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HISTORY OF THE 4950th TEST GROUP (N)

1 April 1957 - 30 September 1957

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4950TH TEST GROUP (NUCLEAR)
from
1 April 1957
through
30 September 1957

by
M/Sgt William A. Evans

Historical Section
4950TH TEST GROUP (NUCLEAR)
Air Force Special Weapons Center
Air Research and Development Command

15 October 1957

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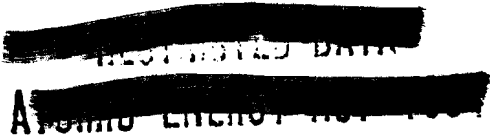
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FOREWORD

This monograph recounts the Operation HARDTACK planning activities of the 4950th Test Group (Nuclear) during the six months period beginning 1 April 1957 and ending 30 September 1957. Also included is a broad synopsis of the Group's participation in Operation PLUMBBOB, a continental test series conducted at the Nevada Test Site in 1957. At the writing of this study a complete and detailed history of the participation of the 4950th Test Group (Nuclear) in Operation PLUMBBOB was underway, making unnecessary in this study a detailed accounting of PLUMBBOB activity.

Master Sergeant William A. Evans wrote all portions of this monograph. Airman First Class William R. Renaud performed the associated clerical tasks.

Inasmuch as this study is subject to revision, additional information or suggested corrections will be welcomed.

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Inclowure

1. Ltr., Director, WETD, FC, AFSWP to Comdr. AFSWC, 10 Jun. 55, subj.: Forecast of Test Requirements.
 2. Ltr., Director, WETD, FC, AFSWP to Comdr. AFSWC, 14 Dec. 55, subj.: Forecast of Test Requirements.
 3. Schedule, Operation HARDTACK, 26 Feb. 57, AFSWC.
 4. Schedule, Operation HARDTACK, 6 Jun. 57, AFSWC .
 5. Memo for Record, Conference on Support Requirements for Operation HARDTACK, JTF-7, dtd. 4 Mar. 57 (hereinafter cited as JTF-7 Conference Memo on HARDTACK).
 6. Ltr., Maj. William A. Cunningham, DCS/O, AFSWC, to Dr. Hal Plank, J-Division, IASL, dtd. 3 Dec 56, no subj.
 7. Ltr., p. 6, Comdr., 4950th Test Op. (N) to Comdr., JTF-7, 24 Jul. 57, subj: Comments to "Final Report of the Commander, Task Group 7.4, Operation REDWING".
 8. Memo for the Record, Col. Donnell Massey, JTF-7, 18 Jan. 57, subj.: Visit of Colonel E. A. Lucke, USA, and Colonel Robert Gattie, USAF, to Joint Task Force SEVEN Headquarters.
 9. Ltr., Comdr., 4950th Test Op. (N) to Comdr., AFSWC, 11 Apr. 57, subj.: Staff Visit to Eniwetok, 24 Mar. - 5 Apr. 57.
 10. General Order No. 12, Ho. AFSWC, 15 Jul. 57.
 11. Tentative Planning Schedule for Operation HARDTACK, JTF-7, 27 Nov. 56.
 12. Tentative Planning Schedule for Operation HARDTACK, 4950th Test Op. (N), no date.
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14. Ltr., Comdr., 4950th Test Op. (N) to Comdr., JTF-7, 26 Jun. 57, subj.: Support Aircraft Required for HARDTACK Inter-Atoll (Eniwetok-Bikini) and Project Island Airlift.
15. Ltr., Comdr., JTF-7 to Comdr., 4950th Test Op. (N), 30 Jul. 57, subj.: Air Operations Center (AOC) on BIKINI Atoll.
16. Ltr., Comdr., 4950th Test Op. (N) to several units, 10 Jul. 57, subj.: Concept of Air Task Group Logistics Support, Operation HARDTACK.
17. Ltr., Comdr., JTF-7 to several units, 3 Jun. 57, subj.: Tentative Vehicle Allocation for HARDTACK.
18. Ltr., Comdr., AFSWG to Comdr., ARDC, 14 Mar. 57, subj.: Officer Personnel Requisitions for Operation "HARDTACK".
19. Ltr., Comdr., 4950th Test Op. (N) to Comdr., AFSWG, 5 Dec. 56, subj.: Personnel Requisitions.
20. Ltr., Deputy Comdr., AFSWG to Comdr., ARDC, 12 Apr. 57, subj.: Personnel Manning of the 4951st Support Squadron (Test), Eniwetok, Marshall Islands.
21. 1st ind. (Ltr., Deputy Comdr., AFSWG to Comdr., ARDC, 12 Apr. 57, subj.: Personnel Manning of the 4951st Support Squadron (Test), Eniwetok, Marshall Islands). Comdr., ARDC to Comdr., AFSWG, 16 May 57.
22. Memo for the Commander, 4950th Test Op. (N), 15 May 57, subj.: Use of Military Police in Lieu of Air Police on Eniwetok During Operational Periods.

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A. REDWING/HARDTACK INTERIM PERIOD PLANNING

CHAPTER I

INTRODUCTION

The first official announcement of plans for Operation HARDTACK was provided to Air Force Special Weapons Center on 10 June 1955, when Colonel H. E. Parsons of the Armed Forces Special Weapons Project wrote that HARDTACK was scheduled for the spring of 1957 at an undetermined location. Approximately 10 shots were included in the planned series.¹

By the end of 1955, scheduling for the testing program had become more firm, for on 14 December 1955 Colonel Parsons stated that "present plans call for Operation PILGRIM at the Nevada Test Site in the Spring of 1957 and for Operation HARDTACK at the Pacific Proving Grounds in the Spring of 1958." He stated, furthermore, that "no other information concerning the test is available and it is assumed that the support required of your command [that is, Special Weapons Center] will be similar to that required for TEAPOT and REDWING."²

From December 1955 to February 1957 very little definitive information concerning Operation HARDTACK was available. On 26 February 1957, however, the first version of the HARDTACK schedule

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accessible in the Special Weapons Center was announced.³ The schedule reaffirmed that HARDTACK was planned "to be held in the Pacific in the Spring of 1958." The following is quoted from the schedule:

It should be emphasized that this is the first information available relative to this operation; therefore, the schedule should be considered as very preliminary and will probably change considerably before a final program is established.

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On 6 June 1957 another schedule containing "very preliminary information" was issued.⁴ This schedule revealed several changes to the proposed program.

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* The designation Operation PILGRIM was changed to Operation PLUMBOB, as announced in the third amendment (dated 21 Jan. 57) to the Planning Directive 3-56, 4950th Test Op. (II), 21 Nov. 56. In this history the two designations are used interchangeably.

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In addition to these of Los Alamos and the Radiation Laboratory, five more shots, listed as Department of Defense devices, were scheduled:

1. *Deleted*

This was to be a very high altitude test, at 92,000 feet, the device being borne by a free balloon.

2. *Deleted*

An ultra high altitude test from a Redstone missile carrier, the device was to be detonated at 250,000 feet.

3. *Deleted*

The carrier of this weapon was unspecified, although the test was listed as a very high altitude test (100,000 feet).

4. *Deleted*

This shot, named PERCOLATOR, was scheduled as a shallow water test.

5. *Deleted*

Inasmuch as planning for HARDTACK was not yet beyond its fundamental stages because of the lack of firm and specific planning information, the 4950th Test Group (Nuclear) concentrated its effort during late 1956 and early 1957 on Operation PLUMBBOB, which entered its operational phase in May 1957. Nevertheless, several noteworthy HARDTACK planning activities were conducted by the 4950th during this period.

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Colonel William B. Kieffer, the future Commander Task Group 7.4, and Colonel Paul R. Wignall, Commander of the 4950th Test Group (Nuclear), together with principal members of his staff, attended the Joint Operations, Supply, Construction, and Transportation Conference on 19 and 20 February 1957 at Headquarters Joint Task Force SEVEN. This conference had as its objective the establishment and coordination of operations requirements, base facility construction, supply, maintenance, equipment modification, transportation, and other logistical concepts for Operation HARDTACK. The agenda was divided into several subconferences.

Colonel Donnell Massey presented to the conferees a brief concept of Operation HARDTACK.⁵ The test series, according to the concept, was to include 31 shots. A point of great importance was the announcement that HARDTACK would differ somewhat from REDWING in that the University of California Radiation Laboratory, having a large percentage of high yield shots, would conduct most of their operations at Bikini Atoll and the Los Alamos Scientific Laboratory would utilize the Eniwetok complex. The shots under sponsorship of the Department of Defense would be fired in both atolls, the underwater shots being conducted at Eniwetok and the high altitude shots probably at Bikini. In some instances "it may be necessary to move some of the shots from Eniwetok to Bikini and vice versa," making imperative the maintenance of operational flexibility. The requirement for a high yield dual atoll capability was thus explained and

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emphasized. Inasmuch as "at least half of the shots may be in the megaton range," there would be a requirement to have aircraft and surface transportation in sufficient quantity for sampling and for emergency evacuation at both atolls simultaneously.

As early as 3 December 1956, the Air Force Special Weapons Center had anticipated the possibility of providing and maintaining a dual shot capability during HARDTACK, as well as "the possibility of simultaneous testing in both the Pacific [Eniwato] Proving Ground and Nevada Test Site."⁶ Center had learned from Joint Task Force SEVEN that

The current concept being envisaged for Operation HARDTACK contemplates the probable firing of two shots on the same day on some occasions, and perhaps in a few instances, at the same time. However, while some additional aircraft will be required, it is realized that a complete dual sampling capability probably cannot be supported, nor is it justified. Therefore, in order to have an adequate number of sampling aircraft available on dual shot days, attempts will be made to have one of the scheduled shots a low yield detonation requiring relatively limited participation so far as sampling aircraft is concerned.

At the Joint Task Force SEVEN conference, Dr. Gaelen Felt of The Atomic Energy Commission outlined broadly the scope of the HARDTACK technical phases, which included, besides the proposed number of shots, the readiness dates and predicted yields, stressing especially the two-atoll (or dual shot) concept of firing. The over-all HARDTACK operation was to follow generally the REDWING concept; the two-atoll firing concept had been used successfully during REDWING on two different occasions, when on 28 May 1956 ZUNI was detonated in the Bikini Atoll and YUMA was fired in the

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Eniwetok Atoll, and on 12 June 1956 when FLATHEAD was accomplished in the Bikini Atoll and BLACKFOOT was fired in the Eniwetok Atoll.⁷

After these introductory addresses by Colonel Massey and Mr. Felt, the conference was given over to a general discussion of all support requirements which were to be presented to the Joint Chiefs of Staff for approval of adequacy. Subsequently, detailed consideration of the various aspects of HARDTACK was accomplished in the subconferences.

Indication of Task Group 7.4 plans for coping with the dual shot problem was contained in a letter⁸ to Joint Task Force SEVEN on 24 July 1957. The letter stated:

When definite aircraft participation is determined, a turn-around study will be made for all aircraft and results will be given to TG 7.1. TG 7.1 will be requested to consider the turn-around capability and timings when scheduling dual shots. Sixteen (16) B-57's will be available for sampling operations and this should be sufficient to give us a dual shot capability.

The letter of 24 July also outlined the Task Group 7.4 plans for rehearsal programs to take place before the beginning of the operational period of HARDTACK.⁹ Overseas rehearsals were to be scheduled on a scope similar to that of REDWING (which had six, one of which was a dual shot rehearsal) but dependent upon the number of participating aircraft. Inasmuch as fewer critically-placed aircraft were anticipated for HARDTACK, there appeared a need for fewer

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rehearsals. A rehearsal program was to be determined upon the reception of definite information on the number and types of participating aircraft.

The use of Taongi Atoll as an additional firing site in the Eniwetok Proving Ground was contemplated in the early planning stages of HARDTACK. Task Group 7.1 in January 1957 expressed a desire to have an early decision on whether or not the additional atoll would be used.¹⁰ Many operational problems were inherent in the use of Taongi, and of the greatest importance to Task Group 7.4 was the necessity for establishing control facilities for aircraft in the Taongi area. Colonel Massey of Joint Task Force SEVEN stated that the use of Taongi appeared to require a policy decision from the Atomic Energy Commission and the State Department. Until a decision was provided, no definite planning to include shots at Taongi could be completed.

By 1 May 1957, no decision on the Taongi issue had been reached, although the University of California Radiation Laboratory was still attempting to secure approval of the atoll as a shot site. A memo¹¹ on 1 May stated:

Operational plans envision that all operations involving Taongi will be conducted from afloat. No personnel to be stationed ashore, and no runway to be constructed. Since Taongi lies 475 NM from Eniwetok, 324 from Wake, 356 from Kwajalein, and 285 from Bikini, there should

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at least be a strip prepared for real emergencies. This recommendation is made even in light of the heavy contamination Taongi will surely get.

Again, on 16 May 1957, a letter¹² from Joint Task Force SEVEN, regarding an aspect of airlift in the proving ground, advised the 4950th that the use of Taongi as a third firing site had not yet been either approved or disapproved. The letter made note of the fact that acquisition of Taongi would modify the HARDTACK operational concept, and support requirements would have to be revised accordingly.

The problem was eliminated when, on 30 July 1957, Joint Task Force SEVEN informed the 4950th that Taongi "will not be a firing site on Operation HARDTACK." Therefore, among other extensive problems circumvented, "the air control area in the Eniwetok Proving Ground will not be increased over that of Operation REDWING."¹³

Colonel Kieffer and the 4950th Commander, with principal members of his staff, visited the Eniwetok Proving Ground in late March 1957.¹⁴ The group inspected several areas of activity of the 4951st Support Squadron (Test), including manning, flying and ground safety, control and maintenance of supplies and equipment, and operational procedures. Of particular interest to the Commander was the proving ground construction program which appeared to be adequate to support the needs of Task Group 7.4. Airfield rehabilitation, especially

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runway repair, was proceeding satisfactorily, although the runway surface seemed to be less well sealed than was the older surface, giving rise to the possibility of deterioration under the effects of jet blast and constant usage.

A development of major importance in the planning for HARDTACK, and in the over-all nuclear testing program for future tests, was the establishment within the Special Weapons Center of the position of Deputy Commander for Overseas Tests. Colonel William B. Kieffer, who was relieved of duty as Special Weapons Center Deputy Commander, was assigned to the previously unfilled position on 15 July 1957.¹⁵ This position was designed to provide for Colonel Kieffer, and for those officers who would later occupy the space, a period of orientation and observation preparatory to assumption of command of Task Group 7.4 upon its activation. The new commander of Task Group 7.4 would automatically receive the command of the 4950th Test Group (Nuclear).

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CHAPTER II
OPERATIONS

During the REDWING/HARDTACK interim planning period, the Operations Directorate was engaged in the conduct of air support for Operation FLUNBOP at the Nevada Test Site. Several HARDTACK planning actions were accomplished, however.

Planning Schedule. The Joint Task Force SEVEN tentative planning schedule for HARDTACK was published on 27 November 1956.¹⁶ The cover letter to the schedule advised that, because of a lack of firm information, the schedule was based upon the assumption (1) that the scope of HARDTACK would be similar to but greater than that of Operation REDWING and (2) that the first detonation of Operation HARDTACK would occur on 1 May 1958.

Based in part upon the Joint Task Force schedule, a planning schedule for the 4950th (Task Group 7.4) was compiled in March 1957 by the Operations Directorate.¹⁷ This schedule, listing all known requirements and projects, was designed to provide a constant monitoring of all planning programs to insure punctual completion. According to this schedule:

1. Aircraft modifications were to be completed by 15 December 1957.

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2. The Task Group 7.4 Operation Plan/Order was to be completed by 15 February 1958.

3. Materiel was to be pre-positioned in the forward area by 1 March 1958.

4. The Air Operations Center was to be in place at Eniwetok by 1 March 1958.

5. The advance echelon of Task Group 7.4, the Test Aircraft Unit, and the Test Services Unit was to depart for the proving ground on 1 February 1958, the move to be completed by 15 February.

6. Headquarters of the Test Services Unit, Test Aircraft Unit, and Test Base Unit were to be activated in the forward area on 20 March 1958.

7. Air rehearsals were to begin on 25 March 1958.

8. The roll-up phase was to be completed 45 days after the last shot.

Significantly, no estimated date for the termination of the operational phase of HARDTACK was given in either the Joint Task Force SEVEN or the 4950th schedule.

Book Message. A draft of the preliminary book message, which had as its purpose the constitution of authority for Air Force commands to begin initial planning for HARDTACK, was prepared by the 4950th Test Group (Nuclear) early in March 1957 and forwarded through channels to Headquarters United States Air Force on 29 March. The message was issued by Headquarters United States Air Force on 29 April 1957.¹⁸ The message stated that the tentative starting date of HARDTACK was 1 May 1958, and that approximately 30 devices would be tested. Also,

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The United States Air Force will be the executive agent for the test series and Air Force participation will follow the general pattern established during previous overseas nuclear tests. ARDC will man, train, and organize Air Task Group 7.4. The Air Task Group will consist of three units, (1) a Test Base Unit provided by ARDC, (2) a Test Aircraft Unit provided by major USAF Commands and (3) a Test Support Unit /Test Services Unit/ provided by MATS. The mission and function of Task Group 7.4 and subordinate units will parallel those assigned for Operation PEDWING.

A draft of the final book message,¹⁹ more extensive and detailed than the preliminary book message, was prepared and forwarded in August 1957 to Special Weapons Center for submission to Headquarters United States Air Force. The final book message had not been issued at the end of September 1957. This final message, although known to be undergoing considerable revision at Headquarters United States Air Force was intended to outline the organizational structure of Task Group 7.4 for HARDTACK and to delineate broadly the responsibilities of Air Force major Commands in providing personnel and resources to the Commander, Task Group 7.4.

A supplement to the draft of the book message set forth Air Force policies concerning Air Force funding support of Task Group 7.4. This supplement defined funds, and sources of funds, under the two major categories, Normal Operating Expenses and Extra Expenses. Normal Operating Expenses "will be provided by the Service concerned," and included such expenses as pay and allowances of personnel.

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personnel subsistence, certain travel and transportation costs, and costs for standard equipment and supplies. Extra Expenses "will be financed with funds made available to the Task Force Commander," and included such expenses as equipment and aircraft modification costs, Test Site construction costs, and costs of equipment re-required by the task force and not normally stocked or standard to the services.

Aircraft Requirements. At the HARDTACK conference at Headquarters Joint Task Force SEVEN on 20 February 1957, a major item of discussion was that concerning aircraft requirements. A preliminary list, containing approximately 62 aircraft, was compiled.²⁰

The list included 10 WB-50 aircraft to be used for weather reconnaissance. A possibility existed that this number was insufficient in view of the proposed use of the two-atoll (dual shot) concept. Should further study justify the need for additional aircraft, a supplemental request would be submitted to United States Air Force.

Three C-54 aircraft were tentatively planned for documentary photography; however, no requirements were yet defined for documentary photography. Inasmuch as such a requirement had existed during previous test series, the requirement for HARDTACK also was assumed to exist.

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Seven SA-16 aircraft were listed, to be used for search and rescue operations and for weather island resupply. The conferees discussed the current over-all shortage of SA-16 aircraft, noting also that there was no substitute for this type inasmuch as there was no other known operational amphibious aircraft in the Air Force. Colonel Massey of Joint Task Force SEVEN stated that UF-type aircraft (the Navy equivalent of the SA-16) were being sought for use at Kwajalein, but, because of the different mission intended for the UF's, they could not be substituted for the SA-16's. Colonel Massey asserted that, if the aircraft could not be provided from Air Force sources, a decision must be made at the level of the Joint Chiefs of Staff to provide similar equipment from other sources. The problem was to be outlined in a paper to the Joint Chiefs of Staff.

Three C-54 aircraft were planned tentatively for logistic support in providing inter-atoll passenger and freight transportation. The conferees were informed that General Canterbury, the Special Weapons Center Commander, was planning to replace the four C-47 aircraft permanently assigned to Eniwetok with two C-54 type aircraft. These would be in addition to the three planned for increased logistic support requirements during the operation.

Eight I-20's were planned to supplement helicopters in providing inter-island logistic support.

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Ten H-21 for H-19 aircraft, to be utilized for inter-island airlift in the Niwetok Atoll, were to replace the H-19's which were used during REDWING. Although less suitable in some respects than the H-19, the H-21 was considered the only feasible substitute for the H-19 which was being phased out of use by Air Force. A temporary requirement for H-21's at Bikini during the build-up period was to be supplied from the total requirement.

Two L-21 aircraft were required to alleviate the heavy airlift burden placed upon the eight L-20's. The L-21's would provide inter-island transportation for Very Important Persons and would be used also for proficiency flying for rated flag and general officers.

