeam Johnstown VOR, each crew will announce over interplane it's ETA to the IP (4122N - 7500W). If necessary, spacing will be adjusted in the designated maneuver area as outlined in specialized briefing. (U)

12. COMMUNICATIONS SECURITY will be observed and no clear text transmission will be made that will reveal unit designation, location, aircraft type or nature of the mission. (U)

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ATTACHMENT #1, COMMUNICATIONS FLIMSY, "FUR COLLAR IV"

COMPULSORY REPORTING POINTS (CAA*DOT)

CALL	AT	PRIMARY	SECONDARY
HOULTON	HOULTON	5(UHF)	6(UHF)
AUGUSTA	ABEAM AUGUSTA	5(UHF)	243(UHF)
PLATTSBURGH	ABEAM PLATTSBURGH	5(UHF)	243(UHF)
STIRLING	ABEAM STIRLING	T-3023.5-HF R-126.7-VHF	CALL TORONTO CENTER-6(UHF)
WIARTON	ABEAM WIARTON	T-3023.5-HF R-126.7-VHF	CALL TORONTO CENTER-6(UHF)
YOUNGSTOWN	ABEAM YOUNGSTOWN	5(UHF)	CALL PITTSBURGH 6(UHF)
ROANOKE	ABEAM ROANOKE	5(UHF)	243(UHF)
ASHVILLE	ABEAM ASHVILLE	5(UHF)	T-3023.5-HF R-135.9-vhf
ATLANTA	ATLANTA	6(UHF) (CENTER)	5(UHF) (RADIO)
TUSCALOOSA	ABEAM TUSCULOOSA	5(UHF)	243(UHF)
LITTLE ROCK	LITTLE ROCK	5(UHF)	243(UHF)
VICHY	ABEAM VICHY	5(UHF)	243(UHF)
CEDAR RAPIDS	ABEAM CEDAR RAPIDS	5(UHF)	243(UHF)
CHICAGO	ABEAM CHICAGO	6(UHF) (CENTER)	5(UHF) (RADIO)
FINDLAY	ABEAM FINDLAY	5(UHF)	243(UHF)
PITTSBURGH	ABEAM PITTSBURGH	6(UHF)	5(UHF)
ALLENTOWN	ABEAM ALLENTOWN	5(UHF)	243(UHF)
ALBANY	SCHENECTADY	5(UHF)	243(UHF)
AUGUSTA	ABEAM AUGUSTA	5(UHF)	243(UHF)
HOULTON	HOULTON	5(UHF)	6(UHF)

AND HOME----------FLY SAFELY.

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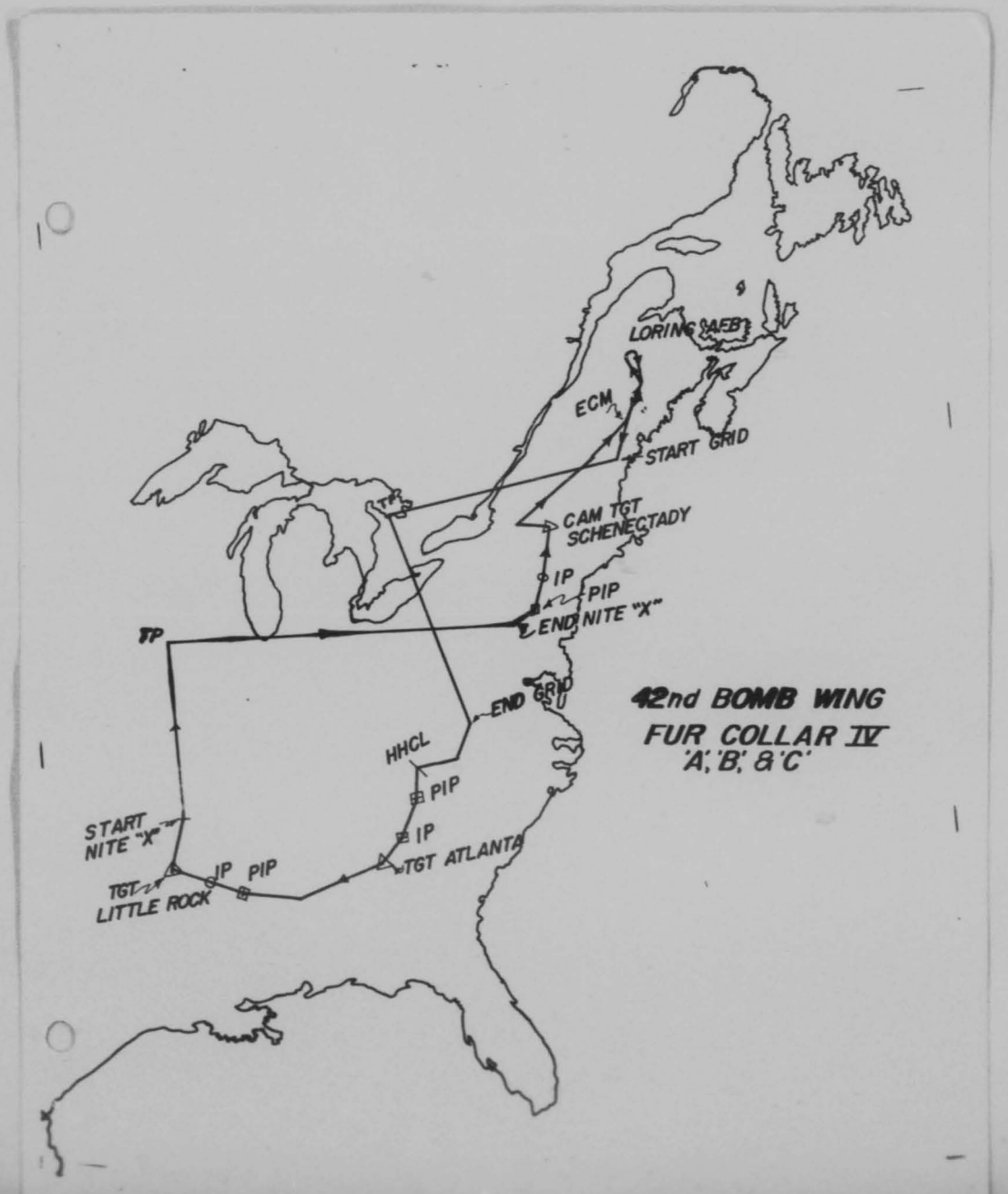

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42D BOMB WING
FLIGHT CREW FLIMSY

"FUR COLLAR IVE"
(MONDAY 18 MARCH 1957)

FLYING SAFETY
"IT IS LESS TROUBLE
TO FILL OUT A FORM 1
THAN A FORM 14"

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
14 MARCH 1957

PILOTS FLIMSY "FUR COLLAR IVB"

1. GENERAL:

a. On 8th, 12th, and 15th April 1957 the 42BW will participate in the 8th AF Bombing Competition exercise "Pace Setter VII". 8th Air Force has allocated RBS time on 6 and 18 March and 2 April to the 42BW for bomber stream practice, on Atlanta and Little Rock. These are two of the targets to be bombed on Pace Setter VII.

b. In addition to normal training, the first nine (9) crews in Bomber Stream will accomplish "Hi Jinks" Maneuvers on "Fur Collar IV" on Atlanta and Little Rock RBS, and Sky Lodge A. F. camera attack.

2. BRIEFING AND DEBRIEFING:

a. Specialized Briefing: To be held immediately following the general briefing in the Training and Briefing Building.

b. Pre-Take-off Weather Briefing:

CREWS 1 - 5	1730E	@	70TH BS
CREWS 6 - 10	1815E	@	70TH BS
CREWS 11 - 15	1900E	@	70TH BS

c. DEBRIEFING: Will be conducted at 70th. Pilots are requested to have all forms ready as there is little separation between landing times. Two maintenance and one operations debriefing teams will be utilized.

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3. GROUND AIRCRAFT MOVEMENT:

a. Parking and Taxi Plan: To be covered in pre-takeoff meeting.

b. Start Engines: 40 minutes prior to takeoff.

c. Taxi: 20 minutes prior to takeoff.

d. Takeoff Interval: 10 minutes between acft.

4. GENERAL: (See detailed attached "Aircraft Schedules".

PILOT	ACFT	(APPROX) T/O TIMES (E)	IP
SMITH	093	2000	BRUCE
SCANNELL	092	2010	BATSON
WAGGONER	063	2020	STEWART
ROBERTS	083	2030	HUDLOW
OWENS	088	2040	SANDACZ
TUCCI	059	2050	RIORDAN
HAINAN	085	2100	MORGAN
WRIGHT	068	2110	
CURTIS	080	2120	
BUBB	079	2130	
DEATON	060	2140	
SOUTHWICK	090	2150	
EVANS	095	2200	
LANOIS	081	2210	
HIRSCH	069	2220	

5. CLIMB PROCEDURE:

a. North T/O

(1) Climb straight ahead.

(2) Raise flaps at 1000 feet.

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(3) Execute 90° right turn 15° bank at end of four minutes from T/O roll, and climb 10,000 feet, then turn on course to Houlton VOR.

(4) Proceed on course.

b. South T/O

(1) Climb straight ahead

(2) Raise flaps at 1000 feet

(3) Execute 90° left turn at the end of four minutes and climb to 10,000 feet, then turn on course to Houlton VOR.

c. For both North and South T/O's. Climb A/S will be 310KIAS until reaching MACH .765 until level off. Maintain MACH .765 until level off.

6. PILOTS INFORMATION:

DEPART LORING:	ALTITUDE
TO: HOULTON	
TO: PRINCETON	34-37M
TO: LEMISTON - START GRID	
TO: END GRID - (3:04 AFTER TAKE OFF)	
AND START CLIMB POINT	
TO: MT AIRY - DOG LEG TO PRE-IP	39-42M
TO: WHCL BRISTOL, VA	
TO: ASHVILLE, N.C. P.I.P.	
TO: TOCCOA, GA, I.P.	
TO: TGT ATLANTA - TGT "I"	
TO: TUSCALOOSA	
TO: LITTLE ROCK - TGT "J"	

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TO: START NITE CELESTIAL (36-11N 91-42W)

TO: 42-00N 91-30W (TP) 39-42M

TO: HARRISBURG (END NITE X)

TO: READING, TO 42-00N 74-35W START MACH .82, TO 43-00N 73-44W PIP, TO 43-40N 71-46W IP, TO 45-40N 70-15W TGT TO HOULTON

TO: LORING AFB

NOTE: True airspeeds as shown on the navigators flight plan will be used by all aircraft in order to preserve the ten (10) minute time interval of the bomber stream.

7. Reporting procedures for this mission are simple. (See Communications) The first and last aircraft will do the reporting to ATC.

8. HHCL times remain as assigned, regardless of other aborting aircraft in the bomber stream. Late take off slots will be assigned from the tower. Every effort will be made to adhere to HHCL and bombs away times assigned to maintain bomber stream spacing.

9. "Hi Jinks" procedures are listed in inclosure 2.

10. Clearance will be signed off by WX officer at pre-take-off briefing.

11. Recovery plan will be directed by Loring RAPCON.

12. Air aborts will turn 90° out of the bomber stream for two minutes, descend to a non-conflicting altitude and contact nearest ATC facility for further clearance.

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13. CLEARANCES: The Form 175 "D" section will include the remarks "As filed, FUR COLLAR IVB", for times Z.

14. Recall word is WATER TANK.

15. Alternate bases:

BASE	RUNWAY
WRIGHT-PATTERSON	10,000 X 300
EGLIN	10,000 X 300
GOOSE	11,000 X 300
WESTOVER	11,600 X 300

16. The project officers for this mission are Maj Harrington (General) 24118; Capt Warren (General) 26173-2133; Capt Mulligan (Navigator) 24118; M/Sgt Green (Communications) 5159-2145; Maj Newman (Performance) 23280.

4 Incls
1. Acft Schedules
2. Hi Jinks procedures (U)
3. Nav Flt Plan
4. Communications

DON W. BAILEY
Colonel USAF
Director of Operations

OFFICIAL:

FRANK L WRIGGLESWORTH
Major USAF
Adjutant

DISTRIBUTION:

42D	1 cy
42DO	10 cys
42DM	3 cys
69th BS	10 cys
70th BS	10 cys
75th BS	10 cys
ADO	1 cy
Base Operations	2 cys (less incl 2)
Base Weather	1 cy (less incl 2)
AACS (RAPCON)	3 cys (less incl 2)

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6

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"HI JINKS" PROCEDURES

TIME	PILOT	CO-PILOT	RADAR-NAVICATOR	NAVIGATOR
Prior to Flight	(1) Normal Planning Procedures	(1) Normal Planning Procedures	(1) Complete a Practice EWP ballistics computation for an assigned EWP Weapon, using anticipated flight conditions for EWP delivery	(1) Normal Planning Procedures
Preflight	(1) Normal preflight Procedures	(1) Normal preflight Procedures	(1) Check with A&E ENS mechanic for correct positioning of switch in O-217 /AWA-2. a. Bomb-Auto Switch -Auto b. Normal Manual Switch-Normal. c. Hi-Alt-Low-Alt Switch Low Alt (2) Check camera magazine for 100 feet of film. (3) Note camera frame number on camera log SAC Form 284 (90 feet of film will give 1440 frames)	(1) Normal Preflight Procedures
Before Pre-IP	(1) Bank angle and rate of turn determined. Bank angle should not exceed brief limits. (2) Check rate of turn to insure that minimum and maximum heading changes fall within limits. (3) Increase speed to MACH .82	(1) Make normal RBS call in but include with type of run the words "Hi Jinks" Maneuver right" (or left) obtain confirmation from RBS site on direction of turn.	(1) Bombing Equipment check complete. (2) Inform pilot and co-pilot of direction of turn to be made with Hi Jinks maneuver. Down wind turn at bombs away will give better results however RBS traffic or other factors may not make a down wind turn feasible. (3) Compute Ballistic using TO 11N-60-42 (Normal RBS tables)	(1) Normal check list procedures (2) Figure out & check radar Navigators Ballistics

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TIME	PILOT	CO-PILOT	RADAR-NAVIGATOR	NAVIGATOR
Pre-IP	(1) Normal Check List Procedures	(1) Normal Check List Procedures	(1) LD-6 Selector Switch ~~-1:4~~ (2) LD-6 Power Switch - ON	(1) Normal Check List Procedures
IP	(1) Normal Check List Procedures	(1) Normal Check List Procedures	(1) Normal Check List Procedures	(1) Normal Check List Procedures
Bomb Run	(1) 15 Seconds prior to Release transmit over interphone 15 sec, 10 sec, 5 sec, 4, 3, 2, 1, bombs away starting turn, (Caution: Use bomb release light on instrument panel & not light on PDI as indication of bomb release)	(1) Normal Check List Procedures	(1) Normal Check List Procedures	(1) Normal Check List Procedures
Bomb Release	(1) On instruments initiate turn to computed bank angle. (2) Maintain Bank angle & altitude until Radar Navigator requests roll out.	(1) Be prepared to take over airplane in the event of an emergency.	(1) Start stop watch at bomb release. (2) Record absolute altitude of bombs release. (3) Complete post bomb release check with exception of camera switchs. (Caution: make sure offset switch is out. (4) Adjust tilt & gain for maximum ground returns under cross hairs just short of saturation.	(1) Record following information at bomb release. a. True Heading b. True Airspeed c. Wind Components (2) Inform Co-pilot of bombing information necessary for RBS site.

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"HI JINKS" PROCEDURES

TIME	PILOT	CO-PILOT	RADAR-NAVIGATOR	NAVIGATOR
Roll out turn	(1) Initiate roll out turn at Radar Navigators request (2) When airplane is straight and level maintain heading	(1) When straight & level transmit bombing information to RBS site.	(1) Inform pilot to roll out of turn (Time as briefed) (2) Record absolute altitude after roll out. (3) Readjust tilt and gain for maximum ground returns, under cross hairs just short of saturation.	(1) Record true heading when airplane is straight and level
Bomb Burst	(1) Maintain roll out heading		(1) Record O-15 camera counter number (2) Record bomb burst time to nearest second.	(1) Record lat and long of cross hairs. Caution: Check lat and long with reference point switch in REFERENCE POINT
15 sec after bomb burst	(1) Maintain roll out heading		(1) Function Switch Nav. (2) Range MK. X-hair switch Range MK. (3) Range Dial Control 20NM (scope should portray two 10 mile range marks) (4) Adjust tilt and gain for optimum navigation type ground painting (high gain)	
2 min and 15 sec after bomb burst	(1) Turn to heading requested by navigator		(1) Camera switchs off (2) Complete post bomb release check. (3) Fill out both sides of photo log(SAC Form 284)	(1) Inform pilot of new heading (2) Complete post bomb release check.

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MISSION FLIGHT PLAN | J.O. AND NICKNAME: FUR COLLAR 4B | UNIT: 42 BW | TYPE ACFT: B-52 | WAVE: Bomber Stream | CELL CALL SIGN | REMARKS: GR. Wt 403,606

	POUNDS
ACFT BASIC	167 500
CREW	2070
OIL	986
ATO	—
RACK	—
EXT TANKS WEIGHT (Empty)	2550
MISCELLANEOUS	500
CHAFF	—
OPERATING	173 606

	POUNDS		
BOMBS		Dept PLAN #1	
AMMO		#1 ACFT	
WATER AUG			
STATIC	403 606	NR FULL ATO REQUIRED	HI-JINKS ON PAGE 3
START ENGINES AND TAXI FUEL ALLOWANCE	-5000	NR EMPTY ATO REQUIRED	
TAKE-OFF GROSS	398 606	ATO FIRING SPEED	

TOTAL FUEL 230,000

RUNWAY

PRESSURE ALT	LENGTH	AIR TEMP
800'	12,100'	42°F

CRITICAL FIELD LENGTH	CRITICAL AIR TEMP
9650' DRY THRust	68°F

TAKE-OFF DISTANCE	TAKE-OFF SPEED
8650'	155K IAS

CRITICAL WIND COMPONENT

1ST LEG	2ND LEG	3D LEG

PRE-FLIGHT PLAN FUR COLLAR 4B PAGE 1 of 3

FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
LORING AFB															230000	403606
															9220	9220
STTA											:10	:03	10		220780	394386
HOULTON VOR L/O 46-02N 67-51W	CL	198	310/30 +4	202	+21	223	↗34-37		410	420	67	:17	116		11750	11750
											77	:20	126		209030	382636
PRINCETON VOR 45-20N 67-41W	CR	171	260/70 +9	180	+21	201		.77	445	435	42	:06	41		1730	1730
											119	:26	167		207300	350906
LEWISTON ME ST. Grid 44-06N 70-14W	CR	234	✓ +4	238	+19	257				380	140	:22	165		6950	6950
											259	:48	332		200350	373956
T.P. 44-47N 80-25W	CR	275	250/80 -4	271	+13	284				370	438	1:11	526		20150	20150
											697	1:59	858		180200	353806
END Grid S/C 37-38N 79-45W	CR	174	240/100 +12	186	+16	202	↘			395	430	1:05	482		18550	18550
											1127	3:04	1340		161650	335256
L/O 37-04N 80-07W	NRT CL	214	240/75 +4	218	+3	221	↗39-42			378	33	:05	37		1700	1700
											1160	3:09	1377		159950	333556
MT AIRY 36-32N 80-36W	CR	214	✓ +4	218	+3	221		↓	↘	378	43	:07	52		1960	1960
											1203	3:16	1429		157490	331596
HIGH BRIDGE VA 36-54N 82-11W	CR	278	230/110 -10	268	+2	270		.82	470	390	66	:10	78		3265	3265
											1269	3:26	1507		154225	329331
ASHEVILLE NC. P.I.P. 35-34N 82-34W	CR	190	✓ +9	199	+1	200				380	70	:11	86		3570	3570
											1339	3:37	1593		151155	324761
MACON GA P.P. 32-36N 83-20W	CR	213	✓ +4	217	0	217				362	70	:12	94		3860	3260
											1409	3:49	1687		147295	320901
TGT ATLANTA	BR	227	✓ +1	228	-1	227				360	76	:13	102		4150	4150
											1485	4:02	1789		143145	316751
TUSCALOOSA ALA 33-11N 87-34W	CR	259	230/80 -5	254	-2	252				400	166	:25	196		7840	7840
											1651	4:27	1985		135305	307911
GRENADA MISS 33-46N 89-50W	CR	288	240/75 -7	281	-5	276	↓	↓	↓	418	115	:17	136		5370	5370
											1766	4:44	2121		129935	305541

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MISSION FLIGHT PLAN – CONTINUATION SHEET FOR COLLAR 4B PAGE 2 of 3

FROM GRENADA MISS / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
															129935	303541
I.P. 34-09N 90-58W	CR	292	240/60 -6	286	-6	282	39-42	.82	470	430	62 / 1828	:09 / 4:53	70 / 2191		2700 / 127235	2700 / 300841
TGT LITTLE ROCK	BR	300	✓ -6	294	-7	287		↓	↓	440	76 / 1904	:10 / 5:03	78 / 2269		2985 / 124250	2985 / 297856
START NITE X 36-[illegible]N 91-42W	CR	022	240/50 -4	018	-6	012		.77	445	485	96 / 2000	:13 / 5:16	96 / 2365		3260 / 120990	3260 / 294596
T.P. [illegible]-00N 91-30W	CR	001	240/40 -4	357	-6	351				470	345 / 2345	:45 / 6:01	333 / 2698		11030 / 109960	11030 / 283566
HARRI-burg END NITE X 40-16N 76-51W	CR	099	240/75 -6	093	+1	094				510	671 / 3016	1:19 / 7:20	585 / 3283		18750 / 91210	18750 / 264816
READING PA 40-22N 75-56W	CR	084	240/100 +6	090	+9	099				530	40 / 3056	:05 / 7:25	37 / 3320		1170 / 90040	1170 / 263646
42-00N 74-35W	CR	032	250/90 -7	025	+10	035		↓	↓	510	114 / 3170	:13 / 7:38	96 / 3416		2980 / 87060	2980 / 260666
P.I.P. 43-00N 73-44W	CR	032	✓ -7	025	+13	038		.82	470	540	70 / 3240	:08 / 7:46	63 / 3479		2290 / 84770	2290 / 258376
I.P. 43-[illegible]N 71-46W	CR	065	260/60 -2	063	+15	078				530	96 / 3336	:11 / 7:57	86 / 3565		3100 / 81670	3100 / 255276
TGT 45-40N 70-15W	BR	027	270/50 -5	022	+18	040	✓	↓	✓	490	150 / 3486	:18 / 8:15	141 / 3706		4800 / 76870	4800 / 250476
HOULTON VOR 46-[illegible]N 67-51W	CR	077	270/50 -1	076	+20	096	35	.77	445	496	117 / 3603	:14 / 8:29	104 / 3810		3210 / 73650	3210 / 247266
LORING AFB 46-57N 67-53W	DS	355	270/50 -5	350	+21	011	3		400	400	57 / 3660	:10 / 8:39	57 / 3867		550 / 73100	550 / 246716
LAND + TAXI	LD											:15 / 8:54			7000 / 66100	7000 / 239716

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HI-JINKS — MISSION FLIGHT PLAN – CONTINUATION SHEET — PAGE 3 OF 3 — FOR COLLAR 48

FROM / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
ATLANTA															143145	316751
HI-JINKS RIGHT		—	/								39	:05	39		2300	2300
34-17N 74-25W	MRT						39-42	.82	470		1524	4:07	1828		140845	314451
TUSCALOOSA ALA			230/80								148	:23	180		7040	7040
33-11N 87-34W	CR	242	-2	240	-2	238				390	1672	4:30	2008		133755	307361
PIN GRENADA MISS			240/75								115	:17	136		5290	5290
33-[illegible] 89-50W	CR	258	-7	281	-5	276				418	1787	4:47	2144		128465	302071
[illegible]			240/60								62	:09	70		2700	2700
34-43N 90-53W	CR	292	-6	286	-6	282				430	1849	4:56	2214		125765	299371
[illegible]			✓								76	:10	78		3000	3000
LITTLE ROCK	BR	300	-6	294	-7	287				440	1925	5:06	2292		126765	296371
HI-JINKS RIGHT			-6 /								39	:05	39		2300	2300
35-20N 91-45W	MRT	TS	/					↓	↓		1964	5:11	2331		120465	294071
START NITE X			240/50								54	:07	52		1740	1740
36-11N 91-42W	CR	001	-5	356	-6	350		.77	445	480	2018	5:18	2383		118725	292331
T.P.			240/40								345	:45	333		10900	10900
42-00N 91-30W	CR	001	-4	356	-6	350				470	2363	6:03	2716		107825	281431
HARRISBURG PA			240/75								671	1:19	585		18500	18500
40-16N 76-51-W	CR	099	-6	093	+1	092				510	3034	7:22	3301		89325	262931
READING PA			240/100								40	:05	37		1175	1175
40-22N 75-56W	CR	084	+1	090	+9	099				530	3074	7:27	3338		88150	261756
			250/90								114	:13	96		3055	3055
42-00N 74-35W	CR	032	-7	025	+10	035		↓	↓	510	3188	7:40	3434		85095	258701
P.I.P.			✓								70	:08	63		2180	2180
42-00N 73-44W	CR	032	-7	025	+13	038		.82	470	540	3258	7:48	3497		82915	256521
T.P.			260/60								96	:11	86		2960	2960
43-11N 71-46W	CR	065	-2	063	+15	078				530	3354	7:59	3583		79955	253561
TCT			270/50								150	:18	141		4800	4800
45-40N 70-15W	BR	027	-5	022	+18	040				490	3504	8:17	3724		75155	248761
HI-JINKS RIGHT			— /								39	:05	39		1310	1310
45-11N 69-05W	MRT		/				↓	↓	↓		3543	8:22	3763		73965	247451
HOULTON VOR			270/50								80	:10	74		2200	2200
46-02N 67-51W	CR	042	-5	037	+20	057	35	.77	445	480	3623	8:32	3837		71645	245351
[illegible]			270/50								57	:10	57		550	550
46-57N 67-53W	DS	355	-5	350	+21	011	3		400	400	3680	8:42	3894		71095	244701
												:15			7000	7000
LAND + TAXI	LD											8:57			64095	237701

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Air Force-SAC, Offutt O-1050(58)

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HEADQUARTERS 42D BOMBARDMENT WING (H)
LORING AIR FORCE BASE
MAINE
14 March 1957

INCLOSURE #4, COMMUNICATIONS, OPERATIONS FLIMSY "FUR COLLAR IVB"

1. Identification and Recognition will be in accordance with Operations Memo BT100-41, dated 14 September 1956. (U)

2. Authentication will be accomplished by use of the current edition of the Air/Ground Code. (U)

3. IFF will be operated in accordance with Operations Memo BT100-42. For this purpose, aircraft in bomber stream are to be considered individual aircraft. (C)

4. Aircraft recalls will be relayed through CAA and USAF HF Air/Ground Stations. The message will, in turn, be relayed by and/or to each aircraft of the bomber stream. The recall word is "WATERTANK". (C)

5. Monitoring Procedures:

a. UHF control units will be set on the "TR/G" position at all times except as otherwise required for receipt of messages. (U)

b. Aircraft with ATC reporting responsibility will monitor CAA or DOT frequencies except as otherwise required. (U)

c. Aircraft in the number four (4), seven (7), ten (10) and thirteen (13) positions of the bomber stream will monitor 364.2 mcs. at all times while over Canadian territory except as may be otherwise required. This is necessary to facilitate ADC/Aircraft communications, if required, while overflying remote Canadian areas. (U)

d. The UHF Interplane Frequency (321.0 mcs. primary, 311.0 mcs. secondary) will be monitored at all times except as may be otherwise required

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for air/ground communications and monitor of 364.2 mcs. Crews not able to monitor interplane at all times will, when possible, monitor the interplane frequency for three (3) minute periods beginning on the hour and on the half hour. (C)

e. The HF Interplane Back-up (5710.5 kcs) will be monitored at all times except as otherwise required. HF is to be used ONLY in the event of UHF communications failure. (U)

f. ECM Observers will coordinate to insure a USAF HF A/G frequency is monitored for three (3) minute periods beginning at :05, :25 and :45 past each hour. To thoroughly cover the most usable frequencies, crews will follow the below schedule while aircraft are in bomber stream. The frequency to be monitored is listed opposite numbers corresponding to aircraft positions in the stream. (C)

1, 4, 7, 10, 13 - - - - - 4724.5 kcs.