Sampling would be accomplished by 16 B-57 aircraft, of which six should be B-57D's. Lieutenant Colonel W. H. Edwards of Headquarters United States Air Force advised that B-57D's were not available in large numbers, indicating that they probably could not be acquired for HARDTACK. Colonel Massey replied then that if there must be a substitute for the B-57D's, it must be B-57B's because scientific personnel did not feel that F-84 aircraft had sufficient range and ceiling to fulfill sampling requirements. Furthermore, a large number of sampling tanks designed for B-57's had been fabricated, and fabrication of tanks for other types of aircraft would raise a requirement for additional funds.

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The only Air Force effects aircraft listed was a B-52. Two aircraft, an FJ4 and an A4D, were programmed for Navy effects tests. Two EB-36's were planned for airborne instrumentation, primarily for the very high altitude balloon shot but possibly also for the other two high altitude shots.

A Department of Defense requirement for an unspecified number of helicopters also was announced. Lieutenant Colonel Judson D. Wilcox of the Armed Forces Special Weapons Project stated that Army had listed a requirement for six helicopters for sample recovery and that Air Force would need from 1 to 10 helicopters for the same purpose. Navy estimated that approximately eight helicopters would be required during the preparation of the target array for the underwater shots. Colonel Emil A. Lucke of Task Group 7.1 had discussed this requirement with several agencies and, thus, expressed the opinion that the numbers listed represented a duplication in that the requirements were to be met by Air Force helicopters at Eniwetok and Navy or Marine helicopters at Bikini. He advised, however, that a firm decision could not be made until more information were available regarding the test projects to be authorized. Colonel Massey, on the other hand, added that early planning should allow for all probable requirements and unnecessary allotments could later be deleted.

Colonel Massey, early in February 1957, learned that a "rumored" increase in Air Force effects aircraft participation during HARDACK

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was possible.²¹ To verify this information, Colonel Massey contacted Armed Forces Special Weapons Project and was assured that no increase was then planned. The proposed effects participation still included only a B-52 and the two Navy aircraft, an F4 and an A4D, which represented a considerable decrease of the effects program under that of REDWING.

In a letter²² to Joint Task Force SEVEN on 26 June 1957, the 4950th outlined the HARDTACK airlift aircraft requirement. The requirement was based upon several assumptions:

1. That the frequency of flights required by Joint Task Force SEVEN and the task groups, between Eniwetok and Bikini, must be of primary consideration in determining aircraft support required.
 2. That two C-54 aircraft will be assigned to the 4951st Support Squadron (Test) and that all C-47 aircraft currently assigned to the 4951st will be withdrawn prior to, or at the beginning of, the operational period of HARDTACK (approximately 1 March 1958).
 3. That there will be no Documentary Photography Element participating in HARDTACK from which some airlift support would be available. If it develops that there will be a Documentary Photography Element of three C-54's and the same support is received from them as during REDWING, the number of C-54's planned for the 4951st can be reduced by one. During REDWING the Documentary Photography aircraft provided all airlift to Tarawa; an additional site at Nauru /Nauru/, some 800 miles from Eniwetok, will require support.
 4. That there will be a 25 per cent traffic increase over the support provided for REDWING, based upon a Joint
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Task Force SEVEN statement that the scope of HARDTACK would be greater than that of REDWING and that Wacora would be added to the weather network.

5. That the length of the operational period of HARDTACK will correspond to that of REDWING.

6. That support aircraft will be able to maintain an average of 65 flying hours per month throughout the operational period.

Based upon these assumptions and upon REDWING airlift operations records a monthly requirement, in addition to the two C-54's of the 4951st, was submitted. This requirement, together with the projected number of flying hours, for each month (March through July) is shown below:

	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>
Flying hours	130	195	260	195	195
Aircraft required	2	3	4	3	3

Several changes in the aircraft requirements list occurred before the end of July 1957. A second list, used at a Joint Task Force SEVEN aircraft requirements conference in July 1957, contained some 85 aircraft, including the following:

1. 10 WB-50's for weather reconnaissance.
2. 4 C-54's for documentary photography.
3. 7 SA-16's for search and rescue and for weather island resupply.
4. 4 C-54's for inter-atoll airlift.
5. 8 L-20's for inter-island airlift.

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6. 15 H-19's or H-21's for inter-island airlift at Eniwetok.
7. 2 L-19's for VIP proficiency flying.
8. 10 B-57B's for sampling.
9. 6 B-57D's for sampling.
10. 1 B-52 for effects.
11. 2 RB-36's for data collection on the high altitude shots.
12. 2 F4's for Navy effects.
13. 2 A4D's for Navy effects.
14. 3 B-47's for indirect bomb damage assessment, operating from Guam.
15. 1 P2V for Navy effects support.
16. 8 UH aircraft for search and rescue and for island resupply. (Placement of these aircraft for operational control was undetermined.)

Communications and Air Operations Control. The Task Group 7.4 draft of the Preliminary Communications Plan for HARDTACK, based essentially upon the REDWING plan, was completed in November 1956 and was submitted through channels to Headquarters United States Air Force for coordination. The plan, with modifications, was approved also by Special Weapons Center, Air Research and Development Command, and Joint Task Force SEVEN. During the spring of 1957 several communications conferences were held with Air Research and Development Command, Headquarters United States Air Force, and Joint Task Force

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Major differences between the HARDTACK plan and the plan used²⁰

BEWEN to determine communications requirements and procedures. From these conferences and from comments received on the Preliminary Plan, the final Communications Plan for HARDTACK was written, being published on 18 June 1957.²³ The final plan set an "operational ready" date of 1 January 1958 for all communications facilities.

The plan stated that most of the communication and electronics equipment required for Task Group 7.4 facilities was returned to the Zone of Interior at the completion of REDWING and was being processed through Sacramento Air Materiel Depot for overhaul. The equipment was to enter storage at Maywood Air Force Station under a special project designated HOT BOX. After re-assembly according to scheme numbers at Maywood, the equipment was to be shipped to Eniwetok for installation.²⁴

According to the plan, the Task Group 7.4 communication-electronics mission was tripartite: (1) to provide communication facilities and navigation aids for safe and efficient air operation in the Eniwetok Proving Ground; (2) to provide communication facilities for the collection and dissemination of weather and radiological data in support of Operation HARDTACK; and (3) to provide means of handling administrative and operational messages to and from points outside the proving ground.

Major differences between the HARDTACK plan and the plan used for REDWING were as follows:

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1. TACAN would replace FVOR as a navigational aid. A Task Group 7.4 request early in 1957 for a permanent TACAN facility in the proving ground was disapproved by Joint Task Force SEVEN; instead, a mobile unit was to be used, to afford utilization of the facility at other sites during interim periods. A need for approximately 75 AN/ARN-21 radar units (airborne TACAN) for installation in HARDTACK aircraft had been declared as early as February 1956.²⁵

2. Raydist would be eliminated as a positioning device.

3. The 1st Mobile Communications Squadron would furnish communications personnel and equipment as a unit for HARDTACK.

A letter,²⁶ accompanied by a study, in June 1957, requested that Joint Task Force SEVEN approve the establishment of a shore-based Air Operations Center at Bikini. This request was disapproved by the task force in July;²⁷ the reply to the request revealed several important developments in regard to aircraft control for HARDTACK. First the Combat Information Center aboard the USS Estes or another suitable vessel was being modified to effect communication and control improvements; these improvements would insure UHF air-ground communication for more desirable distances, would provide channel selection, equipment operation flexibility, and inter-position communications within the Combat Information Center, as had been recommended by Task Group 7.4 after REDWING, and would provide broad-band receivers to contact aircraft not precisely on frequency. Lack of these improvements had proved troublesome throughout REDWING.

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Second, inasmuch as Taongi was not to be a firing site for HARDTACK, the air control area would not be increased over that of REDWING.

Third, the control of high performance aircraft on Bikini shots would be far less complex than was the control during REDWING because of the smaller number of effects aircraft programmed for HARDTACK.

Fourth, sampling aircraft would again be controlled with airborne assistance from dual-place B-57B's.

Fifth, "evacuation of Bikini will be required on at least 4 and perhaps 5 of the high yield Bikini shots," making necessary air operations control from shipboard during these shots.

Therefore, as in REDWING, air control in the Eniwetok area would be provided by the Air Operations Center and in the Bikini area by the improved Combat Information Center.

Airlift and Island Re-Supply. During Operation REDWING, accurate records were kept of all airlift flights, including flying time, and passengers and cargo transported. These figures were used to plan for the HARDTACK airlift support requirements. Support requirements for both inter-island and inter-atoll airlift then were submitted on a basis of a proposed 25 per cent increase over those of REDWING.

By July 1957, therefore, a request had been forwarded for six C-54 or C-123 aircraft for inter-atoll and weather island resupply

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airlift; for 15 H-19 or H-21 aircraft for inter-island airlift; and for three SA-16 aircraft for resupply of those weather islands having no airstrip.

Six L-20 aircraft and four helicopters were to be used to fulfill interim airlift requirements at both Eniwetok and Bikini. Approximately 15 February 1958, a Marine helicopter unit was to begin phasing-in at Bikini. A total of ten Air Force helicopters was to be required in the proving ground by 1 February 1958, some of these to be used at Bikini until the Marine unit reached full operational strength.²⁸

(For more information on airlift and island resupply, see "Aircraft Requirements," this history.)

Sampling. In January 1957, Colonel Massey of Joint Task Force SEVEN stated that the task force had received a letter

...originated by the UCRL and transmitted by Dr. Felt /Dr. Glenn Felt of Task Group 7.1/ stating that several more B-57B's and a few B-57D's will be requested for sampling in HARDTACK. Colonel Massey also stated that Dr. Graves /Dr. Alvin C. Graves of Task Group 7.1/ intends to pursue this requirement through Air Force channels. Dr. Graves feels that since the sampler requirement is a continuing one, this line of attempted procurement is proper. . . It was pointed out that due to the high priority projects in which the B-57D's are now engaged, it is extremely doubtful that they will be available for assignment as samplers. . .²⁹

In the aircraft requirements submitted to Joint Task Force SEVEN, 16 B-57's were requested, to provide a dual shot sampling capability. Of this number, ten B-57B's were to be provided by the

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4926th Test Squadron, and six B-57D's were to be provided by Strategic Air Command, all to be in place at Eniwetok by 1 April 1958 and to be operational 15 days later.

Vary High and Ultra High Altitude Tests. During December 1956, Major George L. Trimble of the Directorate of Operations was appointed Task Group 7.4 Project Officer for the high altitude tests scheduled for HARDTACK. Major Trimble assisted the Center Research and Development Directorates in preparing a Center study on the Ultra High Altitude project. The principal problems of this study were the determinations of (1) the type of carrier vehicle to transport a one-megaton warhead to 200,000 feet, (2) the type warhead to be utilized and (3) the instrumentation requirements. Major Trimble and other representatives of the 4950th Test Group (Nuclear) attended several conferences while this study was being prepared.

In January 1957, Armed Forces Special Weapons Project recommended to the Department of Defense that the Army Redstone missile be used as a carrier vehicle for the Ultra High Altitude shot. This proposal was accepted, and responsibility for subsequent planning thus fell to other agencies with which the 4950th had no direct relationship. Because of this assignment of responsibility, the 4950th would not be involved in the Ultra High Altitude Test except perhaps to position aircraft in the test array, a problem which would require no great degree of preliminary planning.

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Similarly, the 4950th was not scheduled to perform planning for the Very High Altitude shots, inasmuch as the 4925th Test Group (Atomic), another Special Weapons Center organization, was given the responsibility for furnishing aircraft support. Task Group 7.4 would be concerned only with positioning of aircraft in the final test array and with providing certain maintenance and administrative services for project equipment and personnel in the Eniwetok Proving Ground.

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CHAPTER III

Major Materiel Planning Activities. Lieutenant Colonel Carl W. Robbins, Jr., 4950th Director of Materiel, among other 4950th representatives, attended the Joint Supply, Construction, and Transportation Conference held at Joint Task Force SEVEN on 19 February 1957. The conference was called to discuss and coordinate such Materiel matters as construction, supply, maintenance, transportation, and equipment modification.³⁰ This conference was divided into sub-conferences for consideration of various aspects of the HARTACK logistical effort.

The first of these subconferences was a joint construction conference, designed to finalize Fiscal Years 1957-1958 construction projects and to establish the Fiscal Years 1959-1960 construction program for the Eniwetok Proving Ground. Several Air Force items were added to the Fiscal Years 1957-1958 program, including rehabilitation of runway and aprons at Eniwetok, pavement of the airfield road, and lean-to additions to the hanger. The Fiscal Year 1959 program established at the conference gave high priority to several Air Force needs which had long been of considerable concern to Task Group 7.4. These high priority items were as follows:

<u>ITEM</u>	<u>PRIORITY NUMBER</u>
1. New Hangar including two lean-to's	1-59
2. Replacement of rawinsonde weather facility	2-59
3. Rehabilitation of FOL farm	4-59
4. Landscaping of south perimeter of airfield	6-59
5. Construction of Communications and Electronics shop	7-59
6. Construction of AACB supply and maintenance building	8-59
7. Construction of a 72-man barracks	10-59
8. Rehabilitation of field maintenance shop, Building #82	12-59
9. Construction of tire warehouse	13-59
10. Construction of an airlift support building	14-59
11. Construction of maintenance run-up pads and blast fences	16-59
12. Construction of a control tower	17-59
13. Replacement of Building #632 with squadron flight line maintenance building	21-59
14. Construction of new quarters for Task Group 7.4 Commander	31-59
15. Construction of a seaplane beaching ramp	32-59

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Thus, of the first 32 items in the Fiscal Year 1959 program, 15 items were for Air Force, several of which had been carried over from the Fiscal Year 1958 program.

Only three Air Force items were included in the Fiscal Year 1960 construction program, all of which were replacements for buildings already existing. These buildings were (1) Building #631, carpenter shed, (2) Building #906, generator shop, and (3) Building #91A, old crash station.

The design of the proposed FRED runway extension was discussed in considerable detail among members of the 4950th, Albuquerque Operations Office (Atomic Energy Commission), Holmes and Harver, and Joint Task Force SEVEN. The existent runway, 6,850 feet long, was to be extended to a total length of 8,300 feet, including a 200-foot addition on the south and a 1,250-foot addition on the north end. On the north, the runway would extend to the water edge, with a slope not to exceed one per cent. This design was suggested by Holmes and Harver on 14 February 1957.

At a second subconference, policies and procedures for the submission of requisitions and for maintenance of equipment were discussed. The policies for submission and control of Air Force requisitions were essentially the same as were those for REDWING. The supply source was Headquarters Sacramento Air Materiel Area, Sacramento.

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California; Major Donald J. Brush, as in REDWING, was to be the Logistics Liaison Officer. Equipment and spare parts for the duration of the operation were to be shipped to the forward area in time to support the operation. Vehicular requirements (see "Vehicle Requirements," this history) were to be made known to Task Group 7.2 no later than 210 days prior to the start of the operation.

Requirements for fuels and lubricants for Eniwetok and Bikini were to be assembled by the Air Force Accountable Officer and submitted to the Subarea Petroleum Office, Fuel Supply Depot, Pearl Harbor, Hawaii. (A planned expansion of the POL storage facilities at FRED would increase aviation fuel storage capacity by 840,000 gallons, thus eliminating outstanding current storage problems.³¹)

Initial Air Force supplies for all units of Task Group 7.4 were to be provided through the project kit procedure established on 20 August 1955 for Operation REDWING.

In a third subconference, transportation support, policies and procedures were delineated. Airlift was to be reserved for essential movement of cargo and personnel; routine movement of cargo and personnel would be made by surface craft as far as practicable. The Military Air Transport Service and its relationship to the test series was discussed at length, as was the sample return program and its requirements.

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This conference clarified many aspects of HARDTACK Materiel support and provided a basis for the writing of the Logistics Concept for HARDTACK by the Director of Materiel.³² The Logistics Concept, published on 10 July 1957, was developed as an aid for preliminary planning. More detailed logistics information was to be provided in the Logistics Plan. The Logistics Concept described the logistics relationships of Task Group 7.4 to its elements, particularly in matters of supply, maintenance, and transportation.

The planning schedule still effective on 24 July 1957 called for the submission not later than September 1957 of requirements for prepositioned supplies and equipment. The late designation of elements to compose Task Group 7.4, however, prevented timely submissions of the requirements. This problem was expected to exist until issue of the book message.³³

Planning was underway to establish a Maintenance Control Unit for HARDTACK, based upon the system utilized successfully during REDWING. Planning was completed by July 1957 to have Maintenance Control Unit personnel deploy to the proving ground in sufficient time to allow a complete operational check of the control unit prior to the beginning of the operational phase of HARDTACK. The control unit during REDWING assisted aircraft maintenance organizations in performing the maintenance mission. To enable Maintenance Control to expedite

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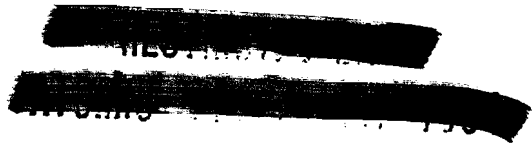
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maintenance, to acquire supplies rapidly, and to supervise maintenance technicians, a Maintenance Control Unit communications network was established. This network provides communications between the various maintenance and supply offices and the offices of the Group Commander, the Director of Material, and Maintenance Control; flight line maintenance stations also were a part of the network. This same system was planned for HARDTACK.

Planning for the movement of short-range aircraft was in progress by July 1957. According to the aircraft listed on requirements requests, the problem of shipping of short-range aircraft did not appear to approach the magnitude of the problem for REDWING when some 16 aircraft, including an F-101, were shipped to Eniwetok by surface vessel. Only approximately eight aircraft were to be transported by surface vessel for HARDTACK.

Long Range Construction. Because no agency other than the 4930th Support Group (Test) before REDWING had actively monitored interim Air Force construction in the proving ground, many difficulties were encountered from operation to operation. After a series of conferences and discussions during Operation REDWING, the Task Group 7.4 Commander, Colonel John S. Samuel, and his staff developed a long range construction program based upon five general principles:



1. The assumption that future test operations would be of a magnitude comparable to that of REDWING.

2. Foundation of the long range program on a master plan concept with construction being phased over a period extending through Fiscal Year 1962.

3. Allowance for full utilization of Complete Assembly Shelters in Fiscal Year 1958, partial elimination of these buildings in Fiscal Year 1960, and complete elimination of them in Fiscal Year 1962. These buildings were used in REDWING to provide working space for Task Group 7.4 elements, as a temporary measure to relieve the dire shortage of office and ship facilities.

4. Assumption that certain facilities based on economical termination of useful life, would be eliminated gradually.

5. Inclusion in the long range program of certain items deleted from the Fiscal Year 1958 program.³⁴

The permanent establishment of the 4950th Test Group (Nuclear) "has permitted the continued monitoring of this program."³⁵ The 4950th coordinated closely with Joint Task Force SEVEN "to reorient the construction program from time to time to adapt it to changing requirements" and to obtain as much of the necessary construction as possible in the periods between tests. (See also "Major Materiel Planning Activities," this history.)

Portable Buildings. Closely related to the construction program throughout REDWING and in the planning for HARDPACK was the matter of the use of portable buildings to alleviate the lack of sheltered working space.

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On 28 January 1957, the 4950th requested assistance of Air Materiel Command in obtaining information regarding the availability of prefabricated (portable) buildings for use at Eniwetok during HARBATAK. Air Materiel Command advised the 4950th that seven Complete Assembly Shelters were on hand at Wilkins Air Force Depot awaiting disposition instructions from Headquarters United States Air Force. Also available were other portable buildings, 20 by 48 feet, without generators, air conditioners, heating systems, flooring, or electrical wiring.

The comparative merits and suitability of both the shelters and portable buildings then were considered for use for HARBATAK. A decision was made that only the Complete Assembly Shelters were suitable for Task Group 7.4 purposes. Seven of these shelters had been provided for REDWING. Upon termination of REDWING activity, the shelters had been dismantled and shipped to Shelby Air Force Depot, Ohio.³⁶

Therefore, on 15 April 1957, a request was submitted to Air Materiel Command to obtain, repair, and ship the seven shelters currently at Wilkins Air Force Depot, together with generators, to arrive at Oakland port of embarkation by 1 January 1958.³⁷

In late April 1957, the Director of Materiel visited Camp Mercury, Nevada, and inspected several air supported structures which

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were being field tested at that site. These structures, of rubberized nylon and inflated by a continuous supply of low pressure air, appeared to be a possible answer to the portable building problem; but, as determined by the testing engineer, the air structures were not at that time giving fully satisfactory results. The Director of Materiel, however, obtained addresses of the manufactures for future reference.