2, 5, 8, 11, 14 - - - - - 6738.0 kcs.

3, 6, 9, 12, 15 - - - - 11,228.0 kcs.

6. POSITION REPORTING will be the responsibility of the first and last aircraft of the bomber stream and individual aircraft. Aircraft not able to maintain communications with the stream will be considered individual aircraft for reporting purposes. Radio facilities, reporting points and frequencies are indicated on Attachment #1 to the Communications Flimsy. While aircraft are in stream, a phrase consisting of the mission nickname and the words "FIRST AIRCRAFT" or "LAST AIRCRAFT", as appropriate will be included as the first part of message text. (U)

EXAMPLE: THIS IS - PEDDLAR 72 - FIRST "FUR COLLAR" AIRCRAFT - ATLANTA AT 30 - etc.

7. RBS AND ADC communications will require the phrase "FUR COLLAR

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RUN" be part of the information supplied on the initial call-up. (U)

8. CALL SIGNS AND ADDRESSEE DESIGNATORS:

a. Call signs to be used on all air/ground and interplane communications will be the aircraft's assigned tactical call sign. (U)

b. ONLY AUTHORIZED SACADS will be used for relay of other than RBS and ECM scores. (U)

c. The encoded SACSUB "NY" will be used for relay instructions on all RBS and ECM scores. (C)

9. RADIO CHANNELIZATION will be in accordance with current Operations Memos with the exception of UHF as follows: (C)

CHAN	FREQ	USE
7	384.6	ATLANTA RBS PRIMARY
8	251.0	LITTLE ROCK RBS PRIMARY
9	356.8	ATLANTA RBS SECONDARY
12	321.0	INTERPLANE PRIMARY (C)

10. ADIZ/CADIZ procedures and tolerances will be strictly complied with. (U)

11. SKY LODGE AIRFIELD CAMERA ATTACK: The following procedure is required to assure proper aircraft spacing on the Sky Lodge Airfield Camera Attacks. When abeam Johnstown VOR, each crew will announce over interplane its ETA to the IP (4340N 7146W). If necessary, spacing will be adjusted in the designated maneuver area as outlined in specialized briefing. (U)

12. COMMUNICATIONS SECURITY will be observed and no clear text transmissions will be made that will reveal unit designation, location, aircraft type or nature of the mission. (U)

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ATTACHMENT #1, COMMUNICATIONS FLIMSY, "FUR COLLAR IV"

COMPULSORY REPORTING POINTS (CAA-DOT)

CALL	AT	PRIMARY	SECONDARY
HOULTON	HOULTON	5 (UHF)	6 (UHF)
AUGUSTA	ABEAM AUGUSTA	5 (UHF)	243 (UHF)
PLATTSBURG	ABEAM PLATTSBURG	5 (UHF)	243 (UHF)
STIRLING	ABEAM STIRLING	T-3023.5-HF R-126.7-VHF	CALL TORONTO CENTER-6 (UHF)
WIARTON	ABEAM WIARTON	T-3023.5-HF R-126.7-VHF	CALL TORONTO CENTER-6 (UHF)
YOUNGSTOWN	ABEAM YOUNGSTOWN	5 (UHF)	CALL PITTSBURGH 6 (UHF)
ROANOKE	ABEAM ROANOKE	5 (UHF)	243 (UHF)
ASHVILLE	ABEAM ASHVILLE	5 (UHF)	T-3023.5-HF R-135.9-VHF
ATLANTA	ATLANTA	6 (UHF) (CENTER)	5 (UHF) (RADIO)
TUSCALOOSA	ABEAM TUSCULOOSA	5 (UHF)	243 (UHF)
LITTLE ROCK	LITTLE ROCK	5 (UHF)	243 (UHF)
VICHY	ABEAM VICHY	5 (UHF)	243 (UHF)
CEDAR RAPIDS	ABEAM CEDAR RAPIDS	5 (UHF)	243 (UHF)
CHICAGO	ABEAM CHICAGO	6 (UHF) (CENTER)	5 (UHF) (RADIO)
FINDLAY	ABEAM FINDLAY	5 (UHF)	243 (UHF)
PITTSBURGH	ABEAM PITTSBURGH	6 (UHF)	5 (UHF)
ALLENTOWN	ABEAM ALLENTOWN	5 (UHF)	243 (UHF)
ALBANY	SCHENECTADY	5 (UHF)	243 (UHF)
AUGUSTA	ABEAM AUGUSTA	5 (UHF)	243 (UHF)
HOULTON	HOULTON	5 (UHF)	6 (UHF)

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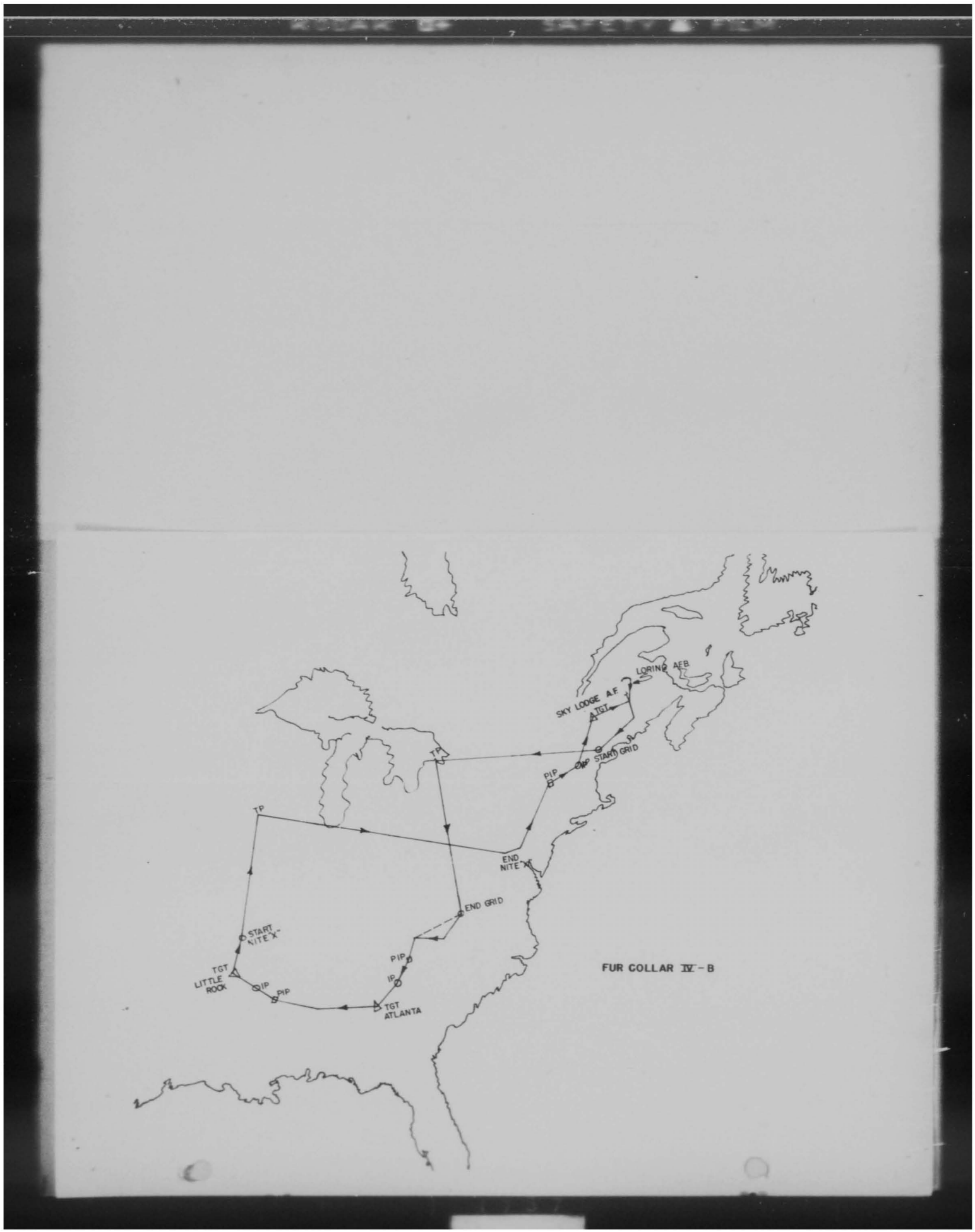

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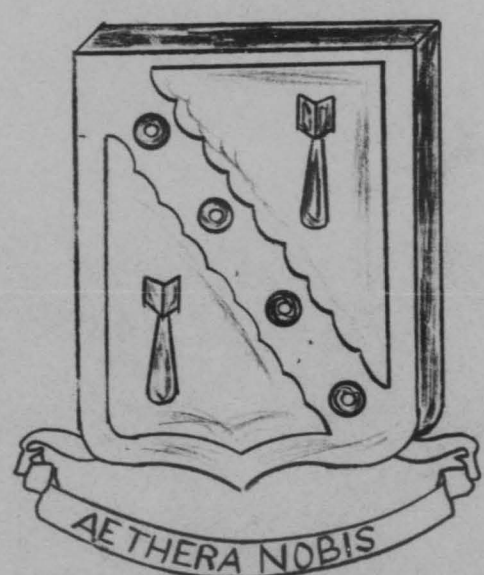
OPERATIONS ORDER NUMBER 219-57

PACE SETTER VII



42D BOMBARDMENT WING (H)(SAC)
LORING AIR FORCE BASE
MAINE

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOT

SUBJECT: (Unclassified) 42D Bombardment Wing OPORD 219-57

TO: See Distribution

1. Inclosed is 42d Bomb Wing OPORD 219-57, dated 1 April 1957 unclassified nickname "Pace-Setter VII.

2. If the inclosure is withdrawn or not attached this correspondence will be downgraded to Unclassified, in accordance with AFR 205-1.

FOR THE COMMANDER:

1 Incl
1 cy 42BW OPORD 219-57

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

DISTRIBUTION:

See Basic OPORD

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TABLE OF CONTENTS

BASIC OPERATIONS ORDER

ANNEX A - INTELLIGENCE (Omitted)

ANNEX B - AIR OPERATIONS

Appendix 1 Navigator Flimsy

Appendix 2 Route, Flight and Performance Data

Incl #1 Mission Flight Plan
#2 Route Chart
#3 Take-off Data
#4 Fuel Decision
#5 Aircraft Schedules
#6 Refueling Tactics (Omitted)

Appendix 3 Air Refueling (Omitted)

Appendix 4 Gunnery

ANNEX C - COMMUNICATIONS

ANNEX D - FLYING SAFETY

ANNEX E - WEATHER (Omitted)

ANNEX F - REPORTS

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

OPERATIONS ORDER

FOR "PACE SETTER VII" MISSION

219-57

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42BW OPORD
219-57
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HEADQUARTERS 42D BOMBARDMENT WING, [illegible]
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

OPERATIONS ORDER 219-57 ("PACE SETTER VII")

TASK ORGANIZATIONS:

69th Bomb Squadron	Lt Col Scott
70th Bomb Squadron	Lt Col Risher
75th Bomb Squadron	Lt Col Brofft
42D A&E Squadron	Lt Col McNeely
42D Field Maint Squadron	Lt Col Schrader

1. GENERAL SITUATION: A requirement exists for the 42D Bomb Wing to participate in an Eighth Air Force bombing and navigation competition. Unclassified nickname for this Operation is "PACE SETTER". X day is 8, 12, 15 April 1957.

a. Intelligence: Omitted

b. Friendly Forces:

(1) MATS: Provide normal AACS and rescue facilities as required. (U)

(2) ADC: Provide simulated fighter attacks for this operation. (U)

(3) 1st Radar Bomb Scoring Group:

(a) Provide Radar Bomb Scoring facilities during period of this operation. (U)

(b) Dispatch a ZIPPO TWX report to 8th Westover, info 42D Bomb Wing as soon as possible after scoring the last participating aircraft of each wave on first and second targets only. (U)

Reports to include data as follows: (U)

1. Aircraft tactical call sign (U)

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2. Crew number (U)

3. Coded score (U)

4. Time of release (U)

5. Type run (U)

6. Additional remarks as necessary to clarify unusual circumstances. (U)

(c) Provide coded scores (on first and second targets only) to participating crews.

(4) 42D Air Base Group: Provide normal base support and facilities as required. (U)

2. MISSION: To participate in Eight Air Force directed bomber stream bombing and navigation competition with objectives to exercise and assess bombardment wing capabilities in the following areas: (U)

a. Radar bombing

b. Celestial and/or Grid Navigation

c. Staff planning

d. Radar Target Analysis

e. Unit briefings

f. Aircraft and radar maintenance support

g. Scoring of bomb impact points from radar scope photography.

3. TASKS FOR SUBORDINATE UNITS:

a. 60th Bomb Squadron

70th Bomb Squadron

75th Bomb Squadron

(1) To provide flight crews, aircraft and maintenance support as required by this Operations Order. (U)

42BW OPORD
219-57
W-2044C

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(2) Provide an Observer at Eagle Beak (GCI Site) during the period of this operation as follows:

(a) 60th Bomb Squadron for 8-9 April.

(b) 70th Bomb Squadron for 12-13 April.

(c) 75th Bomb Squadron for 15-16 April.

This observer will report to the Director of Training for instructions prior to duty period and will make an informal report of operations observed from the GCI site. (U)

(3) The 75th Bomb Squadron will reserve one space aboard participating aircraft for one observer from Eighth Air Force. (U)

b. 42D A&E Squadron and 42D Field Maintenance Squadron:

(1) Will provide normal maintenance support as required. (U)

(2) The 42D A&E Squadron Commander will advise the Director of Operations of the status of all radar systems of all participating aircraft twenty four hours prior to scheduled take off times for each day of the operation. (U)

3. X. GENERAL INSTRUCTIONS:

a. Commander 45th Air Division will excute the missions in accordance with Eighth Air Force Order of Implementation. (U)

b. Reports: In accordance with Annex F. (U)

c. A minimum of 70 per cent of possessed/assigned aircraft will be scheduled in support of the operation. (U)

42BW OPORD
219-57
W-2044C

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d. O-15 camera radar photography will be accomplished in accordance with procedures outlined in SAC Manual 50-38 and applicable sections of SAC Tactical Doctrine. SAC Form 284 will be completed by participating crews and identified by marking with "PACE SETTER - SHAMROCK". (U)

e. Flight plans will be submitted in accordance with SAC Regulation 55-3, category 5, and Eighth Air Force Manual 55-1 and SAC Regulation 55-18 information will be submitted by the Wing Observer Section. (U)

f. Essential elements of aircraft movement may be handled as unclassified when released to ARTC agencies for the purpose of obtaining block altitude reservations. Subject information, however, will be held to a minimum. The use of "Military Necessity" is not authorized for this operation. (U)

g. Participating crews will be appropriately briefed on ARTC reporting responsibilities as outlined in SAC Regulation 55-3. (U)

h. A field grade officer will be sent to Boston ARTC Center to aid in resolving traffic control problems prior to and during execution of unit operations. (U)

i. Weather Minima: Take off and landing weather minima will be as established in Air Force Regulation 60-16 or local regulation, whichever is higher. (U)

j. Direct communications is authorized with concerned agencies with information to Eighth Air Force. (U)

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i. Security:

(1) Commanders are responsible for assuring that adequate security is afforded all participating aircraft. (U)

j. Flying Safety: The safety of the crew and aircraft while participating in this operation is paramount. At no time will the mission conflict with principles of flying safety. (U)

k. Recall word: TALL CORN.

l. Publicity:

(1) No press release will be made on these operations during planning or execution phases.

(2) Upon completion, Eighth Air Force ISO will provide each unit ISO with an authorized official release and appropriate guidance for local publicity. (U)

m. Scoring and Awards:

(1) Unit scores will be tabulated and an Eighth Air Force trophy awarded to the winning unit of each exercise in accordance with Eighth Air Force Regulation 51-31. (U)

(2) Outstanding crew awards will be made by units in accordance with Eighth Air Force Regulation 51-32. (U)

n. Analysis and Critique: Each exercise will be analyzed and critiqued by the Eighth Air Force Training Division at a later date. (U)

o. Existing Air Force, Strategic Air Command and Eighth Air Force directives apply, as supplemented herein. (U)

42BW OPORD
219-57
W-2044C

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p. 42D Bomb Wing Project Officers for this Operations are:

(1)	Operations:	Major Hunt	(26173)
(2)	Intelligence	Major Hessler	(23263)
(3)	Communications	Major Strong	(2145)
(4)	ECM	Lt Col Thomas	(2240)
(5)	Reports	Major Brittian	(2133)
(6)	Material	Major Wood	(24154)
(7)	Debriefing and Critique	Major Harrington	(24118)

4. ADMINISTRATIVE AND LOGISTICAL MATTERS:

a. Normal

b. Finding: Local P-458 funds will be utilized as required. (U)

5. COMMAND AND COMMUNICATIONS:

a. Command: Normal

b. Communications: See Annex C

OFFICIAL:

Joseph T McCaul Lt Col

WALTER C. STEWART JR
Colonel USAF
Director of Operations

DONALD E HILLMAN
Colonel USAF
Commander

ANNEXES:

A. Intelligence (Omitted)
B. Air Operations
C. Communications
D. Flying Safety
E. Weather (Omitted)
F. Reports

42BW OPORD
219-57
W-2044C

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SAC	- 3
8AF	- 8
ADC	- 5
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45AD	- 2
42ABG	
Comdr	- 1
Base Opr	- 2
RAPCON	- 1
Wea	- 1
Base Mat.	- 1
42BW	
Comdr	- 2
DM	- 5
Compr	- 1
DO	- 18
69th Bomb Sq	- 30
70th Bomb Sq	- 30
75th Bomb Sq	- 30
42d A&E Sq	- 2
42d FMS	- 1

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

ANNEX B

TO

OPERATIONS ORDER

SERIAL NUMBER 219-57

AIR OPERATIONS

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ANNEX B
42BW OPORD 219-57
V-2044C

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

AIR OPERATIONS, ANNEX B, OPERATIONS ORDER 219-57 ("PACE SETTER VII")

1. GENERAL CONCEPT: The 42d Bomb Wing will fly a mission from home station to home station, striking targets within the ZI. (U)

a. Take-Off: Aircraft will be launched from Loring AFB in three waves of 12 aircraft each, ten minutes between aircraft on 8, 12 and 15 April 1957. First aircraft take-off each day 2350Z. (C)

(1) Take-off times will be adjusted according to the latest forecast winds to make good HHCL times as indicated in this Annex. (U)

2. TACTICS:

a. Bomber Stream type mission throughout. Aircraft will be separated by 10 minutes and 3,000 ft. Odd aircraft will fly base altitude as shown in Navigation-Performance Log and even aircraft 3,000 ft. higher.

b. A 4 minute time pad has been provided in the area bounded by end of Grid-X, Mt. Airy, N. C. and HHCL at Bristol. (C)

c. Aborts:

(1) Crews aborting prior to take-off may be rescheduled; however, once airborne that crew may not be rescheduled. There is no restriction on rescheduling aircraft for "Pace Setter VII". (C)

(2) Aircraft in bomber stream, aborting the mission, will turn 90° to the stream, and descend 2,000 feet below the altitude of the lowest aircraft in the stream. The air commander will be advised immediately of the abort. An individual ARTC Clearance will be obtained as soon as possible through the nearest CAA radio facility. Aborting aircraft will then proceed to home station or appropriate alternate. (C)

W-2044C

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d. H-Hour Control Line and Timing:

(1) HHCL is established by a line running perpendicular to true course from 37-30N 79-45W to Bristol, Va. and passing through Bristol, Va.(C)

(2) H-Hour Control Times: H-Hour is 0317Z on 9, 13 and 16 April 1957. Assigned HHCL times will be made good plus or minus 2 minutes. Bomber stream leader will make good 0317Z H-Hour each day and suceeding aircraft their assigned H-Hour time, at 10 minute intervals. Inclusive times for 42d Bomb Wing are as shown below: (C)

FIRST HHCP	LAST HHCP
0317Z 9 Apr 57	0517Z 9 Apr 57
0317Z 13 Apr 57	0517Z 13 Apr 57
0317Z 16 Apr 57	0507Z 16 Apr 57

NOTE: One slot less on last day.

e. Refueling: None required.

3. BOMBING: Three RBS runs are scheduled, as follows:

a. Atlanta, Ga., DGZ LIMA, Direct Aiming, Mach .77, 39,000 and 42,000 feet altitude.

b. Little Rock, Ark., DGZ ALFA, Optional Aiming, HI JINKS breakaway right turn, Mach .82, 39,000 and 42,000 feet altitude.

c. Seymour, Ind., DGZ DELTA, Optional aiming, Mach .77, 39,000 and 42,000 feet altitude. (C)

4. NAVIGATION:

a. A night celestial grid leg, starting at Lewiston, Me. and terminating on a set of coordinates 37-30N 79-45W, in Virginia, is required. The leg will be scored by IFF, O-15 photography will also be taken of the termination. (C)

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5. SCHEDULE:

a. Briefing: Briefing will be held in 42d Bomb Wing's Training and Briefing Building at 1400 hours, local time, Friday, 5 April 1957.

b. Final weather briefing will be held in 69th Bomb Squadron Operations each day, as follows: (C)

CREWS	TIME
1 thru 4	2200Z
5 thru 8	2240Z
9 thru 12	2320Z

c. Debriefing: Debriefing will be held in Wing Training and Briefing Building immediately after landing. (U)

d. Critique: Critique will be held in 42d Bomb Wing's Training and Briefing Building at 1500 hours local time, Thursday, 18 April 1957. (U)

6. ROUTES: For routes see Navigation-Performance Logs, Appendix #2, this Annex. (U)

7. ECM: A Big Photo Record Run will be made by each aircraft in the following order:

	SITE
Odd Numbered Aircraft	- GAS BAG
Even Numbered Aircraft	- MIDWIFE

8. ALTERNATES: Alternates for this operation are listed by priority:

a. Terminal Alternates:

(1) Goose Bay AB, Labrador

(2) Wright-Patterson AFB, Ohio

(3) Westover AFB, Mass.

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b. Other Alternates:

(1) Carswell AFB, T$_e$x.

(2) Eglin AFB, Fla.

(3) McConnell AFB, Kansas

9. RECALL WORD: "TALL CORN"

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

APPENDIX I, ANNEX B

TO

OPERATIONS ORDER

SERIAL NUMBER 219-57

NAVIGATORS FLIMSY DATA

APP, ANN B
42BW OPORD 219-57
W-2044C

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

B-52 NAVIGATORS FLIMSY DATA, APPENDIX I ANNEX B, OPERATIONS ORDER 219-57

1. CHARTS REQUIRED: JN-19, 20, 30 JNX/O-1

2. REQUIREMENTS:

a. One night celestial grid leg from Lewiston, Maine to turning point at 44-51N 80-40W to 37-30N 79-45W scored in accordance with SAC Reg 51-11.

b. One radar direct run against target LIMA at Atlanta, Ga

c. One MACH .82 radar optional run against target ALFA at Little Rock, Arkansas with Hi Jinks right maneuver.

d. One radar optional run against tartet DELTA at Seymour, Indiana.

3. ROUTE AND TIMING:

a. Take off first aircraft at 00:13Z 9, 13 and 16 April 1957. Interval between aircraft 10 minutes and 3000 feet.

b. Route: Flight plan is inclosed

c. Control times: H-hour is 03:17Z each day. Last HHCT is 0517Z on the 9th and 13th and 0507Z on the 16th. Aircraft must maintain 10 minute spacing to avoid loss of runs from inability of RBS site to score.

4. NAVIGATION: All types of navigation may be used except from Lewiston, Maine to 37-30N 79-45W. The night celestial grid leg will be flown in accordance with SAC Reg 51-11. Radio aids and Radar beacons will not be used to locate IP's or targets.

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5. BOMBING DATA:

a. Bombing Tables: TO-11N-60-42, March 56

b. A radar synchronous run will be executed against target "LIMA" at Atlanta, Georgia

(1) Method of aiming: Radar Direct

(2) Bombing altitude: 39,000 and 42,000 MSL

(3) MACH number on bomb run: .77

(4) Pre-IP: Ashville, N.C.

Coordinates: 35-34N 82-20W

Elevation: est 2050 feet

TC to IP: 212°, 70 nautical miles

(5) IP: Toccoa, Ga.

Cordinates: 34-34N 83-20W

Elevation: 950 feet

TC to Target: 226°, 78 nautical miles

(6) Target: LIMA, Patton Hall, Fort McPherson, Atlanta, Ga.

AP: Top of the SE corner of building.

Coordinates: 33-42-16.420N 84-25-47.531W

Elevation: 1,075 feet

c. A radar sychronous run will be executed against Target ALFA at Little Rock, Arkansas, with Hi Jinks right maneuver.

(1) Method of aiming: Radar optional

(2) Bombing altitude: 39,000 and 42,000 MSL

(3) MACH number on bomb run: .82

ANN B, APP 1
OPORD 219-57
1 Apr 57
D-2044C

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(4) Pre-IP: Grenada, Miss.

Coordinates: 33-46N 89-50W

Elevation: 200 feet

TC to IP: 292°, 62 nautical miles

(5) IP: 34-09N 90-58W

Elevation: 175 feet

TC to Target 300°, 77 nautical miles

(6) Target: ALFA, Mathieson Chemical Co., North Little Rock, Ark. AP: Base of southernmost corner of cooling condenser adjecent to RR spur track located directly north of main plant building.

Coordinates: 34-45-31.086N 92-14-30.954W

Elevation: 254 feet

Offset #1: Center of industrial area east of Little Rock.

34-45-08N 92-11-53W

S-2,200 E-13,110

Elevation: 260 feet

Offset #2: Center of Westernmost Bridge.

34-45-15N 92-16-54W

S-1,550 W-12,100

Elevation: 275 feet

d. A radar synchronous run will be executed against target DELTA at Seymour, Indiana.

(1) Method of aiming: Radar optional

(2) Bombing altitude: 39,000 and 42,000 MSL

(3) MACH number on bomb run: .77

ANN B,APP 1
OPORD 219-57
1 Apr 57
W-20444C

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(4) Pre-IP: Paducah, Ky.

Coordinates: 37-06N 88-35W

Ellevation: 400 feet

TC to IP 043°, 74 nautical miles

(5) IP: Evansville, Indiana

Coordinates: 37-58N 87-35W

Elevation: 390 feet

TC to target 053°, 100 nautical miles

(6) Target DELTA: Freeman Airport, Seymour, Indiana.

AP: Intersection of the NW-SE and the E-W runways.

Coordinates: 38-55-15N 85-54-45W

Elevation: 575 feet

Offset #1 center of RR Bridge north of the town of Seymour

N-26,900 E-4,770

Elevation: 600 feet

Offset #2 center of tank and building area on east side of Freeman Airport. N-2,870 E-3,480

Elevation: 575 feet

e. "D" values will be used with measured altitude in computing the Bombing altitude.

f. Photography: Radar camera photography will be taken in accordance with the Interim Section 8, B-52 Flight Handbook check list with the following exceptions: After bomb release, the camera switch will not be turned off until 2½ minutes after release on Atlanta and Seymour. The function switch will be left in the TRACK position in order to obtain

ANN B, APP 1
CPORD 219-57
1 Apr 57
U-20444

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cross-over photography for scoring purposes. Normal IBDA will be accomplished on Little Rock in accordance with current IBDA proceedures.

6. ADDITIONAL INSTRUCTIONS:

a. In the event an aircraft lands at a base other than Loring, a B 51 Report will be transmitted, based on observer's estimate, in accordance with SAC Manual 55-8B. Film will be retained by the crews until return to Loring, where normal processing and reporting procedures will apply.

b. Malfunction Runs: For scoring purposes, malfunction runs will be considered radar aborts.

c. Scores will be given on request, not to interfere with scoring of other aircraft, on the first two targets only.

7. RELIABILITY:

a. Bombing Reliability - as specified in SAC Technical Pamphlet 170-1A.

b. Navigation Reliability - Grid navigation-20 nautical miles

c. Gross Bombing Errors - as specified in SAC Reg 50-28.

8. DISABLING OF OPTICS: The radar optical system will be taped prior to take off.

9. NAVIGATION SCORING PROCEDURES

a. Individual aircraft will make initial contact with "Blue Texas" GCI site on channel 10 common approximately 200 nautical miles from termination point. At this time the GCI site will advise aircraft on which mode to place IFF. Aircraft will use verbal identifier "Pace-Setter" and give position, altitude, True course and ETA to termination.

ANN B, APP 1
OPORD 219-57
1 Apr 57
W-2644C

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The first aircraft in the stream will report as the first aircraft and the last aircraft in the stream will report as the last aircraft.

b. Aircraft will contact "Blue Texas" 10 minutes prior to ETA and receive instructions concerning which channel to switch to (298.8 or 316.1 MC.) for final GCI controller.

c. Aircraft will contact "Blue Texas"not later than 5 minutes prior to ETA on assigned frequency, giving final ETA and track.

d. Final contact will be made with "Blue Texas" 30 seconds out and make a verbal count down from 5 seconds, 4 seconds, 3 seconds, 1 second, Hack. This will constitute termination of navigation leg for which "Blue Texas" will score. At this time IFF will be placed on standby. Termination point is designated as 37-30N 79-45W.

e. Scores will not be transmitted to the crew by the GCI Site.

f. Camera procedure: Ten minutes prior to ETA, C-15 camera will be turned on; one every fourth scan, with radar turned below perceptibility, range marks on and adjusted for perceptibility. After final course correction and ETA has been announced to the GCI Site, radar will be tuned to insure best C-15 photography.

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OPORL 219-57
1 Apr 57
W-2044C

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

APPENDIX II, ANNEX B

TO

OPERATIONS ORDER

SERIAL NUMBER 219-57

FLIGHT PERFORMANCE DATA

APP, ANN B
42BW OPORD 219-57
W-2044C

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

FLIGHT AND PERFORMANCE DATA, APPENDIX II, ANNEX B, OPERATIONS ORDER 219-57

1. MISSION FLIGHT PLAN: Incl #1.
2. ROUTE CHART: Incl #2
3. TAKE-OFF DATA: Incl #3
4. FUEL DECISION: Incl #4
5. AIRCRAFT SCHEDULES: Incl #5
6. REFUELING TACTICS: Incl #6 (Omitted)

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MISSION FLIGHT PLAN	O. O. AND NICKNAME	UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
	PACE SETTER VII	42BW	B-52 D	BOMBER STREAM		APR 8-1-45

	POUNDS				POUNDS			
ACFT BASIC	167500			BOMBS				RUNWAY: PRESSURE ALT 750' / LENGTH 12,100 / AIR TEMP 42°F
CREW	2070			AMMO				
OIL	986			WATER AUG		T.O.2350Z		CRITICAL FIELD LENGTH 8500 DRY THRUST / CRITICAL AIR TEMP 78°
ATO				STATIC	413606	NR FULL ATO REQUIRED		TAKE-OFF DISTANCE 7550 / TAKE-OFF SPEED 152KIAS
RACK								
EXT TANKS WEIGHT (Empty)	2550			START ENGINES AND TAXI FUEL ALLOWANCE	5000	NR EMPTY ATO REQUIRED	DEPARTURE PLAN	CRITICAL WIND COMPONENT
MISCELLANEOUS	500							1ST LEG / 2ND LEG / 3D LEG
CHAFF		TOTAL FUEL	240000	TAKE-OFF GROSS	408606	ATO FIRING SPEED	#1	
OPERATING	173606							

PRE-FLIGHT PLAN Page 1 of 2

	FROM: Loring AFB / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	PRED FUEL REMAINING	GROSS WT
																240000	413606
																9775	9775
	STTA											10	:03	10		230225	403831
A	HOULTON VOR			310/30								67	:17	116		13650	13650
	46-02N 67-51W	CL	198	+4	202	+21	223	36		410	420	77	:20	126		216575	390181
B	L/O			260/70								24	:03	23			
	45-37N 67-45W	CL	171	+9	180	+21	201	36		440	430	101	:23	149		216575	390181
C	PRINCETON VOR			260/70								18	:03	18		785	785
	45-20N 67-41W	CR	171	+9	180	+21	201		.77	445	435	119	:26	167		215790	389396
D	LEWISTON, ME ST GRID			260/70								140	:22	165		7150	7150
	44-06N 70-14W	CR	234	+4	238	+19	257				380	259	:48	332		208640	382246
E	T.P.			250/80								438	1:11	526		21800	21800
	44-41N 80-25W	CR	275	-4	271	+13	284				370	697	1:59	858		186840	360446
F	END GRID S/C			240/100								430	1:05	482		18900	18900
	37-30N 79-45W	CR	174	+12	186	+16	202				395	1127	3:04	1340		167940	341546
G	L/O	NRT		240/75								19	:03	21		1200	1200
	37-16N 79-55W	CL	214	+4	218	+3	221	39			378	1146	3:07	1361		166740	340346
H	MT AIRY			240/75								57	:09	67		2610	2610
	36-32N 80-36W	CR	214	+4	218	+3	221				378	1203	3:16	1428		164130	337736
I	*HHCL BRISTOL			230/110								66	:11	82		3000	3000
	36-34N 82-11W	CR	280	-10	268	+2	270				365	1269	3:27	1510		161130	334736
J	ASHVILLE,N.C. PIP			230/110								70	:12	89		3285	3285
	35-34N 82-34W	CR	190	+9	199	+1	200				358	1339	3:39	1599		157845	331451
K	TOCCOA, GA I.P.			230/110								70	:12	89		3500	3500
	34-36N 83-20W	CR	213	+4	217	0	217				340	1409	3:51	1688		154345	327951
L	TGT LIMA			230/110								76	:14	104		3760	3760
	ATLANTA	BR	227	+1	228	-1	227				335	1485	4:05	1792		150585	324191
M	TUSCALOOSA, ALA			230/80								166	:27	200		7130	7130
	33-11N 87-34W	CR	259	-5	254	-2	252				370	1651	4:32	1992		143455	317061

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MISSION FLIGHT PLAN – CONTINUATION SHEET Page 2 of 2

	FROM: TUSCALOOSA, ALA ROUTE	FLT COND	T.C.	WIND D/V DRIFT	T.H.	VAR	M.H.	TEMP ALT	IAS MACH	T.A.S.	G.S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED. FUEL REMAINING	GROSS WT
																143455	317061
N	GRENADA MISS PIP 33-46N 89-50W	CR	287	240/75 -7	281	-5	276	39	.82	470	418	115 1766	:17 4:49	136 2128		5440 138015	5440 311621
O	I.P. 34-09N 90-58W	CR	292	240/60 -6	286	-6	280				430	62 1828	:09 4:58	70 2198		2790 135225	2790 308831
P	TGT ALPHA LITTLE ROCK	BR	301	240/60 -6	295	-7	288				440	77 1905	:11 5:09	86 2284		3370 131855	3370 305461
Q	PADUCAH, KY PIP 37-05N 88-36W	CR	052	240/50 -1	051	-5	046		.77	445	495	230 2135	:28 5:37	208 2492		7150 124705	7150 298311
R	EVANSVILLE IND IP 37-58N 87-35W	CR	042	240/50 -2	040	-3	037				492	72 2207	:09 5:46	66 2558		2230 122475	2230 296081
S	TGT SEYMOUR, IND 38-55N 85-55W	BR	054	240/50 0	054	-2	052				495	100 2307	:12 5:58	89 2647		2960 119515	2960 293121
T	L/O 39-06N 85-28W	CL	063	240/75 +1	064	0	064	42			520	26 2333	:03 6:01	20 2667		1250 118265	1250 291871
U	40-28N 82-01W	CR	063	240/75 +1	064	0	064				520	184 2517	:21 6:22	158 2825		5275 112990	5275 286596
V	ECM 41-02N 80-27W	CR	064	240/75 +1	065	+4	069				520	78 2595	:09 6:31	66 2891		2185 110805	2185 284411
W	CLAREMONT, VT ST GRID 43-22N 72-45W	CR	068	250/90 0	068	+9	077				545	390 2985	:43 7:14	318 3209		10290 100515	10290 274121
X	50-50N 73-25W	CR	354	250/90 -11	343	+18	001				462	442 3427	:57 8:11	460 3669		14650 85865	14650 259471
Y	END GRID 47-02N 60-25W	CR	115	260/60 +5	120	+24	144				491	566 3993	1:09 9:20	504 4173		15450 70415	15450 244021
Z	46-12N 60-00W	CR	160	260/60 +8	168	+26	194				450	54 4047	:07 9:27	52 4225		1500 68915	1500 242521
AA	NEW GLASGOW 45-38N 62-40W	CR	255	260/60 +1	253	+25	278				380	118 4165	:16 9:43	119 4344		3420 65495	3420 239101
AB	CHATHAM ECM 47-01N 65-28W	CR	307	260/70 +3	309	+24	333				390	147 4312	:22 10:05	163 4507		4635 60860	4635 234466
AC	S/D 46-29N 66-45W	CR	243	260/70 -7	233	+23	256				380	65 4377	:10 10:15	74 4581		2080 58780	2080 232386
AD	HOULTON VOR 46-02N 67-51W	DS	243	260/70 +3	243	+22	265	35			380	50 4427	:08 10:23	59 4640		1640 57140	1640 230746
AE	LAFB 46-57N 67-53W	DS	355	310/30 -3	352	+21	013	3		400	380	57 4484	:09 10:32	60 4700		460 56680	460 230286
AF	LAND & TAXI	LD											:15 10:47			7000 49680	7000 223286

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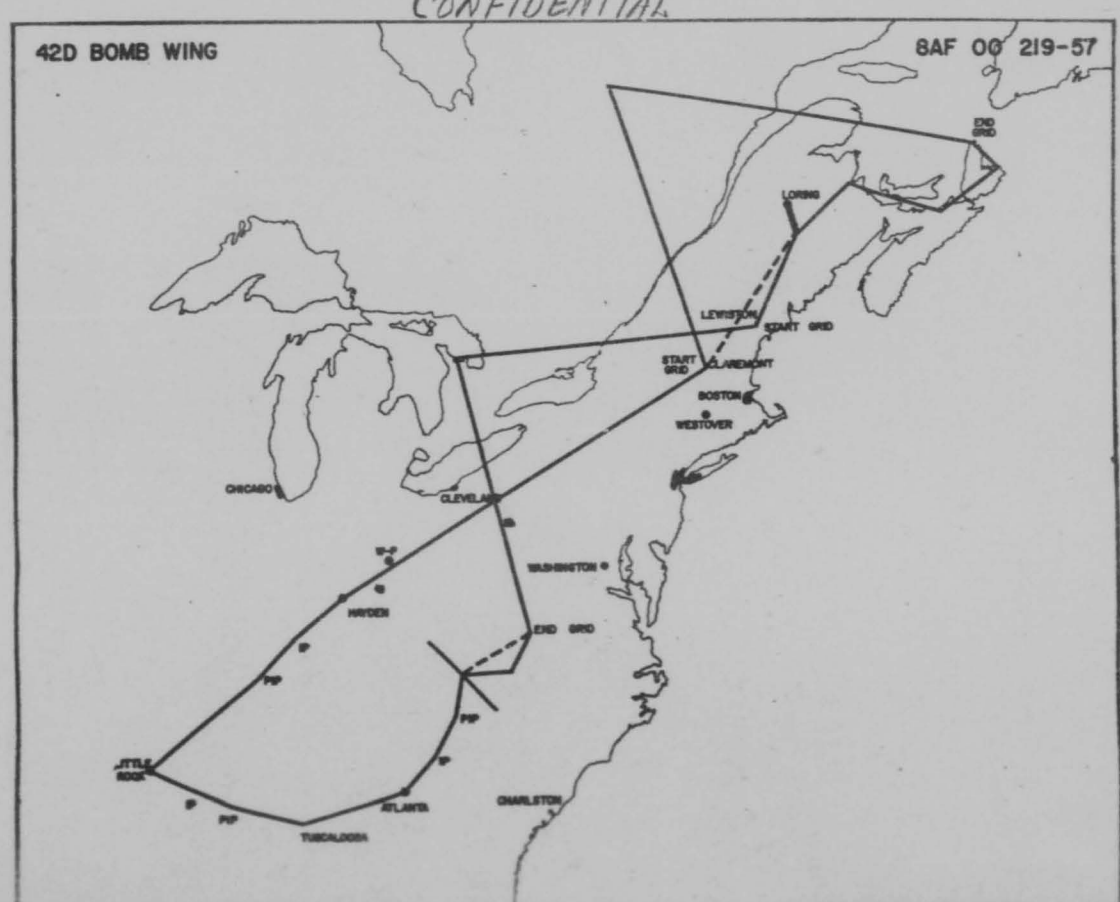
42D BOMB WING

8AF OO 219-57



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42 B.W. 219-57

PACE SETTER VII

TAKE-OFF CONDITIONS

TYPE AIRCRAFT	B-52 D
TAKE-OFF GROSS WEIGHT	408,606 LBS.
RUNWAY AVAILABLE	12,100 FT.
OUTSIDE AIR TEMPERATURE	42° F
PRESSURE ALTITUDE	800 FT.
CRITICAL FIELD LENGTH	8,400 FT.

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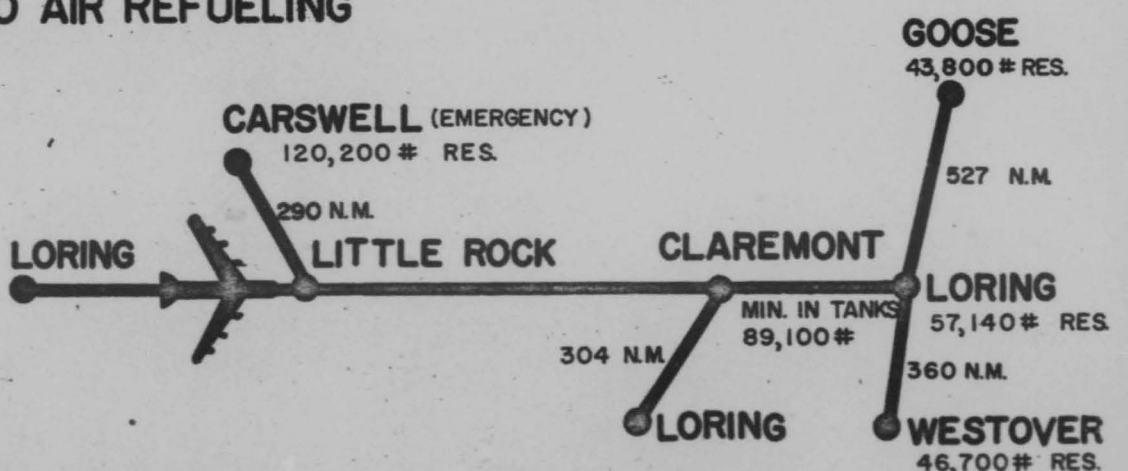
42 B.W. 219-57

PACE SETTER VII

FUEL DECISION

NO AIR REFUELING



T.O. GR. WT. 408,600# AVERAGE WIND 270° / 60 K

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AIRCRAFT SCHEDULES

"PACE SETTER VII" - WAVE I - 8 APRIL 1957

	PILOT	TAIL NR	C/S	T/O TIME Z	H-HOUR CONT TIME
1.	**RIORDAN	090	32	23:50	9/03:17Z
2.	MEYER	057	52	24:00	03:27
3.	EVANS	071	86	00:10	03:37
4.	RIGE	059	22	00:20	03:47
5.	*HUDLOW	083	90	00:30	03:57
6.	McDONNEL	063	54	00:40	04:07
7.	MILLER	077	88	00:50	04:17
8.	TUBB	076	58	01:00	04:27
9.	*BRUCE	084	30	01:10	04:37
10.	PENZIEN	070	56	01:20	04:47
11.	STICKLER	092	93	01:30	04:57
12.	SMITH	075	27	01:40	05:07

GROUND SPARE: WAGGONER 063 54

**Airborne Commander
* Navigational Control Acft.

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AIRCRAFT SCHEDULES

"PACE SETTER VII" - WAVE II - 12 APRIL 1957

	PILOT	TAIL NR	C/S	T/O TIME Z	H-HOUR CONT TIME
1.	**CURTIS	104	97	23:50	13/03:17Z
2.	WILLIAMS	062	23	24:00	03:27
3.	DEATON	066	55	00:10	03:37
4.	SOUTHWICK	072	26	00:20	03:47
5.	*ROBERTS	061	83	00:30	03:57
6.	TUCCI	102	34	00:40	04:07
7.	OWENS	088	62	00:50	04:17
8.	HOWARD	087	31	01:00	04:27
9.	*CHILDS	071	86	01:10	04:37
10.	HALNON	094	64	01:20	04:47
11.	RIDLEY	064	84	01:30	04:57
12.	WIEDERHOLD	103	65	01:40	05:07

GROUND SPARE: ANASTASIA C78 28

**Airborne Commander
* Navigational Control Acft.

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AIRCRAFT SCHEDULES

"PACE SETTER VII" - WAVE II - 15 APRIL 1957

	PILOT	TAIL NR	C/S	T/O TIME Z	R-HOUR CONT TIME
1.	**WARREN	083	90	23:50	16/03 17Z
2.	FRASIER	059	22	24:00	03:27
3.	BRITTAN	070	56	00:10	03:37
4.	SUPRENANT	058	82	00.20	03:47
5.	*MALONEY	075	27	00:30	03:57
6.	BELL	073	57	00:40	04:07
7.	WRIGHT	068	85	00:50	04:17
8.	ORTH	102	34	01:00	04:27
9.	*MORGAN	095	94	01:10	04:37
10.	WINN	085	61	01:20	04:47
11.	HORTSMAN	065	24	01:30	04:57
12.	DOUGLAS	091	63	01:40	05:07

GROUND SPARE: LANOIS 078 28

**Airborne Commander
* Navigational Control Acft.

Page 3 of 3 pages

INCL #5

W-2044C

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

APPENDIX IV, ANNEX B

TO

OPERATIONS ORDER

SERIAL NUMBER 219-57

GUNNERY FLIMSY

APP, ANN B
42BW OPORD 219-57
W-2044C

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LORING AIR FORCE BASE
MAINE
1 APRIL 1957

B-52 GUNNERY FLIMSY, APPENDIX IV, ANNEX B, OPERATIONS ORDER 219-57, ("PACE SETTER VII")

1. Gunnery portion of this mission will include maximum fighter lock on and gun camera attacks. There will be no live gunnery firing.

2. Fighter attacks will be made during both the hours of daylight and darkness. Fighter interception may be expected throughout the entire mission with the exception of the following areas:

FROM	TO
Ashville	Atlanta
Grenada	Little Rock
Paducah	Seymore, Ind
Apology or Pepper Box area	

3. Gun Cameras will be preflighted and proper settings understood by all gunners. All film magazines will be checked throughly for operation and all malfunctions corrected before take off.

4. Lock-on will be accomplished in the Radar Mode, but all camera attacks will be made in the manual mode.

5. Flim packs will be picked up by the gunners from their squadron gunnery section. Each gunner will pick up and sign for two (2) film packs.

6. Gunners will scan and report all aircraft in their immediate areas. All gunners will be prepared for camera gunnery, including a film pack in the camera during daylight hours.

7. Prior to the initisl attack by interceptors, radio contact will be established with the fighters on a common frequency.

8. All film packs will be turned into the Wing Gunnery Officer or his representive at the debriefing.

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
APRIL 1957
1 APRIL 1957

ANNEX C
APPENDIX 1, ANNEX B
TO
OPERATIONS ORDER
SERIAL NUMBER 219-57
COMMUNICATIONS & ECM

APP, ANN B
42BW OPORD 219-57
W-2044C

ANNEX C
42BW OPORD 219-57
W-2044C

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 April 1957

ANNEX C, COMMUNICATIONS/ECM, OPERATIONS ORDER 219-57, 42D BOMBARDMENT WING

1. GENERAL:

a. Applicable CEI's, appropriate ACP's, appropriate SAC Manuals of the 55-8 series, JANAP's, Radio Facilities Charts, Supplementary Flight Information Documents and ICAO Documents apply unless modified herein. (U)

b. Communications Flimsies, made up in check list form, will be distributed to Aircraft Commanders prior to the general briefing. A copy of this flimsy will be forwarded to Headquarters Eighth Air Force a minimum of 24 hours prior to the first scheduled take-off. (U)

2. ADMINISTRATIVE COMMUNICATIONS:

a. Point-to-point communications will be conducted over the following facilities in the priority listed. (U)

(1) SOCS (for command and operational traffic only). (U)

(2) SACCOMNET (U)

(3) AIRCOMNET (U)

(4) Commercial Facilities (U)

(a) TWX (U)

(b) Long Distance Telephone (U)

b. The senior controller will coordinate with the AACS Commander to alert their facilities and insure SAC operational traffic is given expeditious and preferential handling and to activate circuits as required.

3. AIRBORNE COMMUNICATIONS:

a. Identification and recognition will be in accordance with SAC

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CEI 2404.2a and 42d Bomb Wing Operations Memo 100-41 (Confidential). (C)

b. IFF operation will be as directed by SAC Regulation 55-23 and Wing Operations Memo 100-42 (Confidential) or as otherwise instructed by ADC Radar Sites. (C)

c. Authentication will be by use of the current air/ground code (KAC-1( )/TSEC). (U)

d. Emergency procedures will be IAW ACP's 130 and 135, and current applicable Radio Facilities Charts and Supplementary Flight Information Documents. (U)

e. Radio channelization will be IAW SACCEI and Wing Operations Memos except as needed for specific requirements of the mission. Exceptions will be detailed by the communications flimsy. In addition to normal frequency assignments, UHF channelization will provide for: (U)

(1) Canadian DOT

(2) RBS

(3) Fighter/Bomber

(4) Air Refueling

f. The use of HF radios will be restricted to actual aircraft emergency and manditory reports to Canadian DOT and U.S. CAA radio stations. (C)

g. In compliance with SACCEI 2101.4a, number two aircraft of cells and individual aircraft must contact "Radar Advisory" on 364.2 mcs. prior to entry into Canada, or as soon thereafter as possible, and maintain continuous guard on this frequency while over Canadian territory. (U)

h. Call signs will be assigned tactical call signs. (U)

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i. Communications security will be at a maximum. No clear text transmissions will be made that would reveal unit designation, location, aircraft type or the nature of the mission. (C)

j. "GUARD" frequency (243.0 Mcs) will be monitored at all times by adjustment of the UHF function switch to the "BOTH"position. (U)

k. Reporting:

(1) Position reporting will be accomplished IAW CAA, DOT and CADIZ/ADIZ procedures, as prescribed by applicable Radio Facilities Charts and the North American area Supplementary Flight Information Document. In addition, the following procedures apply:

(a) Position reporting will be the responsibility of: (U)

1 Individual aircraft

2 First and last aircraft of bomber streams with 15 minutes or less separation.

3 Aircraft out of radio contact with the bomber stream.

(b) Crews opening or closing the altitude reservation are to include the phrase "FIRST" or "LAST PACESETTER AIRCRAFT", as the first part of message text. (U)

(c) Procedure "ALFA" of the M-19 (SAC Manual 55-8M) position reporting procedures apply. Report formats are inside the back cover of Radio Facility Charts. (U)

(d) Cross band reporting will be used over Canada when out of range of UHF equipped CAA/DOT stations and in event of UHF failure. (U)

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(e) ADC Sites may be used to pass position reports as a secondary to cross hand procedures. (U)

(2) Strike Reports (B-11) will not be transmitted on HF. (U)

(3) Aircraft Commanders Reports (B-17) are to be submitted by Aircraft Commanders landing at other than briefed landing point. Over-printed message forms will be made available as part of the mission flimsy. (U)

l. SAC HF monitor procedure Alfa applies. Frequency assignments will be provided by the communications flimsy. (U)

m. Recall word is "TALL CORN". Recall messages will be relayed thru CAA/DOT, ADC and/or HF Air/Ground. (C)

n. RBS site frequencies will be IAW Operations Memo 100-23. (U) The phrase "THIS IS A PACESETTER RUN" will be transmitted as part of the information supplied on initial contact. (U)

4. ECM:

a. Each crew, except those flying on aircraft with Phase V ECM configuration, will attempt one (1) Big Photo Record Run as follows: (C)

(1) Crews flying odd numbered positions in the stream (1st aircraft, 3rd, etc.) make their runs on "GASBAG".

(2) Crews flying even numbered positions in the stream (2nd aircraft, 4th, etc.) make their runs on "MIDWIFE".

b. Each aircraft will have the following equipment installed. (C)

(1) APR-9 with TN-128 and TN-129

(2) APR-14

(3) APT-9 (Non-Phase V aircraft only)

(4) T-464/ALT-7 or T-465/ALT-7

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(5) No chaff will be loaded

c. Aircraft Commanders are to include intended ECM activity against ADC sites in the remarks section of DD Form 175 (Aircraft Clearance) IAW SAC Regulation 51-6 and appropriate annexes thereto. (U)

d. The Phrase "THIS IS A PACESETTER RUN" will be transmitted as part of information supplied on initial contact. (U)

5. Appendix I Annex A, (Navigator's Flimsy Data) to this Operations Order, contains special communications and IFF operating procedures for scoring navigation legs with GCI Site "BLUE TEXAS". (U)

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

ANNEX D

TO

OPERATIONS ORDER

SERIAL NUMBER 219-57

FLYING SAFETY

ANNEX D
42BW OPORD 219-57
W-2044C

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

FLYING SAFETY, ANNEX D, OPERATIONS ORDER 219-57, ("PACE SETTER VII")

1. The 42D Bombardment Wing Operations Staff will contribute to the safe conduct of the mission by keeping the principles of Flying Safety foremost in planning considerations. The following are items of special emphasis:

a. All crews scheduled for the mission will be qualified under the provisions of SAC Reg 51-19.

b. Crews will be briefed to adhere closely to the planned route to prevent violations of flight regulations.

c. The mission will be planned so as to insure minimum fuel reserves in accordance with AFR 60-16, SAC Manual 55-12, and applicable Wing directives.

d. Withdrawal procedures for aborting aircraft will be specified.

e. Crews will be thoroughly briefed on adequate alternates for the entire route. Flying Safety considerations will in all cases dictate the choice of an alternate.

2. Squadron Commanders will instruct all crew members participating to hold Flying Safety considerations above all other aspects of the mission. Each Commander will ascertain that the following items are emphasized:

a. All pilots are to familiarize themselves with letdown procedures for destination and selected alternates.

ANNEX I
42BW OPORD 219-57
1 APRIL 1957

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b. All crew members will receive adequate crew rest as defined in SAC Reg 62-19 and 8th Air Force Reg 62-2.

c. Prior to the mission, all aircraft flight instruments will be checked and calibrated in accordance with existing regulations.

3. Each Aircraft Commander will be reminded that he alone bears the ultimate responsibility for the safe conduct of his particular flight. He will give special attention to the following:

a. Brief thoroughly all crew members on emergency procedures.

b. Insure that survival and emergency equipment is aboard the aircraft.

c. Current Radio Facility charts for the entire route and Jet Penetration charts for all briefed alternates are in the aircraft.

d. All crew members will carry operable flashlights.

e. All crew members will carry applicable tech orders.

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

ANNEX F

TO

OPERATIONS ORDER

SERIAL NUMBER 219-57

REPORTS

ANNEX F
42BW OPORD 219-57
W-2044C

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
1 APRIL 1957

REPORTS, ANNEX F, OPERATION ORDER 219-57 ("PACE SETTER VII")

1. The following reports are the responsibility of sections as noted and will be submitted correctly and on time. Reference SAC Manuals 55-8, 55 8B, 55-8M, and Eighth Air Force Operation Order Pace-Setter, dated 5 February 1956, as amended.

a. Control Room

(1) B-2 Due 24 hours prior to ETD of first aircraft in each wave.

(2) B-10 First departure report, within 30 minutes after first cell has departed.

Summary Report: A summary of all departures hourly after the first cell.

Last Report: Last departure report for the last cell, within 30 minutes after last take-off.

(3) B-15 First arrival report, due within 30 minutes after first aircraft lands.

Summary Report: Due every 2 hours covering all aircraft landing in that period.

Last Report: Due within 30 minutes after last aircraft has landed.

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(4) B-21 Weather Sacmar Report: Information will be furnished by Base Weather, obtained from aircraft commanders and submitted to the Control Room for transmission.

b. Aircraft Commanders: see Annex C, Communications.

c. Wing Intelligence:

(1) Post-Mission Navigation Report: Due within 24 hours after last aircraft has landed in each wave.