Headquarters United States Air Force on 10 May 1957 advised Air Materiel Command that eight Complete Assembly Shelters on hand at Wilkins were marked for Air Force Special Weapons units for high priority use and were not available for Operation HARDTACK. Therefore, Air Materiel Command was requested to investigate the use of Butler type prefabricated buildings, 40 by 100 feet.³⁸

In turn, Air Materiel Command informed the 4950th on 21 May 1957 that the suggested Butler type buildings could be made available for HARDTACK but that these buildings were without generators, flooring, and other accessories. Some 280 feet of wiring and cable, plus electrical receptacles, would be required to condition the buildings for use.³⁹

The Director of Materiel, in examining the possibility of using Butler type buildings, found that some \$6,000 for each building would be required for construction of foundation, flooring, and other

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utilities and that each Butler type building was much too large to afford the flexibility necessary in the utilization of temporary shelters. Thus, Joint Task Force SEVEN was requested by electrical message⁴⁰ to assist the effort to acquire the more desirable and more suitable Complete Assembly Shelters. The problem was still unresolved by mid-September 1957.

Vehicle Requirements. The Director of Materiel in June 1956, before the conclusion of Operation REDWING, began the compilation of general purpose vehicle requirements for HARDTACK. The requirements included 137 vehicles, some 35 more than the number needed for REDWING. The list was studied at great length in the 4950th before submission of the list on 13 February 1957 to Joint Task Force SEVEN. This list showed a requirement for 57 $\frac{1}{2}$ -ton trucks (jeeps), 37 $\frac{1}{2}$ -ton commercial trucks (pick-ups), 28 $\frac{3}{4}$ -ton trucks (weapon carrier), 7 $1\frac{1}{2}$ -ton trucks, and 8 $2\frac{1}{2}$ -ton trucks.⁴¹

On 8 April 1957, Joint Task Force SEVEN advised the task group that the submitted requirements were 33 per cent greater than those for REDWING, although over-all vehicle resources for Joint Task Force SEVEN were not expected to exceed those for REDWING. Therefore, the task group was requested to reduce the number submitted on the original list.⁴²

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When the Joint Task Force SEVEN general purpose vehicle allocation was announced in June 1957,⁴³ Task Group 7.4 was allowed 116 vehicles, representing a reduction of 21 under the number originally requested. Of these 116, 49 were 1/2-ton trucks, 54 were 3/4-ton trucks, 8 were 1 1/2-ton trucks, and 5 were 2 1/2-ton trucks. Significantly, the requirements for 3/4-ton trucks (weapon carriers) had been consolidated with the requirements for 1/2-ton trucks. The Joint Task Force SEVEN allocation letter stated that "all vehicles will be shipped to arrive in the Eniwetok Proving Ground no earlier than 180 days and no later than 90 days prior to the start of HARDTACK"; that is, the vehicles would arrive in the proving ground no later than 1 February 1958.

Because of the proposed expansion of weather island stations, two separate requests for additional general purpose vehicles were submitted to Joint Task Force SEVEN. These requests were approved by the task force, increasing the total Task Group 7.4 allocation by eight.

According to Joint Task Force SEVEN Administrative Order 2-56,⁴⁴ general purpose vehicles, spare parts, and maintenance and supply for the vehicles were to be provided by Task Group 7.2, the Eniwetok housekeeping organization. Maintenance personnel assistance was to be provided to Task Group 7.2 by the Test Base Unit of Task Group 7.4, by virtue of a mutual agreement.



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Requirements for special purpose vehicles for HARDACK were submitted to the Special Weapons Center in April 1956 while REDWING was underway. This list contained 182 vehicles. Then, during the logistics planning conference on 20 February 1957, a determination was made that special purpose vehicles for Task Group 7.4 would be furnished from Air Force resources. Air Research and Development Command, thus, submitted a revised requirements list for Task Group 7.4 to Memphis Air Force Depot for 117 vehicles. The cover letter⁴⁵ asserted that the requirements for special purpose vehicles had increased over those for REDWING for three reasons: (1) the planned increase in flying operations; (2) the increased duration of the tests; and (3) the dual shot concept "which involves the use of both Bikini and Eniwetok simultaneously." The letter noted further that six vehicles used at the Nevada Test Site during PLUMBBOB would be available for shipment to, and use in, the Eniwetok Proving Ground. All special purpose vehicles drawn from Zone of Interior stocks were to be ready at the port of embarkation for shipment to Eniwetok by 1 January 1958.

A subsequent letter from Air Research and Development Command to Headquarters United States Air Force⁴⁶ stated that only 104 vehicles had been requested from Memphis Air Force Depot, inasmuch as 18

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others would be available from Indian Springs Air Force Base upon completion of Operation PLUMBBOB. The total requirement from Zone of Interior stocks for HARDTACK was 122.

Runway Arresting Devices. Early planning for runway arresting devices in the proving ground made provision only for a cross-deck pendant and a barricade at FRED (Eniwetok). Although an MA-1 barrier was used also at FRED during REDWING, none was planned for HARDTACK because of the absence of aircraft requiring this type of arresting mechanism. The basic hardware for a barricade remained in the proving ground after the completion of REDWING.

An entry in the Director of Materiel Black Book⁴⁷ on 8 August 1957 confirmed that no MA-1 barriers would be used during HARDTACK and that the current location of barricade stanchions was satisfactory. The proposed barricade was suitable for arresting B-57, A4D, and F34 Aircraft, all of which were proposed for the HARDTACK operation. No requirement was declared for barriers or barricade on emergency strips, although barriers had been used at JANET, NAN, and PETER-OPOE during REDWING.

A letter⁴⁸ on 10 September 1957 to Task Group 7.5 stated that the FRED arresting devices for HARDTACK would be located in the same positions as during REDWING; that is, the barricade would be located approximately 100 feet from the northeast end of the existing runway,

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and the cross-deck pendant would be located approximately 1,700 feet from the northeast end of the runway. Task Group 7.5 was requested to take action to rehabilitate the installation sites, so that both devices would be installed and operational by 1 March 1958.

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CHAPTER IV

PERSONNEL

Initial personnel planning for Operation HARDTACK was begun in March 1957, when the 4050th Director of Personnel met with Center Personnel representatives to determine officer personnel requirements. From decisions reached in this meeting, a requisition for the required personnel was prepared and submitted to Air Research and Development Command. The requirements totaled 28 and included officers to fill the positions of Personnel Staff Officer, Provost Marshal, Flying Safety Officer, Historical Officer, Communications-Electronics Officer (two), Operations Officer (two), Supply Staff Officer (two), Air Electronics Officer, Aircraft Maintenance Officer, Pilot (six), Supply Officer (four), Aircraft Observer (two), Accountant, Air Police Officer, Medical Service Officer, and Interceptor-Controller. Sixteen of these positions were in the 4052nd Support Squadron.⁴⁹ All 28 positions "must be filled from other than this Center's resources," and the filling of all positions was requested by 1 October 1957. No difficulty was anticipated in the acquisition of these 28 officers.

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Airman manning within the 4951st Support Squadron (Test), the permanent 4950th unit at Eniwetok, became a source of difficulty in the early stages of the existence of the 4950th Test Group (Nuclear). In December 1956, personnel shortages in the 4951st reached serious proportions: no replacements had been received for those personnel who returned in November on normal rotation to the Zone of Interior. The problem was brought to the attention of the Center Deputy Chief of Staff for Personnel.⁵⁰ Center, in turn, informed Air Research and Development Command that requisitions submitted to Air Research and Development apparently had not been filled.

In February 1957, manning in the 4951st degenerated to an extremely critical point. Of a total authorization for 148 airmen, over 60 positions were vacant and the 4951st had no information on projected gains which would indicate a favorable change in the situation. Therefore, a detailed report of this circumstance was forwarded to Special Weapons Center on 11 February 1957, listing those requisitions for which no action had been taken and requesting that the procurement system be evaluated to determine its practicability and suitability for personnel requisitioning. The Center Deputy Chief of Staff for Personnel, while not declaring a need for a new requisitioning system, again queried Air Research and Development Command regarding the status of all unfilled requisitions.

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During the period 22 March to 5 April 1957, representatives of the 4950th and of the Special Weapons Center visited Eniwetok to inspect aspects of 4951st operation. Colonel William B. Kieffer and Lieutenant Colonel R. H. Koltz, Center Deputy Commander and Assistant Deputy Chief of Staff for Personnel, respectively, were the Center representatives. Upon his return from Eniwetok, Colonel Kieffer wrote a letter⁵¹ to Air Research and Development Command explaining the personnel problem in the 4951st and requesting establishment of a new system.

The Air Research and Development Command reply⁵² stated:

A thorough review of the personnel situation at Eniwetok and of past procedures used for manning the 4951st indicates that most of the previous difficulty encountered was caused by inadequate control of personnel manning actions. The need for immediate action to establish rigid manning controls for this unit is apparent. All manning actions related to this unit consequently are now being monitored by this headquarters to insure that procedures are effective and that manning is timely and adequate. However, it is not intended that the direct responsibility for manning the 4951st be changed. This is, and should be, the responsibility of Air Force Special Weapons Center.

By direction of the Center Commander, the Deputy Chief of Staff for Personnel was designated the Center monitoring agency for all 4951st personnel requisitions; the 4950th then became an "info. copy" agency in the conduct of the program. To insure standardization of procedures four representatives, three from the 4950th, visited Headquarters Air Research and Development Command in mid-July to discuss and coordinate on aspects of the system.

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In another important Personnel development, augmentation requirements for Operation HARDTACK were determined in May 1957, utilizing recommendations made by the REDWING Task Group 7.4 Staff as a guide in determining requisite numbers and skills. Based upon the grade structure authorized for augmentation of the 4935th Air Base Squadron for Operation FIUMBROB, a Unit Manning Document was produced for the 4952nd Support Squadron as augmentation for the 4951st Support Squadron. (The 4952nd Support Squadron was originally established as an augmentation organization to provide personnel to either the 4935th Air Base Squadron at Indian Springs during Nevada nuclear tests, or the 4951st Support Squadron at Eniwetok during overseas tests.) The newly produced document was sent also to the 4951st in June 1957 to determine further its adequacy for manning. The 4951st concurred in the authorizations.

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CHAPTER V
SECURITY

Initial Security planning for HARDTACK was conducted in a manner similar to that of REDWING, the major area of concentration being the preparation of the Security Annex for the Planning Directive. Included in this annex were the policies and procedures for personnel security clearances requirements, censorship of mail, security inspections at Eniwetok, security violations and compromise, patrols and guards, public information news releases, and entry to the proving ground.

Incoming personnel of the Group Headquarters, the 4926th Test Squadron (Sampling), and the 4952nd Support Squadron upon their arrival were being processed for the necessary security clearances. These personnel also were being briefed on security aspects of Operation HARDTACK.

Also, as in REDWING, a letter to the 9th District, Office of Special Investigation, Hickam Air Force Base, was prepared, requesting the provision of agents for HARDTACK. Agents were to be under supervision of the Task Group 7.4 Security Officer to give investigative assistance in cases involving espionage, sabotage, security

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compromise, abnormal personal activity, and other actions deemed by the Security Officer to warrant such investigation.

After REDWING, the feasibility of deleting the requirement for Air Police at Eniwetok was investigated by the Special Weapons Center. To forestall the removal of this requirement, a staff study was prepared by the Security Section on 15 May 1957 setting forth the justification for retaining Air Police during operational periods. The Special Weapons Center on 3 June 1957 approved the continued use of the Air Police.⁵³

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CHAPTER VI
FUNDING

After the completion of REXWING, preparatory work was begun on the budget covering the balance of Fiscal Year 1957. Budget requirements were outlined from a series of discussions among the 4950th Staff. Estimates were completed by mid-November 1956. The Comptroller then separated the estimates into Extra Military Expenses (to be funded by Joint Task Force SEVEN) and Normal Service Operating Expenses (to be funded by Air Force Special Weapons Center).⁵⁴

Concurrent with this action, estimates for Fiscal Year 1957 expenses for PIUMRBOB were made; requirements for funds in the category Extra Military Expenses were then forwarded to the Armed Forces Special Weapons Project. The Special Weapons Project provided the necessary funds in all but two areas: "Supplies and Materials" and Contractual Services," the funds in both categories intended for use at Indian Springs. Special Weapons Project stated that funds in these two areas were not authorized by the McNeil Letter (Mr. N. J. McNeil, Comptroller, Department of Defense, "Assumptions for Operating Expenses for Atomic Weapons Tests," dated 9 March 1953).⁵⁵

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The McNeil Letter delineated the sources of funds for nuclear testing programs. The funds in these categories finally were funded by Air Force Special Weapons Center.

Beginning in August 1956, the Comptroller attempted to secure an agreement from Joint Task Force SEVEN for the task force to provide funds for all local purchases made by the Pacific Logistics Liaison Officer (Major Donald J. Brush). After several exchanges of correspondence, the Joint Task Force SEVEN Comptroller visited the Special Weapons Center on 8 February 1957 for a discussion of the subject. Ultimately, informal agreement was made for the task force to fund for these local purchases, in all categories.⁵⁶

On 15 December 1956, the third and fourth quarter budgets for Fiscal Year 1957 HARPBACK planning requirements were prepared and submitted to Joint Task Force SEVEN; and in February 1957, the Fiscal Year 1958 PLUMBROB budget requirements were sent to Armed Forces Special Weapons Project.⁵⁷

Early in March 1957, the budget call for Operation HARPBACK was given to the 4950th for estimates for the Task Group 7.4 Fiscal Year 1958 budget. The Fiscal Year 1958 budget, as well as a tentative Fiscal Year 1959 planning budget, was completed and forwarded on 24 April 1957 to Joint Task Force SEVEN. Early in June, the Comptroller attended a conference at Headquarters Joint Task Force SEVEN and was

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ATOMIC ENERGY COMMISSION

given complete verbal approval for the budgets. Formal approval was given in July 1957 to obligate funds for the first quarter.⁵⁸

In August, Colonel William B. Zieffer, the Center Deputy Commander for Overseas Tests, visited Joint Task Force SEVEN and was requested to screen the Fiscal Year 1958 budget for the purpose of reducing costs. In the subsequent inspection of the budget, a reduction of approximately \$85,000 in certain areas of Temporary Duty expenses was effected, this reduction being described in a supplemental budget.

Just as the supplemental budget was completed, the operational date of HARBACE was advanced to 1 April 1958;⁵⁹ this caused an increase of some \$100,000 for Temporary Duty expenses, offsetting the previous reduction and resulting in a net increase of \$15,000 in the Temporary Duty area.⁶⁰

The Supplies and Equipment area was revised also in line with the latest supply knowledge, resulting in an increase of \$292,000 in the category which subsequently was called "Operation and Logistic Support." In the Aircraft Modification and Equipment area, the 4950th Test Group reported that funds for a second USQ-12, radar reflector, and other equipment could be deleted; hence, a decrease in that area of approximately \$143,000 was effected. The net result of this 16 August budget revision was to increase the budget by \$164,799.00 over the previous estimate, bringing the total to \$1,070,405.

Inasmuch as Lieutenant Colonel Carl W. Robbins, Jr., 4950th Director of Materiel was at the proving ground on temporary duty, the Comptroller was unable to assess accurately the effect, in the Supplies and Equipment area, of the 30 day advance in the starting date.

Consequently, a second FY 58 fund revision dated 10 September 1957 was submitted to Joint Task Force SEVEN. This revision covered only the Supply and Equipment area. The new requirement in this area amounted to \$646,005, which was an increase over the first supplemental budget revision of \$99,426.

During September a Special Weapons Center conference was scheduled for 8 October 1957 to examine thoroughly the Supply and Equipment area with particular emphasis to be given to the probable impact of procurement upon the Logistics Liaison Officer, Major Donald J. Prush, at Sacramento Air Materiel Area.

Representatives of the Joint Task Force SEVEN Comptroller and Supply Division were invited to attend this conference. Final approval of the over-all budget thus was being withheld by the Task Force Comptroller until conclusion of the conference.

During the final days of September, authority was requested from Joint Task Force SEVEN for the 4950th to cite funds within the budgetary figures for the second quarter of Fiscal Year 1958. This

RECORDED
ATOMIC ENERGY COMMISSION

[REDACTED]

authority was granted; however, the total expenditure in each budget category was severely limited. The total expenditure for the entire first six months of Fiscal Year 1958 was limited to \$203,000.

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ATOMIC ENERGY COMMISSION

NOTES

1. Incl. 1: Ltr., Director, WETD, FC, AFSWP to Comdr. AFSWC, 10 Jun. 55, subj.: Forecast of Test Requirements.
2. Incl. 2: Ltr., Director, WETD, FC, AFSWP to Comdr. AFSWC, 14 Dec. 55, subj.: Forecast of Test Requirements.
3. Incl. 3: Schedule, Operation HARDTACK, 26 Feb. 57, AFSWC.
4. Incl. 4: Schedule, Operation HARDTACK, 6 Jun. 57, AFSWC.
5. Incl. 5: Memo for Record, Conference on Support Requirements for Operation HARDTACK, JTF-7, dtd. 4 Mar. 57 (Hereinafter cited as JTF-7 Conference Memo on HARDTACK).
6. Incl. 6: Ltr., Maj. William A. Cunningham, DCS/O, AFSWC, to Dr. Hal Plank, J-Division, LABL, dtd. 3 Dec. 56, no subj.
7. See pp. 35-39, 106-107, and 108-109. Final History, Operation REDWING, Task Group 7.4, in files of the Historian, 4950th Test Op. (N).
8. Incl. 7: Ltr., p. 6, Comdr., 4950th Test Op. (N) to Comdr., JTF-7, 24 Jul. 57, subj: Comments to "Final Report of the Commander, Task Group 7.4, Operation REDWING" (hereinafter cited as REDWING Final Report Comments).
9. Ibid., p. 6.
10. Incl. 8: Memo for the Record, Col. Donnell Massey, JTF-7, 18 Jan. 57, subj.: Visit of Colonel E. A. Lucke, USA, and Colonel Robert Gattis, USAF, to Joint Task Force SEVEN Headquarters (hereinafter cited as the Lucke-Gattis Visit Memo, 18 Jan. 57).
11. Memo for the Record, no signature, Hq. AFSWC, 1 May 57, re a visit on 29 Apr. 57 to Albuquerque Operations Office, AEO, in 4950th D/O files.
12. Ltr., E. A. Lucke, J-3, JTF-7 to Comdr., TG 7.4, 16 May 57, subj.: In-Place Dates for Operation HARDTACK Inter-Island Support Aircraft, in 4950th D/O files.

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[REDACTED] REPRODUCED FROM [REDACTED] ATOMIC ENERGY ACT [REDACTED]

13. Ltr., C/S, JTF-7 to Comdr., 4950th Test Gp. (N), 30 Jul. 57, subj.: Air Operations Center (AOC) on Bikini Atoll, in 4950th D/O files.
14. Incl. 9: Ltr., Comdr., 4950th Test Gp. (N) to Comdr., AFSWG, 11 Apr. 57, subj.: Staff Visit to Eniwetok, 24 Mar. - 5 Apr. 57.
15. Incl. 10: General Order No. 12, Hq. AFSWG, 15 Jul. 57.
16. Incl. 11: Tentative Planning Schedule for Operation HARDTACK, JTF-7, 27 Nov. 56.
17. Incl. 12: Tentative Planning Schedule for Operation HARDTACK, 4950th Test Gp. (N), no date.
18. Incl. 13: TWX, 55434, C/S, USAF to major commands, 29 Apr. 57.
19. Draft of USAF Book Message, in files of Historian, 4950th Test Gp. (N).
20. Incl. 5: JTF-7 Conferences Memo on HARDTACK.
21. Incl. 8: Lucke-Gattis Visit Memo., 18 Jan. 57.
22. Incl. 14: Ltr., Comdr., 4950th Test Gp. (N) to Comdr., JTF-7, 26 Jun. 57, subj.: Support Aircraft Required for HARDTACK Inter-Atoll (Eniwetok-Bikini) and Project Island Airlift (hereinafter cited as Airlift Support Aircraft Ltr., 26 Jun. 57.)
23. Communications-Electronics Plan 4-57, Operation HARDTACK, Task Group 7.4, 18 Jun. 57, in files of the Historian, 4950th Test Gp. (N).
24. Ibid., p. 3.
25. 2nd ind. (Ltr., subj.: Airborne TACAN Equipment), Comdr., AFSWG to Comdr., Dayton AFB, 14 Feb. 56, in files of the Historian, 4950th Test Gp. (N).
26. Ltr., Comdr., 4950th Test Gp. (N) to Comdr., JTF-7, 14 Jun. 57, subj.: Air Operations Center (AOC) on BIKINI Atoll, in D/O (4950th) files.