(2) M-36 Final Report of enemy jamming of airborne electronics equipment (if applicable).

(3) B-25 Intelligence Summary Report. Negative reports will be submitted when no positive information can be obtained.

(4) B-51 Immediate Photo Intelligence Report. Reports will be accomplished on the third target only. B-51 reports will contain the RBS Complex and Target Designator.

(5) E-1. This report will be submitted for each run on the third target, as a last entry on the B-51 Report.

d. Wing ECM:

(1) B-30 Initial Electronics Intercept Report: Due within four hours after arrival of the last expected aircraft (if applicable).

e. Air Training:

(1) B-27 Wing Commanders Report: Due four working days after last aircraft lands.

(2) B-81 Simulated Combat Operations Summary: Due 12 hours after last aircraft lands on each wave. An "effective aircraft" is one that is effective on all scheduled targets.

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f. Reports and Analysis:

(1) Final Mission Summary Report: Due within ten days after completion of the exercise.

g. Base Weather Station:

(1) One aircraft commander in each cell will accomplish a SACMAR to be turned in to Base Weather immediately after landing. The weather officer will review the SACMAR and furnish the Control Room with information required for the B-21 Weather SACMAR Report.

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
25 MARCH 1957

OPERATIONS FLIMSY

FOR

TEST PROGRAM "LARGE CHARGE"

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HEADQUARTERS 42D BOMBARDMENT WING, HEAVY
LORING AIR FORCE BASE
MAINE
25 MARCH 1957

OPERATIONS FLIMSY FOR TEST PROGRAM "LARGE CHARGE"

1. GENERAL: 42D Bomb Wing has been assigned Test Project "Large Charge" to test the tactical feasibility of the B-52 capabilities to make two precision bomb releases on the same run and complex area. (S)

a. Three Combat Ready Crews of the 42D Bomb Wing will make thirty B-52 dual bomb runs against Montreal RBS site to be 50% complete by 3 April and 100% complete by 20 April 1957. (S)

b. Crews Selected: One Combat Ready crew from each squadron has been selected to participate as follows:

69th BOMRON	Capt Tucci	R-22
70th BOMRON	Capt Bell	R-50
75th BOMRON	Capt Roberts	R-79

c. Take Off: Base altitude is 40,000 feet, therefore in order to allow enough time and fuel for completion in one sortie at the highest altitude of 44,000 feet crews will complete take offs so as to make first release on Montreal RBS as follows: (S)

CREW	FIRST BOMB RELEASE 2 April ZULU
Tucci	16:00
Bell	17:30
Roberts	19:00

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(1) Aircraft will take off at a gross weight of 403,606 pounds. The first aircraft will be over Montreal at 40,000 feet not to exceed 376,000 lbs, for 1½ hours, at end of 1½ hours no 1 will climb to 42,000 feet not to exceed 341,000 lbs and no 2 will come in at 40,000 feet. At end of next 1½ hours, no 1 will climb to 44,000 feet not to exceed 308,000 lbs, no 2 to 42,000 feet and no 3 comes in at 40,000 feet, at this time no further altitude changes should be required. For example no 3, would be at 40,000 feet throughout. (S)

NOTE: Gross weights stated above at beginning of cruise at 40, 42, and 44,000 are real gross weights at which the aircraft can fly .82 Mach at NRT.

2. BOMBING: Each crew will complete each of the five dual runs twice for a total of 10 runs per crew and a grand total of thirty runs for the wing. (S)

a. A total of six targets will be employed. The approximate location of targets is along a straight line originating at target no 1, and having a true bearing of 225 degrees. (S)

b. Target no 1 will be used as the first target on each run for this project. Targets number 2 through 6 will be used as the second target. Only one offset aiming point will be used for each run. Offset no 2 will be from second offset aiming point to next target in a particular run. (S)

(1) A total of two offset aiming points will be used with the Northernmost designated as "NOVEMBER" and southernmost as "SIERRA". (S)

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NOTE: Target coordinates, offsets, etc. are being prepared by Target Intelligence and will be issued under separate cover to the crew navigator- radar operators. (C)

(2) The five dual runs will utilize combinations of axes of attack, OAP's, and targets as follows:

AXES	OAP	1st TGT	2nd TGT
225	November	1	2
235	November	1	3
245	Sierra	1	4
255	Sierra	1	5
265	Sierra	1	6

c. Ballistics:

(1) All runs will be made at MACH .82 at bombing altitude of not less than 40,000 feet. (S)

(2) All targets are considered to be at 100 feet elevation. (S)

(3) Regardless of altitude and airspeed all aircraft will use an ATF of 55 seconds, repeat fifty five seconds and trail of 27,000 feet, repeat twenty seven thousand feet. (S)

(4) Releases will be scored for impact burst at target elevation. (S)

d. All runs for this project will be NON-RECORD synchronous radar offset. The rules contained in inclosure 1 and Annex IV to SAC Reg 50-4 do not apply. (S)

e. Tactics: The following flight procedures will be followed on this test:

W-21685

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(1) Normal bomb run is made on the first target by means of both direct and offset sighting with offset no.1. (S)

(2) At 20 to 30 seconds to go, the navigator starts timing the release with a stop watch and assumes responsibility for manually releasing bomb no 1, with the pickle switch (RBS tone in this case). (S)

(3) The radar observer then instructs pilot to maintain heading. (S)

(a) Switches to track mode. (S)

(b) Slews crosshairs to OAP by the GPI reference point method. (S)

(c) Refines crosshairs on the OAP, switches to Bomb Mode, Automatic release, and takes second station. (S)

(d) Uses time remaining for precise crosshair positioning. The wind for first release should remain valid. (S)

(e) Releases second bomb in normal manner. (S)

(4) After release of the first bomb, the pilot will make a heading correction toward the second target. An effort will be made to provide 30 seconds of straight flight prior to the first release and again after the second release.

(5) Each crew will record amount of heading change between targets explain all scores of over 4,000 feet and hand in "Summary of Crew Comments" including any difficulties encountered in execution, and recommendations.

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3. RADIO CALLS - SCORING ETC.: The following rules will apply to radio calls concerning "LARGE CHARGE" RBS runs: (S)

a. Runs employing this tactic will be identified to the RBS site by including the nickname "LARGE CHARGE" in radio calls. (S)

b. The word RUN will indicate a complete overflight of the target complex on which two releases are attempted. (S)

c. On clearance calls for a run, the target number transmitted will be a two digit number, the first digit indicating the target for the first release, and the second digit indicating the target for the second release. EXAMPLE: "Target 14" for a run with first release on target no 1 and second release on target no 4. No indication that two targets are employed on a single run should be made, other than the tone transmission. (S)

d. True heading and wind information will be transmitted after the second release for both releases as follows: (S)

(1) True Airspeed - A six digit number will be transmitted, the first three digit being true airspeed of first release and last three digits the true airspeed of second release. (S)

(2) True Heading - A six digit number will be transmitted, the first three digit being true heading for the first release and last three digits the true heading for the second release. (S)

(3) Wind - Only one set of wind components will be transmitted and these will apply to both releases. (S)

e. Encoded Scores: Encoded scores will be transmitted as a twelve digit number, the first six digit being the score for the first release and the remaining digits being the score for the second release. (S)

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(1) If the numerical data, or score, for either run is not available then the letter "X" will be used as a filler to make up the required number of digits for the radio call. (S)

(2) In the event of an abort, the radio call will not specify which release was aborted. This will be indicated by the presence of the letters "X" used as a filler in the numerical data transmission. (S)

4. MISSION STUDY AND PREPARATION REQUIREMENTS:

a. Each crew will complete 8 hours of target study and preparation prior to mission. (C)

b. Each crew will complete 4 hours of procedure practice on Ultra-Sonic Trainer prior to mission. (C)

OFFICIAL:

WALTER C. STEWART JR. Major
Colonel USAF
Director of Operations

DONALD E. HILLMAN
Colonel USAF
Commander

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

B-52
TRANSCONTINENTAL
EAST TO WEST
SPEED RUN

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

B-52 Trancontinental East - West Speed Run

INDEX

	ITEM	PAGE
I.	Cover Letter	
II.	Project Analysis	1
III.	Inclosures	
	1. Flight Plan #1	8
	2. Flight Plan #2	9
	3. Flight Plan #3	10
	4. Recapitulation Chart	11
	5. Fuel Decision	12
	6. Figure A2-9, T.O. 1B-52D-1A	13
	7. Route Chart	14

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HEADQUARTERS 45th AIR DIVISION
United States Air Force
Office Of The Commander
Loring Air Force Base, Maine

C

MAR 30 1957

SUBJECT: Transcontinental East To West Speed Run

TO: Commander
Eighth Air Force
Westover Air Force Base
Massachusetts

1. This organization has examined the projected transcontinental east to west speed run with respect to the following factors:

a. Time for record

b. Fuel reserves

c. Maximum speed capability

d. Structural limitation

e. External aircraft configuration

Detailed discussion of these factors is presented as an attached Project Analysis which is supported by applicable inclosures.

2. Three basic flight plans have been developed in an attempt to beat the existing record time. The flight plans may be defined by differences in external aircraft configuration and/or speed limitations. These plans may be referred to as follows: (Time for record, fuel reserves and flight pressure altitude are shown:

a. PLAN 1. External tanks attached.
Time: 4:29.5 Reserve: 58,074 lbs. P/A: 29,500'

b. PLAN 2. External tanks removed.
Time: 4:13.5 Reserve: 33,289 lbs. P/A: 20,000'

c. PLAN 3. External tanks removed. Speed reduced 5 knots TAS.
Time: 4:16.5 Reserve: 49,887 lbs. P/A: 20,000'

(Present record 4:25)

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C, Subj: Transcontinental East to West Speed Run

3. The average cruise altitude winds which were used in computing these initial plans were:

a. 30,000' PA 270°/40 knots

b. 20,000' PA 270°/25 knots

4. Upon completion of the initial planning survey, minimum wind estimates obtained from local sources are:

a. 30,000' PA 270/23

b. 20,000' PA 270/15

The time for record, with the above winds applied is as follows:

a. PLAN 1 - 4:20.5

b. PLAN 2 - 4:04.5

c. PLAN 3 - 4:11

5. A convenient means of determining time for record, regardless of wind (up to 47.5 knots), has been developed by cross-plotting varying wind effects of the basic flight plans; then, developing the graph which is attached as Inclosure 1 to this letter.

6. At this time, PLAN 3 appears to be the most favorable device for beating the east-west record, if winds of less than 43 knots are encountered. PLAN 2 could be used as an in-flight back-up for holding a time lead developed in the event winds up to 46 knots were encountered. Winds in excess of 48 knots will nullify the record attempt. Explanation of the wide difference in fuel reserves available with PLANS 2 and 3 lies in the fact that the thrust-drag requirement drops sharply in the extreme speed ranges, when MACH is slightly decreased.

7. This command recommends termination of the flight with landing at Edwards Air Force Base, rather than attempt

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C, Subj: Transcontinental East to West Speed Run

in-flight refueling and immediate return to Loring Air Force Base, due to decreased fuel reserves on completion of the speed run.

1 Incl
#Effect of Headwind on Time & Fuel Reserve

W.K. MARTIN
Brigadier General, USAF
Commander

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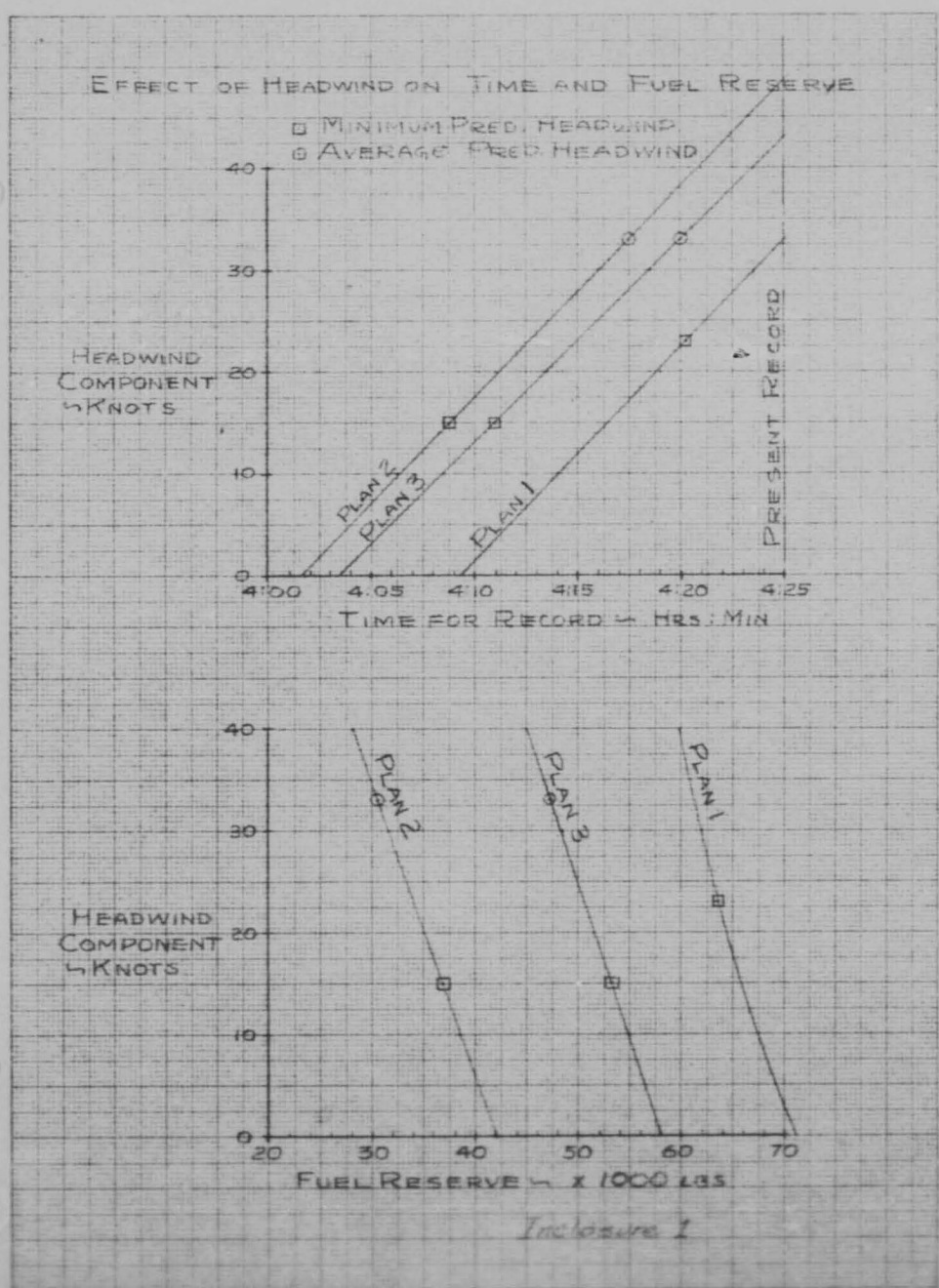

Inclosure 1

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

PROJECT ANALYSIS

SUBJECT: B-52 Transcontinental East To West Speed Run.

1. Proposed plans to attack the existing East to West Transcontinental Speed Record with B-52 aircraft may be categorized as follows:

a. PLAN 1. Flight with external fuel tanks attached to the aircraft.

b. PLAN 2. Flight with external fuel tanks removed.

c. PLAN 3. External tanks removed, but decrease speed 5 knots TAS below max available.

2. Close examination of the B-52 aircraft's maximum speed capability with maximum continuous thrust (MRT) reveals that these flight plans have considerably different true airspeed and fuel consumption characteristics. The three flight plans are presented as follows:

a. PLAN 1. Take-off from Loring AFB and fly to Mitchel AFB. Fly past the control tower at Mitchel at 1000' pressure altitude; then accelerate to climb speed and climb at MRT to 28,500' pressure altitude. With MRT applied, accelerate to maximum available airspeed, MACH .865, or 527 KASK, not to exceed 350 IASK. Increase altitude slightly as weight decreases to hold 350 IASK at 32NM from Los Angeles International Airport, begin descent to 1000' pressure altitude in order to fly past the control tower. On completion of the speed run; the aircraft will climb to 15000' pressure altitude for rendezvous in the Los Angeles area with four KC-97 aircraft (3 primary, 1 airspare for 120,000 pound JP-4 transfer 140,000 pounds per tanker) and return direct to Loring AFB at .77 MACH maximum range with 50,000 pound reserve over Houlton VOR. See Inclosure #1.

b. PLAN 2. Take- off from Loring AFB, rendezvous with two KC-97 (1 primary, 1 airspare) in the vicinity of Newburyport and refuel 50,400 pounds of JP-4. Continue to Mitchel AFB, descend and fly past the control tower at 1000' pressure altitude. Then accelerate to climb speed, climb at MRT to 20,000' pressure altitude and accelerate to maximum available airspeed not to exceed 410 IASK. Increase altitude slightly as thrust available exceeds

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thrust required to hold constant 419 IASK. At 17 NM from los Angeles star. descent for Fly-by" past the control tower at 1000' pressure altitude. Then climb to 15000' pressure altitude for refueling rendezvous with five KC-97 aircraft (4 primary, 1 airspare for 160,000 pounds JP-4. Fly at .77 MACH maximum range on return to Loring AFB and arrive over Houlton VOR with 50,000 poun ds reserve. See Inclosure #2.

c. PLAN 3 The same air refueling requirement and flight route will exist until after MRT climb-out from Mitchel AFB. On level-off at 20,000' pressure altitude, accelerate the aircraft to 412 IASK, 539 TASK. Execute the speed run at 539 TASK, which is 5 knots less than maximum available IASK (544) at NRT. Justification for decrease in TASK lies in the fact that the average thrust required is decreased by 4140 pounds, which results in a saving of 4500 pounds per hour fuel flow. This results in an increase in fuel reserve at Los Angeles International Airport as 16,598 pounds over PLAN 2. This reduction in true airspeed will encrease the flying time from Mitchel to Los Angeles by 3 minutes over PLAN 2. See Inclosure #3.

3. Narrative presentation of PLANS 1 and 2 above is summarized as follows: (See Inclosure #4, Recapitulation chart)

a. PLAN 1. (External Tanks Installed)

(1)	Total flight time	5:42.5
(2)	Time for record (Control tower to control tower)	4:29.5
(3)	Fuel reserve (At L.A. control tower)	58,079
(4)	Ave TASK	527
(5)	Ave MACH	.865
(6)	Ave cruise altitude	29,000' PA
(7)	Ave NRT fuel flow	36,000 lbs/Hr.
(8)	Take-off gr. wt.	429, 746
(9)	IFR prior to return LAFB (4 KC-97: 3 pri, 1 airspare	120,000 LBS.
(10)	Winds	270°/40 KNOTS
(11)	Great circle course and distance	260°,2160NM

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b. PLAN 2. (External Tanks Removed)

(1)	Total flight time	5:39.5
(2)	Time for record (Control tower to control tower)	4:13.5
(3)	Fuel reserve (At L.A. control tower)	33,289 LBS
(4)	Ave TASK	544
(5)	Ave MACH	.885
(6)	Ave cruise altitude	20,000' PA
(7)	Ave NRT fuel flow	44,370 LB/HR
(8)	Take-off gr. wt.	376,500
(9)	IFR prior to return LAFB (5 KC-97; 4 pri, 1 airspare)	160,000 LBS.
(10)	Winds	270°/25 KNOTS
(11)	Great circle course and distance	260°,2160 NM

c. PLAN 3. (External Tanks Removed, Decrease 5 Knots TAS.)

(1)	Total flight time	5:41.5
(2)	Time for record (Control tower to control tower)	4:16.0
(3)	Fuel reserve (At L.A. control tower)	49,887 LBS.
(4)	Ave TASK	539
(5)	Ave MACH	.879
(6)	Ave cruise altitude	20,000' PA
(7)	Ave fuel flow	39,870 LB/HR
(8)	Take-off gr. wt.	376, 500
(9)	IFR prior to return LAFB	160,000 LBS

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(10) Winds 270°/25 KNOTS

(11) Great circle course and distance 260°,2160 NM

4. Additional data and considerations:

a. Terminal Alternate Airfields.

The only two USAF bases in the California area possessing B-52 support facilities are:

(1) Edwards AFB, 87 N.M., after refueling attempt

(2) Castle AFB, 200 N.M., after refueling attempt

In the event the aircraft is diverted to either of these bases, fuel reserves on the runway, after attempting IFR, will be: (See Inclosure #4, Recap Chart and Inclosure #5, Fuel Decision)

(1) PLAN 1.

Edwards AFB	42,979 LBS.
Castle AFB	35,479 LBS.

(2) PLAN 2.

Edwards AFB	19,294 LBS.
Castle AFB	11,794 LBS.

(3) PLAN 3.

Edwards AFB	34,834 LBS.
Castle AFB	27,334 LBS.

b. Winds and Weather:

Climatological wind data for the EAST-WEST speed run follows:

(1) Average values

20000	275/35
30000	272/55

(2) Minimum values

20000	250/15
30000	270/25

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It is unlikely that we can forecast the situation producing the minimum values 48 hours in advance. To take advantage of the lighter winds the best plan would be to wait until they occur or go on twelve hour notice.

We can expect the winds to be more favorable during the last 10 days of May. This statement is based on the climatological fact that the wind field becomes lighter over the United States during the summer months. Durming May 1956, for example, there was a distinct decrease in the strength of the wind field during the last 10 days of the month .

c. Climb To NRT Cruise Altitude, After Mitchel AFB:

In military rated thrust is used in climbing to recommended cruise altitude after flying past the control tower at Mitchel AFB, it will be found that one minute in time will be saved in flying the record course. This is due to the fact that climb at either MRT or NRT are relatively low TASK configurations. If MRT is established for climb, the time to climb is considerably reduced and the aircraft assumes the high TASK condition earlier in the flight. It will be noted that this organization regularly employs NRT during climb to conserve materiel.

d. Structural Limits Due To Airspeed:

Reference to Figure A2-9 "Maximum Speed in Level Flight" T.O. 1B-52D-1A or Figure B2-9, T.O. 1B-52B-1A will determine the maximum TASK capability of the aircraft under conditions of maximum continuous thrust (NRT) on a Standard Day.

NOTE: See Inclosure #6 which is a locally revised correction of this chart. The corrected 3,000 gallon tank flutter limit has been revised as indicated by the cross hatched line (//////) for NACA.

Since atmospheric conditions at the time of execution will most likely be other than NACA, maximum speed may be attained by employing the following techniques (and remain within aircraft placard limits):

(1) PLAN 1. RULE: With tanks installed, maximum speed must not exceed 350 IASK, or .93 MACH, whichever occurs first for any altitude. (See page 3, Section V, T.O. 1B-52D-1A, 15 August 1956, or page 4, Section V, T.O. 1B-52B-1A, 30 September 1956.)

(a) Level-off at the recommended pressure altitude versus. Actual gross weight, after climb out from Mitchel AFB. (See Figure A2-9, Inclosure #6)

(b) Subsequently, vary altitude as required to hold exactly 350 IASK.

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(c) The resulting TASK will be the maximum available for the flutter limit of the external tanks.

NOTE: Although only one line (////////) indicates the tank flutter limit on Inclosure #6, it will be noted that this line represents the MACH-TASK limits versus gross weight on a Standard Day. For the same thrust condition (NRT), a tank limit line representing Hot Day and higher MACH-TASK versus gross weight relationship would be plotted below the NACA line and a tank flutter limit line representing a Cold Day and lower MACH-TASK relationship could be plotted above the NACA line.

(2) PLAN 2. RULE: With the tanks removed the maximum speed restriction is 400 knots equivalent, or 419 IASK at 20,000' pressure altitude. (See "NOTE" page 4, Section IV, T.O. 1B-52D-1A, 15 November 1956 and page 5, T.O. 1B-52B-1A, 30 September 1956.)

(a) As in PLAN 1, climb out after Mitchel AFB to the pressure altitude recommended on the NRT section of Figure A2-9, Inclosure #6, as indicated by the intersection of actual gross weight and the diagonal line labeled "Clear airplane structural limit."

(b) Again, with NRT applied vary altitude slightly to maintain 419 IASK. TASK will be higher than that indicated on Figure A2-9 for a ambient temperatures warmer than NACA and TASK will be lower for temperatures colder than NACA. In using this technique the resulting TASK at 419 IASK will not exceed the aircraft structural limit.

(3) PLAN 3. The same technique applied in PLAN 2 will be utilized in executing this plan. except the average speed performance will be reduced from 544 TASK to 539 TASK. The indicated airspeed, NACA, to hold on the pilots instrument will be 412 IASK. In the case of temperatures higher than NACA, indicated airspeed could be increased to obtain a true airspeed approching that of PLAN 2 without increasing fuel flow above that designated for PLAN 3 (39,870 LBS/HR). Conversely, if temperature is colder than NACA, excessive thrust will be required to hold a minimum of 539 IASK with resultant fuel consumption in excess of 39,870 pounds per hour. At 10° C colder than NACA the aircraft will be unable to achieve 539 TASK at NRT.

e. Structural Limits Due to Aircraft Loading.

(Limit load factors) The limit load factors of the plans discussed above are:

(1) PLAN 1. With the external tanks installed, the aircraft is capable of an acceleration of 2G's at all times.

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(2) PLANS 2&3. Without the tanks the aircraft has a 1.77G load limit capability at between 380,000 to 390,000 pounds gross weight with 6.? LB/GAL fuel. After refueling enroute to Mitchel AFB, the gross weight is planned to be 390,000 pounds. To maintain a 2G aircraft without external tanks, the B-52 aircraft should not exceed a gross weight of 371,000 pounds in flight. (See page 382c, T.O. 1B-52D-1, 15 August 1956 or page 415, T.O. 1B-52C-1, 30 September 1956). At 390,000 pounds, the aircraft is 19,000 pounds above the limiting weight for a 2G aircraft however. The weight would decrease to 377,000 pounds after 30 minutes or flight due to the high fuel flow requirement. Primary precautions involves avoiding turbulence and rapid changes in aircraft altitude.

5. This material represents the initial study of the East-West Speed Run problem. Further study in climb and descent techniques during the speed run may result in an additional time saving of one minute.

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PLAN 1 EXTERNAL TANKS INSTALLED. MAX TAS

MISSION FLIGHT PLAN					UNIT	TYPE ACFT	WAVE	CELL CALL SIGN	REMARKS
					42DBW	B-52			

	POUNDS					POUNDS			RUNWAY		
ACFT BASIC	167000				BOMBS				PRESSURE ALT	LENGTH	AIR TEMP
CREW 10 230	1610				AMMO						
OIL	986				WATER AUG				CRITICAL FIELD LENGTH		CRITICAL AIR TEMP
ATO	—				STATIC	429,746	NR FULL ATO REQUIRED		TAKE-OFF DISTANCE	TAKE-OFF SPEED	
RACK	—										
EXT TANKS WEIGHT (Empty)	2550				START ENGINES AND TAXI FUEL ALLOWANCE	5000	NR EMPTY ATO REQUIRED		CRITICAL WIND COMPONENT		
MISCELLANEOUS	—								1ST LEG	2ND LEG	3D LEG
CHAFF	—		TOTAL FUEL	257,600	TAKE-OFF GROSS	424,746	ATO FIRING SPEED				
OPERATING	172146										

PRE-FLIGHT PLAN

FROM / ROUTE	FLT COND	T. C.	WIND D/V / DRIFT	T. H.	VAR	M. H.	TEMP / ALT	IAS / MACH	T. A. S.	G. S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	FUEL FLIGHT PLAN: PRED FUEL REMAINING	FUEL FLIGHT PLAN: GROSS WT
LORING AFB															257600	429746
															9900	9900
STETTO											10	:03	10		247700	419846
			250/30					310			55	:08.5	56			
HOULTON VOR	CL	178	+3	181	+22	203		.765	390	380	65	:11.5	66			
			250/40								72	:11.5	76		13150	13150
LEVEL OFF	CL	220	+3	223	+21	244	0-34M	.765	410	374	137	:23	142		234550	406696
			270/50								285	:41.5	307		13926	13926
START DESCENT	CR	219	+5	224	+16	240	34M	.77	445	412	422	1:04.5	449		220624	392770
			250/35					280			47	:08.5	51		800	800
MITCHELL AFB	DS	217	+3	220	+13	233	34-1M	.80	360	330	469	1:13	500		219824	391970
	MRT		270/25								71	:11	74		9200	9200
LEVEL OFF	CL	273	0	273	+11	284	1-28.5M		403	378	540	1:24	574		210624	382770
MRT SPEED RUN											2063	4:13.5	2227		152110	152110
START DESCENT	CR	260	270/40 +1	261	-8	253	28.5/29.5	.865	527	488	2603	5:37.5	2801		58514	230660
			270/30					280			30	:05	32		440	440
LOS ANGELES INT'L	DS	245	+2	247	-15	232	29.5-1M	.80	380	360	2633	5:42.5	2833		58074	230220

PLAN 1 EXTERNAL TANKS INSTALLED. MAX TAS

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INCLOSURE 1 PAGE 8

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PLAN 2. NO EXTERNAL TANKS. MAX TASK

MISSION FLIGHT PLAN	J. O. AND NICKNAME: EAST-WEST SPEED RUN			UNIT: 42D B.W.	TYPE ACFT: B-52	WAVE	CELL CALL SIGN	REMARKS

	POUNDS				POUNDS		
ACFT BASIC	167000			BOMBS			
CREW 70230	1610			AMMO			
OIL	986			WATER AUG			
ATO	—			STATIC	376500	NR FULL ATO REQUIRED	
RACK	—						
EXT TANKS WEIGHT (Empty)	—			START ENGINES AND TAXI FUEL ALLOWANCE	3000	NR EMPTY ATO REQUIRED	
MISCELLANEOUS	—						
CHAFF	—	TOTAL FUEL	206904	TAKE-OFF GROSS	373500	ATO FINING SPEED	
OPERATING	169596						

RUNWAY

PRESSURE ALT	LENGTH	AIR TEMP
CRITICAL FIELD LENGTH		CRITICAL AIR TEMP
TAKE-OFF DISTANCE	TAKE-OFF SPEED	

CRITICAL WIND COMPONENT

1ST LEG	2ND LEG	3D LEG

PRE-FLIGHT PLAN

FROM LORING AFB ROUTE	FLT COND	T.C.	WIND D/V DRIFT	T.H.	VAR	M.H.	TEMP ALT	MS MACH	T.A.S.	G.S.	GND DIS ACC GND DIS	TIME ACC TIME	AIR DIS ACC AIR DIS	ETA	FUEL FLIGHT PLAN PRED FUEL REMAINING	GROSS WT
															206904	376500
															6780	6780
STETTO											10	:03	10		200124	369720
											37	:09	38		4500	4500
LEVEL-OFF	CL	178	250/15 +3	181	+22	203	0-15M		250	245	47	:12	48		195624	365220
								300			235	:39	241			
NEWBURY PORT	CR	215	270/20 +2	217	+19	236	15M		370	360	282	:51	289			
								300			94	:15	94		19720	19720
NEWPORT (REMAIN)	CR	193	270/20 +3	196	+15	211	15M		370	370	376	1:06	383		175904	345500
											60	:15	64		5900	5900
AR	CR	298	270/20 +2	250	+13	263	15M		250	233	436	1:21	447		170004	339600
															50400	50400
ON LOAD															220404	390000
											24	:04.5	24		350	350
MITCHELL AFB	DS	298							310	310	460	1:25.5	471		220054	389650
											42	:07	44		6450	6450
LEVEL OFF	NRT CL	273	250/20 -1	272	+11	283	1-20M	320	377	358	502	1:32.5	515		213604	383200
NRT SPEED RUN								283			2101	4:03.5	2208		180065	180065
START DESCENT	CR	260	270/25 0	260	-8	252	20M	885	544	518	2603	5:36	2723		33539	203135
											17	:03	17		250	250
LOS ANGELES INT'L	DS	295	270/25 +1	296	-15	231	20-7M	280	310	295	2620	5:39	2740		33289	202885

PLAN 2. NO EXTERNAL TANKS. MAX. TASK.

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INCLOSURE 2 PAGE 9

SAC FORM 18 APR 51 IN PC 1750

Air Force-SAC, Offset D-1849(50)

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PLAN 3. NO EXTERNAL TANKS. 5 KNOT [illegible] IN TAS K

MISSION FLIGHT PLAN	S.O. AND NICKNAME: EAST-WEST SPEED RUN	UNIT: 42D BW	TYPE ACFT: B-52	NAME	CELL CALL SIGN	REMARKS

	POUNDS
ACFT BASIC	167 000
CREW	1610
OIL	986
ATO	—
RACK	—
EXT TANKS WEIGHT (Empty)	—
MISCELLANEOUS	—
CHAFF	—
OPERATING	169596
TOTAL FUEL	206,904

	POUNDS	
BOMBS		
AMMO		
WATER ABC		
STATIC	376,500	RP FULL ATO REQUIRED
START ENGINES AND TAXI FUEL ALLOWANCE	3000	RP EMPTY ATO REQUIRED
TAKE-OFF GROSS	373,500	ATO FIRING SPEED

RUNWAY		
PRESSURE ALT	LENGTH	AIR TEMP
CRITICAL FIELD LENGTH		CRITICAL AIR TEMP
TAKE-OFF DISTANCE	TAKE-OFF SPEED	
CRITICAL WIND COMPONENT		
1ST LEG	2ND LEG	3D LEG

PRE-FLIGHT PLAN

FROM: LORING AFB / ROUTE	FLT COND	T.C.	WIND D/V / DRIFT	T.H.	VAR	M.H.	TEMP / ALT	MS / MACH	T.A.S	G.S.	GND DIS / ACC GND DIS	TIME / ACC TIME	AIR DIS / ACC AIR DIS	ETA	PRED FUEL REMAINING	GROSS WT
															206 904	376500
															6780	6780
STETTO											10	:03	10		200124	369720
			250/15					310			37	:09	38		4500	4500
LEVEL-OFF	Cw	178	+3	181	+22	203	0-15M		250	245	47	:12	48		195624	365720
			270/20								235	:39	241			
NEWBURY PORT	CR	215	+2	217	+19	236	15M	300	370	360	282	:51	289			
			270/20								94	:15	94		19720	19720
NEWPORT (RENDZ)	CR	193	+3	196	+15	211	15M	300	370	370	376	1:06	383		175904	345500
			270/20								60	:15	64		5900	5900
AR	CR	248	+2	250	+13	263	15M		250	233	436	1:21	447		170004	339600
															50400	50400
ON LOAD															220404	390000
											24	:04.5	24		350	350
MITCHELL AFB	Ds	298							310	310	460	1:25.5	471		220054	389650
	VRT		250/20								42	:07	44		6450	6450
LEVEL OFF	Cw	273	-1	272	+11	283	1-20M	320	377	358	502	1:32.5	515		213604	383200
SPEED RUN			270/25					412			2101	4:06	2210		163467	163467
START DESCENT	CR	260	0	260	-8	252	20M	[illegible]	539	512	2603	5:38.5	2725		50137	219733
			270/25								17	:03	17		250	250
LOS ANGELES INTL	Ds	295	+1	246	-15	231	20-1M	290	310	296	2620	5:41.5	2732		49887	219483

PLAN 3. NO EXTERNAL TANKS. 5 KNOT DEC. IN TAS K

SAC FORM 22 APR 56 1a

AF Press—SAC, Offutt

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RECAPITULATION CHART

B-52 TRANSCONTINENTAL EAST-WEST SPEED RUN

ITEM	PLAN 1	PLAN 2	PLAN 3
1. Total flight time	5:42.5	5:39.0	5:41.5
2. Time for record (Control tower to control tower	4:29.5	4:13.5	4:16
3. Fuel reserve (At L.A. Control Tower)	58,074 LBS.	33,289 LBS.	49,887 LBS.
4. Ave TAS	527	544	539
5. Ave MACH	0.865	0.885	0.879
6. Ave cruise altitude	29,500'	20,000' PA	20,000' PA
7. Ave NRT fuel flow	36,000 LBS/HR	44,370 LBS/HR	39,870 LBS/HR
8. Take-off gross weight	429,746 LBS.	376,500 LBS.	376,500 LBS.
9. In-flight refueling prior to return to Loring AFB.	120,000 LBS. (4 KC-97; 3 pri; 1 air spare)	160,000 LBS (5 KC-97: 4 pri; 1 air spare)	160,000 LBS. (5 KC-97: 4 pri: 1 air spare)
10. Wind	270°/40 KNOTS	270°/25 KNOTS	270°/25 KNOTS
11. Great circle course and distance	260°/2160 NM	260°/2160 NM	260°/2160 NM
12. Reserves at alternate Airfields after attempting IFR hook-up:			
a. Edwards AFB	42,979 LBS.	19,294 LBS.	34,834 LBS.
b. Castle AFB	35,470 LBS.	11,794 LBS.	27,334 LBS.

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Inclosure #4

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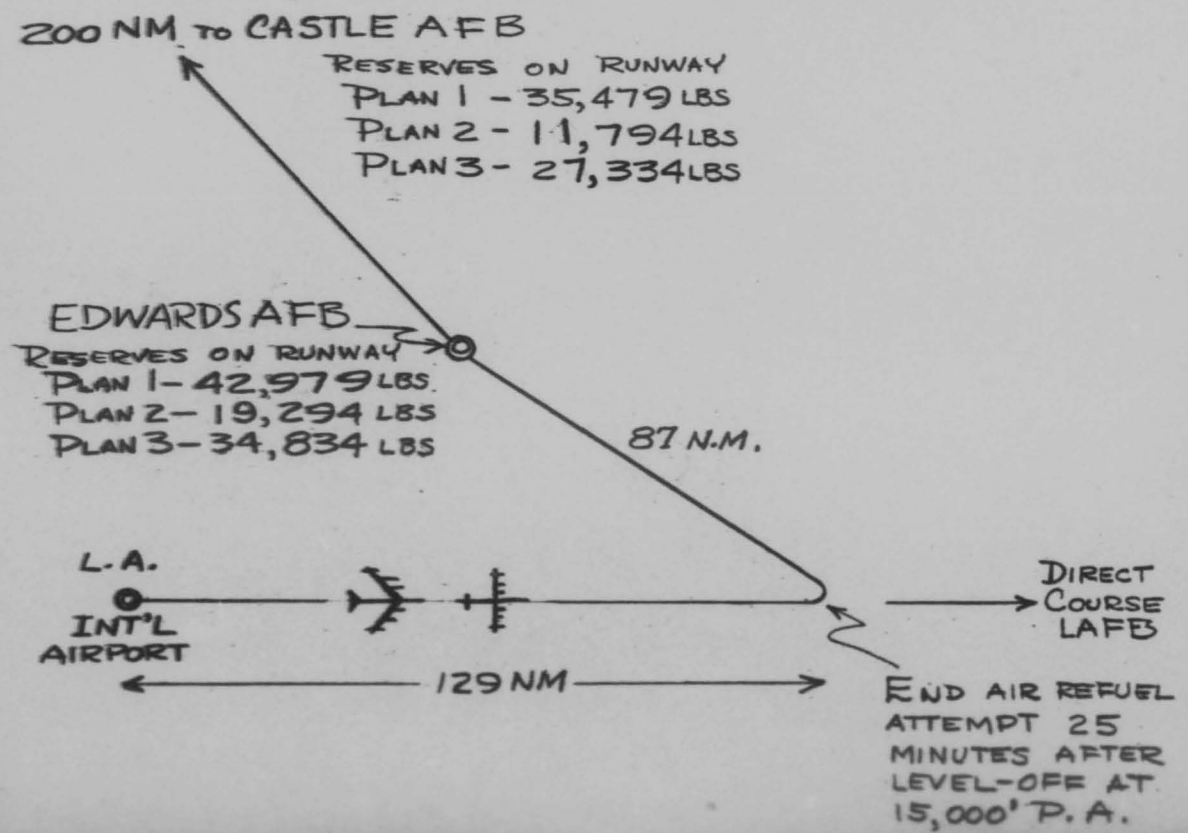
FUEL DECISION

(MISSED AIR REFUELING AFTER SPEED RUN)



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INCHOVER 5, PAGE 12.

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MAXIMUM SPEED
LEVEL FLIGHT

AIRPLANE	ENGINES
B-52D	J57-P-19W & -29W

CONDITIONS:

CLEAN CONFIGURATION
NACA STANDARD DAY
8 ENGINES
RATED THRUST AS SHOWN

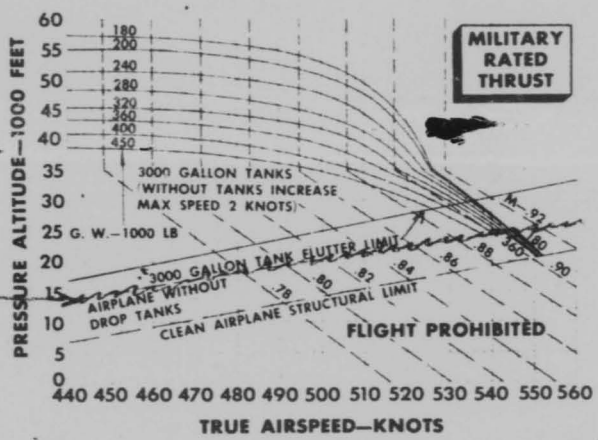
Incorrect

EXAMPLE:

GIVEN:
Gross weight 400,000 lb
Altitude 36,000 ft

FIND:
Maximum speed in level flight

SOLUTION:
True airspeed 503 knots or .875 Mach No. at MRT
True airspeed 496 knots or .863 Mach No. at NRT

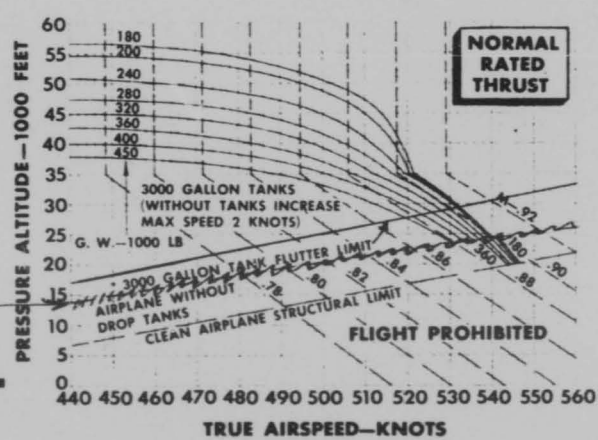


REMARKS:

Note that speeds are TAS. See Part 11 for conversion of TAS to CAS.

*With tanks installed and using alternate fuel sequencing, the flutter limit is 280 knots IAS or .90 Mach No., whichever is less.

INCORRECT



DATA AS OF:
JULY 1956

BASED ON:
FLIGHT TEST DATA

Figure A2-9.

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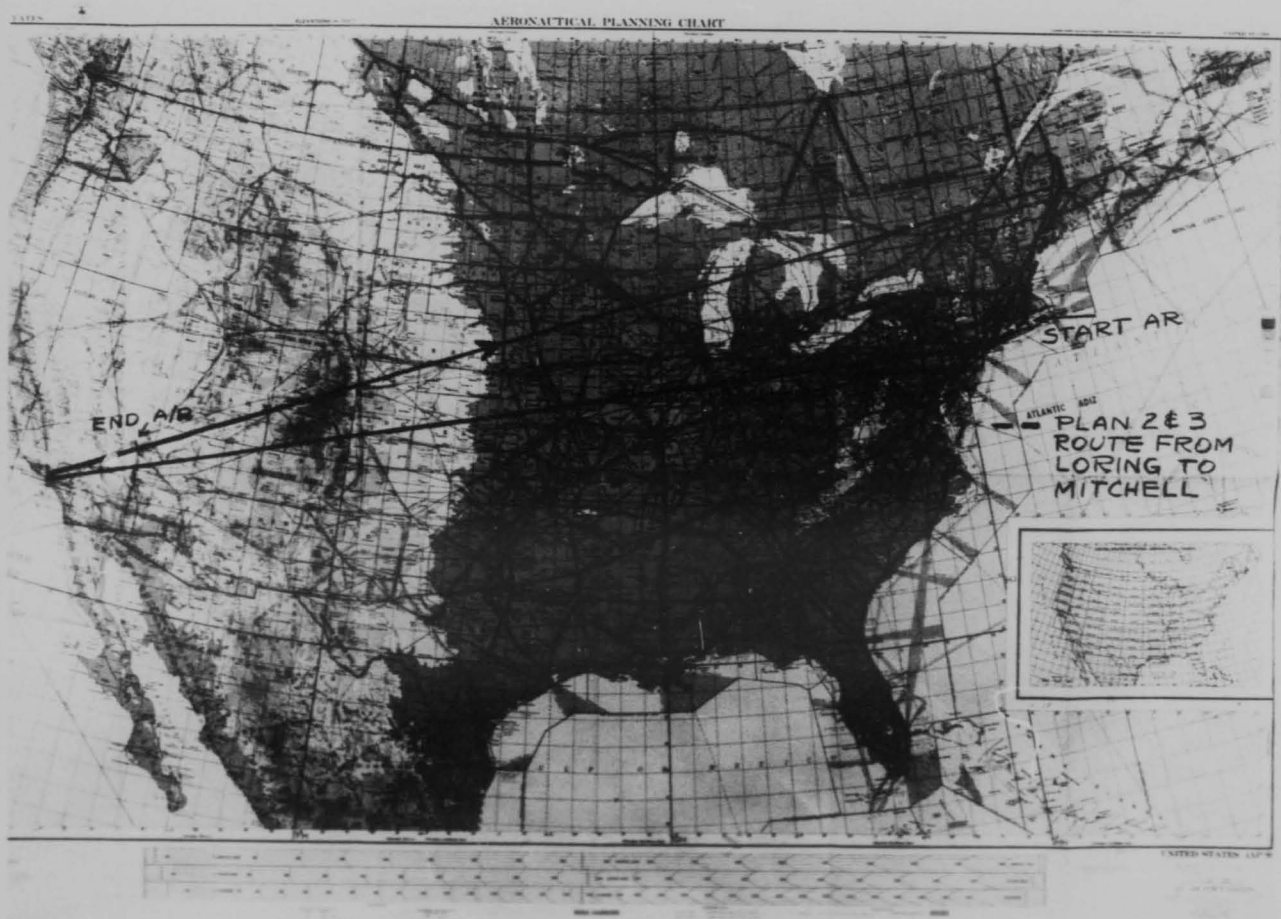

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"HI JINKS" PROCEDURES

TIME	PILOT	CO-PILOT	RADAR-NAVIGATOR	NAVIGATOR
Prior to Flight	(1) Normal Planning Procedures	(1) Normal Planning Procedures	(1) Complete a Practice EWP ballistics computation for an assigned EWP Weapon, using anticipated flight conditions for EWP delivery	(1) Normal Planning Procedures
Preflight	(1) Normal preflight Procedures	(1) Normal preflight Procedures	(1) Check with A&E ENS mechanic for correct positioning of switch in C-217 /AWA-2. a. Bomb-Auto Switch -Auto b. Normal Manual Switch-Normal. c. Hi-Alt-Low-Alt Switch Low Alt (2) Check camera magazine for 100 feet of film. (3) Note camera frame number on camera log SAC Form 284 (90 feet of film will give 1440 frames)	(1) Normal Preflight Procedures
Before Pre-IP	(1) Bank angle and rate of turn determined. Bank angle should not exceed brief limits. (2) Check rate of turn to insure that minimum and maximum heading changes fall within limits. (3) Increase speed to MACH .82	(1) Make normal RBS call in but include with type of run the words "Hi Jinks" Maneuver right" (or left) obtain confirmation from RBS site on direction of turn.	(1) Bombing Equipment check complete. (2) Inform pilot and co-pilot of direction of turn to be made with Hi Jinks maneuver. Down wind turn at bombs away will give better results however RBS traffic or other factors may not make a down wind turn feasible. (3) Compute Ballistic using TO 11N-60-42 (Normal RBS tables)	(1) Normal check list procedures (2) Figure out & check radar Navigators Ballistics

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[redacted]

"HI JINKS" PROCEDURES

TIME	PILOT	CO-PILOT	RADAR-NAVIGATOR	NAVIGATOR
Pre-IP	(1) Normal Check List Procedures	(1) Normal Check List Procedures	(1) LD-6 Selector Switch -1:4 (2) LD-6 Power Switch - ON	(1) Normal Check List Procedures
IP	(1) Normal Check List Procedures	(1) Normal Check List Procedures	(1) Normal Check List Procedures	(1) Normal Check List Procedures
Bomb Run	(1) 15 Seconds prior to Release transmit over interphone 15 sec, 10 sec, 5 sec, 4, 3, 2, 1, bombs away starting turn, (Caution: Use bomb release light on instrument panel & not light on PDI as indication of bomb release)	(1) Normal Check List Procedures	(1) Normal Check List Procedures	(1) Normal Check List Procedures
Bomb Release	(1) On instruments initiate turn to computed bank angle. (2) Maintain Bank angle & altitude until Radar Navigator requests roll out.	(1) Be prepared to take over airplane in the event of an emergency.	(1) Start stop watch at bomb release. (2) Record absolute altitude of bombs release. (3) Complete post bomb release check with exception of camera switchs. (Caution: make sure offset switch is out. (4) Adjust tilt & gain for maximum ground returns under cross [redacted] just short of saturation.	(1) Record following information at bomb release. a. True Heading b. [redacted] c. Wind [redacted] (2) Inform Co-pilot of bombing information necessary for RBS site.

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"HI JINKS" PROCEDURES

TIME	PILOT	CO-PILOT	RADAR-NAVIGATOR	NAVIGATOR
Roll out turn	(1) Initiate roll out turn at Radar Navigators request (2) When airplane is straight and level maintain heading	(1) When straight & level transmit bombing information to RBS site.	(1) Inform pilot to roll out of turn (Time as briefed) (2) Record absolute altitude after roll out. (3) Readjust tilt and gain for maximum ground returns, under cross hairs just short of saturation.	(1) Record true heading when airplane is straight and level
Bomb Burst	(1) Maintain roll out heading		(1) Record O-15 camera counter number (2) Record bomb burst time to nearest second.	(1) Record lat and long of cross hairs. Caution: Check lat and long with reference point switch in REFERENCE POINT
15 sec after bomb burst	(1) Maintain roll out heading		(1) Function Switch Nav. (2) Range MK. X-hair switch Range MK. (3) Range Dial Control 20NM (scope should portray two 10 mile range marks) (4) Adjust tilt and gain for optimum navigation type ground painting (high gain)	
2 min and 15 sec after bomb burst	(1) Turn to heading requested by navigator		(1) Camera switchs off (2) Complete post bomb release check. (3) Fill out both sides of photo log(SAC Form 284)	(1) Inform pilot of new heading (2) Complete post bomb release check.

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HEADQUARTERS 42D BOMBARDMENT WING (H)
Loring Air Force Base, Maine

OPERATIONS MEMO)
NUMBER 210-12)

11 March 1957

FLYING GENERAL

B-52 Stabilizer Control Problems

1. PURPOSE: To familiarize pilots with the type of stabilizer control problems which have previously been encountered or could be encountered on B-52 aircraft.

2. SCOPE: This memorandum is applicable to all B-52 Aircraft Commanders and Pilots.

3. GENERAL: Difficulties in controlling horizontal stabilizer trim may arise due to the following reasons:

a. Stabilizer Drive System Overload.

(1) In the flaps down configuration at speeds approaching the flap placard speed relatively large loads are placed on the stabilizer jackscrew driving mechanism. If at this time full down elevator is applied in lieu of nose stabilizer trim to correct an out-of trim condition, the jackscrew driving power becomes marginal and the jackscrew hydraulic motors may possibly stall.

(2) Corrective Action: Decrease speed and/or momentarily release some of the forward control wheel force in order to restore trim. (It requires a greater load to stall the motors if they are running.) To prevent this type of occurance, the pilot should avoid making large trim corrections with the elevator instead of using the stabilizer.

b. Stabilizer Trim Clutch Failure:

(1) Seizure of one of the two electrically actuated clutches in the stabilizer trim system will be indicated in the following symptoms:

Inclosure 2

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(a) Trim in one direction is normal except that upon releasing the trim button the stabilizer "coasts" past the position selected.

(b) Trim in the other direction is slow or completely inoperative, this latter symptom is caused by the two clutches opposing each other and attempting to drive the stabilizer follow-up mechanism in both directions at the same time.

(2) One cause of failed clutches is the operation of the electric trim button without hydraulic power available. This drives the control system until the metering valves are bottomed where upon the clutch begins to slip. The clutches are designed to withstand a total of approximately 1½ minutes of such slippage. An impending clutch failure is sometimes evidenced by the stabilizer "coasting" past the selected position when the trim button is released.

(3) Corrective Action: Manual trim remains operative following a clutch failure unless attempts to trim are continued to the point of burning up the stabilizer trim electric motor. Seizure of this motor together with resultant seizure of one clutch will render both electric and manual trim inoperative. When it becomes evident that a clutch has failed, as indicated by symptoms discussed above use of the electric trim button should be avoided as much as possible.

e. Sticking or Inoperative Trim Buttons:

(1) Several cases of a sticking or inoperative trim button have been reported. A stuck trim button is evidenced by a "runway" stabilizer in the direction in which the button is stuck. In the case of an inoperative trim button, electrical trim is simply inoperative from that particular control wheel. In one incident which occured locally, a portion of one of the fixed contacts within the button had broken loose. As this piece floated around within the switch it caused inadvertent left wing down aileron trim during preflight. Later on, inflight, caused inadvertent nose up stabilizer trim. Although it did not actually occur,

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it could have been possible for this loose contact to cause simultaneous inadvertent left aileron trim and nose up stabilizer trim.

CAUTION: If aileron trim system malfunctions during preflight, the airplane should not be flown with aileron trim "cut out" until it is ascertained that the cause of the malfunction is not in the trim button.

(2) Further discussion of stabilizer trim electrical system malfunction, is presented in detail in Safety of Flight Supplement, T.O. 1B-52D-1CZ, 29 January 1957.

NOTE: Refer to paragraph 3, INSTRUCTIONS, T.O. 1B-52D-1CZ, 29 Jan 57, for detailed corrective action required for uncontrolled nose-down or nose-up motion which may result from any of the malfunctions discussed in 3 a, b, and c, above.

d. Monitoring movement of stabilizer trim wheel. It will be the responsibility of all co-pilots on take-off and landing to monitor the movement of the manual stabilizer control wheel and to indicate verbally such movement to the pilot. Example: "trim moving forward"; "trim moving back".

4. RESPONSIBILITY: Squadron Commanders will be responsible for compliance with the provisions of this memorandum.

BY ORDER OF THE COMMANDER:

DON W. BAILEY
Colonel, USAF
Director of Operations

OFFICIAL:

Frank L. Wrigglesworth

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOT4 25 March 1957

SUBJECT: B-52 Landing Ground Run.

TO: B-52 Aircraft Commanders And Pilots.

1. B-52 landing ground run requirements have been summarized for presentation on a 5" X 8" card for inclusion in the pilots' "Flipcard" file. The information has been tabulated for gross weights ranging from 190,000 to 290,000 pounds.

2. Data for the four landing configurations presented on the card, Inclosure #1, has been extracted directly from applicable charts in T.O. 1B-52D-1A for conditions of 1000' pressure altitude and 59° F (15° C). The data presented under the configuration intitled "With Airbrakes & Drag-Chute (No Wheel Brakes)" has been obtained from figure A1C-9. The ground runs extracted from this chart have been increased by the factor of 2.60 to reflect the effect of inoperative wheel brakes. (See Figure A1C-4, Part 10, T.O. 1B-52D-1)

FOR THE COMMANDER:

FRANK L. WHIGHAM
Major USAF
Adjutant

1 Incl
"B-52 Land Ground Run

DISTRIBUTION:
69th BS 100 cys (1 ea B-52 AC & P)
70th BS 100 cys (1 ea B-52 AC & P)
75th BS 100 cys (1 ea B-52 AC & P)
42DOS 40 cys

Inclosure 2

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B-52
LANDING GROUND RUN

GROSS WEIGHT X1000 LBS	CONFIGURATION: NORMAL (AIRBRAKES & DRAG CHUTE) WHEEL BRAKES APPLIED AT 70 IASK FIG. A10-8	WITH AIRBRAKES (NO DRAG CHUTE) WHEEL BRAKES APPLIED AT TOUCH DOWN MINUS 20 IASK FIG. A10-10	WITH DRAG CHUTE (NO AIRBRAKES) WHEEL BRAKES APPLIED AT TOUCH DOWN FIG. A10-11	WITH AIRBRAKES & DRAG CHUTE (NO WHEEL BRAKES) FIG. A10-9 X 26
190	2820 FT	3490 FT	2670 FT	5645 FT
200	3050	3650	2800	5980
210	3280	3820	2980	6390
220	3510	4000	3140	6755
230	3780	4200	3300	7100
240	4010	4400	3480	7545
250	4270	4600	3650	7990
260	4500	4820	3840	8400
270	4780	5050	4020	8845
290	5290	5500	4430	9800

CONDITIONS : 1000' P.A. & 59° F (15°C)

CORRECTION FACTORS

PRESS ALT
1. INCREASE CHART DISTANCE 1% FOR EACH 250 FEET ABOVE 1000' P.A.
2. DECREASE CHART DISTANCE 1% FOR EACH 250 FEET BELOW 1000' P.A.