27. Incl. 15: Ltr., Comdr., JTF-7 to Comdr., 4950th Test Op. (N), 30 Jul. 57, subj.: Air Operations Center (AOC) on BIKINI Atoll.
28. Ltr., Comdr., TG 7.1 to Comdr., 7.4, 16 May 57, subj.: In-Place Dates for Operation HARDTACK Inter-Island Support Aircraft, in files of the Historian, 4950th Test Op. (N).
29. Incl. 8: Lucke-Gattis Visit Memo., 18 Jan. 57.
30. Memo for the Chief of Staff, JTF-7, 25 Feb. 57, subj.: Minutes of the Joint Supply, Construction, and Transportation Conference of 19 February 1957, in files of the Historian, 4950th Test Op. (N).
31. Incl. 7: REDWING Final Report Comments.
32. Incl. 16: Ltr., Comdr., 4950th Test Op. (N) to several units, 10 Jul. 57, subj.: Concept of Air Task Group Logistics Support, Operation HARDTACK.
33. Incl. 7: REDWING Final Report Comments, p. 2.
34. See pp. 140-149, Final History, Operation REDWING, Task Group 7.4, in files of the Historian, 4950th Test Op. (N).
35. Incl. 7: REDWING Final Report Comments, p. 12.
36. See pp. 63, 135, 145, Final History, Operation REDWING, Task Group 7.4, in files of the Historian, 4950th Test Op. (N).
37. 2nd ind. [Ltr., Comdr., 4950th Test Op. (N) to Comdr., AMC, 28 Jan. 57, subj.: Prefabricated Buildings Requirement], Comdr., 4950th Test Op. (N) to Comdr., AMC, 15 Apr. 57, in D/M (4950th) files.
38. 4th ind. [Ltr., Comdr., 4950th Test Op. (N) to Comdr., AMC, 28 Jan. 57, subj.: Prefabricated Buildings Requirement], C/S Hq. USAF to Comdr., AMC, 10 May 57, in D/M (4950th) files.
39. 5th ind. [Ltr., Comdr., 4950th Test Op. (N) to Comdr., AMC, 28 Jan. 57, subj.: Prefabricated Buildings Requirement], Comdr., AMC to Comdr., 4950th Test Op. (N), in D/M (4950th) files.

40. TWX, SWSM-9-17E, Comdr., 4950th Test Gp. (N) to Comdr., JTF-7, 5 Sep. 57.
41. Ltr., Comdr., 4950th Test Gp. (N) to Comdr., JTF-7, 13 Feb. 57, in D/M (4950th) files.
42. TWX, date-time gp. 082005Z, O/S, JTF-7 to Comdr., TG 7.4, 8 Apr. 57, in D/M (4950th) files.
43. Incl. 17: Ltr., Comdr., JTF-7 to several units, 3 Jun. 57, subj.: Tentative Vehicle Allocation for HARDTACK.
44. Administrative Order 2-56, p. A-5-1, JTF-7, 1 Aug. 56, in files of the Historian, 4950th Test Gp. (N).
45. Ltr., Comdr., ARDC to Comdr., MAJPD, no date, subj.: USAF Special Purpose Vehicular Requirements in Support of Project HARDTACK, in D/M (4950th) files.
46. Ltr., Comdr., ARDC to Dir. of Maintenance Engineering, Hq. USAF, no date, subj.: Repair of Excess USAF Special Purpose Vehicles Utilized in Support of DOD-AEC Projects, in D/M (4950th) files.
47. HARDTACK Black Book, D/M, p. 19, in D/M (4950th) files.
48. Ltr., Comdr., 4950th Test Gp. (N) to Comdr., TG 7.5, 10 Sep. 57, subj.: Installation of Aircraft Arresting Devices in the EPG, in D/M (4950th) files.
49. Incl. 18: Ltr., Comdr., AFSWC to Comdr., ARDC, 14 Mar. 57, subj.: Officer Personnel Requisitions for Operation "HARDTACK".
50. Incl. 19: Ltr., Comdr., 4950th Test Gp. (N) to Comdr., AFSWC, 5 Dec. 56, subj.: Personnel Requisitions.
51. Incl. 20: Ltr., Deputy Comdr., AFSWC to Comdr., ARDC, 12 Apr. 57, subj.: Personnel Manning of the 4951st Support Squadron (Test), Eniwetok, Marshall Islands.
52. Incl. 21: 1st ind. (Ltr., Deputy Comdr., AFSWC to Comdr., ARDC, 12 Apr. 57, subj.: Personnel Manning of the 4951st Support Squadron (Test), Eniwetok, Marshall Islands), Comdr., ARDC to Comdr., AFSWC, 16 May 57.

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- 53. Incl. 22: Memo for the Commander, 4950th Test Op. (N), 15 May 57, subj.: Use of Military Police in Lieu of Air Police on Eniwetok During Operational Periods.
- 54. Historical Rpt., Comptroller, Asst. Comptroller for Nuclear Affairs, 15 Apr. 57.
- 55. Ibid., p. 1.
- 56. Ibid., pp. 1-2.
- 57. Ibid., p. 2.
- 58. Historical Rpt., 4950th Test Op. (N), 21 Aug. 57.
- 59. TWX, FCNTR 1830-C, FC, AFSWP to several agencies, 3 Sep. 57, in D/O (4950th) files.
- 60. Historical Rpt., 4950th Test Op. (N), 21 Aug. 57.
- 61. Ibid., p. 2.

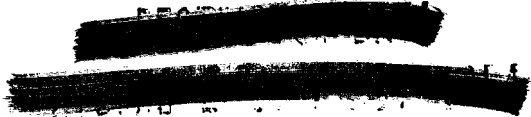

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B. OPERATION PLUMBBOB

The planning for Air Force participation in Operation PLUMBBOB proceeded rapidly after the activation of the 4950th Test Group (Nuclear) on 1 September 1956. The operational period of PLUMBBOB got underway at the Nevada Test Site on 15 May 1957, although adverse weather delayed the firing of BOLZMAN until 28 May 1957, and was terminated shortly after the firing of MORGAN on 7 October 1957. The test series consisted of 28 shots.

The 4950th Test Group (Nuclear), during PLUMBBOB, operated or exercised operational control over 46 aircraft of 16 different types staging from Indian Springs Air Force Base. These aircraft performed such test and support missions as sampling, aircraft structural effects, low level cloud tracking, documentary photography, radiation safety and early recovery, and security. In addition support aircraft operated out of Kirtland Air Force Base performing high level cloud tracking, sample return, and routine shuttle flights. Many other aircraft participated in PLUMBBOB. There were 786 operations and training missions performed under Air Operations Center control: Strategic Air Command performed Indirect Bomb Damage Assessment missions; Air National Guard units from several states accomplished training in cloud sampling techniques; Air Training Command F-100's from Nellis Air Force Base performed simulated tactical missions; and miscellaneous Air Defense Command aircraft performed early cloud penetration missions. All of these Operations and Training aircraft staged from bases within their own commands. Of vital importance to the 4950th was the successful delivery of the



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MB-1 rocket. This event was planned and executed by the 4950th with aircraft and crews provided by the Air Defense Command and resulted in the first firing of an air-to-air nuclear warhead rocket as scheduled on 19 July 1957. During Operation PLUMBBOB the 4950th, acting as the Test Manager's Air Support Group, controlled approximately 302 test array, 1,237 practice, and more than 470 support missions. A perfect flying safety record was achieved during this operation.

The 4950th Test Group (Nuclear), while accomplishing the PLUMBBOB mission, was also engaged in the planning for Operation HARDTACK. Consequently, a personnel rotation system was inaugurated during the PLUMBBOB series, by which, particularly in the Operations Directorate, personnel were rotated between the Nevada Test Site and Kirtland Air Force Base. This procedure allowed uninterrupted completion of the PLUMBBOB schedule and, simultaneously, the planning for HARDTACK.

[REDACTED]

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[REDACTED]

ENCLOSURES

[REDACTED]

[REDACTED]

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HEADQUARTERS FIELD COMMAND
ARMED FORCES SPECIAL WEAPONS PROJECT
SANDIA BASE, ALBUQUERQUE, NEW MEXICO

FCWET

10 JUN 1955

SUBJECT: Forecast of Test Requirements

TO: Commander
Air Force Special Weapons Center
Kirtland Air Force Base
Albuquerque, New Mexico
ATTN: DCS/Operations

1. Reference is made to:

a. Letter, your headquarters, subject as above, SWOTC, dated 29 October 1954.

b. Letter, this headquarters, subject as above, FC/WET 55-629-0, dated 24 March 1955.

2. The forecast of test requirements as outlined in reference 1b should be amended to show the following information on planned nuclear tests:

a. REDWING. Information already available to 4925th Test Group (A).

b. HARDTACK. Location undetermined; Spring of 1957; Probable number of shots, 10.

c. PILGRIM. Location undetermined; Spring of 1958; Probable number of shots, 9.

FOR THE COMMANDING GENERAL:

Copy furnished;
Comdr, 4925th Test Group (A)
AFSWC, KAFB, N Mex

/s/ H. E. Parsons
/t/ H. E. PARSONS
Colonel, USAF
Director,
Weapons Effects Tests

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Inclosure 1, page 1

~~SECRET~~
HEADQUARTERS FIELD COMMAND
ARMED FORCES SPECIAL WEAPONS PROJECT
SANDIA BASE, ALBUQUERQUE, NEW MEXICO

FCWETI

14 DEC 1956

SUBJECT: Forecast of Test Requirements (U)

TO: Commander
Air Force Special Weapons Center
Kirtland Air Force Base
Albuquerque, New Mexico
ATTN: DCS/Operations

1. Reference is made to letter SWOTO, Headquarters, Air Force Special Weapons Center, 29 October 1954, subject as above.

2. Referenced letter requested that Field Command, Armed Forces Special Weapons Project furnish AFSWC a quarterly forecast of test requirements for air support by AFSWC.

3. Present plans call for Operation PILGRIM at the Nevada Test Site in the Spring of 1957 and for Operation HARDTACK at the Pacific Proving Grounds in the Spring of 1958. No other information concerning the tests is available and it is assumed that the support required of your command will be similar to that required for TEAPOT and REDWING.

FOR THE COMMANDER:

Copy furnished:
Comdr 4925th Test Group
(A), AFSWC, KAFB, N Mex

/s/ H. E. Parsons
/t/ H. E. PARSONS
Colonel, USAF
Director,
Weapons Effects Test Division

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Inclosure 2, page 1

[REDACTED]
HEADQUARTERS
AIR FORCE SPECIAL WEAPONS CENTER
Air Research and Development Command
Kirtland Air Force Base, New Mexico

SWRW

6 March 1957

SUBJECT: Operation HARDTACK

TO: Headquarters, USAF
DCS/Operations
ATTN: AFOAT, Major Clayne Tripp
Washington 25, D. C.

1. Inclosed for your information is the first version of OPERATION HARDTACK schedule planned for Spring 1958 at the Pacific. It should be emphasized that this information is very preliminary and will undoubtedly change considerably prior to operation time. (UNCLD)

2. Periodic revisions will be made to this schedule and will be forwarded accordingly. (UNCLD)

FOR THE COMMANDER:

1 Incl
SWC 7S30,141/17
3pgs (SRD)

DORENCE C. JAMESON
Lt Colonel, USAF
Chief, Warheads Division

[REDACTED]

Inclosure 3, page 1

[REDACTED]
[REDACTED]
ATOMIC ENERGY ACT 1954

~~SECRET~~

SWRW

26 February 1957

OPERATION HARDTACK

Operation HARDTACK is scheduled to be held in the Pacific in the Spring of 1958. The following devices are tentatively planned for inclusion in Operation HARDTACK by the AEC laboratories.

It should be emphasized that this is the first information available relative to this operation; therefore, this schedule should be considered as very preliminary and will probably change considerably before a final program is established.

Los Alamos Scientific Laboratory

Device

Yield

Purpose

Deleted

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Inclosure 3, page 2

~~RESTRICTED DATA~~
~~ATOMIC ENERGY ACT~~

[REDACTED]

Los Alamos Scientific Laboratory (Continued)

Device

Yield

Purpose

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University of California Radiation Laboratory

Deleted

[REDACTED]

[REDACTED]
ATOMIC ENERGY ACT 1954

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Probably 3 out of the following 6 small devices will be tested.

<u>Device</u>	<u>Yield</u>	<u>Purpose</u>
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Deleted

/s/ Haven C. Brown
/t/ HAVEN C. BROWN
2nd Lt, USAF
Warheads Division

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~~RESTRICTED DATA~~
~~RESTRICTED DATA~~

~~SECRET~~

SWAW

Operation HARDTACK

Warheads Division

11 Jun 57
Lt Brown/ecm/2651

1. Inclosed for your information is the revised version of the Operation HARDTACK schedule which is planned for the Spring of 1958 at the Pacific Proving Ground. It should be emphasized that this information is very preliminary and will undoubtedly change considerably prior to operation time. ~~(UNCLD)~~

2. Periodic revisions will be made to this schedule and will be forwarded accordingly. (UNCLD).

1 Incl
SWC 7S30,266/18
3 pgs (SRD)

DORENCE C. JAMESON
Lt Colonel, USAF
Chief, Warheads Division

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~~SECRET~~
ATOMIC ENERGY ACT 1954

Inclosure 4, page 1

~~SECRET~~

SWRW

~~SECRET~~

6 June 1957

OPERATION HARDTACK

Operation HARDTACK is scheduled to be held in the Pacific in the Spring of 1958. The following devices are tentatively planned for inclusion in Operation HARDTACK by the AEC laboratories and the Department of Defense.

It should be emphasized that this is very preliminary information and will probably change considerably before a final program is established.

Los Alamos Scientific Laboratory

Device

Yield

Purpose

~~SECRET~~

Inclosure 4, page 2

~~RESTRICTED DATA~~

~~ATOMIC ENERGY ACT 1954~~

~~SECRET~~

University of California Radiation Laboratory

Device

Yield

Purpose

Inclosure 4, page 3

~~SECRET~~

~~RESTRICTED DATA~~
~~ATOMIC ENERGY ACT 1954~~

SECRET

University of California Radiation Laboratory (Continued)

Device Yield Purpose

Department of Defense

Date Shot Name Device Yield Purpose

HAVEN C. BROWN
2nd Lt, USAF
Warheads Division

SECRET

3

SECRET
INCLOSURE 4, page 4

4 March 1957

SUBJECT: Conference on Support Requirements for Operation HARDTACK

1. PURPOSE: A Conference was conducted at Joint Task Force SEVEN Headquarters on 20 February 1957 to determine items of military support required for Operation HARDTACK. The purpose of this memorandum is to provide a record of the significant items discussed and conclusions reached during this conference. A list of agencies represented and individuals attending is attached hereto as an inclosure.

2. INTRODUCTION: The conference was opened at 0900 hours by Brigadier General Griffith (JTF-7) who welcomed the conferees from the various AEC and DOD agencies represented. General Griffith outlined briefly the purpose of the conference and emphasized the importance of determining our support requirements at this early date. He also stated that from decisions reached at this conference, this headquarters will prepare a draft paper for the conduct of Operation HARDTACK to be presented to the JCS via the Executive Agent. After introducing General Dick to the group, General Griffith then turned the conference over to Colonel Massey.

3. ADMINISTRATIVE ANNOUNCEMENTS: Colonel Massey (JTF-7) took over as presiding officer and made several administrative announcements concerning security, coffee breaks, arrangements for lunch, etc. He also outlined the manner on which the conference would be conducted. He stated that the conference would move as rapidly as was the apparent will of the group. He further stated that in any event the conference would be completed in one day and that any unresolved questions would be solved by coordination and/or visits of representatives of this headquarters with other agencies.

4. CONCEPT OF THE OPERATION: Following the necessary administrative announcements, Colonel Massey presented a brief concept of Operation HARDTACK based on information previously provided this headquarters by Dr. Ogle (JTF-7 Deputy for Scientific Matters) and Dr. Felt (CTG 7.1). This concept is covered in detail by a secret Memorandum for Record dated 12 February 1957 on file in this headquarters. A chart was used to depict the 31 shots currently being considered. It was pointed out that Operation HARDTACK will be somewhat different from REDWING in that UCRL will conduct most of their operations at Bikini while IASL will utilize the Eniwetok complex. It is anticipated that most of the barge shots at Eniwetok will be fired in the vicinity of the Mike crater while most of those at Bikini will be set up near *Deleted* and the FOX-GEORGE complex. The DOD shots will utilize both atolls, the underwater shots being conducted at Eniwetok and the high altitude shots probably at Bikini. Colonel Massey also stated that it may be necessary to move some of the shots from Eniwetok to Bikini and vice versa, and that flexibility must be maintained. The requirement for a high-yield dual atoll capability was explained and emphasized. It was pointed out that at least half of the shots may be in the megaton range and that it will be essential to have aircraft and surface transportation in sufficient quantity to sample shots and provide for emergency evacuation at both atolls simultaneously. Failure to provide this capability in either category will result in delays or hazards that will be economically or tactically infeasible.

Incl 5, p.1

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5. AIRCRAFT REQUIREMENTS (AIR FORCE): The next item on the conference agenda was a discussion and determination of aircraft requirements to be fulfilled by the Air Force. Colonel Massey prefaced this discussion by introducing Colonel Bonnot (AFOAT) and informed the group that he is now the Air Force Liaison Officer to whom we go to discuss matters concerning Air Force support. He also stated that with the help of the staff of TG 7.1 and 7.4, a preliminary list containing about 62 aircraft to be provided by the Air Force had been compiled to cover our requirements. The list indicated below was then tabulated on the blackboard for discussion.

<u>No.</u>	<u>Type</u>	<u>Discussion</u>
10	WB-50	To be used for weather reconnaissance. Col Bonnot said that he was not in complete agreement with this number. It was his opinion that the two atoll concept will probably require additional aircraft. It was decided that if further study justified additional aircraft, a supplemental request would be submitted to the Air Force.
3	C-54	To be used for documentary photography. Col Massey pointed out that while we had received no information concerning requirements for documentary photography, it is assumed that such information will be forthcoming since this requirement has always existed in the past. Col Bonnot was asked to find out, if possible, if high altitude technical photography will be required. Col Coleman (FC, AFSWP) replied that he had heard nothing about a requirement for RB-50's so far. It was his opinion that enough data may be currently available, and this requirement may be eliminated.
7	SA-16	To be used for search and rescue and weather island resupply. The shortage of this type aircraft was discussed, but it was pointed out that there is no substitute for the SA-16's, since it is the only known operational amphibious aircraft in the Air Force. Col Massey stated that we are also asking for UF's to be stationed at Kwajalein, but due to the different missions for which these aircraft were being requested, they could not be substituted for the Air Force planes. He stated that we must have the same kind of flexibility that we had during Operation REDWING and that we could not put this headquarters in a position of asking for something less than is considered a minimum requirement. It was his opinion that if the Air Force cannot provide the SA-16's, a decision must be made at the JCS level to provide similar equipment from other sources. Col Bonnot asked if the mission would be stated in the JCS paper, to which an affirmative reply was given.

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Colonel Massey then asked LTCOL Wilcox (AFSWP) to provide the group with an estimate of the type and number of aircraft to be involved in the DOD programs. Colonel Wilcox summarized as follows:

- 1 FJ4 Navy effects test aircraft.
- 1 B-52 Air Force effects test aircraft.
- 1 A4D Navy effects test aircraft.
- 2 RB-36 To be used for airborne instrumentation. Colonel Wilcox stated that while these aircraft were required primarily for the balloon shot, they may also participate in the other two high altitude shots.
- ? Helicopters Colonel Wilcox stated that the Army had listed a requirement for 6 helicopters for sample recovery, and that the Air Force will need from 1 to 10 helicopters for the same purpose. The Navy estimates that approximately 8 helicopters will be required during preparation of the target array for the underwater shots. Colonel Lucke stated that he had discussed this requirement with several agencies and feels that the numbers listed represent a duplication in that the requirements will be provided for by the Air Force helicopters at Eniwetok and the Navy or Marine helicopters at Bikini. However, he pointed out that a firm decision on this matter could not be made until further information is available on the projects to be authorized. In the ensuing discussion, Colonel Massey pointed out that it was impossible at this time to determine such requirements in exact numbers. This headquarters will therefore write a proviso into the draft JCS paper that any added requirements may be negotiated for directly with the three services. He also pointed out, however, that it is advisable for us to adequately cover all probable requirements at this time, and that it may be possible to make certain deletions at some future date.

6. SHIP REQUIREMENTS: Following the discussion of aircraft requirements, Commander Ellison (JTF-7) presided over the meeting during the discussion and determination of Naval ship requirements. He prefaced the discussion by stating that two basic concepts had to be kept in mind. Namely:

a. That the task force must have a capability of firing large yield weapons at both atolls simultaneously.

b. That the task force must have the capability of conducting sustained full scale operations at Bikini Atoll from afloat.