TEMP
3. INCREASE CHART DISTANCE 1.5% FOR EACH 10°F (5.5°C) ABOVE 59°F (15°C)
4. DECREASE CHART DISTANCE 1.5% FOR EACH 10°F (5.5°C) BELOW 59°F (15°C)

RUNWAY SURFACE
5. WET RUNWAY CORRECTION: CHARTED LAND ROLL X 1.3 TO 2.0
6. HARD PACKED SNOW CORRECTION: CHARTED LAND ROLL X 1.5 TO 2.2
7. ICE ON RUNWAY CORRECTION: CHARTED LAND ROLL X 1.8 TO 4.2

SEE FIGS. A10-8, A10-9, A10-10, A10-11, T.O. 1B-52D-1A.

42D BOMB WING, 25 MARCH 1957

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base
Maine

42DOT4 29 March 1957

SUBJECT: Tip Gear Reversal During Ground Turns.

TO: B-52 Aircraft Commanders and Pilots.

[redacted]Reversal of tip protection gear may be avoided if the forward wheels are not deflected more than 31° either side of aircraft center line during a turn. The extent of forward gear deflection in the turn may be determined by the front wheel position pointer on the cross-wind gear position indicator at the pilots' control stand.

2. This information may be considered as additive to the corrective procedure offered in Safety of Flight Supplement T.O. 1B-52D-1CK, dated 8 October 1956.

FOR THE COMMANDER:

FRANK L. WRIGGLESWORTH
Major USAF
Adjutant

DISTRIBUTION:
69th BS - 100 cys
70th BS - 100 cys
75th BS - 100 cys
DOS (1 ea B-52 AC & P)

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COPY

B-52 Fuel Tank Gage Calibration Check

42DM 42DO 20 Mar 57

1. In view of the importance of the electronic fuel quantity indicating system on B-52 aircraft, it is requested that your section incorporate an individual fuel tank gage and totalizer calibration check during periodic inspection.

2. Discussion with Mr. W. W. Wood, Tech. Rep., Avion Corporation, indicates that a calibration "check" would require approximately one hour to complete per aircraft. If any part of the system requires corrective action as a result of this check, the time estimate of one hour per aircraft would be increased due to the necessity for replacing parts, making adjustments, etc.

3. Mr. Wood indicates such period accomplishment would be excellent preventive maintenance. It is suggested that periodic calibration check be instituted immediately, so as to utilize Mr. Wood in an advisory capacity. He is scheduled to depart this station in April 1957.

WALTER C. STEWART, JR.
Colonel, USAF
Director of Operations

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HEADQUARTERS 45TH AIR DIVISION
LORING AIR FORCE BASE, MAINE
5 APRIL 1957

KC-135 PROGRESS REPORT #2

FOR

45TH AIR DIVISION (SAC)

This Report Contains 23 Pages

HEADQUARTERS 45TH AIR DIVISION
Program Plan 101-56A

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FOREWARD TO PROGRESS REPORT #2

SECTION I GENERAL

To facilitate the review of the KC-135 Conversion Progress Report, items that are 100% complete will be deleted in future reports. Items whieh are not complete, will retain the line number and sub-titles as previously designated. It is, therefore, requested that Progress Report #1 be retained for ease of reference.

SECTION II PROBLEM AREAS

Installations item #18, Modification of Luria Wing Maintenance Hangars: This item was included in the recent Fiscal Year '58 M&O program and deleted by Eighth Air Force because of excessive cost. It is deemed essential by this headquarters that a feasible less costly modification of these hangars to KC-135 configuration be immediately resolved in order that construction may be started during the early spring building season.

Materiel: AFSD listings for table 2, table 11, and table 16 spares and FAK. It is essential that this headquarters receive early distribution of initial lay-in of spares AFSD and FAK AFSD together with a list of aircraft serial numbers in order that early requisition of Code 1 and Code 5 spares may be accomplished.

Adendems to UALs for Periodic, Armament and Electronic and Field Maintenance Squadrons: Before requisitioning action can be accomplished for additional 10 series kits, and allied support equipment, it is essential that this headquarters be furnished with tentative UALs for these organizations. A TTE is available for KC-135, however, it is felt by this headquarters that this document is insufficient in scope to fulfill all requirements for proper requisition of equipment.

W. K. MARTIN
Brigadier General, USAF
Commander

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KC-135 Progress Report #2, Hq 45th Air Division (SAC)

DISTRIBUTION:

COMDR 8 AF	1 Cy (ltr to Accompany this cy)
8 AF	7 Cys

45th Air Division:

DM	2 Cys
DO	2 Cys
DP	1 Cy

42d Bomb Wing:

42C	1 Cy
42 DO	5 Cys
42 DM	2 Cys
42 DP	1 Cy
42 DCR	2 Cys

42d Air Base Group:

BSMO	1 Cy
BC	2 Cys
BO	2 Cys
BM	8 Cys
BP	1 Cy
BISO	9 Cys
BSS	1 Cy
BCR	1 Cy
BSOGS	1 Cy
OSC	1 Cy
BDC	1 Cy

42 AREFS	2 Cys

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DETAILED COMMAND ACTIONS

PERTAINING TO

PROGRESS REPORT NO. 2

SECTION III

42d Air Base Group

HEADQUARTERS 45TH AIR DIVISION
Program Plan 101-56A

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLET
42D OPERATIONS SQUADRON			
1. Insure training aids assigned to the Base Training Flight.	Determine the training aids requirements and initiate action to requisition and obtain the necessary aids.	Coordination is being continued with the 42d Bomb Wing Dir of Operations.	0
2. Monitor delivery of synthetic trainers.	Obtain synthetic trainer.	a. KC-135 type MB-26 flight simulator authorized by UAL change #126 will be requisitioned upon approval of UAL Chg.	5%
		b. Hqs 8AF advised by message initiated by Base Personnel of a requirement for 5 airmen maintenance personnel for simulator operation, which requirement cannot be fulfilled with present manning capability.	0
3. Monitor the housing including utilities for ready installation of new trainers.	Make necessary arrangement to accommodate the synthetic trainer when received.	Installation data received from Ogden Air Materiel Command and the Erco Division, ACF Industries, Inc., Riverdale, Maryland indicate that the KC-135 simulator can be accommodated in the Bakery Building (No. 7330). Data is being studied to determine building and utilities modifications necessary to accommodate the simulator.	5%
4. Monitor classroom requirements.	Obtain suitable space for classroom training.	Since both the B-52 and KC-135 flight simulators will be located in close proximity to each other, the classrooms presently being prepared can be used for both training programs.	50%
5. Monitor establishment of space requirements for the Mobile Training Detachment.	Determine and obtain necessary space for the MTD.	The KC-135A-2 MTD is scheduled for Loring AFB 1 August 57 thru 31 March 58. The 3499th Mobile Training Wing survey team requested for the month of March 57 has not arrived.	5%

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLETE
DIRECTORATE OF MATERIEL			
6. Establish Program for Disposition of Excess KC-97 Spares and Support Equipment.	Obtain information from 8th Air Force on disposition of KC-97 spares.	Personal contact with 8th Air Force on 28 February 57 requesting disposition of KC-97 spares produced negative results. On 8 March 57, 8th Air Force was contacted by Confidential TWX No. BMA 251C which requested information on initial KC-97 procedures. Reply was received 22 March 57, which stated that SAC will request OCAMA (Oklahoma City Air Materiel Area) to furnish Loring Air Force Base a copy of spares and FAK listings to determine compatability of items presently on hand to be applied against KC-135 buildup. These listings will be annotated and returned to OCAMA for supply of balance by Air Force Supply Directive (AFSD). This message further directs that Code 1 and 5 items will be requisitioned by Loring Air Force Base. Tentative plans call for a starting date of 1 July 57 and in-place date of 1 November 57 for spares and a starting date of 1 August 57 and in-place date of 1 December 57 for FAK. All excess KC-97 FAK items are to be shipped to the depot upon release from KC-97 operational commitments. Base Supply does not entirely agree with this policy and an additional TWX requesting reconsideration of the procedure for requisitioning Code 1 and 5 items will be submitted to 8th Air Force requesting arrangements be made to furnish these items on an AFSD basis. Base Supply previously recommended one time disposition of FAK items to the receiving base; however, referenced message indicated that excess KC-97 spares	0

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLET
		and FAK items will be returned to the depot. This matter will also be submitted to 8th Air Force for reconsideration and again request KC-97 FAK items not required to build up KC-135 FAK be shipped as one line item to receiving SAC base.	
7. Insure Base Supply has a timely program to requisition, receive, bin and issue KC-135 aircraft spares.	Obtain from prime depot all tables II, XVI, prod-packs and AFSDs available for KC-135 aircraft.	Additional contact was made with OCAMA on 9 March 57 by the B-52 Monitor to obtain referenced tables. Information was received that listings and tables would be furnished 120 days before receipt of new aircraft. Requisitioning will depend on action indicated in item number 6. Plans for receiving, binning and issuing have not been developed; however, tentative plans will be completed by 1 May 57. Upon receipt of appropriate tables or AFSD, necessary IBM stock control and balance cards will be prepared by the research and key punch units of Property Accounting. A second key punch shift will be required for three (3) weeks. If Base Supply should be required to requisition Code 1 and 5 items, they will be requisitioned by the punch card system. This subject will be closely monitored so that the B-52 KC-135 Weapons Management Program will be implemented without difficulty.	0

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLETE
8. Insure Base Supply programs the establishment of IBM cards for KC-135 aircraft spares within the machine accounting section.	Obtain appropriate tables or AFSD to base request for IBM cards.	No difficulty is anticipated in the preparation of these cards within the Machine Accounting Section (refer to number 7 for further details on this subject).	0
9. Establish M&O project or establish Commercial Source to provide additional LOX capability.	Contact Commercial sources and plan for delivery; enlarge base storage production capabilities.	Three (3) LOX generators are on hand; two (2) generators are operating 7 days a week. Production is approximately 230 gallons of retained production per day. Commercial resupply of liquid oxygen is available at Portland, Maine to augment all requirements. Sixteen (16) personnel are assigned to Liquid Oxygen. Eleven (11) are authorized; the additional five (5) personnel have been assigned to Liquid Oxygen Section 15 Mar 57 for augmentation and OJT training. These personnel have made possible the operation of the second generator.	25
10. Establish program for disposition of the KC-97 FAK	Obtain directions from higher Hqs. as to disposition instructions, process, pack, crate and ship excesses peculiar to KC-97 aircraft.	A second request will be submitted to high headquarters in order to obtain preferred disposition instructions of KC-97 FAK. Present disposition instructions indicate	0

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLETE
		that KC-97 FAK will be disposed of by shipping items to the appropriate Air Force depot. This action will require approximately 2,500 man hours to process, pack, crate and ship these items. The number of man hours could be reduced to approximately 1,000 if permission is granted to dispose of the KC-97 Flyaway Kit as one (1) line item to the receiving base.	
11. Obtain listings and complete preparation to receive and bin KC-135 FAK	Listings to be prepared by Hq. SAC: Automatic Distribution.	A FAK listing will be furnished to Loring upon request of Hqs. SAC. This listing will be screened to determine availability of those items to be applied against KC-135 FAK buildup. Listing will be annotated accordingly and returned to OCAMA for supply of remaining items by Air Force Supply Directive. Code 1 and 5 items will be requisitioned by Base Supply. Reference item number 6.	0
12. Coordinate with WDM for conversion of Pump House #5 to JP-4.	Coordinate with Wing D MAT and Chief of Maint. with regard to time and implementation of change-over.	Pump House Number 5 has been converted to dispense JP-4.	100
13. Insure the provision of adequate generation and storage capacity for demineralized water.	Program, initiate, insure submission of water demineralized plant plans plus storage and loading facility.	Present capability to produce demineralized water is 600 gallons in an eight hour period per operating unit. Two (2) units are available to produce this product. Current storage is 5,000 gallons utilizing an P-6 trailer. A two...y-four	25

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLETE
		hour, 7 day a week operation cannot be accomplished due to personnel shortages. POL can only generate 3,600 gallons of a 4,000 gallon daily requirement; however, the contract for the 25 GPM plant which will satisfy all requirements is in the process of being signed. This contract is held up due to the proposed siting of the plant. The completion date is indefinite. ADI mix, alcohol and demineralized water is mixed as required to maintain a supply of approximately 1,000 gallons.	
42D INSTALLATIONS SQUADRON			
14. Fire Fighting Training.	Establish training and schedule.	No change since previous report.	0
15. FY 59 MCP item 414-457 Squadron Ops Bldg 8920 sq ft.	To be submitted and justified in final submission FY 59 MCP on which call is expected about 1 May 1957.	No change since previous report.	0
16. FY 59 MCP item 116-664 Pad, Power Check, 3 each.	Obtain Command support as this item classed in Category 4 (Not Authorized) 8th AF Planning Board working committee at preliminary essentiality review.	No change since previous report.	0
17. FY 59 MCP item 171-212 Flight Simulator Training Bldg.	Same as above. Facility requirements manual indicates this should be accomodated within existing operational training space.	No change since previous report.	0
18. FY 59 MCP item 211-113 Hangar Wing Maint, Modify 8 Luria Docks.	To be submitted and justified in final submission FY 59 MCP on which call is expected about 1 May 1957.	No change since previous report.	0

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMP
19. IFR Boom Shop Proposed additional FY 59 MCP item.	Justify and obtain approval to enlarge building 8262 to 2600 sq ft to accommodate KC-135 Boom in extended position.	No change since previous report.	0
20. FY 58 O&M item 211-113 Utilities for Maint Platforms.	Prepare plans for submission to 8th AF for their technical review and funding for Contract award in accordance with their schedule which will be sent to base probably 1 May 1957.	No change since previous report.	0
21. Proposed FY 58 O&M item 211-193 Test Stand, Jet with Sound Suppression.	Disapproved on O&M Program review 26 Jan 57 8th AF Hqs. Division Commander should review request and take command action. Submit as MCP item FY 59.	No change since previous report.	0
22. Proposed BY 58 O&M item 211-112 Hangar, Wing Modify 8 Luria Docks.	Submit as MCP item - FY 59.	No change since previous report.	0
23. FY 58 O&M item 211-113 Modify 2 multi-purpose hangars for cell repair fuel.	Submit plans and specifications for technical review and funding in accordance with directed schedule expected soon from 8th.	No change since previous report.	0
24. FY 58 O&M item 411-139 Additional LOX Building.	Submit plans etc. (same as above)	No change since previous report.	0
25. Demineralized Water Facility.	Resolve with higher Hqs that correct siting for this item, which is already under contract, is satisfactory where it is near water alcohol facility.	No change since previous report.	7%
26. Insure fund requirements are included in FY 58 Financial Plan.	Action completed as indicated in Progress Report No. 1.		100%

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS AND PROBLEMS	% COMPLETE
INFORMATION SERVICES			
27. Initial press release.	Preparation of release from current information and forward to Hq 8th AF for approval.	No change since previous report.	25%
28. Follow-up release	Preparation of releases as information becomes available.	No change since previous report.	0
29. Brief Base Community Services Council.	Prepare briefing for the Council as the conversion affects Loring AFB.	Briefing scheduled for 30 April 1957.	0
30. Brief Commanders Advisory Council.	Prepare briefing for the Council as the conversion affects Loring AFB.	No change since previous report.	0

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DETAILED COMMAND ACTIONS

PERTAINING TO

PROGRESS REPORT NO. 2

SECTION III

42d Bombardment Wing

HEADQUARTERS 45TH AIR DIVISION
Program Plan 101-56A

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DIRECTORATE OF OPERATIONS

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
51. Disposition of EWP assignment Material.	Return to 8AF Directorate of Intelligence all EWP material no longer pertinent or destroy as applicable.	The disposition of EWP assignment material is a routine task which will be accomplished when this material is superceded, about 1 July 1957.	0%
52. Preparation of EWP study folders.	Prepare EWP study folders for crews of the 42AREFS.	Study folders will be prepared upon receipt of new EWP committments, about 1 June 1957.	0%
53. Indoctrination of Planning Officers in KC-135 Mission Planning.	Officers of the planning Section will attend an orientation course.	It is anticipated that Planning Officers will be integrated into the staff crews, attending the training course at Castle AFB about 15 June 1957.	0%
54. Personal Data Cards	Newly assigned crew personnel will be interviewed, and Personal Data cards will be prepared.	New crew members will be interviewed and cards prepared upon arrival commencing 1 Sept. 1957.	0%
55. MTD	Determine the training the KC-135 MTD will make available to the Wing and make plans to utilize this MTD.	The KC-135 MTD is scheduled to be in place 1 Aug. 1957. The various KC-135 systems courses will be available for aircrew, staff crew and non-aircrew personnel. All personnel programmed into the KC-135 will be scheduled by the wing to assure maximum utilization of training facilities.	0%
56. FORMS	Establish and provide the necessary forms for certification of: a. Aircraft Commander and Co-Pilot Flight check. b. All crew members 51-19 completion. c. Safety of flight checks. d. Standboard checks.	SAC Form 412 will be utilized for initial checkouts and crew coordination checks in accordance with SAC Reg 51-19. SAC Reg 51-4 and 8th AF Supplement to this Reg establishes standardization procedures. As 8th AF has published all flight check forms in the past, it is anticipated that Headquarters will furnish the required forms. Estimated date of completion is 1 Sep 1957.	0%
57. SAC Tactical Doctrine	Request copies of SAC Tactical Doctrine for KC-135 insure the Tactical Doctrine adequately covers new tactics and procedures in rendezvous, formation, cell tactics, and fuel	Higher headquarters will be queried concerning a distribution date for the Tactical Doctrine for the KC-135, after Castle is in operation with KC-135 aircraft.	0%

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPL
58. Control of KC-135 Transition Operations.	Assure that control tower personnel have adequate instructions for controlling KC-135 transition flights.	This information will be obtained by staff visit to Castle, and will be furnished to the control tower for use in KC-135 transition operations.	0%
59. Weather Minimums	Establish weather minimums for all local flying of KC-135 aircraft.	This cannot be established until more information is available on KC-135 performance and operations.	0%
60. Fields Checks for Pilots	Develop procedures for field checkout of pilots in KC-135 aircraft.	This will be implemented immediately upon arrival of the instructor pilots, and should be completed by 31 Oct. 1957.	0%
61. Wing Flying and Maintenance Schedule.	Determine the KC-135 Maintenance Cycle.	This subject will be discussed with the 93ARWFS during staff visits to Castle AFB.	0%
62. Instruction on Weight and Balance.	Provide flight crews with course of instruction in fuel management to maintain proper CG. and fuel reserve.	Flight crews will receive a course of instruction in weight and balance, and fuel management in the aircrew course in MTD.	0%
63. Altitude Indoctrination	Schedule all programmed KC-135 crew members through the altitude indoctrination course.	This is a continuing requirement and crew members will be scheduled for this course in accordance with AF Reg 50-27.	0%
64. Refueling Areas	Make study to determine if new refueling areas are necessary, and the suitability of the present areas.	No action can be taken on this until receipt of the Tactical Doctrine for KC-135's and will depend upon refueling procedures.	0%
65. Equip KC-135 for Extra Crew Members.	Determine need for extra crew members positions in KC-135's, then submit to Director of Materiel the requirement to properly equip all aircraft with necessary facilities.	Staff visit to Castle AFB will determine this requirement. WDM will be advised if this requirement exists.	0%
66. Airborne Radar Instrument Letdown.	Establish and test fly airborne radar instrument letdown procedures.	Airborne radar letdown procedures cannot be test flown until KC-135 acft become available. A plan will be developed for flight testing by 1 Oct 1957.	0%

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DIRECTORATE OF OPERATIONS

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
67. Inflight Maintenance	Develop a course of instruction for all navigators on inflight maintenance of rendezvous equipment, radar, and computer.	An inflight maintenance course will be included in the 50-24 training. This will be developed by the 42d ARFS observer and technical representatives. Course will be subsequent to 1 Sep 1957.	0%
68. Support Aircraft	Determine if starting units and other equipment unique to the KC-135 will fit into C-119 and C-47 aircraft to support a KC-135 landing at other than the home station.	Staff visit to Castle AFB will reveal any problems that may exist in this area.	0%
69. F-1A Automatic Parachute Release.	Provide Director of Material with requirement for F-1A automatic parachute release for KC-135 crew members	The B-5 parachute will be used with the KC-135. The automatic release is an integral part of this parachute. The quantity of parachutes to be requisitioned is not known at this time.	0%
70. Standardization Crews	Selection of Standardization Board Crews.	Of the five potential instructor crews that will receive training with the first increment, two crews will have had previous standardization experience. These two crews will be in place on 15 Sept 1957.	0%
71. Instructional Visits to KC-135 Units.	Schedule visits of key personnel to KC-135 bases. Require written reports of each visit, and copies of any material obtained on these visits.	A staff visit will be scheduled approximately 1 May 1957 for key personnel of Operations, Material, and Personnel for the purpose of collecting information to assist in the conversion. A written report will be required upon completion of the visit.	0%
72. Traffic Pattern	Establish traffic pattern procedures including all SAC directives. This will be coordinated with Flying Safety.	Information concerning traffic pattern procedures will be obtained during staff visit to Castle AFB.	0%
73. Alternate and Emergency Fields.	Make a study of possible fields to use as alternates and emergency	When the requirements of runway length for the KC-135 are known a list of suitable fields will be published.	0%

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
74. Dash 1 Manuals and Handbooks.	Obtain an adequate number of Dash 1 manuals and KC-135 Handbooks.	The publication requirement table has been revised to include informational copies of the KC-135 dash 1 handbooks. Sufficient copies will be ordered 1 June 1957 to meet the requirements of the 42d ARSFS.	0%
75. Crew Line-Up Procedure	Establish a standard for crew inspection, clothing and personnel equipment.	Staff visit to Castle AFB will obtain the procedures in use there for utilization by the 42d ARSFS.	0%
76. Thunderstorm Penetration Plan.	Make charts showing best altitude and air-speed, based on gross weight, for thunderstorms penetration.	Technical representatives indicate that subject charts will be included in the KC-135 Flight Handbooks.	0%
77. Fuel Reserve	Prepare Wing Regulation stating minimum landing reserve for KC-135 aircraft.	Upon receipt of the Performance Data charts, a policy establishing fuel reserve for the KC-135 will be published.	0%
78. Landing Weithts	Establish maximum landing weights for KC-135 aircraft.	Maximum landing weitht will be published upon receipt of aircraft performance data	0%
79. Weather and Emergency Evacuation Plans.	Study the current Weather and Emergency Evacuation Plans to assure their conformity with KC-135 aircraft operations.	This Wing does not have information as to bases to be used for evacuation of KC-135 aircraft. Higher headquarters will be queried on this.	
80. Block Training	Establish Block Training Programs for all ground training of crew and non-crew personnel.	Crew members will be trained under provisions of SAC Reg 50-43 upon return to Loring. 50-24 block training is not required of crew members until they become Combat Ready. The requirements of non-aircrew members is specified in Annex 1 to SAC Reg 50-24. The supplement to SAC Reg 50-24 establishing training requirements for KC-135 is not yet available	0%
81. Charts Reflecting Crew Status	Prepare charts to reflect daily SAC Reg 51-19 status of all crew members in 42d ARSFS. Charts will be current, and commence with the arrival of the first KC-135 crews. Charts will be used to insure strict compliance with SAC Reg 51-19.	Upon receipt of SAC Reg 51-19 for KC-135 aircraft, charts will be prepared to indicate aircrew accomplishments.	0%

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
82. Crew Boards	Standarize crew boards in the 42d AREFS to conform with those of the other squadrons in the Wing.	Crew Boards will be prepared following a staff visit to Castle AFB.	0%
83. Training Charts	Standarize all training charts in the 42d AREFS to conform with those of the other squadrons of the Wing.	Training Charts will be prepared following a staff visit to Castle AFB.	0%
84. Flight Simulator	Establish requirements for training in the Flight Simulator and monitor its utilization.	SAC Reg 51-19 establishes the simulator training requirements. Upon receipt of the simulator, crews will be scheduled and the training monitored by Wing.	0%

END OF DIRECTOR OF OPERATIONS

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DIRECTORATE OF MATERIEL

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
101. Instructional Visits to Castle AFB	Schedule key maintenance personnel	Key personnel will be scheduled to visit Castle AFB at appropriate intervals to observe their operation..	0%
102. MTD	Make plans for full utilization of MTD	All personnel will be scheduled to attend MTD. Assignment of personnel will be contingent upon arrival and installation equipment.	0%
103. 263 Property	Secure list of 263 property for use of acceptance teams.	263 Property Listing will be procured for our acceptance teams during Castle Familiarization trips.	0%
104. Acceptance Inspection	Establish a procedure for acceptance inspection of new aircraft.	A TMI will be published outlining acceptance inspection requirements including 263 check, post-flight inspection and local modifications, after Castle familiarization trips.	0%
105. Ground Power Equipment	Secure necessary ground power equipment. Establish school for instruction in use of equipment.	Liaison will be established to procure ground power equipment and train personnel upon receipt of "Z" account shipments.	0%
106. Mobility Plan	Prepare revised mobility plan for KC-135 aircraft.	Contingent upon coordination with Castle AFB on the interim KC-135 Mobility Plan.	0%
107. ECL	Submit requirements for KC-135 aircraft.	No ECL's published to date.	0%
108. FAK	Secure FAK listing for KC-135 aircraft.	No FAK listing available to date.	0%
109. UAL	Secure and monitor UAL's and changes for applicable squadrons.	Tentative UAL for 42d AREFS received. Addendums for PMS, FMS, A&E and Wg Hq not received.	20%
110. Authorization Document ECL (TTE)	Monitor ECL (TTE) published.	Document published. Another review at AMC has been conducted to reduce TTE to ECL but results have not been received.	0%

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
11. "Z" Account	Monitor "Z" Account as published	A list of critical items of ground support equipment has been published but now under weapons system manager.	0%
12. Personel Equipment	Secure personal equipment required after UMD publication.	Personal equipment has been requisitioned.	25%
13. Inventory Assets against UAL.	Monitor accomplishment in April 57	N/A	
14. Requisition shortages against UAL	Monitor requisitioning in June 57 after inventory against available assets.	N/A	
15. 10 series Tool Kits	Assure requisition action on shortages after publication of UMD and screening of available assets.	Delayed until UAL is published.	0%
16. Parts Breakdown for KC-135	Secure parts list from factory representative or tech rep.	Supply Liaison will provide necessary requirements to support bench stocks, pre-issue, guidance lists, consumption data and catalogs after Castle familiarization visits.	0%
17. Parts List	Secure lists for bench stock, pre-issue, master and frequently used parts list, and consumption data from Castle AFB.	Same as Item 116.	
18. KC-97, KC-135 maintenance conversion program.	Determine capability to maintain and support KC-135 maintenance requirements in accordance with aircraft transfer and delivery schedules.	A cability will be maintained to phase-out the KC-97 aircraft and phase-in the KC-135 aircraft, but planning is pending receipt of firm training course duration and starting dates.	0%
19. KC-135 Dock Stands	Determine requirements for dock stands and secure stands.	Requirements have been determined for four (4) each dock maintenance platforms (2 ea for post flight inspection and 2 ea for periodic maintenance). No further action to date.	0%
20. Time Standards	Secure list of maintenance time standards for KC-135 maintenance from Castle AFB.	Time standards will be procured during Castle familiarization visits.	0%

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DIRECTORATE OF MATERIAL

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
121. Publications	Procure all applicable publications for KC-135 aircraft.	Publications will be requisitioned when published.	0%
122. Engine build-up.	Prepare plan for J-57-43 engine build-up and minor repair section.	Coordination will be established to finalize action after Castle familiarization visits.	0%

END OF DIRECTORATE OF MATERIAL

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DIRECTORATE OF PERSONNEL

SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
151. Manning of KC-135 UMD	Project eligible assigned personnel to required school and indoctrination training to qualify for assignment to authorize positions. Monitor to insure on-base availability commensurate with KC-135 delivery schedule. Requisition identified personnel shortages at earliest possible date to insure procurement time-phased with overall conversion.	Personnel selected for conversion have been identified to Hq 8th AF. Maintenance package support personnel have been identified and further planning factors as to training program has been requested to insure compliance with time phasing of overall program.	0%
152. Staff Crews	Select Personnel for training to meet quota established by SAC programming plan 4-57.	Personnel were identified in TWX (CONFIDENTIAL) 42DP 291C 27 March 1957.	0%
153. Simulator Crews	Select Personnel for training to meet quota established by SAC programming plan 4-57.	Personnel were identified in TWX (CONFIDENTIAL) 42DP 291C 27 March 1957.	0%
154. Combat Crews a. Local Resource	Determine composition of 16 KC-135 crews from assigned KC-97 resources who meet established eligibility requirements. Program these crews for KC-135 training in accordance with schedule established by SAC programming plan 4-57.	TWX 42Dp 291C, 27 March 1957 stated 42BW capable of forming 14 complete crews plus 2 crews consisting of AC's and boom operators. This is maximum number of crews recommended by Wing Commander to enter KC-135 program. Original estimate of 15 crews is decreased because of firming up of simulator requirement.	0%
b. Eighth Air Force Resource.	Monitor assignment of 6 KC-135 crews trained from Eighth Air Force resources for this wing.	Monitoring inputs of 6 KC-135 crews trained from 8th AF resources for this wing will be accomplished as selections are made.	0%

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SUBJECT	NECESSARY ACTION	DEVELOPMENTS & PROBLEMS	PERCENT COMPLETE
155. Staff Familiarization	Develop time-phased program for attendance of designated personnel of this wing. Submit to Eighth Air Force for coordination and arrangement of course availability with Fifteenth Air Force.	Time phasing has not been accomplished pending coordination of course availability with 8th AF.	0%
156. Surplus Personnel	Identify personnel rendered surplus to the wing who are not authorized to be trained to meet wing requirements and make these personnel available to higher headquarters for further assignment.	Personnel have been tentatively designated in this category and were made available to higher headquarters for assignment.	0%

END OF DIRECTOR OF PERSONNEL

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HEADQUARTERS
42D BOMBARDMENT WING (H) (SAC)
Loring Air Force Base, Maine
Part I
Management Control Statement
Analysis of Points Lost
March 1957
Bombardment

A PERSONNEL

1. Officer Manning: The low SAC rating score is caused by the increase in UMD strength as of 15 November to provide a 1.6 crew/acft manning ratio.

MONTH	AUTH	ASGD	% BODY MANNING	MIRS	% MIRS	% 2 MONTH CHANGE	SAC RATING SCORE
Jan	600	490	81.7	481	80.2		40
Feb	600	490	81.7	479	79.8		30
Mar	600	479	79.8	470	78.3	-1.9%	30

(1) Officers not manned in Required Specialties as of 31 March 1957.

UMD POSITION	GRADE,NAME,ORGN	PAFSC	DAFSC	REASON
Flt Test Maint Off	1Lt Pierson,42BW	4351	4331	This non-rated Off is not MIRS because he is filling the rated position of UR off in Quality Control, (Flight Maintenance Officer). He has effectively performed duty in the UR section for 20 months and his DOS is in June 1957; therefore it is considered advisable that he continue to fill this position until a better qualified replacement becomes available.
Dep Dir of Materiel	Lt Col Etherington 42BW	4316	4316	Position unauth currently. Request for UMD change submitted 28 Sep 56. Presently Comdr Loring Wherry Housing Task Force.
———	Maj Cobb,75BHS	1525I	____	Pending EDCSA 3 Apr 57
Intell Photo-Radar Officer	1Lt Chatman,42BW	1124Q	2041	Directed Duty

72223

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UMD POSITION	GRADE,NAME,ORGN	PAFSC	DAFSC	REASON
Air Comdr Wg	Col Sqancutt,42BW	0066C	0066C	Pending EDCSA 15 Apr 57
Comdr	Maj Caliendo, FMS	1416	4311	Pending EDCSA 11 Apr 57
Gen Med Off	Capt Frascati,42TH	9326	9326	Officers do not have prof. training to be asgd auth medical specialists positions
Gen Med Off	Capt Schain, 42TH	9326	9326	
Gen Med Off	Capt Malachowsky 42TH	9326	9326	

SUMMARY OF OFFICERS NOT MIRS JANUARY THRU MARCH

AFSC	TITLE	JAN	FEB	MAR	
1234A	Pilot B-36	1	1	0	
4316	Acft Maint Staff Off	1	1	2	DOS Jun 57; EDCSA 15 Apr 57
1525A	Nav B-36	1	1	0	
1525I	Nav B-52		1	1	Off EDCSA 3 Apr 57
2044	Intell Photo-Radar Off	1	1	1	Directed Duty
4324	Acft Perf Engr	1	1	0	
4331	Flt Test Maint Off	1	1	1	DOS Jun 57
9326	Med Off	3	3	3	Officers do not have prof training to be asgd medical spec positions.
0066C	Air Comdr Wing	0	0	1	Pending EDCSA 15 Apr 57

(2) Critical Officer shortages requiring action by higher headquarters. The following 120 day projected critical shortages of officers are furnished higher headquarters for programming purposes to improve manning in required specialties in the most critical areas only but do not include all projected officer shortages.

AFSC	TITLE	AUTH	ASGD	GAINS	LOSSES	%MANNED
3216	Armament Staff Off	3	2			67
3234	Armament Sys Off	5	2	1		60
3244	Armament Oper Off	4	3		1	50
4334	Flight Test Maint Off	4	1			25
4344	Acft Maint Off	6	3			50
4355	Production Control Off	3	2			67
6424	Supply Officer	11	8		2	55
7324	Personnel Officer	4	4		1	75
9356	Med Off Aviation Med	5	4	1	1	80
9446	Otolaryngologist	1	0			0
9636	Radiologist	1	0			0
9734	Nurse Operating Room	1	1		1	0
9754	Nurse General	12	11		1	83
9836	Oral Surgeon	1	0			0
9856	Prosthodontist	1	0			0
73000	Personnel Supt	1	0			0

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b. Airmen Manning

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DIRECT SUPPORT MONTH	ASGD AUTH	ASGD	% BODY MANNING	MIRS	% MIRS	% 2 MONTH CHANGE	SAC RATING SCORE
Jan	1915	2027	105.8	1690	88.2		90
Feb	1915	2054	107.2	1707	89.1		90
Mar	1915	2033	106.2	1693	88.4	↓00.2	90
INDIRECT SUPPORT							
Jan	591	641	108.5	446	75.5		20
Feb	591	612	103.6	472	79.9		40
Mar	591	602	101.9	473	80.0	↓04.5	40

(1) SUMMARY OF AIRMEN NOT MANNED IN REQUIRED SPECIALTIES

	JAN	FEB	MAR
010's in excess of helper level positions	12	12	11
010's training in position w/o vacancy	25	61	53
3 level airmen on OJT - C for the 5 level where no vacancy exists	139	112	72
3 level airmen on OJT-C for the 5 level where vacancy exists	70	32	57
3 level airmen on OJT-C for the 7 level (no 5 level) where vacancy exists	0	1	0
3 level airmen on OJT-D to career fields where vacancy exists at higher skill level	21	18	2
5 level airmen not on any type of OJT due to maximum manning at 7 level	179	163	173
5 level airmen on OJT-C for 7 level where no vacancy exists at lower skill level	44	49	51
7 level airmen not on any type of OJT and cross training prohibited by Project Guidance	12	18	31
Airmen in unauthorized AFSC'S which cannot be cross trained due to Project Guidance	30	21	19
TOTAL AIRMEN NOT MIRS	532	487	469*

Amn assigned (2635) - Amn MIRS (2166) = 469 Total Amn not MIRS

* The basic reason for these airmen not MIRS is because of lack of proper skill levels of assigned individuals in authorized AFSC's. This wing has 19 men with unauthorized AFSCs.

(2) Critical Airmen Shortages Requiring Action by Higher Headquarters.

(3)

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The following 120 days projected critical shortages of airmen are furnished higher headquarters for programming purposes to improve manning in required specialties in the most critical areas only, but do not include all projected airmen shortages.

AFSC	AUTH	FEB CAFSC	MAR CAFSC	% OF CHANGE	LOSSES	GAINS	% MANNED
431X1E	630	603	592	-01.7	15	77	94.0

(3) Skill Level Distribution

DIRECT SUPPORT	42BW	7 Level	5 Level	3 Level	010
AUTH	1915	498	1063	354	0
ASGD	2033	422	1168	442	1
PERCENTAGES	106.2	84.7	109.9	124.9	
INDIRECT SUPPORT					
AUTH	591	106	359	115	11
ASGD	602	86	347	150	19
PERCENTAGES	101.9	81.1	96.7	130.4	172.7

(4) Grade Level Distribution

DIRECT SUPPORT	42BW	MSGT	TSGT	SSGT	A/1C	A/2C	A/3C	A/B
AUTH	1915	297	201	447	616	354	0	0
ASGD	2033	160	181	320	404	631	274	23
PERCENTAGES	106.2	53.9	90.0	71.6	72.1	178.2		
INDIRECT SUPPORT								
AUTH	591	52	54	163	201	110	11	0
ASGD	602	40	34	77	116	243	76	16
PERCENTAGES	101.9	76.9	63.0	47.2	57.7	220.9	690.9	

(5) Losses by Control AFSC during March 1957.

LOSSES	3 LEVEL	5 LEVEL	7LEVEL	TOTAL
Discharged	0	41	3	44
Transferred	8	11	4	23
Total this month	8	52	7	67
Total this year	44	145	32	221
Average monthly loss	14.7	48.3	10.6	73.7
PROJECTED 120 DAYS				
LOSSES*	2	77	6	85
GAINS	81	21	16	118
NET GAINS OR LOSSES	79	-56	10	33

*Projected losses include separations only. Reassignments within ZI

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and Overseas can not be predicted but will noticeably increase these projections.

2. AWOL Rate - Thirty percent of score was earned on this item during the month of March with five Airmen going AWOL from the Wing. The AWOL rate is still running high for the quarter. Squadron Commanders have been directed to take necessary action to improve this item.

3. Reenlistment Rate - Thirty percent of score was earned on this item for March and for the quarter with a total of 56 reenlistments since 1 December 1956. 18 of these reenlistments were in March. A portion of the Quarter score is attributed to operation "Christmas Stocking" which is credited with raising our December score to 60%.

4. OJT EFFECTIVENESS

a. Test results and upgrading action.

1. Air Force Job Knowledge Test

	Last Quarter	JAN	FEB	MAR	THIS QTR
Number eligible for testing	85	12	3	5	20
Number Tested	40	12	3	5	20
Number passing tests	28	5	2	5	12
Number upgraded to 3 level	33	5	5	34**	44
% passing test	70.0	42.0	66.7	100.0	60.0
% passing test to date this date	86.9	41.7	46.7	60.0	60.0
Number passing test but not yet upgraded	3	3	0	0	

2. Airmen Proficiency Tests

	Last Quarter	JAN	FEB	MAR	THIS QTR
Number eligible for testing	482	185	319	181	685
Number tested	335	106	181	—*	—*
Number passing tests	197	85	14	—*	—*
Number upgraded to 5 level	195	125	110	55	290
Number upgraded to 7 level	38	15	25	12	52
% passing 5 level test	63.1	70.6	84.7	—*	—*
% passing 7 level test	39.9	60.9	64.9	—*	—*
% passing 5 level to date		70.6	77.8	—*	—*
% passing 7 level to date		60.9	62.9	—*	—*
Number passing tests but not yet upgraded		60	46	123	

* No test result for March.

** 20 "Project Get Well" upgraded upon completion of MTD training and OJT in unit of assignment per Msg PMP-2E 45173, dtd 1 Nov 56 and Msg AF PMP 2E 45808, dated 5 Nov 56 which waive AFJKT for upgrading

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b. Adequacy of OJT Program

(1) The below table shows the shortage of each squadron in meeting the USAF goal of 10% upgrade training each month of all airmen in the program. Cumulative shortages in column 10 are the product of the number of months considered and the difference between Column 7 (Monthly average Number Upgraded) and Column 8 (10% of number in training as listed in Column 2.,

SQUADRON SHORTAGES IN MEETING USAF GOAL OF 10% UPGRADE TRAINING

1	2	3	4	5	6	7	8	9	10
				NUMBER UPGRADED		USAF REQUIREMENTS			
UNIT	TOTAL	IN PROGRAM: OVER 5 MOS	PERCENTAGE: OVER 5 MOS	THIS MONTH	TO DATE	MONTHLY: AVERAGE	10% ON NO. IN TRNG	SHORTAGES: MONTHLY	TO DATE
HqSqWg	36	17	47.2	1	22	7.3	3.4	0	0
69BHS	67	40	59.7	16	44	14.6	6.7	0	0
70BHS	62	18	29.0	6	27	9.0	6.2	0	0
75BHS	73	24	32.9	4	25	8.3	7.3	0	0
42FMS	248	118	47.6	34	132	44.0	24.8	0	0
42ARS	53	38	71.7	8	13	4.3	5.3	1.0	3.0
42PMS	102	16	15.7	17	52	17.3	10.2	0	0
42A&E	103	31	30.1	14	71	23.6	10.3	0	0
42TACHOSP	25	16	64.0	1	12	4.0	2.5	0	0
42BWG	769	318	41.4	101	398	132.7	76.9	0	0
DIV	AVERAGE		41.5			59.1			0

(2) The adequacy of the OJT program is those squadrons showing a cumulative shortage in Column 10 of the above table must be correlated with the percentage of airmen Body Manning and Effective Manning percentage of airmen in the program over 5 months.

UNIT	AUTH	ASGD	MIRS	%MIRS	MANNED	OVER 5 MOS	CHANGE IN COL 7 SINCE LAST MONTH
HqSqWg	164	174	130	79.3	106.1	47.2	-03.2
69BHS	272	161	129	75.0	93.6	59.7	+00.6
70BHS	172	163	126	73.3	94.8	29.0	-01.5
75BHS	172	173	132	76.7	100.6	32.9	-02.2
42ARS	190	193	159	83.6	101.6	71.7	+01.8
42FMS	901	968	816	90.6	107.4	47.6	-05.0
42PMS	273	239	209	76.5	87.5	15.7	-00.2
42A&E	347	434	308	88.8	125.1	30.1	-04.9
42TACHOSP	115	130	96	83.4	113.0	64.0	-01.5
42BWG	2506	2635	2105	84.0	105.1	41.4	-15.8

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c. Summary of Results

IN PROGRAM	DEC	JAN	FEB	MAR
TOTAL	930	901	809	769
1 MONTH	171	193	111	87
TOTAL	759	708	698	682
2 MONTHS	69	163	113	108
TOTAL	690	605	583	574
3 MONTHS	163	67	131	96
TOTAL	527	538	452	478
4 MONTHS	55	137	59	106
TOTAL	472	401	393	372
5 MONTHS	110	40	106	54
OVER 5 MONTHS	362	361	287	318
% of Total now in Program	38.9	40.1	35.6	41.4
*% Not Upgraded After 5 Months	40.3	34.4	33.37	34.91
No. Upgraded This Month	67		139	101
**% Upgraded	8.1		15.43	12.52
Wg Average Upgraded Monthly	9.98	16.99	16.21	14.98
Div Average % Upgraded Monthly	10.71		14.90	14.13

DIV AVERAGE PERCENTAGES	
1956	Mar 57
31.78	42.31
35.95	35.93
10.71	14.13

*To compute percentages divide number in program over 5 months this month by the total in program 5 months ago.

**To compute percentage divide number upgraded this month by the total in program at beginning of previous month.

5. OJT Effectiveness: Reporting of OJT Effectiveness was implemented beginning Jan 57 and hence, no score (NS) is listed for last quarter.

a. Number on OJT vs. Number Eligible

	LAST QTR	JAN	FEB	MAR	THIS QTR
(1) Number on OJT	NS	711	668	660	2039
(2) Number Eligible*	NS	721	678	667	2066
(3) Percent OJT	NS	98.61	98.53	98.95	98.69
(4) Percent Score	NS	15	15	15	15

b. Number Passing Test (APT & AFJKT) vs. Number Tested:

	LAST QTR	JAN	FEB	MAR	THIS QTR
(1) Number Passing Test	NS	35	87	147	269
(2) Number Tested	NS	71	129	186	386

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(3) Percent Passing Test	NS	49.29	67.44	79.03	69.69
(4) Percent Score	NS	0	0	30	10

c. Number Upgraded of Number on OJT:

	LAST QTR	JAN	FEB	MAR	THIS QTR
(1) Number Upgraded	NS	158	139	101	398
(2) Number on OJT*	NS	930	901	807	2638
(3) Percent Upgraded	NS	16.99	15.43	12.52	15.09
(4) Percent Score	NS	25	25	25	25

* Reflects all Airmen on OJT (Upgrade and Cross Train) as of end of previous month.

C GENERAL

1. Cost/Flying Hour - No standards have been published for measuring B-52 activity; therefore, no scores are included.

a. Personnel Costs increased approximately $110,000. The majority of this increase was in the Field Maintenance Squadron. The cost per Flying Hour decreased approximately $106 despite the increase in actual cost because of the increase in Flying Hours.

b. Aviation POL Costs - The data extracted from the Forms 781-2 resulted in an average fuel consumption of only 13,577 pounds per hour. Since this figure is well below the known consumption, an estimated fuel consumption was submitted for the expense report. The Wing Director of Operations and Director of Materiel have been notified of the situation and action will be initiated to improve the reporting on Forms 781-2.

c. Other Supplies - The actual costs for March amounted to $83,899. The majority of this cost was in the Field Maintenance Squadron and A and E Squadron. Cost per Flying Hour amounted to $48.81. This is a general decrease from past months, which is due primarily to a concentrated effect in the proper use of codes by personnel concerned.

d. Contractual Services and TDY - This item increased slightly from previous months due to B-52 transfers. This cost should recede in the near future as B-52 transfer are completed.

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2. Safety - Both Flying and Ground Safety received 100% of score for the month of March. For the quarter, Flying safety is only 70% due to an aircraft accident in January. Ground safety for the quarter is 90% as compared to SAC Upper Quartile of 80%.

D OPERATIONS

1. Training Accomplishments - Forty nine percent of score was earned on this item. The relatively low score for this area was expected since the units of the wing have not been responsible for 50-8 training minimums and the majority of the effort has been expended toward upgrading crews. These comments are intended to assist the units in determining the areas in which more effort must be expended or reduced to produce a better score.

a. Bombing - The total effort in radar bombing was slightly low; however, points were lost because too many offset runs were accomplished rather than direct runs. In addition, more effort must be expended on Fixed Angle, GPI, Evasive action and IBDA. The Observer Navigators must also do more bombing both Radar and Visual. Visual bombing and radar camera activity was extremely low. The requirement for visual releases should be waived or action taken to develop the capability.

b. Navigation - The total amount of navigation activity needs to be slightly increased, but the only shortages were in Radar grid and pressure pattern legs. Night and Day Celestial and Celestial grid are above 100% complete.

c. Refueling - The total amount of refueling was well over the requirement, but combat ready crews completed none of the mass night or max gross weight requirements.

d. Rendezvous - The reported rendezvous activity was only 82% of requirement and the number of night accomplishments was low. Since the required number of electronics rendezvous were completed, the score can probably be improved by clarifying what is necessary to take credit for a rendezvous.

e. Gunnery - Approximately 90% of the gunnery requirement was completed and all of the fighter attack requirement.

f. ECM - This was a major problem area; but is largely attributable to equipment problems. The requirements for APT 9 or Alt 6 runs were virtually completed, but the points were lost on Alt 6 or Alt 8 requirements and T-464 and T-465 and simulator runs. Action should also be taken to determine the status of chaff requirements since this caused a large loss of points.

g. Formation flying - No formation flying was accomplished. A written waiver of the requirement should be obtained or the requirement be included in flying schedules.

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h. Pilot Proficiency missions - Although an extremely large amount of pilot proficiency activity was accomplished in conjunction with other missions, only 18% of the specific pilot proficiency mission requirement was completed. These missions must be scheduled as such and all items required must be accomplished for credit to be received.

i. Pilot Proficiency items - These requirements is in addition to the Pilot proficiency mission and can be flown in conjunction with other missions. Most of these requirements were exceeded by as much as 3 times the requirements; however, only 75 percent was obtained because PPI and Gyro Out requirements were not done. This is primarily a matter of educating the crews.

j. Airborne Radar approaches - Requirement exceeded.

k. Pressurized flight - Only 62 percent was completed.

l. Emergency Drill - No problem

m. Simulated Strike Reports - Only 35.7% completed since no additional flying time is required this should not be a problem.

n. Cell Tactics - No credit was taken for completing this item although a number of cell missions were flown. Some changes might be necessary to include specific maneuvers required for a cell mission credit.

o. Air Weapons exercise - None were accomplished.

p. Water Injection Take Off - This item should be waived or accomplishments included in flying schedules.

2. Wing Reliability - Although points were lost, this area should not be a major problem. Gunnery and Big Photo Record reliabilities are low, but should compare reasonably well with other units.

3. USCM Effectiveness - Not scored.

4. NCR Crew Upgrading - This item will be a major problem during the next quarter since the average number of combat ready crews assigned will probably not produce points. In order to get 100% of score 8 crews will have to be upgraded to Combat Ready Status during the period 1 April to 31 July.

5. NCR Crew Flying Time - During the past quarter this was not a problem area, but probably will be a major problem next quarter. As much time as possible should be flown during May and June while there are several remaining crews. Two points should be watched closely, the number of non-combat ready crews reported available on the weekly V-1 report and the upgrading of crews before they complete their proportionate share of the time.

6. Probation Status - This may be a major problem. One area which caused trouble during the last quarter was target rotation. At least one crew doubled its RBS requirements by making too many runs on one target.

7. Evaluation - The only way to whip this item is to have all crews pass evaluation.

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
ORGANIZATION AND LOCATION Headquarters 42nd Bombardment Wing Loring Air Force Base, Maine	March 1957	1	14	

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
A PERSONNEL							
1. MIRS							
(a) Officers	90	60%	40%	40%	30%	30%	30%
(b) Airmen							
(1) Direct	60	10%	80%	90%	90%	90%	90%
(2) Indirect	20	10%	10%	20%	40%	40%	20%
2. AWOL Rate	100	100%	40%	10%	10%	30%	10%
3. Reenlistment Rate	50	20%	60%	10%	10%	30%	30%
4. OJT Effectivness	NS	NS	NS	40%	40%	50%	50%
PERSONNEL TOTAL	61.6%	26.7%	66.2%	53.1%	52.8%	60%	57%
C GENERAL							
1. Cost/Flying Hour	76	50%	NA	NA	NA	NA	NA
2. Safety							
(a) Flying	100	100%	100%	5%	100%	100%	70%
(b) Ground	80	90%	85%	75%	100%	100%	90%
3. Reports on Time	91	NR	NR	NR	NR	NR	NR
4. USCM Sabotage	100	NR	NR	NR	NR	NR	NR
GENERAL TOTAL	84.3	65.6	94.7%	28%	100%	100%	77.3%

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: March 1957 | PAGE NR: 2 | NR OF PAGES: 14 | REPORTS CONTROL SYMBOL:

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
D OPERATIONS							
1. Training Accomplishments				17.3%	30.8%	49.1%	49.1%
2. Wing Reliability							
a. Radar RBS	93			90%	89.4%	90.5%	90.5%
b. Visual RBS	93			100%	87.5%	87.3%	87.5%
c. Night Celestial Navigation	100			100%	100%	100%	100%
d. Grid Cel Navigation	100			100%	100%	100%	100%
e. Gunnery	91			85.7%	66.7%	71.1%	71.1%
f. Big Photo Record				59.8%	64.4%	60.3%	60.3%
g. Rendezvous	100			100%	100%	100%	100%
h. Refueling							
(1) Wet Hookups	100			100%	100%	100%	100%
(2) Mass Night Refueling	100			NS	NA	NA	NA
3. USCM Effectiveness	100			NS	NS	NS	NS
4. NCR Crew Upgrading	100			50%	100%	87.5	100%
5. NCR Crew Flying Time	100			90.8%	100%	100%	100%
6. Probation Statbs	100			NS	NS	NS	NS
7. Evaluation	81			NS	NS	NS	NS
OPERATIONS TOTAL	96.0			58.7%	77.2%	78.6%	82.1%

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: March 1957 | PAGE NR: 3 | NR OF PAGES: 14 | REPORTS CONTROL SYMBOL:

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
GRAND TOTAL				55.0%	70.7%	74.0%	73.7%
A PERSONNEL							
1. Manning in Required Specialties							
(a) Officer MIRS % Score		60%	40%	40%	30%	30%	30%
(1) No. Required			600	600	600	600	2400
(2) No. Assigned			500	490	490	479	1959
(3) No. IRS			487	481	479	470	1917
(4) Percent IRS			81.2%	80.2%	79.8%	78.3%	79.9%
(b) Airmen MIRS Direct Support Skill % Score		10%	80%	90%	90%	90%	90%
(1) No. Required			1894	1915	1915	1915	7639
(2) No. Assigned			1993	2027	2054	2033	8107
(3) No. IRS			1653	1690	1707	1693	6743
(4) Percent IRS			87.3%	88.2%	89.1%	88.4	88.3
(c) Airmen MIRS Indirect Support Skill % Score		10%	10%	20%	40%	40%	20%
(1) No. Required			613	591	591	591	2386
(2) No. Assigned			617	641	612	602	2472
(3) No. IRS			421	446	472	473	1812
(4) Perdent IRS			68.7%	75.5%	79.9%	80.0%	75.9
2. AWOL RATE % Score		100%	40%	10%	10%	30%	10%

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: March 1957	PAGE NR: 4	NR OF PAGES: 14	REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
(a) Average Strength			2706	2476	2530	2709	10,421
(b) No. going AWOL			4	7	10	5	26
(c) Rate per 1000			1.48	2.83	3.95	1.84	2.49
3. Reenlistment Rate % Score		20%	60%	10%	10%	30%	30%
(a) No. Eligible			53	28	66	59	206
(b) No. Reenlisting			26	4	8	18	56
(c) Percent Reenlisting			49.1	14.3	12.1	30.5	27.2
4. OJT Effectivness % Score		NS		40%	40%	50%	50%
a. No. on OJT vs No. Eligible			NS	15%	15%	15%	15%
(1) No. On OJT				711	1379	2039	2039
(2) No. Eligible				721	1399	2066	2066
(3) % on OJT				98.6%	98.6%	98.7%	98.7%
b. No. Passing Tests vs No. Tested				0%	0%	10%	10%
(1) No. Passing Tests				35	122	269	269
(2) No. Tested				71	200	386	386
(3) % Passing Tests				49.29%	61%	69.7%	69.7%
c. No. Upgraded vs No. On OJT				25%	25%	25%	25%
(1) No. Upgraded				158	297	398	398
(2) No. On OJT				930	1831	2638	2638