The group was then informed that the list of requirements to be presented was the result of preliminary conferences between representatives of this headquarters, Task Group 7.1, Task Group 7.3, and the Chief of Naval Operations. It was explained that the list did not contain Navy Service Craft

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since information from which this requirement could be extracted was already available in the JTF-7 Headquarters. (Subsequent to this conference, members of the JTF-7 and TG 7.3 staffs met to consolidate service craft requirements. A memorandum for record on that subject is appended hereto as supplementary information to conferees.) Commander Ellison also emphasized that the dual atoll capability was dependent to a large degree on the ability of the task force to provide a complete emergency evacuation capability at both atolls.

<u>No.</u>	<u>Type</u>	<u>Discussion</u>
1	AGC	To be used as a flagship for CTG 7.3 and as a headquarters for CJTF-7 and staff when afloat. This ship must have adequate CIC and communications facilities for conduct of a complicated operation such as HARDTACK. A CLC would be eminently suitable for this purpose if an AGC is not available. During the last operation, this ship was normally based in the Bikini area. However, due to the different nature of certain shots being planned for HARDTACK, it is anticipated that time between Bikini and Eniwetok will be about equally divided during the operation.
2	LSD	To be used for the transport of shot barges, support of the boat pool and in the construction and resupply of off-atoll sites. Two LSD's will not be required for the entire operation, and some rotation would be acceptable. It was the feeling of the TG 7.3 representatives present that the stationing of one LSD in the forward area from the beginning of the buildup phase until completion of the roll-up phase was an undue hardship on assigned personnel, and that some relief should be afforded. During the ensuing discussions, it was pointed out that the LSD to be used for shot barge transport must have its helicopter platform removed to permit loading of the barges. Captain Utter (TG 7.3) noted that one of the assigned LSD's would be engaged to a large extent during the operational phase in supporting the underwater shots at Eniwetok and that this ship should have its helicopter platform intact if possible.
4	DD	To be used for security patrols, weather observations, search and rescue, and possibly for transport of samples from Bikini to Eniwetok. The group was informed that during the last operation 2 DD's and 2 DE's were assigned. The assignment of the DE's limited operational flexibility in that they did not possess the speed essential to many of the tasks assigned. It was pointed out that it was often necessary for the destroyers on weather stations to retire at high speeds in order to clear predicted fallout areas prior to shot time. The desire of both CJTF-7 and CTG 7.3 to have 4 DD's available during HARDTACK was emphasized.

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- 1 DE To be used for the conduct of marine radiobiological surveys as required by the AEC. It is anticipated that a survey will be conducted approximately one month after the first shot and a second such survey approximately one month after the last shot. The normal duration of such surveys is from 10 days to 2 weeks, and an additional 4 or 5 days in the Eniwetok area is required for the installation of special equipment associated with the survey.
- 1 CVHA To be used as a helicopter base. It was pointed out that although the helicopters normally operate from ashore, all maintenance, scheduling, administrative work, etc., is done on the carrier. Also the carrier is used for the evacuation of helicopters on each shot at Bikini and for early reentry into the lagoon. CDR Ellison stated that a CVHA is being requested in lieu of a CVE as it is understood that all CVE's are being placed in moth balls. CDR Keegan (OP-33) replied that this would be a very difficult requirement to fulfill and asked if a TCWU could be used. CDR Ellison replied that it appears such a ship would be suitable provided all equipment necessary for helicopter operations (gasoline systems, fire fighting systems, etc.) is in full operation. He emphasized that CJTF-7 had not provided funds in our budget for the activation of such systems. In the ensuing discussion it was emphasized that CJTF-7 recognizes the difficulty of providing a helicopter landing platform capable of operating 15 or more helicopters, but that the fulfillment of this requirement is mandatory in order to provide an afloat capability at Bikini.
- 3 LST To be used in logistic transport between atolls and to augment the emergency evacuation capability. Mr. Howell (TG 7.5) asked if this requirement envisaged the use of Taongi. Commander Ellison replied in the negative, and stated that completely new planning factors would be required if the use of that atoll as a test site is approved.
- 1 AV To be used as TG 7.1 flagship. It is the understanding of this headquarters that the CURTISS will soon be moth-balled. Therefore, JTF-7 will not insist on the assignment of that particular ship. However, it was pointed out that the TG 7.1 people are familiar with the CURTISS and would prefer its assignment over any other AV. CDR Keegan asked if the ship had to be an AV, to which a negative reply was given. It was pointed out that any equivalent type ship which could fulfill the requirements would be satisfactory. In this respect, Dr. Felt stated that approximately 150 to 200 spaces would be required half of which should be cabin class accommodations. The ship should also be suitable for installation of a firing circuit, have adequate communication facilities, and considerable office space. CDR Gustafson pointed out that one advantage to assigning the CURTISS would be that plans already exist for the rewiring of

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this ship, whereas this would not be the case in any other ship.

- 1 AR To be used primarily in support of the underwater shots and the Navy task groups.
- 1 TAP To be used as a headquarters and hotel ship for TG 7.5. It is assumed that the AINSWORTH, which was used during Operation REDWING, will again be available for Operation HARDTACK. This ship is required for personnel evacuation at Bikini and to insure an afloat operational capability for the task force.
- 5 ATF Commander Brown (TG 7.3) discussed briefly the proposed use of the ATF's. He pointed out that of the 5 being requested, only 3 would be required during the entire operation. The remaining 2 would be used primarily for one-time tows and positioning of the target array and could be released at the conclusion of this task.
- 1 AN To be used in positioning the target array for the underwater shots. (Subsequent to the conference members of the JTF-7 and TG 7.3 staffs agreed that an ARS vice AN would be more suitable and would therefore be requested.)

In concluding the discussions on Naval ship requirements, it was emphasized that these requirements had been based upon such preliminary information as was available before the conference, and that some modification of our requirements would undoubtedly occur as the concept of the operation becomes firm. It was also stated that although we could not completely justify our practice of requesting specific ships by name, we had named such ships to indicate our preferences and desire their assignment if at all possible. It was pointed out that the ships listed did not include transit oilers and reefer ships which will be required for purely logistic purposes. Col Lucke and Commander Keegan then introduced the subject of the transport of devices to the EPG. CDR Brown stated that he felt any regular Navy ammunition ship was suitable for transport of such devices. Dr. Felt concurred. CDR Keegan then asked if an escort for the transporting ship would be required to which CDR Ellison replied that this decision was out of the purview of this headquarters, and that to the best of his knowledge, had not been made for Operation HARDTACK. CDR Ellison then stated that there was an additional major item which had not been covered, that of an additional ship whose primary purpose would be to provide an emergency evacuation capability at Eniwetok. This subject is still under study by personnel of the CJTF-7 and CTG 7.3 staffs, and while an APA is under consideration, no specific type ship has been settled upon at this time. However, it was considered appropriate to alert the CNO representatives present to this requirement since it is mandatory that it be fulfilled if a two-atoll evacuation capability is provided. (Subsequent to this conference CJTF-7, as the result of the staff study, has decided the evacuation capability at Eniwetok requires an APA type ship.)

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8. NAVY AIRCRAFT REQUIREMENTS: Commander Ellison then introduced the subject of aircraft requirements to be fulfilled from Navy sources. The following represents the type and number to be requested:

<u>No.</u>	<u>Type</u>	<u>Discussion</u>
15	HRS-3	To be used in support of the scientific and construction programs at Bikini Atoll. It was pointed out that the HRS-3 is being requested as it is believed that this is the only type suitable for this purpose which is currently available. It is believed that they will be provided from Marine sources since the Navy has no helicopter transport squadrons as such. It may be necessary to rotate a number of these helicopters to the Eniwetok area for a certain period of time during preparation for the underwater shots. However, this is an operational decision which will be made at a later date.
16	P2V	To be used for security patrols of the danger area. Constant security patrols will be required throughout the operation, and concentrated searches of certain specific areas will be made from 24-48 hours before each shot. Col Wignall stated that he assumed that these aircraft would be based at Kwajalein, to which CDR Ellison replied that while there are still some problems to be solved at Kwajalein, primarily that of billeting, it appears as though there is no other suitable place to base these aircraft.
8	UF	To be used for search and rescue, augmentation of the off-atoll resupply capability, and for flight proficiency of Naval aviators. The geographic distribution of these aircraft would be as follows: Four at Kwajalein, two at Bikini, one at Eniwetok and one at Wake. These planes would be under the operational control of CTG 7.3 and would be rotated in accordance with the decision of the commander.

9. The conference then adjourned for lunch and reconvened at 1340 hours.

10. TIME TABLE: Following a few brief administrative announcements, Colonel Massey brought up the subject as to a time table for deploying the various ships and aircraft to the Eniwetok Proving Ground. Dr. Felt and Mr. Joe Sanders (TG 7.5) were asked to present to the group their current thinking as to when various type aircraft and ships would be required in the forward area in order to support the scientific and construction programs. The following is a brief resume of the ensuing discussions:

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a. LSD's. Mr. Sanders stated that there would be a need for one LSD during June of 1957 to move equipment from Eniwetok to Bikini. It is estimated that this ship can be released after completion of approximately 4 round trips. It was his opinion that the first full-time LSD would be needed in October, and that another would be required in February of 1958. Admiral Wellings (CTG 7.3) stated that he had just returned from CINCPAC Headquarters and noted that the supplying of 2 LSD's for the entire operation would place a considerable strain on CINCPACFLT. CDR Ellison voiced an opinion that one of the LSD's could probably be released after completion of the underwater shots. Dr. Felt stated that the LSD to be used for transport of shot barges should be made available for this purpose about mid-April 1958 in order to have the first barge shot ready on 1 May.

b. HELICOPTERS: Mr. Howell stated that there would be a need for at least one helicopter at Bikini commencing in August 1957. Col Massey said he thought it would be possible for the 4950th Test Group to provide this support and Col Wignall agreed. After review of the procedure followed in providing Marine helicopters at Bikini prior to Operation REDWING, it was decided that approximately half of the helicopter squadron should be deployed to arrive at Bikini on 15 February 1958 and that the remainder should arrive aboard the carrier by 15 March 1958. It would be planned that the first half of the squadron would be able to maintain sustained operations ashore for thirty days pending arrival of the carrier.

c. AV. Colonel Lucke stated that it was desired to have the AV (or equivalent ship) in the Bikini area three or four weeks prior to shot time. Dr. Felt emphasized that a considerable amount of work would be required in connection with the AV, such as installing radios, checking out communication circuits, rehearsals, etc. One major consideration is that repeated dry runs of the firing circuit will be required.

d. L-20's. Dr. Felt stated that it was the desire of TG 7.1 to use the L-20 extensively at Bikini during Operation HARDTACK in view of the fact that a large part of the construction is expected to take place in the TARE complex. It was noted that the L-20 is better suited for support of this complex than the helicopter. Task Group 7.1 may require L-20's at Bikini as early as 1 March 1958. Dr. Felt added that he thought Holmes and Narver would also desire the L-20's at Bikini at as early date.

11. TRANSPORTATION REQUIREMENTS: Major Johnston (JTF-7) reviewed in brief the transportation requirements of the task force and outlined the methods by which it is expected these requirements will be fulfilled.

12. COMMUNICATION REQUIREMENTS: Colonel Vest (JTF-7) presented a brief outline of the communication facilities to be provided during Operation HARDTACK and outlined the progress of procurement to date. He also stated that a three day communication conference to finalize requirements would be held in this headquarters on 5, 6 and 7 March 1957.

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13. ADJOURNMENT: In concluding the conference, Colonel Massey reviewed the different planning directives and operation orders which this headquarters will prepare and distribute in connection with Operation HARDTACK. The group was also informed that a proposed JCS paper for the conduct of Operation HARDTACK will soon be submitted to the Joint Chiefs of Staff. This paper will contain the support requirements essentially as listed in the preceding paragraphs. The conference adjourned at 1500 hours and was followed by a showing of the Commander's Report Film for those who desired to see it.

DONNELL MASSEY
Colonel, USAF
AC of S, J-3

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ROSTER OF CONFEREES

Headquarters JTF-7

Major General William W. Dick, Jr., USA
Captain Marshall H. Cox, USN
Colonel Herman R. Fleming, USA
Colonel Donnell Massey, USAF
Colonel Hugh A. Vest, USA
Commander Thomas B. Ellison, USN
Lieutenant Colonel Walter A. Gray, USA
Commander Karl W. Gustafson, USN
Commander Earl J. Schmitt, USN
Lieutenant Colonel Elton W. Duren, USA
Major John J. Policastro, USA

CTG 7.1

Dr. Gaelen Felt, Civilian
Colonel Emil A. Lucke, USA
Colonel Robert H. Gattis, USAF
Mr. Duncan Curry, Jr., Civilian
Lieutenant Colonel John W. Lipp, USA
Mr. Robert J. Van Sewert, Civilian
Mr. H. S. Allen, Civilian

CTG 7.2

Lieutenant Colonel Ben I. LaFlare, USA
Captain J. L. Guthrie, USA

CTG 7.3

Rear Admiral J. H. Wellings, USN
Captain Harold T. Utter, USN
Commander W. G. Brown, USN
Commander C. A. Dancy, USN

CTG 7.4

Colonel Paul R. Wignall, USAF
Lieutenant Colonel Richard J. Hynes, USAF
Lieutenant Colonel Carl W. Robbins, Jr., USAF

CTG 7.5

Mr. Joe B. Sanders, Civilian
Mr. Sam P. Howell, Civilian
Mr. Fred W. Hohner, Civilian

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HQ USAF

Colonel Carlos D. Bonnot, USAF
Lieutenant Colonel W. H. Edwards, USAF
Lieutenant Colonel David R. Jones, USAF
Major W. J. Wagner, USAF

CNO

Commander T. D. Keegan, USN
Commander Russel H. Buckley, USN
Commander J. L. Bettinger, USN
Commander D. K. DeJarnatt, USN

HQ USA

Lieutenant Colonel George A. Murray, USA
Lieutenant Colonel John G. Johnson, USA
Major R. J. Truex, USA
Mr. Murray Miller, Civilian

DMA/AEC

Lieutenant Colonel Raymond I. Schnittke, USA

AFSWP

Lieutenant Colonel A. B. White, USA
Lieutenant Colonel Judson D. Wilcox, USA

FC AFSWP

Colonel Kenneth D. Coleman, USAF

AFSWC

Colonel W. B. Kieffer, USAF
Colonel William A. Hunter, USAF

ARDC

Major Richard H. McLeroy, USAF
Captain Jay S. Josephs, USAF

MSTS

Commander Glen Jacobsen, USN

MATS

Lieutenant Colonel Gerard F. Wientjes, USAF

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6TH WEARON

Lieutenant Colonel Bernard Fusin, USAF

JTF-7 INO Oakland

Lieutenant Colonel John G. Stanley, USAF

Stenographer

Staff Sergeant James E. Tallmadge, USAF

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27 February 1957

SUBJECT: Navy Service Craft Requirements for HARDTACK

1. The following officers met this date to consolidate the service craft requirements for HARDTACK:

Commander Karl W. Gustafson (J-3)
 Commander C. A. Dancy (TG 7.3)
 Major John J. Policastro (J-4)

2. Consolidated Service Craft Requirements:

<u>Quantity</u>	<u>Type Craft</u>	<u>Justification</u>
6	LCPL	Two are already in use by CTG 7.2 in Eniwetok for boarding parties and morale of military personnel. Two others are personal barges already assigned to CJTF-7 and CTG 7.3. Two are required by CTG 7.3 Boat Pool for port operations at Bikini and Eniwetok.

Note: Four of above already assigned; two additional required.

64	LCM-3	17 required for U. S. Navy ship shore transportation at Bikini including two fitted out as pushers and one as a salvage craft fitted with "A" Frame. Four required for U. S. Navy transportation at Eniwetok. 12 additional required at Eniwetok (LSD-Based) for underwater shot transportation requirements including two fitted as pushers. 31 required by CTG 7.5 for joint operations at Eniwetok and Bikini.
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Note: Of above total - 5 already assigned to TG 7.3 Boat Pool in Coronado; 28 already assigned to CTG 7.5 in EPG. 31 additional requested of which 28 are for CTG 7.3 and 3 for CTG 7.5.

2	LCPR	Administrative functions of TG 7.3 Boat Pool.
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Note: Already assigned - no additional craft required.

23	LCU	19 are for use by CTG 7.3, 10 of which will be used as houseboats. 4 are for use by CTG 7.3 at Eniwetok.
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Note: 5 craft already assigned to AEC for use by CTG 7.5; 18 additional craft requested.

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<u>Quantity</u>	<u>Type Craft</u>	<u>Justification</u>
1	AFDL	Already in EPG and used in support of Marine Operations by CTG 7.5.
2	YCV	To be used as helicopter landing platforms in vicinity of houseboats and shot barges at both atolls.
20	YC or BC	One is for use as RadSafe Barge. Another is for collection of Radioactive Samples. Six are for fallout platforms. 2 are for Squaw handling. 4 to 10 are for mooring target array in deep water.

Note: No additional craft required.

Note: YC is the Navy and BC the Army designator of the similar type barges (Approx. 500 ton). The Office of CNO has informally informed CTG 7.3 that YC's are not available from Navy sources. BC barges may be available from the Army in quantities sufficient to satisfy HARDTACK requirements.

3	YFNB	Two are for use in handling and submerging Squaws. One is for use by CTG 7.3 Boat Pool, Coronado for stowage of spare parts and equipment, workshop space, emergency berthing and messing in EPG.
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Note: There is a possibility of an Army sponsored program materializing and requiring an additional YFNB.

1	YON	Required for refueling smaller units at Eniwetok.
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Note: YON 182 now at Kwajalein should be suitable.

2	YTB	Required for target array positioning and mooring. Needed only during underwater shots By CTG 7.3.
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2	YTL	Used for Port operations at Eniwetok by CTG 7.5.
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Note: Already assigned to CTG 7.5 in EPG.

1	APL	Personnel and Decontamination Barge and Office Spaces.
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Note: This item under consideration, but may not develop into a firm requirement.

K. W. GUSTAFSON
 Commander, U. S. Navy
 Navy Operations Officer

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SWOTR

DEC 3 1958

Dr. Hal Plank
J-Division
Los Alamos Scientific Laboratory
P. O. Box 1663
Los Alamos, New Mexico

Dear Dr. Plank:

DCS/Operations, AFSWC, recently asked Field Command, AFSWP, to furnish us guidance on future test plans. In particular, we were concerned about the dual shot capability proposal for HARDTACK and the possibility of simultaneous testing in both the Pacific Proving Ground and Nevada Test Site. They, in turn, made inquiry to the Commander, JTF SEVEN.

A part of the reply from JTF SEVEN signed by General Perry B. Griffith is quoted for your information:

"The current concept being envisaged for Operation HARDTACK contemplates the probable firing of two shots on the same day on some occasions, and perhaps in a few instances, at the same time. However, while some additional aircraft will be required, it is realized that a complete dual sampling capability probably cannot be supported, nor is it justified. Therefore, in order to have an adequate number of sampling aircraft available on dual shot days, attempts will be made to have one of the scheduled shots a low yield detonation requiring relatively limited participation so far as sampling aircraft is concerned."

I still have not received the required information on the RB-57D from Major O'Carroll, but should have it very soon and will let you know.

Very truly yours,

WILLIAM A. CUNNINGHAM
Major USAF

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Headquarters
4950TH TEST GROUP (NUCLEAR)
Air Force Special Weapons Center
United States Air Force
Kirtland Air Force Base, New Mexico

SWS

24 July 1957

SUBJECT: Comments to Final Report of the Commander, Task Group 7.4,
Operation REDWING

TO: Commander
Joint Task Force SEVEN
Washington 25, D. C.

1. References:

a. Final Report of the Commander, Task Group 7.4, Operation REDWING, undated.

b. Letter, JTF SEVEN, dated 16 January 1957, files J-4/300.4 subject: Operational REDWING Preliminary Report of the Commander, Task Group 7.4, with 1 inclosure.

2. At the JTF SEVEN Conference held in Los Angeles, California, 19-20 June 1957, Lt. Colonel Raymond I. Schnittke, DMA, informed me that he had been requested to prepare a report to Admiral Strauss, Chairman of the USAEC. This report was for the purpose of informing the Chairman on the actions which had been taken to correct the deficiencies which had been pointed out in the Final Report of the Commander, Task Group 7.4, Operation REDWING. He requested the assistance of this Headquarters in providing the material which the Admiral required. The information contained in paragraph 3, below, lists the actions which we have taken on the problem areas enumerated in our Final Report and the comments on that report which you made in reference b. We are forwarding this information through you for any additional review or comments you feel appropriate. After your review, it is requested that this correspondence be forwarded to DMA.

3. Wherein appropriate, following are this Group's comments on actions that have been taken, are being taken, or will be taken with respect to your comments/recommendations listed in Incl. #1, reference b above, and as listed in the Final Report, Chapter III, Problem Areas.

<u>ITEM</u>	<u>REFERENCE NO.</u>	<u>COMMENTS</u>
1.	I P IV 0.11, Para 0.12	Action is being taken to continue emphasis on the flying training requirements which proved to be of such benefit during REDWING. The arresting devices appropriate to the type of aircraft participating in HARDTACK will be installed.

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Ltr, SWS, 4950th TESTGU(N), dtd 24 Jul 57, "Comments to Final Report of the Commander, TG 7.4, Operation REDWING"

<u>ITEM</u>	<u>REFERENCE NO.</u>	<u>COMMENTS</u>
2.	I P IV 0.15 para 0.15	A storage point for communications equipment, earmarked for use on future tests, has been established at Maywood Air Force Station. This project is known as "HOTBOX" and includes the rehabilitation of this equipment. This property is under the monitorship control of the 4950th Logistics Liaison Office. It is believed that this system will do much toward eliminating the delays in the installation of communications equipment which were common during REDWING.
3.	I P IV 0.16 paras 0.16 & 0.17	We understand that some rehabilitation of the existing telephone cabling has been completed and that additional work is programmed. JTF SEVEN comment is invited on this item.
4.	I P V 0.4, para 0.5	A secret letter, dated 10 July 1957, from this Headquarters, describing the Task Group Logistic Support Concept, has been distributed to all known elements and major USAF commands for use as an advance planning document. It is planned to distribute a TG 7.4 Logistic Support Plan on or about 1 August 1957.
5.	I P V 0.4, paras	Plans for modification of known participating aircraft are progressing satisfactorily. The progress of these programs is being monitored by both this Headquarters and Headquarters AFSWC. For additional information see Item #4 above. In addition, the present schedule of events calls for submission of requirements for prepositioned supplies and equipment not later than September 1957. Our only problem in this area is the designation of elements of TG 7.4 in time to meet this date. Vigorous action is being taken to have these elements designated as soon as possible.
6.	I P VI 0.5 para 0.5	Local Purchase funds for HARDTACK are included in the JTF SEVEN FY 58 approved Budget for TG 7.4, to be expended by the TG 7.4 Logistics Liaison Section.
7.	III P II A, para 1.3f	This Headquarters is more than cognizant of the requirement for a Maintenance Control Officer. The present UMD authorizes this Group such a slot and we have assurance from Headquarters AFSWC that this vacancy will be filled by 1 October 1957.

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Ltr, SWS, 4950th TESTGU(N), dtd 24 Jul 57, "Comments to Final Report of the Commander, TG 7.4, Operation REDWING"

<u>ITEM</u>	<u>REFERENCE NO.</u>	<u>COMMENTS</u>
8.	III P II A, paras 1.3 - 1.8	The difficulty of obtaining timely manning of the Task Group was generated by an apparent failure to provide adequate lead-time in requisitioning of personnel. We avoided recurrence of such a problem by: (1) requisitioning officer personnel from 9 to 12 months in advance of desired reporting dates (which provided a 45-day period of residing at Kirtland AFB prior to departure for the EPG), and (2) allowing 120 days lead-time in requisitions for airmen personnel. All recommendations made in the Final Report on this subject were carried out and will be subject to periodic screening and follow-up action by this Headquarters and AFSWC.
9.	III P II A, paras 2.3 - 2.9	Despite our efforts to the contrary and the experience gained during REDWING, we anticipate continued difficulty in securing the assignment of personnel who are necessary to carry out the Task Group mission in an optimum manner. We have already encountered this problem in planning for HARDTACK in that there have been arbitrary reductions in all UMD's resulting in arrival or projected arrival of individuals against non-existent positions. Despite the cancellation of certain UMD spaces, a mission requirement still exists for the individuals concerned. DCS/Personnel, AFSWC, recognizes such requirements as valid; therefore, no cancellation of original requisitions is planned.
10.	III P II A, paras 3.3-3.10	This Headquarters is giving continued attention to the problem of securing the proper number of adequately qualified personnel for all of the units for whom we have manning responsibility. We believe that the situation will be materially improved for HARDTACK. Thus far, the question of rank in relation to UMD authorizations has not developed into a problem, at least at the higher levels as mentioned in paragraph 3.9. However, in the austere manned 4951st Support Squadron there are certain career areas in which only one or two authorizations exist. In such cases, it is highly desirable that incumbents be of NCO grade, so as to provide a supervisory capability in all functional areas of the unit. In those functional areas where only one or two airmen are

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Ltr, SWS, 4950th TESTGU(N), dtd 24 Jul 57, "Comments to Final Report of the Commander, TG 7.4, Operation REDWING"

<u>ITEM</u>	<u>REFERENCE NO.</u>	<u>COMMENTS</u>
11.	III P II A, paras 4.3 - 4.7	authorized, it is still extremely desirable that the incumbent be of the rank authorized in order to provide as much experience, in addition to authorized skill, as possible. We have recently received assurance from ARDC that those positions which we identify as requiring a specific rank will be, wherever possible, filled by individuals holding the desired rank and qualification. This concession is a reversal of previous policy.
12.	III P II A, paras 5.2 - 5.7	The task of informing newly assigned personnel on the nature of their duties with the Task Group is a difficult one. Requisitions to ARDC have identified the nature of the assignment involved. To date it is apparent that some individuals have not received this information. AFSWC is aware of this as a potential morale problem, and is once again attempting to assure that all intermediate agencies do not fail to inform incoming personnel of the fact that considerable TDY will be required in their new assignment. To compensate for the probably inevitable failure of this attempt, the 4950th Test Group has established a reporting date at Kirtland AFB sufficiently in advance of actual requirements that personnel should be able to make all necessary arrangements for their families before having to depart for Eniwetok.
		We have restudied the previous recommendation for the establishment and the manning of a central personnel office. We do not now concur in the recommendation previously submitted since this would appear to be a greatly excessive number of people for this function. The 4950th Test Group came into existence as a Group after the Final Report was written; and as a Group, can provide supervision of a centralized personnel shop peopled by the existing personnel sections of the 4926th, 4951st, and 4952nd Squadrons. This centralized shop would administer TG 7.4, and the present squadrons of the 4950th at Eniwetok. If other units are directed to participate in this centralized shop, they could be directed to provide an appropriate number of augmenting personnel.

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Ltr, SWS, 4950th TESTGU(N), dtd 24 Jul 57, "Comments to Final Report of the Commander, TG 7.4, Operation REDWING"

<u>ITEM</u>	<u>REFERENCE NO.</u>	<u>COMMENTS</u>
13.	III P II A, paras 6.5 - 6.9	Our effort to streamline the processing of personnel for overseas movement have not been successful. Air Force was asked to waive the requirement for AF Form 502, with negative results. Procedure will be the same as before, except that with our Group Personnel set-up, we can prepare the forms far in advance of movement without undue stress. All other participating agencies, of course, will be responsible for insuring that procedures set forth in the Planning Directive and Operations Plan are carried out as regards preparation of individuals for overseas movement.
14.	III P II A, paras 7.5 - 7.9	It appears that our requirement for a Legal Officer for duty with Task Group 7.4 will be met. A Legal Officer has been requisitioned to report to Kirtland AFB in January 1958. He will go to the forward area in March (as now planned) and will perform the sole duty of legal advisor to personnel of TG 7.4.
15.	III P II A, paras	Under our new organizational concept we believe that there will no longer be a difficult problem to provide the additional personnel required to perform roll-up operations. The 4952nd will remain in place at the EPG until individual skills are no longer required. A "personnel coordinator" position had been placed in the 4952nd to provide coordination between the 4952nd, 4951st Squadrons and TG 7.4, which should result in resolving of problems with a minimum of correspondence.
16.	III P II B, paras 1.5 - 1.12	Noted. Since no new barracks are programmed for FY 58, recommendation cannot be acted upon.
17.	III P II B, paras 1.13	This Headquarters strongly indorses the recommendation that aircrews be billeted in those areas farthest from traffic and noise, and at the appropriate time will forward such a request for such space to DTG 7.2 insofar as housing is concerned.
18.	III P II B, para 1.14	Noted.
19.	III P II B, para 1.15	To be resolved at a conference which will be held in August 1957.

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Ltr, SWS, 4950th TESTGU(N), dtd 24 Jul 57, Comments of Final Report of the Commander, TG 7.4, Operation REDWING*

<u>ITEM</u>	<u>REFERENCE NO.</u>	<u>COMMENTS</u>
20.	III P II B, paras 2.6 & 2.7	TG 7.2 has been advised to survey their requirements and let us know as soon as possible whether or not TDY augmentation will be needed. Upon receipt of such information, we will levy upon other participating agencies for personnel.
21.	III P II B, paras 3.3 - 3.7	The Task Group and 4926th (Sampling and Decon Element) Test Squadron have sufficient equipment on hand. The 4952nd Support Squadron is awaiting a Non-Appropriated Fund grant which will be utilized for purchase of needed special services gear. Other commands will be advised to bring sufficient equipment to fill their recreational needs.
22.	III P II B, paras 4.3 - 4.10	During the planning phase of HARDTACK, CTG 7.4 will initiate action by letter to CTG 7.2 stating our requirements for in-flight lunches and high altitude mess. During the operational phase TG 7.4 will coordinate with TG 7.2 to insure mess does not fall below standard.
23.	III P IV A, paras 1.6 - 1.11	Drop aircrew training is not now considered to be a problem inasmuch as no air drops are scheduled for HARDTACK.
24.	III P IV A, paras 4.4 - 4.13	We hope to cope with the dual shot problem by the following means. When definite aircraft participation is determined, a turn-around study will be made for all aircraft and results will be given to TG 7.1. TG 7.1 will be requested to consider the turn-around capability and timings when scheduling dual shots. Sixteen (16) B-57's will be available for sampling operations and this should be sufficient to give us a dual shot capability.
25.	III P IV A, paras 5.3 - 5.7	Present TG 7.4 planning with respect to rehearsals includes the actions recommended in the Final Report. Overseas rehearsals will be scheduled on a scope similar to that of REDWING but dependent on the number of participating aircraft. Present plans call for fewer critically-placed aircraft, which most likely will lessen the number of rehearsals. A definite rehearsal program will be determined when information on the number of participating aircraft is received.

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Ltr, SWS, 4950th TESTGU(N), dtd 24 Jul 57, "Comments to Final Report of the Commander, TG 7.4, Operation REDWING"

<u>ITEM</u>	<u>REFERENCE NO.</u>	<u>COMMENTS</u>
26.	III P IV B, paras 1.3 - 1.10	During Operation REDWING accurate records were kept of all flights to include flying time, passengers and cargo carried. These figures were used as a basis for planning support requirements for HARDTACK and a similar set will be kept on HARDTACK. Airlift support requirements for both inter-island and inter-atoll airlift have been submitted on a basis of a 25% increase over REDWING. This increase was given by JTF SEVEN. A total of six (6) C-54's and/or C-123's have been requested for inter-atoll and weather island resupply airlift. A total of 15 H-19's or H-21's have been requested for inter-island airlift. Three (3) SA-16's have again been requested for resupply of weather islands with no airstrip. These three are included in the total of seven (7) SA-16's requested at the Operations Conference held at JTF SEVEN in February 1957.
27.	III P IV B, paras 2.4 & 2.7	See Item 26 above.
28.	III P IV B, paras 3.4 - 3.6	See Item 26 above.
29.	III P IV B, paras 5.1 - 5.5	As recommended in the Final Report, during the planning phase of HARDTACK TG 7.4 will coordinate with TG 7.1 on a joint plan for sample recovery and return. This coordinated plan should be similar to the one that worked so successfully on REDWING and will be submitted to JTF SEVEN for their publication.
30.	III P IV B, paras 6.1 - 6.8	Our plans for the accomplishment of radiological safety training will be initiated as soon as the Air Force participating agencies are known. As soon as definite units are designated to participate in HARDTACK, the requirement for rad-safe monitor training will be ascertained and, if necessary, Air Training Command will be requested to establish a course to train these monitors. TG 7.4 will be prepared to give an on-site course similar to the one given during REDWING.
31.	III P IV C, para 4.4	Although we have been already notified unofficially that JTF SEVEN will have no documentary photo requirements - therefore the problem would be resolved with no action required - all of our planning will be based on a documentary photo requirement.

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Ltr, SWS, 4950th TESTGU(N), dtd 24 Jul 57, "Comments to Final Report of the Commander, TG 7.4, Operation REDWING"

<u>ITEM</u>	<u>REFERENCE NO.</u>	<u>COMMENTS</u>
32.	III P IV C, paras 1.8-1.13, 2.3-2.13, 3.1-3.6, 4.4-4.8, 5.6-5.8, 6.7-6.10, 7.3-7.8 & 8.4-8.9	In December 1956 TG 7.4 published a Preliminary Communications Plan which was coordinated with AFSWC, ARDC, USAF, & JTF SEVEN. During the Spring of 1957 several communications conferences were held with ARDC, USAF & JTF SEVEN to determine communications requirements and procedures. From these conferences and comments received on the Preliminary Plan, TG 7.4 published and distributed on 20 June 1957 its Communications Plan for Operation HARDTACK. This Plan set an operational ready date for all communications facilities of 1 January 1958. If this plan is properly implemented by all organizations, the communications problems encountered during REDWING should be eliminated. The necessary major components for all communications schemes are being refurbished and set aside under Project HOTBOX at Maywood AFS. AACS has been directed to engineer, install and operate all schemes for HARDTACK. The 1st Mobile Communications Squadron will supply the mobile types of equipment. A letter on power requirements has been sent to H&N. Base Supply of the 4951st was instructed in the Roll-up Plan to ship all surplus equipment to the ZI. AACS has been instructed to send only necessary equipment to Eniwetok for HARDTACK. This will be monitored during the operation and excess equipment will be shipped to the ZI as it becomes surplus. JTF SEVEN and TG 7.3 have promised back-up equipment for SSB circuit between the AOC and CIC. When definite aircraft are assigned, multiple channelization will be checked. TG 7.3 has notified this Headquarters that the CIC will be modified; however, UHF and IFF ranges requested will not be realized. Under the HOTBOX program, the equipment required is well programmed. Additional equipment as presently required has been requested from AREC. TG 7.4 Communications Officer will monitor throughout. Mobile TACAN has presently been planned for Sand Island and AACS will supply. Power requirements have been submitted to H&N.
33.	III P IV D, para 2.6	Types and locations of various arresting devices are presently being studied by Operations personnel of TG 7.4 and AFSWC versus present aircraft inventory to ascertain which types will be needed and where they should be located.

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34.	III P IV, paras 3.3 & 3.5-3.9	TG 7.4 will check on survival gear and training as soon as definite units and aircraft are assigned. As soon as these units and aircraft are assigned, USAF will be requested to direct aircraft accident accountability and reporting responsibility be similar to that used in REDWING.
35.	III P V A, paras 1.6 - 1.15	AMC has reestablished Project 28 (now designated Project F-28) as a permanent project. The Logistics Liaison Section has been manned by one (1) officer and three (3) airmen during the interim period, and is permanently located at SMAMA. Requisitions for the 4951st Support Squadron (formerly the 4930th Support Group) are being processed thru the Logistics Liaison Section of this Headquarters. The personnel assigned to this Section are particularly resourceful and highly qualified, all having gained valuable experience on REDWING. Personnel presently scheduled for assignment to the Logistic Liaison Section have been interviewed, and appear to be very well qualified for their duty assignments. For additional information see Item #2, page 2.
36.	III P V A, paras 2.5 - 2.9	The present schedule of events calls for submission of requirements for prepositioned supplies and equipment not later than September 1957. Our only problem in this area is the designation of elements of TG 7.4 in time to meet this date. Vigorous action is being taken to have these elements designated as soon as possible. Our Logistics Support Concept, distributed 10 July 1957 satisfies this recommendation. The format for submission of project kit requirements, now being prepared, will include these recommendations. An assembly type AFSD will be used by the logistic Liaison Section in processing requirements lists for prepositioned supplies and equipment.
37.	III P V A, paras	See Item #36 above. Procedures have been set up to permit maintenance of complete records on local purchase and stock fund items. The processing of LP requests will be closely monitored by the Logistics Liaison Section and this Section is set up to closely monitor the commitment of funds by SMAMA.

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38.	III P V A, paras 4.5 - 4.10	See Item #4, page 2. An SOP has been set up to permit early and forceful follow-up of all delinquent reports. If the present time scale can be adhered to all requirements will be carefully scrutinized for accuracy and elimination of excesses.
39.	III P V A, paras 5.3 - 5.9	The establishment and maintenance of stock record cards have been prescribed in the TG 7.4 Logistic Support Concept which has been distributed. This procedure will be further described in the TG 7.4 Logistics Support Plan scheduled for publication 1 August 1957. The present time scale for processing of requirements lists will permit the establishment of a timely and workable arrangement for servicing of the using elements. Detailed procedures will be published by the Test Base Unit (the 4951st). The experience level of personnel assigned to AFB 2872 is excellent. The Director of Personnel, 4950th Test Group is closely monitoring the assignment of personnel. The requirement for augmentation of AFB 2872 has been spelled out in the TG 7.4 Logistics Support Concept and will be specified in detail in the TG 7.4 Logistic Support Plan.
40.	III P V A, paras 6.3 - 6.12	Drawings have been received, and approved by this Headquarters, for expansion of the POL storage facilities on FRED. This expansion, which will increase our aviation fuel storage capacity by 840,000 gallons will eliminate our storage problems as recognized at this time.
41.	III P V B, paras	It is planned to establish a Maintenance Control Unit for HARDTACK. Preliminary drafts of SOP's are being prepared.
42.	III P V B, paras 1.6 & 2.4 - 2.6	See Item #41 above. Detailed experience levels will be prescribed for field maintenance augmentation personnel to be furnished by elements of TG 7.4.
43.	III P V B, paras 3.3-3.6 & 4.3-4.5	Detailed requirements for MCU communications have been established. It is planned that MCU personnel will deploy to the EPG in sufficient time to permit a complete check out of MCU communications facilities. Also see Item #5, page 2.

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44.	III P V C, paras 1.4-1.8 & 2.3-2.13	The TG 7.4 Staff Transportation Officer has visited his counterparts in JTF SEVEN and has discussed mutual problems and requirements. Preliminary instructions are contained in the TG 7.4 Logistic Support Concept letter. Detailed instructions will be included in the TG 7.4 Logistic Support Plan. The only anticipated problem is the late designation of elements of TG 7.4. Present time scale for processing of support requirements will permit maximum use of sea lift. It is planned that only that portion of support requirements transported by the TG element concerned will be moved by air. All pre-positioned items, time permitting, will be moved by water. It is further planned to station the TG 7.4 Transportation NCO in Hawaii to act as a "trouble shooter" during the shipping period, as required. By maximum use of sea lift, it is not expected that a bottleneck will exist in Hawaii. Further, this Headquarters intends by personnel representation at Travis and Hickam AFB's, and close monitoring of TG 7.4 movements, to furnish assistance to the Task Force LNO's in determining the movement priority of all TG 7.4 personnel and material. The major governing factor of authorizing transfer officers at enroute terminals to divert shipments from air to surface lift will be the establishment of realistic in-place dates. The prorating of sea lift and the actual sea shipments will be closely monitored by both this Headquarters and our representatives at the Oakland POE.
45.	III P V C, paras 3.3-3.9&4.4-4.9	Planning for the movement of short-range aircraft is in progress. It does not now appear that this problem will approach the magnitude of that on REDWING. A letter is being sent to Hq USAF requesting that each major AF Command furnishing elements to participate in HARDTACK, be required to provide special airlift for its elements. If this request is approved, this responsibility will be so stated in the Hq USAF Movement Directive. This will be included in the TG 7.4 Logistic Support Plan. Detailed procedures for Special Airlift & Enroute Support Aircraft will be dependent upon the reply from Hq USAF wherein we request that major commands be required to provide special airlift for its elements.