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MANAGEMENT CONTROL STATEMENT			MONTH AND YEAR: March 1957		PAGE NR: 5	NR OF PAGES: 14	REPORTS CONTROL SYMBOL
ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine			LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)				AVERAGE OR TOTAL
ITEM			SAC UPPER QUARTILE	Wing DATE	Dec	Jan	Feb	Mar	
(3) % Upgraded						17.0%	16.2%	15.1%	15.1%
PERSONNEL TOTAL				26.7%	63.1%	53.1%	52.8%	60%	57%
C GENERAL									
1. Cost/Flying Hour				50%	NA	NA	NA	NA	NA
(a) Flying Hours Bomber					946	1001	1218	1719	
(b) Pers. Cost Bomber % Score					NA	NA	NA	NA	
(1) Total Cost					$585,541	$637,441	$713,897	$824,742	
(2) Cost/Flying Hour					618.97	636.80	$586.12	$479.78	
(3) Standard Cost/Flying Hour					NA	NA	NA	NA	
(c) Aviation POL Cost Bomber % Score					NA	NA	NA	NA	
(1) Total Cost					$265,453	$291,207	364,947	$541,239	
(2) Cost/Flying Hour					280.61	290.92	299.63	$314.86	
(3) Standard Cost/Flying Hour					NA	NA	NA	NA	
(4) Performance Index					NA	NA	NA	NA	
(d) All Other Supply Cost Bomber % Score					NA	NA	NA	NA	
(1) Total Cost					$89,663	$71,143	(359,926)	$83,899	
(2) Cost/Flying Hour					$94.78	$71.07	(295.50)	$48.81	
(3) Standard Cost/Flying Hour					NA	NA	NA	NA	
(e) Contractual Serv. & Other Cost Sub. % Score					NA	NA	NA	NA	

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: March 1957 | PAGE NR: 6 | NR OF PAGES: 14 | REPORTS CONTROL SYMBOL:

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
(1) Total Cost			25,688	42,009	20,316	$24,935	
(2) Cost/Flying Hour			$27.15	$41.97	16.68	$14.51	
(3) Standard Cost/Flying Hour			NA	NA	NA	NA	
2. Safety							
(a) Flying % Score		100%	100%	5%	100%	100%	70%
(1) No. of Accidents			0	1	0	0	1
(2) Flying Hours			946	1001	1218	1719	4884
(3) Rate/100,000 Hours Flown			0	99.9%	0	0	20.3%
(b) Ground % Score		90%	85%	75%	100%	100%	90%
(1) Ground Safety Index			5.21	2.04	1.13	0.00	2.1
(a) Military Injuries Rate/100,000 Man-days Exposure			5.21	2.04	1.13	0.00	2.1
1 No. of Military Disabling Injuries			5	2	1	0	8
2 No. of Mandays Exposure			96,007	97,898	88,620	96,906	379,431
(b) Gov. Mtr. Veh. Accid. Rte/100,000 Miles Driven			0	0	0	0	0
1 No. of Accidents			0	0	0	0	0
2 No. of Miles Driven			15,229	25,353	25,449	29,972	96,003
(c) Civ. Inj. Rate/1,000,000 Mandays Exp			0	0	0	0	0

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR	PAGE NR	NR OF PAGES	REPORTS CONTROL SYMBOL
March 1957	7	14	

ORGANIZATION AND LOCATION
Headquarters 42dn Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT		CURRENT PERIOD (Applicable Months)				AVERAGE OR TOTAL
	SAC UPPER QUARTILE	Wing DATA	Dec	Jan	FEB	Mar	
1 No. of Civilian Disabling Injuries			0	0	0	0	0
2 No. Mandays Exposure			11,575	13,232	12,286	12,555	49,648
(2) Accident Cost Index			$1.93	$10.64	$.30	$.04	3.27
(a) Total Cost			$6,125	34,644	$966.00	$126.00	$41,861.00
(b) Mean Strength			3,166	3257	3242	3126	12,791
3. Reports on Time		NR	NR	NR	NR	NR	NR
4. USCM Sabotage % Score		NR	NR	NR	NR	NR	NR
(a) No. Aircraft Available							
(b) No. Aircraft Sabotaged							
(c) Per. Aircract Not Sabotaged							
(d) No. Flyaway Kit System							
(e) No. Flyaway Kit System Sabotaged							
(f) Per. Flyaway Kit System Sabotaged							
(g) Ground Rules Violated (Yes or No)							
GENERAL TOTAL		65.6%	94.7%	28.0%	100%	100%	77.3%
D OPERATIONS							
1. Training Requirements (50-8)							
Radar BBS Total (Ch-Rad)							92.8
Direct Rating							27.6

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: March 1957 | PAGE NR: 8 | NR OF PAGES: 14 | REPORTS CONTROL SYMBOL:

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing CXFA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
Offset Class IIIA Target						100	
Optional (Direct or Offset)						100	
Fixed Angle						61.4	
GPI						51.8	
Mach. 84						94.6	
Evasive Action						14.6	
IBDA						60.7	
Radar RBS (Ob-Nav)						64.4	
RBS Visual Attacks (Ob-Rad)						27.2	
RBS Visual Attacks (Ob-Nav)						3.4	
Radar Attacks Camera Scored (Ob-Rad)						37.5	
IBDA at Mach. 84						38.9	
Fixed Angle						36.1	
Radar Attack Camera Scored (Ob-Nav)						34.1	
Visual Attacks Camera Scored (Ob-Rad)						20.3	
Visual Attacks Camera Scored (Ob-Nav)						11.4	
Visual Rel. (Conv) (Ob-Rad)						0	
Visual Rel. (Conv or M-19) (Ob-Rad)						0	
Visual Rel. (Conv) (Ob-Nav)						0	

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: March 1957 | PAGE NR: 9 | NR OF PAGES: 14 | REPORTS CONTROL SYMBOL:

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
Navigation Night Cel						100	
Day Cell						100	
Celestial Grid						100	
Radar Grid						40.9	
Pressure Pattern						31.8	
Refueling Total CR						100	
Mass Night						0	
Max Gross Weight Night						0	
Opt Gross Weight 20 Min. Contacts						89.3	
Dry Contacts						67.7	
Refueling Total NCR						100	
One Tanker Min. of 20 Minutes						67.7	
Gross Wt. 395,000						100	
Dry Contacts						100	
Rendezvous Total						82.2	
Night						68.1	
AN/APN-12-76						100	
Gunnery Air To Air						89.8	
Fighter Attack Mission						100	

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR: March 1957	PAGE NR: 10	NR OF PAGES: 14	REPORTS CONTROL SYMBOL:

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
Big Photo Alt 6 or 8						4.1	
Big Photo Apt 9 or Alt 8						100	
Big Photo Spot Alt 8 or Alt 6						2.1	
Big Photo Spot Apt. 9 or Alt 8						100	
Big Snow						.8	
Little Snow						0	
T-464/Alt 7						16.7	
T-465/Alt 7						47.7	
Alt 6 or Alt 8						2.4	
Apt 9 or Alt 6						77.6	
Big Photo Chatter						0	
Little River						0	
Max Chaff Dispense Out						0	
Formation Flying Total Hours						0	
Hours at 30,000 Feet or Above						0	
Hours at 10,000 feet or below						0	
Pilot Proficiency Mission						18.6	
T-[illegible] Offs A/C						100	
T-[illegible] Offs C/P						100	

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MONTH AND YEAR: March 1957 | PAGE NR: 11 | NR OF: 14 | REPORTS CONTROL SYMBC

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
Landings A/C						100	
Co-Pilot						100	
ILS or GCA A/C						100	
Co-Pilot						100	
PPI Approach A/C						46	
Co-Pilot						47.7	
Gyro Out A/C						28.7	
Co-Pilot						27.3	
Airborne Radar Approach						100	
Pressurized Flight						62	
Emergency Drill						100	
Simulated Strike Reports						35.7	
Cell Tactics						0	
Air Weapons						0	
Water Injection Take Offs						0	
Total Average Completed						49.1	
2. Wing Reliability							
a. Radar MRS % Score				90%	89.4%	90.5%	90.5%
(1) No. Flown				40	236	440	440

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR March 1957	PAGE NR 12	NR OF PAGES 14	REPORTS CONTROL SYMBOL
ORGANIZATION AND LOCATION Headquarters 42nd Bombardment Wing Loring Air Force Base, Maine				

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
(2) No. Reliable				36	211	398	398
b. Visual RBS % Score				100%	87.5%	87.5%	87.5%
(1) No. Flown				4	16	24	24
(2) No. Reliable				4	14	21	21
c. Night Cel Nav % Score				100%	100%	100%	100%
(1) No. Flown				10	28	101	101
(2) No. Reliable				10	28	101	101
d. Grid Cel Nav % Score				100%	100%	100%	100%
(1) No. Flown				9	34	76	76
(2) No. Reliable				9	34	76	76
e. Gunnery % Score				85.7%	66.7%	71.1%	71.1%
(1) No. Attempts				7	24	38	38
(2) No. 75% Fire Out				6	16	27	27
f. Big Photo ECM % Score				59.8%	64.4%	60.3%	60.3%
(1) No. Runs				21	55	138	138
(2) Total Possible Points				567	1485	3726	3726
(3) Total Points Scored				339	956	2246	2246
g. Rendezvous % Score				100%	100%	100%	100%
(1) No. Attempts				9	28	62	62

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MANAGEMENT CONTROL STATEMENT	MONTH AND YEAR March 1957	PAGE NR 13	NR OF PAGES 14	REPORTS CONTROL SYMBOL

ORGANIZATION AND LOCATION
Headquarters 42nd Bombardment Wing
Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
(2) No. Successful				9	28	62	62
h. Refueling							
(1) Wet Hookups % Score				100%	100%	100%	100%
(a) No. Attempts				18	63	167	167
(b) No. Successful				18	63	167	167
(2) Mass Night Refueling % Score				NS	NA	NA	NA
(a) No. Attempts							
(b) No. Successful							
i. Cruise Control							
(a) No. Attempts							
(b) No. Successful							
3. USCM Effectiveness % Score				NS	NS	NS	NS
a. Average No. CR Crews Assigned							
b. No. NCR Crew Upgraded							
c. Total Points Earned							
4. NCR Crew Upgrading % Score					100%	87.5	100%
a. Average No. CR Crews Assigned					19.7	27.9	27.9
b. No. NCR Crews Upgraded					12	7	28

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MANAGEMENT CONTROL STATEMENT

MONTH AND YEAR: March 1957 | PAGE NR: 14 | NR OF PAGES: 14 | REPORTS CONTROL SYMBOL:

ORGANIZATION AND LOCATION: Headquarters 42nd Bombardment Wing, Loring Air Force Base, Maine

ITEM	LAST SAC STATEMENT: SAC UPPER QUARTILE	LAST SAC STATEMENT: Wing DATA	CURRENT PERIOD (Applicable Months): Dec	Jan	Feb	Mar	AVERAGE OR TOTAL
c. Total Points Earned					200	175	200
5. NCR Crew Flying Time % Score				90.8%	100%	100%	100%
a. Hours Required				714	1182	1404	1404
b. Hours Flown				648	1189	1542	1542
6. Probation Status % Score			NA	NA	NA	NA	NA
a. No. Crew Subject to Probation							
b. No. Crews Not on Probation			NA	NA	NA	NA	NA
7. Evaluation							
a. No. Evaluating Given							
b. No. Successful Completed				58.7%	77.2%	78.6%	82.1%
Total Operations				55.0%	70.7%	74.0%	73.7%
Grand Total							

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COST PER FLYING HOUR
Month Ending 31 March 1957

ITEM	Personnel B-52	Personnel KC-97	Supplies Aviation POL B-52	Supplies Aviation POL KC-97	All Other B-52	All Other KC-97	Contractual Services & Others B-52	Contractual Services & Others KC-97
Direct TAC Sqdn Costs								
69th BHS	$103976		$178788		$ 9525			
70th BHS	96673		182609		16371			
75th BHS	102087		179842		9322			
42nd ARS		$102911		$ 94522		$ 4165		$145
Total TAC Sqdn	$302736	$102911	$541239	$ 94522	$35218	$ 4165		$145
Direct Maintenance								
A&E Maint.	$ 83453	$ 7944			$23142	$ 2817		
Field Maint.	304748	132264			12142	2025		
Periodic Maint.	39681	2560			2009	(223)		
Total Direct Maint.	$427882	$142768			$37293	$ 4619		
Indirect Maint.								
A&E Maint.	$ 5211	$ 497			$ 299	$ 37		
Field Maint.	15834	6955			10743	1789	$ 818	
Periodic Maint.	4217	274			212			
Total Indirect Maint.	$ 25262	$ 7726			$11234	$ 1826	$ 818	
TDY Costs							24117	
Sub Total	$755880	$253405	$541239	$ 94522	$83745	$ 10610	$24935	$145
Headquarters	$ 68863	$ 23200			$ 154	$ 20		
Total Cost	$824743	$276605	$541239	$ 94522	$83899	$ 10630	$24935	$145
1-AF-A1 Total TAC Fly Hrs	1719	694	1719	694	1719	694	1719	694
Cost/Flying Hour	$ 480	$ 399	$ 315	$ 136	$ 49	$ 15	$ 15	
Standard Cost/Fly Hr.		215	318	135		15		$ 6
Performance Index			101%	99%				
% Maximum Score Earned		57.6%	90%	100%		97.9%		100%
Points Earned		29	49	55		19		25
Total Cost								
Total Actual Cost/Flying Hr.	$ 858	$ 659						
Total Standard Cost/Fly Hr.		386						
Total Points Earned		128						
Total Points Possible		150						
Overall % of Score Earned		85.3%						

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HEADQUARTERS
42ND BOMBARDMENT WING (H) (SAC)
Loring Air Force Base, Maine
Tactical Squadrons
Management Control Statement
March 1957
Part I
Summary

ITEM	Item Weight	Percent Of Maximum Score Earned				
		Wing	69	70	75	AREF
A PERSONNEL						
1. On the Job Training	100	50%	70%	55%	30%	20%
2. Reenlistment Rate	30	20%	10%	10%	30%	10%
3. AWOL Rate	40	10%	100%	50%	10%	10%
TOTAL	170	35.3	66.5	45.9	25.3	15.9
B MATERIEL						
1. Flying Hours/% of Required	NR	NR	NR	NR	NR	NR
2. Potential Effectiveness	60	60%	60%	60%	60%	30%
3. Scheduled Effectiveness	80	90%	60%	60%	90%	90%
TOTAL	140	77.1	60	60	77.1	64.3
C GENERAL						
1. Private Vehicle Accident	30	80%	100%	100%	100%	100%
2. Squadron Totem Pole	NS	NS	NS	NS	NS	NS
TOTAL	30	80%	100%	100%	100%	100%
D OPERATIONS						
1. Training Requirements	200	49.1%	49.9%	39.9%	53.1%	97.5%
2. Squadron Reliability						
a. Radar RBS	60	91.9%	89.0%	97.5%	91.2%	NA
b. Visual RBS	30	86.7%	50%	100%	91.7%	NA
c. Night Celestial	20	100%	100%	100%	100%	100%
d. Grid Celestial	10	100%	100%	100%	100%	100%

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	Item Weight	Percent of Maximum Score Earned Wing	69	70	75	AREF
e. Gunnery % Fire Out	10	71.1%	60.0%	100%	72.2%	NA
f. ECM	30	63.0%	59.8%	62.3%	64.4%	NA
g. Rendezvous	20	100%	100%	100%	100%	96%
h. Refueling						
(1) Wet Hookups	20	100%	100%	100%	100%	99%
(2) Mass Night Refueling	20	NA	NA	NA	NA	97%
i. Cruise Control	20	100%	NA	NA	NA	100%
3. NCR Crew Flying Time	200	100%	100%	96.1%	100%	NA
4. Probation Status	NS	NS	NS	NS	NS	NA
5. Evaluation	NS	NS	NS	NS	NS	NA
6. Ground Training	30	100	100	71.1	100	100
Operations Total	630	80.2	78.1	76.3	81.7	98.1
Grand Total	970	71.9	74.1	69.3	71.7	70.7

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HEADQUARTERS
42ND BOMBARDMENT WING (H)(SAC)
Loring Air Force Base, Maine
Tactical Squadrons
Management Control Statement
March 1957
Part II

ITEM	Item Weight	Percent of Maximum Score Earned				
A PERSONNEL		Wing	69	70	75	AREF
1. OJT Effectiveness % Score		50%	70%	55%	30%	20%
a. No. on OJT/No. Eligible		(15%)	(15%)	(10%)	(10%)	(10%)
(1) No. on OJT		2039	136	131	160	154
(2) No. Eligible		2066	138	135	164	159
(3) % on OJT		98.7	98.6	97	97.6	96.9
b. No. Passing Tests/No. Tested		(10%)	(30%)	(20%)	(0%)	(0%)
(1) No. Passing Tests/		269	16	17	11	7
(2) No. Tested		386	20	22	19	13
(3) % Passing Tests		69.7	80	77.3	57.9	53.8
c. No. Upgraded/No. on OJT		(25%)	(25%)	(25%)	(20%)	(10%)
(1) No. Upgraded		398	44	27	25	13
(2) No. on OJT		2638	268	184	203	172
(3) % Upgraded		15.1	16.4	14.7	12.3	7.6
2. Reenlistment % Score		20%	10%	10%	30%	10%
a. No. Eligible		153	14	25	15	11
b. No. Reenlisted		30	2	1	4	1
c. % Reenlisted		19.6	14.3	4.0	26.7	9.1
3. AWOL Rate, % Score		10%	100%	50%	10%	10%
a. Average Strength		7715	735	694	742	311
b. No. Going AWOL		22	0	1	3	1
c. Rate per 1000		2.85	0%	1.44	4.01	3.22

W-2414C

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	Item Weight	Percent of Maximum Score Earned				
		Wing	69	70	75	AREF
Personnel Total		35.3	66.5	45.9	25.3	15.9
B MATERIEL						
1. Flying Hours % Required	NR	NR	NR	NR	NR	NR
(a) Hours Scheduled (Monthly 60-9)						
(b) Hours Flown						
2. Potential Effectiveness % Score		60%	60%	60%	60%	30%
(a) No. Potential Sorties		362	128	120	114	325
(b) No. Flown		253	91	78	84	191
(c) Potential Effectivness Rate		69.9%	71.1%	65.0%	73.7%	58.8%
3. Scheduled Effect. % Score		90%	60%	60%	90%	90%
(a) No. Scheduled Sorties		425	150	144	131	356
(b) No. Flown		353	120	115	118	331
(c) Scheduled Effect. Rate		83.1%	80%	79.9%	90.1%	93%
Materiel Total		77.1	60	60	77.1	64.3
C GENERAL						
1. Private Vehicle Accid. % Score		80%	100%	100%	100%	100%
(a) No. Reportable Accidents		2	0	0	0	0
(b) Mandays Exposure		283,424	23,707	23,102	24,233	25,560
(c) Private Veh. Accident Rate		.71	0	0	0	0
2. Squadron Totem Pole % Score		NS	NS	NS	NS	NS
(a) Totem Pole Position						
General Total		80%	100%	100%	100%	100%
D OPERATIONS						
1. Training Requirements (50-8)		49.1%	49.9%	39.9%	53.1%	97.6%
Radar MBS Total (Ob-Rad)		92.8	94.7	87.4	95.2	

W-241HC

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	Item Weight	Percent of Maximum Score Earned				
		Wing	69	70	75	AREF
Direct Aiming		27.6	24.4	26.0	32.5	See Pages 10 and 11
Offset Class IIIA Target		100	100	100	100	
Optional (Direct or Offset)		100	100	100	100	
Fixed Angle		61.4	66.7	57.1	56.3	
GPI		51.8	55.6	33.3	57.7	
Mach. 82		94.6	100	87.7	90.7	
Evasive Action		14.6	27.6	2.9	24.0	
IBDA		60.7	23.5	83.3	61.5	
Radar RBS (Ob-Nav)		64.4	75.0	38.1	78.9	
RBS Visual Attacks (Ob-Rad)		27.2	41.2	8.6	44.0	
RBS Visual Attacks (Ob-Nav)		3.4	0	4.8	5.3	
Radar Attack Camera Scd. (Ob-Rad)		37.5	43.5	0	58.6	
IBDA at Mach. 82		38.9	15.4	0	85.7	
Fixed Angle		36.1	66.7	0	33.3	
Radar Attack Camera Scd. (Ob-Nav)		34.1	35.7	21.4	43.8	
Visual Attack Cam. Scd. (Ob-Rad)		20.3	10.0	4.8	47.4	
Visual Attack Cam. Scd. (Ob-Nav)		11.4	7.1	0	25.0	
Vis. Rel. (Conv) (ob-Rad)		0	0	0	0	
Vis. Rel. (Conv or T-59) (Ob-Rad)		0	0	0	0	
Vis. Rel. (Conv) (Ob-Nav)		0	0	0	0	
Navigation Night Cel		100	100	83.3	100	
Day Cel		100	100	85.7	100	
Celestial Grid		100	100	100	100	
Radar Grid		40.9	60.0	21.4	50.0	
Pressure Pattern		31.8	21.4	14.3	56.3	

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	Item Weight	Percent of Maximum Score Earned				
		Wing	69	70	75	AAGF
Refueling Total CR		100	100	61.0	100	
Mass Night		0	0	0	0	
Max Gross Wt. Night		0	0	0	0	
Opt Gross Wt 20 Min, Contacts		89.3	88.9	0	100	
Dry Contacts		67.7	50.9	100	61.5	
Refueling Total NCR		100	100	100	100	
One Tanker Min. of 20 Minutes		67.7	63.6	53.3	100	
Gross Wt 395,000		100	100	87.5	100	
Dry Contacts		100	100	100	100	
Rendezvous Total		82.2	100	62.5	76.5	
Night		68.1	100	45.0	34.5	
AN/APN-12/76		100	100	100	100	
Gunnery Air to Air		89.8	75.0	95.2	94.7	
Fighter Attack Mission		100	100	100	100	
Big Photo Alt 6 or 8		4.1	2.1	4.1	7.8	
Big Photo Apt 9 or Alt 8		100	100	100	100	
Big Photo Spot Alt 8 or Alt 6		2.1	0	0	5.9	
Big Photo Spot Apt 9or Alt 8		100	100	100	84.3	
Big Snow		.8	0	2.4	0	
Little Snow		0	0	0	0	
T-464/Alt 7		16.7	3.5	16.7	28.1	
T-465/Alt 7		47.7	12.3	87.0	45.3	
Alt 6 or Alt 8		2.4	5.9	0	1.4	
Apt or Alt 6		77.6	69.1	95.7	66.7	
Big Photo Chatter		0	0	0	0	
Little River		0	0	0	0	

W-24/14B

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	Item Weight	Percent of Maximum Score Earned				
		Wing	69	70	75	AREF
Max Chaff Dispense Out		0	0	0	0	
Formation Flying Total Hours		0	0	0	0	
Hours at 30,000 feet or above		0	0	0	0	
Hours at 10,000 feet or below		0	0	0	0	
Pilot Proficiency Mission		18.6	10.0	4.8	42.1	
Take Offs A/C		100	100	100	100	
Take Offs CP		100	100	100	100	
Landings A/C		100	100	100	100	
Co-Pilot		100	100	100	100	
ILS or GCA A/C		100	100	100	100	
Co-Pilot		100	100	100	100	
PPI Approach A/C		46.0	65.5	14.8	53.1	
Co-Pilot		47.7	71.4	14.3	56.3	
Gyro Out A/C		28.7	27.6	3.7	50.0	
Co-Pilot		27.3	21.4	7.1	50.0	
Airborne Radar Approach		100	100	100	100	
Pressurized Flight		62	93.8	22.9	66.7	
Emergency Drill		100	100	100	100	
Simulated Strike Reports		35.7	50.0	4.2	40.4	
Cell Tactics		0	0	0	0	
Air Weapons		0	0	0	0	
Water Injection Take Offs		0	0	0	0	
Total Average Completed		49.1	49.9	39.9	53.1	
2. Squadron Reliability						
a. Radar RBS % Score		91.9%	89.0%	97.5%	91.2%	NA
(1) No. Flown		347	109	79	159	

(7)

W-2414C

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Item / Weight	Percent of Maximum Score Earned				
	Wing	69	70	75	AEEF
(2) No. Reliable	319	97	77	145	
b. Visual RBS % Score	86.7%	50%	100%	91.7%	NA
(1) No. Flown	15	2	1	12	
(2) No. Reliable	13	1	1	11	
c. Night Cel Nav % Score	100%	100%	100%	100%	100%
(1) No. Flown	101	33	27	41	64
(2) No. Reliable	101	33	27	41	64
d. Grid Cel Nav % Score	100%	100%	100%	100%	100%
(1) No. Flown	76	29	19	28	43
(2) No. Reliable	76	29	19	28	43
e. Gunnery % Score	71.1%	60.0%	100%	72.2%	NA
(1) No. Attempts	38	15	5	18	
(2) No. 75% Fire Out	27	9	5	13	
f. ECM Reliability % Score	63.0%	59.8	62.3%	64.4	NA
(1) Record, ADC, % Score	60.3%	59.4%	58.7%	61.7%	
(a) No. Runs Made	138	42	34	62	
(b) No. Points Possible	3726	1134	918	1674	
(c) No. Points Made	2246	674	539	1033	
(2) Spot, ADC % Score	56.3%	57.0%	53.1%	57.2%	
(a) No. Runs Made	89	30	18	41	
(b) No. Points Possible	2403	810	486	1107	
(c) No. Points Made	1353	462	258	633	
(3) Simulator % Score	72.5%	63.0%	75%	74.3%	
(a) No. Runs Made	182	32	58	92	
(b) No. Points Possible	1092	192	348	552	
(c) No. Points Made	792	121	261	410	

W-2414C

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	Item Weight	Percent of Maximum Score Earned				
		Wing	69	70	75	AREF
g. Rendezvous % Score		100%	100%	100%	100%	96%
(1) No. Attempts		62	16	12	34	122
(2) No. Successful		62	16	12	34	117
h. Refueling						
(1) Wet Hookups % Score		100%	100%	100%	100%	99%
(a) No. Attempts		167	57	34	76	113
(b) No. Successful		167	57	34	76	112
(2) Mass Night Refueling		NS	NS	NS	NS	97%
(a) No. Sorties Ref.						35
(b) No. Successful						34
i. Cruise Control		NA	NA	NA	NA	100%
(a) No. Attempts						30
(b) No. Successful						30
3. NCR Flying Time % Score		100%	100%	96.1%	100%	NA
(a) Average NCR Crews		15.5	5.2	7.5	2.8	
(b) NCR Hours Required		1395	468	675	252	
(c) NCR Hours Flown		1542	640	649	253	
4. Probation Status % Score		NS	NS	NS	NS	NA
(a) No. Crews Subject to Pro.						
(b) No. Crews Not on Prob.						
5. Evaluation % Score		NS	NS	NS	NS	NA
(a) No. Evaluation Given						
(b) No. Successful Completed						
6. Ground Training % Score		100%	100%	71.1%	100%	100%
(a) % Completed			68	32	49	100%
(b) % Should Have Completed		45	45	45	45	45
Operations Total		80.2	78.1	76.3	81.7	98.1
Grand Total		71.9	74.1	69.3	71.7	70.7

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TRAINING MINIMUMS

AREF Percent of Maximum Score Earned

	March
5. Training Accomplishments % Score	
a. Day Refueling % Score	98.4%
b. Night Refueling % Score	82.3%
c. Radio Silence % Score	100%
d. Rendezvous Total % Score	94.4%
e. Multiple Pattern % Score	100%
f. AN/APN-12/76 Primary % Score	100%
g. Day Cel Navigation Leg % Score	100%
h. Night Cel. Navigation Leg % Sc.	100%
i. Radar Navigation Leg % Score	100%
j. Pressure Pattern Leg % Score	100%
k. Loran Leg % Score	100%
l. Cel. Grid Leg % Score	100%
m. Pilot Prof. Mission % Sc.	100%
n. Total Prof. Items % Score	98.1%
(1) Take Offs A/C % Score	100%
(2) Take Offs CP % Score	100%
(3) Landings A/C % Score	100%
(4) Landings CP % Score	100%
(5) ILS or GCA A/C % Score	100%
(6) ILS or GCA % Score	100%
(7) PPI Approach A/C % Score	100%
(8) PPI Approach CP % Score	100%
(9) Gyro Out Approach A/C % Sc.	100%
(10) Gyro Out Approach CP % Score	81.0%

W-2414 C

(10)

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	AREF Percent of Maximum Score Earned
o. Cruise Control Mission % Score	100%
p. EWP Loading & Unloading % Score	100%
q. Precomputation of Max Load % Score	100%
r. Emergency Procedure Drills % Score	100%
(1) Simulated Bailout % Score	100%
(2) Simulated Ditching % Score	100%
(3) Simulated Crash Land. % Score	100%
(4) Simulated Crash Land (Max Pass) % Score	100%
(5) Pass. Emerg. Proc. Brief. % Score	100%
s. Day Cell Mission % Score	NR
t. Night Cell Mission % Score	79.5%
u. Airborne Radar Directed App. % Score	100%

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