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<u>ITEM</u>	<u>REFERENCE NO.</u>	<u>COMMENTS</u>
46.	III P V C, paras	A listing of general purpose vehicle requirements for HARDTACK has been prepared and forwarded to JTF SEVEN where it had received tentative approval. As indicated by his tentative allocation of general purpose vehicles, CJTF SEVEN is effecting maximum utilization of commercial type vehicles.
47.	III P V D, paras 1.10 - 1.13	The preparation of the TG 7.4 Long Range Construction Program during REDWING has resulted in an excellent basic document. The permanent establishment of this Headquarters has permitted the continued monitoring of this program. With the excellent cooperation of JTF SEVEN and TG 7.5, this program is progressing in a most satisfactory manner. A realistic cut-off date of 23 June 1956 was established by CJTF SEVEN. Any changes or additions to the existing program are being closely monitored by this Headquarters. This Headquarters is studying the requirement for portable type buildings. Hq USAF has advised that CAS buildings will not be available, but that a Butler-type building, 40' x 100', can be made available. This substitute item appears to be satisfactory.
48.	III P V D, paras 2.5 - 2.11	We believe that the establishment of the 4950th Test Group (Nuclear) as a permanent organization with the mission of planning USAF participation in nuclear tests will prevent the neglect of the Construction Program which occurred previously. The 4950th has worked closely with JTF SEVEN to reorient the construction program from time to time to adapt it to changing requirements and to obtain as much of the necessary construction as possible in the off-year periods.
49.	III P VI, paras 1.3 - 1.7	See Item #6, page 2.
50.	III P VI, paras 3.3 - 3.5	The Budget for TG 7.4 has been submitted and approved by JTF SEVEN in June 1957.

PAUL R. WIGNALL
Colonel, USAF
Commander

MEMORANDUM FOR RECORD:

JAN 18 1957

SUBJECT: Visit of Colonel E. A. Lucke, USA, and Colonel Robert Gattis, USAF, to Joint Task Force SEVEN Headquarters.

1. Colonel Lucke and Colonel Gattis of Task Group 7.1 visited this headquarters on 8 and 9 January 1957 for the purpose of discussing operational and logistic problems associated with Operation HARDTACK. Set forth below is a report of topics discussed and commands visited during their stay in Washington, so far as is known to the J-3 Division. A separate Memorandum for Record has been prepared by the J-5 Division concerning communication matters discussed.

2. At 0900 on 8 January 1957, a meeting was conducted in the JTF-7 War Room. The following personnel attended: Colonel Massey, Colonel Lucke, Colonel Gattis, Commander Ellison, Lt Col Gray, Lt Col Epley, Lt Col Johnston, Major Policastro, Major Dean, Major Richie, and Captain Blumenson. The purpose of this meeting was to discuss certain specific problems pertaining to HARDTACK and to provide an opportunity for members of all staff divisions to discuss items of mutual interest to JTF-7 and TG 7.1 with Colonels Lucke and Gattis. The following specific topics were discussed during this meeting.

a. Concept of the Operation. Colonel Massey informed Colonel Lucke that this headquarters desired at least a preliminary concept of Operation HARDTACK at the earliest possible date. It was pointed out that this concept is needed not only for planning purposes, but also to help this command in defending its extra military budget for Operation HARDTACK. It was emphasized that while we realize that there is little firm planning data available at this time, any information whatever presented officially to this headquarters would be of assistance in orderly planning. Colonel Lucke replied that he would relay our request to Dr. Felt, and that he believed that Dr. Felt would be able to provide us with some information by 1 February 1957. It was his understanding that a letter containing such information is now being prepared for Dr. Ogle's signature. He also stated that as a result of discussing the concept of the operation with Dr. Graves, Dr. Ogle, and Dr. Felt, it appears that HARDTACK would be very similar in scope to REDWING. The following is a very tentative list of anticipated detonations:

<u>Number</u>	<u>Yield</u>
4 - 5	2 MT or greater
6 - 8	200 KT to 2 MT
8	less than 200 KT

The scope of participation of the two laboratories will be about equally divided. It also appears that more megaton shots will be fired at Eniwetok than was the case during REDWING. The shots listed above do not reflect any possible carry over from Operation PILGRIM, nor do they include those which are being requested by the DOD.

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b. Use of Taongi. Colonel Lucke stated that his division was very anxious that an immediate resolution be arrived at relative to the possible use of Taongi as an additional firing site in the Eniwetok Proving Ground. He stated that many operational problems would have to be solved if such use is approved, and that the time element for the development of this site was growing short. Colonel Massey replied that it was his understanding that it is the position of this command that the possible use of Taongi requires a policy decision which must be made by the Atomic Energy Commission and the State Department, and that this headquarters would take no action which could be interpreted as attempting to establish such policy. Consequently, this headquarters will not provide appropriated funds for the survey or development of Taongi unless so directed by proper authority. It was emphasized that the resolution of this problem was an AEC matter which the scientific laboratories should take up with that agency rather than with this command.

c. Sampler Aircraft Requirements. Colonel Massey stated that this headquarters was in receipt of a letter originated by the UCRL and transmitted by Dr. Felt stating that several more B-57B's and a few B-57D's will be requested for sampling in HARDTACK. Colonel Massey also stated that Dr. Graves intends to pursue this requirement through Air Force channels. Dr. Graves feels that since the sampler requirement is a continuing one, this line of attempted procurement is proper. It was strongly recommended that justification through AEC channels also be procured. It was pointed out that due to the high priority projects in which the B-57B's are now engaged, it is extremely doubtful that they will be required in order to procure their assignment on a permanent basis. Colonel Lucke was requested to keep this headquarters informed as to what progress the laboratories were making in procuring the subject aircraft.

d. Helicopter Landing Platforms. CTG 7.1, in the REDWING Final Report, recommended that consideration be given to installing helicopter landing platforms on all shot barges. This recommendation was discussed with Colonel Lucke and Colonel Gattis and for several reasons it was the consensus of opinion that such a proposal should not be adopted. In the first place it was considered that the cost, probably in excess of \$10,000 per barge, would be prohibitive. In the second place it was generally agreed that the use of such platforms would be precarious at best with H-19 helicopters and that the likely substitution of H-21's in Operation HARDTACK would increase the jeopardy of such proposed operations. It was further noted that such installations, even if operationally feasible, would generate other operational problems such as loading the barges in the LSD. A related recommendation for fast boat service to and from the shot barges was discussed. It was generally agreed that nothing in the military inventory would meet the operational requirements. It was concluded that Task Group 7.1 should investigate the possibility of having TG 7.5 acquire an additional "African Queen" type boat through AEC channels; otherwise, operational support in HARDTACK would be essentially the same as it was in REDWING.

e. Airstrips. Colonel Gattis stated that it might be desirable to reactivate the old airstrip at Bikini (HOW Island) since considerable increase in the use of that island as an instrumentation site during HARDTACK is anticipated. He stated that he planned to visit TG 7.4 Headquarters in the near future to discuss airstrip requirements, and that when he did so that

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he would keep this command advised of the results of his meeting. During this meeting he will also discuss the scheduling of inter-island and inter-atoll aircraft and helicopter flights.

f. Schedule of Events. Colonel Lucke was asked if the schedule of Events distributed by this headquarters last December was in consonance with his planning requirements. He replied that it was and that he would like to be kept fully informed of progress and of any changes which we might make to the schedule.

3. At 1330, on 8 January, Colonel Lucke, Colonel Gattis, CDR Ellison and CDR Gustafson met with members of TG 7.3 at TG 7.3 headquarters to discuss ship requirements, ship modifications and operational items of Navy interest. The following specific topics were discussed.

a. Use of Taongi. CDR Brown pointed out that it would require a major effort to clear a suitable channel into Taongi Lagoon. Currents through the present passage are as high as 10 knots which would prohibit the work of an underwater demolition team except for brief periods during slack water each day. At best the operation would be a hazardous one. An ATR or ATF would be required to support the UDT team. It was also pointed out that, due to their limited power, an LCU or LST could enter the lagoon through the channel only during certain periods of the day. CDR Sterrett stated that a LCU under current BUSHIPS regulations is prohibited from operating in the open sea and that even if an exception to this regulation were obtained, the LSD could dispatch the LCU in the open sea only under the most favorable conditions. CDR Ellison and CDR Kelly emphasized that, due to the numerous coral heads existing in the lagoons, seaplanes could be landed only by taking a calculated risk of the coral heads had been removed and adequate seaplane landing areas marked with buoys. Captain Utter pointed out that an additional boat pool would probably be required and if so, that it would be desirable to obtain an additional LSD to support the boat pool, as well as to move the shot barges to Taongi. A general discussion concerning possible operations at Taongi followed.

b. Support Ships. CDR Gustafson stated that the Navy plans to mothball the USS CURTISS, and that this vessel will not be available for HARDTACK. TG 7.1 representatives were also informed that the BADOENG STRAIT is now being inactivated and that no CVE type vessel will be in commission by the summer of 1958. A general discussion then followed concerning what type of vessel would be suitable to replace the CURTISS and BADOENG STRAIT. A CVHA was mentioned but eliminated as a result of the limited sea keeping abilities of this type vessel. Capt. Utter mentioned that the USS PINE ISLAND might be suitable. After all aspects had been considered, however, it was determined that a CVS would provide the most suitable replacement and could be used to replace both the AV and CVE.

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c. LSD Operations. Colonel Lucke asked if it were feasible to place a helicopter landing platform on the LSD. It was pointed out that LSD's normally have a sectional platform for helicopter landing. Prior to REDWING, this platform was removed from the LSD 17 so that it could accommodate the shot barges. Colonel Lucke was of the opinion that the barges could be modified to pass under the platform. It was also suggested that perhaps two LSD's would be required for HARDTACK, and that if this developed one could be with and the other without its helicopter platform.

d. Raydist. Captain Utter asked if it was planned to utilize Raydist during the operation. He was informed that a Cubic Corporation device would be used in lieu of Raydist. This information was later found to be in error, however. The Cubic system will not be used and Raydist will be used as a last resort. MSQ positioning with manned stations at Bikini and Eniwetok is preferred. The meeting adjourned at 1600 hours and the TG 7.1 and JTF-7 representatives returned to this headquarters.

4. At 1300 on 9 January, Colonel Massey, Colonel Gattis, CDR Ellison and LCDR Johnson visited AFSWP headquarters. The following points were discussed with Lt Col Eddy, Lt Col Henry and Lt Col Wilcox of the Weapons Test Division.

a. Support Requirements for Operation HARDTACK. Colonel Massey stated that 7.1 desired clarification as to which command would submit the listing of items and units necessary to support the DOD phases of Operation HARDTACK. Lt Col Wilcox stated he was preparing a letter to AFSWP Field Command, information to other agencies, stating that the AFSWP headquarters staff would be responsible for determining the items of military support required for the DOD effects and scientific programs of Operation HARDTACK and would present these requirements at the 20 February conference to be held at this headquarters. He emphasized that since all project proposals of the various services had not been received by AFSWP, this list would be preliminary only and that numerous changes and additions would probably be necessary. AFSWP had originally established 1 January as a deadline for all services to submit their project proposals to AFSWP but this deadline had to be extended to 31 January. Lt Col Wilcox feels that an additional extension will probably be necessary.

b. Weapons Effects Program. Colonel Massey stated that this headquarters had received rumors that Air Force aircraft effects participation would probably be greater than was originally believed and asked Colonel Eddy to give us what information he could on the effects program currently being planned. Colonel Eddy replied that so far as his division knows the B-52 is the only Air Force aircraft scheduled to undergo effects tests during HARDTACK. The Navy intends to conduct certain effects tests with the FJ4, A4D and possibly the Seamaster. However, it appears certain that the aircraft effects program will be considerably less than that conducted during Operation REDWING. Lt Col Eddy also felt

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that the fallout program, if any, would be greatly reduced and that while some collection stations would probably be required, the program would not be of such a nature as to warrant use of the YAGS and LST 611. Whether or not the flash blindness studies conducted during REDWING will be continued during HARDTACK is not known at this time, but it appears fairly certain the Program 6.1 will be continued.

c. Raydist. Colonel Henry stated that use of the cubic system of aircraft positioning had been disapproved by AFSWP and that MSQ probably would be used. It was then pointed out that if this system is used it will not be possible to totally evacuate Bikini when test aircraft were participating. Colonel Massey stated that he felt a command decision on this matter would have to be reached before settling on the MSQ system. Colonel Eddy and Colonel Henry concurred and stated that even through Raydist was unsatisfactory in some respects, it might have to be used as a last resort. If the MSQ system is used, it is planned to place the control vans in revetments rather than to build a completely new control station.

d. Helicopters. Colonel Henry was asked if AFSWP had any information as to the maximum PSI which could be sustained by helicopters without damage. It was pointed out that we had used .5 PSI as a criteria during REDWING. Colonel Henry stated that he felt this was the uppermost limit which could be used, especially for the H-21's but that more knowledge would be available at a later date as a result of certain tests scheduled to be conducted during Operation PILGRIM.

e. DOD Programs. Colonel Eddy stated that the only currently approved DOD shot was the very high altitude shot (90,000 ft.). The revised Navy program consisting of two shots, a deep water shot and a medium depth water shot, will be presented to the JCS for approval on 25 January. It was the feeling of the AFSWP representatives present that there was little chance of getting the ultra high altitude shot into the HARDTACK program. Cost as well as limited time remaining were considered as governing factors.

5. Following the visit with the AFSWP representatives, the group made a brief call on Colonel Kesling in AFOAT. Colonel Kesling was asked if he had any definite knowledge as to the type of helicopter the Air Force would probably provide for Operation HARDTACK. Colonel Kesling replied that the H-19 helicopter is being phased out of the Air Force inventory and replaced with the H-21 type. He stated that a FEAF unit would probably be directed to provide helicopter support for Operation HARDTACK, and since this command is now being supplied with H-21's, we would undoubtedly have this type assigned during HARDTACK. Colonel Massey then pointed out that the H-21 was a much larger aircraft than is required to carry the average number of passengers normally transported per trip, and that this seemed to be unwise from an aircraft utilization point of view. Colonel Kesling agreed, but stated that since the H-21 would probably be the only type available, the Air Force has no alternative in the assignment. A

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general discussion then followed concerning increased demands for parking space and additional maintenance personnel which would be generated by the assignment of the H-21. Colonel Lucke asked if there was any possibility of replacing the C-47 aircraft at Eniwetok with C-131's. Colonel Kelsing stated that so far as he knew the Air Force had no cargo version of the C-131 as such and that it required several hours to remove or replace the passenger seats, thereby reducing the versatility of this type aircraft if it were required to serve a dual purpose. He stated that C-54 type aircraft would probably be more suitable, but that even they were in short supply. Colonel Gattis will discuss the type of aircraft to be requested for HARDTACK with Colonel Wignall of TG 7.4 prior to the 20 February requirements conference. Colonel Massey then discussed the UCRL letter requesting the assignment of B-57 sampler aircraft. It was Colonel Kesling's opinion that B-57D aircraft would not be available for this operation, and that the B-57B would be assigned only if complete justification was provided.

6. Colonel Lucke and Colonel Gattis departed Washington on the morning of 10 January for return to Los Alamos.

Copy furnished:
AEC/DMA
Chief, AFSWP
UCRL (Dr. Johnson)
AFOAT (Col Kesling)
TG 7.1
TG 7.2
TG 7.4
TG 7.5
Command Division
J-1 Division
J-2 Division
J-4 Division
J-5 Division
Comptroller
Historian

DONNELL MASSEY
Colonel, USAF
AC of S, J-3

SECRET

Headquarters
4950TH TEST GROUP (NUCLEAR)
Air Force Special Weapons Center
United States Air Force
Kirtland Air Force Base, New Mexico

SWS

11 April 1957

SUBJECT: Staff Visit to Eniwetok, 24 March - 5 April 1957

TO: Commander
Air Force Special Weapons Center
Kirtland Air Force Base, New Mexico

1. The following are principle items which were discussed with the Commander, 4951st Support Squadron (Test), and his staff during the visit conducted at Eniwetok 24 March to 5 April 1957.

2. GENERAL:

a. The 4951st Support Squadron (Test) is performing its primary mission with an admirable degree of success. All requests for support have been fulfilled by the organization. The relationships between the Squadron, Task Group 7.2, AEC, and Holmes and Narver personnel are excellent. On several occasions unsolicited compliments were expressed by such persons concerning the efficiency of the Unit.

b. There are some areas of secondary importance where a need for improvement was noticed and brought to the attention of the Commander. In most instances the shortage of personnel and technical skills was primarily responsible for the Unit's difficulty. Examples of areas where the Commander was requested to take certain corrective actions include certain special items in flying and ground safety, corrosion control, and operational procedures. Generally speaking the majority of these items were of such a detailed nature that they do not require further elaboration in this report.

3. PERSONNEL:

a. The 4951st conducted a briefing for visiting personnel on the impact on their operations of the existing personnel shortages. To understand and appreciate this situation it is necessary to recall that the interim strength of this Unit prior to REDWING was approximately 240 officers and airmen. At the present time the Unit is authorized 18 officers and 184 airmen. Because of difficulties in the requisitioning system, the available for duty strength in recent months has dropped to slightly over 100. Obviously the Unit cannot function satisfactorily at this level. The interim period manning requirements were established on the basis that the Unit would be 100% manned at all times. It is a great tribute to all personnel assigned the Squadron that they have been effective as they have under such difficult circumstances. Subsequent to the

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Ltr, Hq 4950th Test Group (N), SWS, 11 Apr 57, "Staff Visit to Eniwetok, 24 Mar-5 Apr 57", cont'd

visit it has been determined that late March and early April arrivals will bring the 4951st to something in excess of 80% manning and the situation will continue to improve rapidly. Action has been taken to send certain critically required personnel to the 4951st on a TDY basis from Kirtland.

b. The impact of proposed manpower cuts was discussed. The 4951st was required to surrender 18 spaces as their proper share of the strength reductions levied on AFSWC by Headquarters ARDC. At the time the cut was levied it was agreed that a Manpower Survey would be conducted during this staff visit to determine if the cuts were feasible. Although time did not permit a complete survey, representatives of the Manpower Branch, DCS/O, AFSWC, did agree that a cut of this magnitude did not seem feasible. Instead they propose that we should discontinue operation of the Utility (crash boat) Boat Section and that the ten (10) spaces now filled by marine type personnel should be converted to other critically needed skills. Additionally, the Center would absorb a 4-space cut elsewhere. This means that the 4951st would lose its POL officer and two (2) airmen spaces but would gain ten (10) airmen spaces through the conversion to other AFSC's of the boat personnel. This action, of course, is contingent upon the approval of the Commander, AFSWC. Action will be taken in the immediate future to present the problem for his consideration.

c. The Unit's Rest and Relaxation policy was discussed with the Commander, 4951st and the Commander, TG 7.2. Based upon their mutual agreement that several (7 to be exact) days R&R in Japan often meant that the individual was often absent for as many as 45 days, and that the venereal disease rate among such personnel is inordinately high, the Commander, 4951st was directed to terminate R&R in Japan for his personnel. A letter will be prepared on this subject to JTF SEVEN, through AFSWC.

d. Rotation dates were discussed for the Commander, 4951st. It was agreed that Lt. Colonel Cox's tour should terminate 1 July 1957, and that Lt. Colonel Hedrick should report for duty 31 August 1957. During the intervening time Major Lane will act as Commander. The objective here is to assure the rotation of the Commander during a non-test period.

e. The need to provide an executive-type individual to assist the Commander was discussed. It was agreed that the "front office" work load of the commander is such that he needs more assistance than is provided by a non-rated adjutant. It seems extremely desirable that the replacement for the present adjutant should be a rated officer who is next senior to the commander so that this individual could assume command during temporary absences of the commander.

f. A requirement for four (4) basic (010) airmen was established for the 4951st. These personnel are required for general duty work for which the Unit is responsible; i.e., barracks orderly, general detail work, sandblast machine operators, etc.

Ltr, Hq 4950th Test Group (N), SWS, 11 Apr 57, "Staff Visit to Eniwetok, 24 Mar-5 Apr 57", cont'd

4. CONSTRUCTION:

a. The Unit was furnished a copy of the revised Construction Program as established by JTF SEVEN. The changes in the program and the reason for these changes was explained. Based upon those discussions it appears that the present program is entirely adequate to support our future needs.

b. Construction work under progress was examined. Structural members of the existing hangar have been cleaned and are being repainted and work will begin soon on reskinning this structure. Completion of this project will make the hangar much more usable. The ramp and runway repair work is proceeding in a satisfactory manner. The only difficulty we may face is that the new surfaces are less well sealed than the old and may tend to spaul under jet blast. It appears that the only solution is to wait and see how the surfaces hold up under conventional aircraft operation and then determine whether additional sealing is required.

5. OPERATIONS:

a. The requirement for establishing a unit on Bikini was discussed. Contractor personnel at Eniwetok have stated that it is their intention to establish a camp at NAN during June 1957. As a result, it was agreed that AFSWC would provide a Bikini Detachment Commander from its own resources with a reporting date of 15 May 1957. Requisition action has been taken on the airmen personnel required for this detachment. Action has also been taken to provide the fire equipment required. Because the contractor has stated that a camp will be established on PETER-OBOE and that C-47 air support will be required, an additional piece of fire fighting equipment must be procured for that location. It appears certain that this equipment will not be in place in June but we hope to have it there shortly thereafter. To provide local airlift, present plans call for two (2) H-19's and one (1) L-20 to be moved to Bikini. This Headquarters will inform FEAF of the requirement to detach their aircraft and the 4951st will arrange for the movement to Bikini.

b. Helicopter operations now being conducted at Eniwetok by FEAF personnel was discussed. The Unit is carrying out its mission in a thoroughly satisfactory manner although it is evident that there is not a mutual understanding of all facets of the operation. This results in part because the ARDC-FEAF Agreement has not been consummated. One of the principle points of contention appears to be on how requirements are transmitted. Our position is that all local airlift requirements should come through the Commander, 4951st so that he can utilize the flexibility that comes from having dispatch control over both helicopters and L-20's. FEAF apparently feels that their Detachment Commander would be handicapped if he did not receive his flight requirements through the airlift consumer. Lt. Colonel Cox will attempt to resolve this problem locally and

Ltr, Hq 4950th Test Group (N), SWS, 11 Apr 57, "Staff Visit to Eniwetok, 24 Mar-5 Apr 57", cont'd

the Deputy Commander, AFSWC, has written a letter to General Waldron of FEAF on this subject. In addition, it appears that the Helicopter Detachment anticipates an increase in personnel so that it can establish supply personnel and supply actions. They feel that as many as 55 persons may be required where we use only 18. Some of this expansion may be based upon the assignment of H-21 helicopters but we attempted to impress on the Detachment Commander the need to make use of any service functions that the 4951st or the Army could provide with the objective of keeping his Detachment to a minimum strength. This subject was also discussed in the letter to General Waldron. It was also learned that present plans call for the replacement of the H-19's with two (2) H-21's in June and two in July 1957.

c. The qualification of pilot personnel being assigned to the Unit was discussed. It was determined that in some cases these personnel were not coming through Kirtland for screening prior to movement to Eniwetok. Further, that one individual who had reported through Kirtland had not received a complete check-out. Later it was determined that the partial check-out was necessary because AFSWC had been required to send their L-20 on TDY. Action has been taken following this staff visit to assure that all pilots are carefully screened here to see that they qualify as first pilots, are current in the aircraft, and have a up-to-date instrument card.

d. On the basis of the most recent trip by Air Force and contractor personnel to Nauru, it was agreed that the relocation of the weather station site there should be requested. The previous site is at the up-wind end of the airstrip and this location would constitute a considerable hazard to both weather station and flying personnel. Additionally, the alternative site selected appears far more advantageous from a construction point of view. It is understood that the contractor is undertaking necessary action to request JTF SEVEN approval on its relocation.

6. MATERIEL:

a. Methods by which the present supply inventory might be reduced to the minimum required for the interim period was discussed. One of the principle difficulties in the past was the lack of adequately skilled personnel to conduct the wall-to-wall inventory, to identify excesses, and to take the necessary paperwork to move those excesses out. This situation will be somewhat rectified by the late March and early April arrivals. Additionally, Major Brush from this organization will soon move to Eniwetok on TDY to assist the Unit. He has been instructed to advise us if Depot supervisory assistance is required or if there is a need for working level assistance from Kirtland. By this means it is hoped that the Unit can reach its desired supply goal by mid-year.

b. The situation with regard to the replacement for the Base Accountable Supply Officer was discussed. Despite repeated follow-up no replacement had been identified for Major Dyer, who should leave on or

Ltr, Hq 4950th Test Group (N), SWS, 11 Apr 57, "Staff Visit to Eniwetok,
24 Mar-5 Apr 57", cont'd

about 15 April 1957. Subsequent to the trip every Supply Officer at Kirtland was considered for possible assignment to Eniwetok. Of those officers qualified none are available primarily because of past service at Eniwetok or other remote area locations, or because they are already on orders for assignment elsewhere. ARDC advises that the earliest we can expect a replacement is late May. In the interim Lt. Col Cox will have to use his best qualified officer despite the fact that he has no one who is completely qualified under the provisions of AFR 65-10 or AFM 35-11. Major Brush will assist as best he can the officer who succeeds Major Dyer as the Base Supply Officer. This, obviously, is not the best solution in the world but it appears to be the best we can do under the circumstances.

PAUL R. WIGNALL
Colonel, USAF
Commander.

cc furn:

1-SWO
1-SWM
1-SWP
1-SWSP
1-SWSO
1-SWS (file)

HEADQUARTERS
AIR FORCE SPECIAL WEAPONS CENTER (ARDC)
United States Air Force
Kirtland Air Force Base, New Mexico

GENERAL ORDERS)
NUMBER 12)

15 July 1957

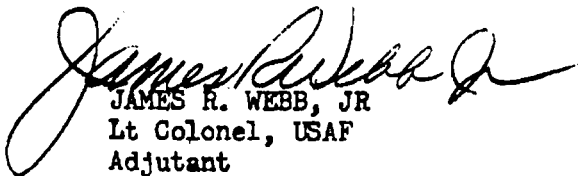
STAFF ASSIGNMENTS-----1. COLONEL IRVING L. BRANCH, 1557A, this headquarters is assigned as Deputy Commander of Air Force Special Weapons Center, effective this date, vice COLONEL WILLIAM B. KIEFFER, 1409A, relieved.

2. COLONEL WILLIAM B. KIEFFER, 1409A, this headquarters, is assigned as Deputy Commander for Overseas Tests, effective this date.

FOR THE COMMANDER:

OFFICIAL:

EDWARD J. WALKER
Colonel, USAF
Chief of Staff


JAMES R. WEBB, JR
Lt Colonel, USAF
Adjutant

DISTRIBUTION: "A"

Incl 10, 11

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HEADQUARTERS
JOINT TASK FORCE SEVEN
Washington 25, D. C.

J-3/300,4HT

27 November 1956

SUBJECT: Tentative Planning Schedule for Operation HARDTACK

TO: See Distribution

1. For your information, attached as inclosure 1 is a tentative planning schedule prepared by and for the use of this headquarters in planning for Operation HARDTACK. Because of the lack of firm information at this time, this schedule of events is based on the following two assumptions:

a. That the scope of HARDTACK will be similar to but greater than that of Operation REDWING.

b. That the first detonation of Operation HARDTACK will occur on 1 May 1958.

FOR THE COMMANDER:

1 Incl:
Tentative Planning Schedule
for Operation HARDTACK

PERRY B. GRIFFITH
Brigadier General, USAF
Chief of Staff

DISTRIBUTION:

CNO (OP 36)
Cofs, USA
Cofs, USAF (AFOAT)
Chief, AFSWP
DMA/AEC
TG 7.1
TG 7.2
TG 7.3
TG 7.4
TG 7.5

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TENTATIVE PLANNING SCHEDULE FOR OPERATION HARDTACK

27 November 1956

<u>EVENT</u>	<u>Action Div</u>	<u>Commence Action</u>	<u>Anticipated Completion</u>
1. Construction of Base Facilities	J-4	27 Jun 56	
2. Rongelapese repatriation	J-4	1 Nov 56	1 May 57
3. Decision on Weather Island locations (Nauru) and use of contractor for support	J-3		1 Dec 56
4. Plan for use of RadSafe islands as weather reporting sites	J-3		1 Dec 56
5. Request to CNO for weather ships	J-3		1 Dec 56
6. Selection of RadSafe monitoring stations - notification of interested agencies	J-3		1 Dec 56
7. JCS paper for conduct of operation. (Anticipate approval by 1 Aug 57)	J-3	1 Jan 57	1 Aug 57
8. Initial estimates of communication channel requirements and Communication - Electronics equipment to be prepared.	J-5		1 Jan 57
9. Reinstitute Cost Report	Compt		1 Jan 57
10. Assembly of off-atoll requirements	J-3	As becomes available	
11. Planning information to task groups	J-3	As becomes available	
12. Decision to use constant level balloons	J-3		1 Jan 57
13. The operational Table of Distribution for Hq, JTF-7 should be submitted to J-1	J-1		15 Feb 57
14. Supply and Construction Conference in Washington re Policies & Priorities	J-4	19 Feb 57	
15. RadSafe and Weather Station construction requirements	J-4	19 Feb 57	
16. Support requirements meeting	J-3	20 Feb 57	21 Feb 57

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<u>EVENT</u>	<u>Action Div</u>	<u>Commence Action</u>	<u>Anticipated Completion</u>
17. Determination of requirement and ETA EPG of LST to support construction effort	J-4	1 Feb 57	15 Mar 57
18. Publish directives, SOP's other data for Transportation procedures, securing of requirements, etc.	J-4	1 Mar 57	
19. Request to various services for TDY personnel (RadSafe)	J-3		1 Mar 57
20. Procurement of special instruments for airborne and island monitoring program	J-3		1 Mar 57
21. Purchase of fallout computers	J-3		1 Mar 57
22. Procurement and lease of spherical instrument for dosimeter program.	J-3		1 Mar 57
23. Weather station communications requirements to be submitted to TG 7.4	J-5		1 Jan 57
24. Final Communication-Electronic equipment requirements to be completed	J-5		1 Apr 57
25. Initial vehicle requirements to be submitted to CJTF-7 by task groups	J-4	1 Apr 57	
26. Weather portion of Operation Order for build-up phase	J-3		1 Apr 57
27. Initial requirements of Communication equipment and other major items	J-4	15 Apr 57	
28. First TOO requisitions re vehicles to be submitted to DOD	J-4	1 May 57	
29. Initial harbor craft requirements	J-4	1 May 57	
30. Submit requirements for TDY and supplemental duty personnel to J-1	J-1	1 May 57	
31. Letter to AEC, AFSWP and 3 services requesting they submit DocPhoto requirements. (Prior to 1 Nov conduct DocPhoto meeting with all concerned: AEC, AFSWP, IM, HQ USAF, and APCS)	J-3	1 May 57	1 Jun 57
32. Meeting of comptroller or financial representatives of task groups	Compt	3 Jun 57	

[REDACTED]

<u>EVENT</u>	<u>Action Div</u>	<u>Commence Action</u>	<u>Anticipated Completion</u>
33. Request for 260 MP's to D/A	J-2	1 May 57	
34. Billet requirements of each task group (Conference - all task groups)	J-4	1 Jun 57	
35. Conference re FY 59 construction	J-4	1 Jun 57	
36. First and second quarter fund requirements for FY 58 from task groups	Compt		15 Jun 57
37. Determination of requirement for TAP	J-4	1 Jul 57	
38. Determination and establishment of "Off-Atoll" locations requiring surface support.	J-4	1 Jul 57	
39. Determination of requirements and capability for evacuation support	J-4	1 Jul 57	
40. Establishment of MSTs shipping frequency during build-up	J-4	1 Jul 57	
41. Follow-up by CJTF SEVEN with each task group re final determination of requirements for major end items	J-4	1 Jul 57	
42. Establishment of requirement for special type cargo lift	J-4	1 Jul 57	1 Sep 57
43. Forward requirements for necessary hydrographs surveys to CTG 7.3	J-3		1 Jul 57
44. Planning directive (Draft) prepared and disseminated for comments and return	J-3	1 Jan 57	10 Jul 57
45. Final requirements of all task groups and units re TO&E equipment, stationary supplies, etc., to be furnished by CTG 7.2	J-4	1 Aug 57	
46. Screen all requirements for special lift by surface	J-4	1 Aug 57	
47. Notification of CINCPAC, HICOMTERPACIS, and CINCPACFLT of radsafe plans	J-3		1 Aug 57
48. Submit preliminary estimate of support units required to Chief of Staff, USA, Chief of Staff, USAF and CNO	J-3		1 Mar 57

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<u>EVENT</u>	<u>Action Div</u>	<u>Commence Action</u>	<u>Anticipated Completion</u>
49. Request for CIC Team (12 agents)	J-2	1 Aug 57	
50. Clearance requirements	J-2	1 Aug 57	
51. Classification guide	J-2	No specific date	
52. Planning directive prepared and disseminated	J-3		14 Aug 57
53. Action to be initiated to develop a VIP program	J-1	1 Sep 57	
54. Establishment of device components lift by surface transportation	J-4	1 Sep 57	
55. Sample return requirements, info from 7.1, AFOAT-1, etc.	J-4	1 Sep 57	
56. Final requirements for harbor craft	J-4	1 Sep 57	
57. Final determination of vehicle requirement	J-4	1 Sep 57	
58. Final determination of ordnance spare parts for vehicles by CTG 7.2	J-4	1 Sep 57	
59. Badge requirements	J-2		1 Sep 57
60. Allocation of Vehicles	J-4	15 Sep 57	
61. Arrange contacts with weather bureau, public health service and other agencies for operation (1) radSAFE monitoring stations, (2) fallout prediction unit, (3) fallout plotting center	J-3		Sep 57
62. Establishment of surface lift schedule for off-atoll construction support and initial schedule for emplacement of personnel and equipment for operating period	J-4	1 Sep 57	
63. First draft of movement directive for surface lift of devices	J-4	1 Oct 57	
64. Establishment of Air Force movement directive - OPS DIV HQ USAF and Air Planning Division Air Task Group 7.4	J-4	1 Oct 57	

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<u>EVENT</u>	<u>Action Div</u>	<u>Commence Action</u>	<u>Anticipated Completion</u>
65. Establishment of weapons lift requirements via 7.1	J-4	1 Oct 57	
66. First draft of pre-shot and post-shot evacuation plan and emergency evacuation plan	J-4	1 Oct 57	
67. Conduct familiarization tour of EPG for new staff members as required			Oct 57
68. Final determination of all major supply requirements	J-4	1 Oct 57	
69. First shipment of vehicles to arrive EPG	J-4	1 Nov 57	
70. Final determination of office space requirements	J-4		1 Sep 57
71. Final determination of billets in EPG	J-4		1 Nov 57
72. Documentary photography plan firm. Submit requirements to appropriate USAF Agency	J-3	1 May 57	1 Nov 57
73. Operation Order (draft) prepared and disseminated for comments and return	J-3	1 Sep 57	1 Dec 57
74. Administrative Order (draft)	J-4	1 Sep 57	1 Dec 57
75. Third and fourth quarter fund requirements for FY 58 from the task groups	Compt		15 Dec 57
76. Publication of Standing Communications Instructions	J-5		1 Jan 58
77. Communications check by 7.3 and 7.4	J-3		Jan 58
78. Request information from DMA/AEC relative to plans for a marine radiobiological survey	J-3	1 Oct 57	1 Jan 58
79. Publication of communications operations instructions	J-5		1 Feb 58
80. Last shipment of vehicles to arrive EPG	J-4		1 Feb 58
81. Complete installation of navigational aids at off-atoll weather and radsafe islands	J-3		1 Feb 58

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<u>EVENT</u>	<u>Action Div</u>	<u>Commence Action</u>	<u>Anticipated Completion</u>
82. Publish Movement Directive for transport of S&SN material from the ZI to the EPG	J-4		1 Feb 58
83. Operation Order and Administrative Order prepared and disseminated	J-3	1 Jan 58	1 Feb 58
84. Letters to Exec Agent, AEC and CINCPAC on schedule of advisories during operational phase	J-3	1 Jan 58	1 Feb 58
85. Rehearsal directive prepared and disseminated	J-3		1 Mar 58
86. Letter from Chmm, AEC authorizing CJTF-7 to assume control of the civilian task groups	J-3		1 Mar 58
87. Opening of Hq in forward area	Comd		
88. Publish movement directive for transport of special weapons and devices within the EPG	J-3	1 Feb 58	1 Mar 58
89. Establishment of Danger Area	J-3	1 Jan 58	1 Apr 58
90. Letter to CINCPAC outlining dangers involved during test, and safety measures to be taken	J-3		1 Apr 58
91. Report of readiness to the JCS	J-3		15 Mar 58
92. Commence security sweeps of the Danger Area	J-3	20 Apr 58	
93. Conduct full-scale rehearsal	JTF-7	(Prior to last shot)	
94. Start preparation of final report	J-3	1 May 58	30 days after last shot
95. Awards and decorations program initiated	J-1	1 May 58	
96. Prepare Interim Operation Order	J-3	1 May 58	

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[REDACTED]

**TENATIVE PLANNING SCHEDULE
OPERATION HARDTACK**

<u>EVENT</u>	<u>ACTION</u>	<u>COMMENCE ACTION</u>	<u>EST COMPLETION</u>
Supply & Const. Conf in Washington	JTF-7	19 Feb 57	Completed
Support Rqmts Meeting	JTF-7	20 Feb 57	Completed
Decision on Wx Islands & Extent of Manning by 7.4	JTF-7		Completed
Initial need for support aircraft submitted to JTF-7	D/O		Completed
wx Station Communication Rqmts submitted to TG 7.4	JTF-7		Completed
Communications Conference JTF-7	COMM	5-6 Mar 57	Completed
Proposed USAF Book Mag alerting Comds	PLANS	29 Mar 57	Completed
Initial Vehicle Rqmts submitted to JTF-7	D/M	15 Mar 57	Completed
Installation of Bikini Control Tower equipment	AACS	1 May 57	
Wx portion of Operation Order for build-up phase	JTF-7		1 Apr 57
Communication Electronic equipment requirements completed	COMM		1 Apr 57
Begin studying problem of flying F-84's to EPG using IFR	D/O 4926th	1 May 57	1 Jul 57

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Publish Directive, SOP's other data for Trans Procedures, Rqmts, etc.	ALL	1 May 57	1 Jun 57
Meeting of Controller or financial representative of TG at JTF-7	Compt		1 May 57
Assembly of Comm Equipment	AMC-AACS	1 Jun 57	
Initial Billet Rqmts of each TG (JTF-7) Conf.	JTF-7 D/P D/O D/M	1 Jun 57	
7.4 personnel requirements established to include phased requisitions	D/P	1 Jun 57	
Conf reqmts FY 59 construction	JTF-7 D/M	1 Jun 57	
Ltr to JTF-7 requesting call signs and nicknames	COMM	1 Jun 57	
First & second quarter fund rqmts for FY 58	Compt		15 Jun 57
VHA launching site chosen & approved	D/O		Jun 57
Logistice Plan published	PLANS	Jun	1 Jul 57
USAF Book Message published	D/O	Jul 57	
Decision on AOC at Bikini - Rqmt for ESTES	JTF-7 D/O		1 Jul 57
Decision on Resupply of some Wx islands by LST	JTF-7 D/O		1 Jul 57

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TSU Hqs established; all units & Comdrs designated; Initial call for Support Requirements	D/M		Jun 57
Coordinate Supply Support Directive with AMC	D/M		Jun 57
Prepare Comm Equipment for shipment	AMC-AACS	1 Jul 57	
Follow-up by CJTF-7 re final determination of reqmts for major end items	JTF-7	1 Jul 57	
Review JTF-7 planning directive	All		When received
Decision on whether or not to fly F-84's to EPG using IFR	Comdr		1 Jul 57
Initial reqmts for special cargo lift submitted to JTF-7 to include a/c	D/O D/M	1 Jul 57	1 Sep 57
TG Planning Directive published	Plans(All)	Jul 57	15 Aug 57
UHA project status	D/O	1 Aug 57	
All support reqmts received by TG	D/M		Aug 57
Aircraft Control Procedures Conf in Hawaii	D/O ARTC Kwaj ARTC Hawaii		1 Sep 57
Initiate action for tanker support if F-84's are to be flown to EPG	D/O D/M	1 Jul 57	
Material office completely staffed	Pers		Aug 57
EC-DOD classification guide and classification criteria	Scty	1 Sep 57	15 Nov 57

[REDACTED]

[REDACTED]

Action to be initiated to establish a VIP program	JTF-7	1 Sep 57	
ARDC VIP Program, if any	Adj	1 Sep 57	
Shipment of Comm Equipment	AMC	1 Sep 57	1 Dec 57
Initial Logistics & Operations Conf.	D/M D/O	20 Sep 57	22 Sep 57
Final determination of vehicle rqmts	D/M		1 Sep 57
Scty indoctrination of personnel Scty			1 Sep 57
adging & Security rqmts Scty clearances initiated	Scty	1 Sep 57	1 Mar 58
EPG entry requirements CINPAC SER 020	Scty	1 Sep 57	1 Mar 58
Allocation of vehicles	JTF-7	15 Sep 57	
AOC equipment returns from ISAFB to KAFB	D/O	15 Sep 57	
Support rqmts screened & fwd to LNO for action	D/M	Sep 57	
Schedule of events received from unit Comdrs (4951st & 4926th)	D/O	1 Sep 57	20 Sep 57
Establishment of AF Movement Directive	JTF-7 Hq USAF D/O D/M	15 Sep 57	
Scty of Aircraft staging thru Hickam	Scty	1 Oct 57	30 Nov 57
Comdr TG 7.4 & Staff visit Eniwetok		1 Oct 57	15 Oct 57

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Task Units begin practice flights and submission of status reports	D/O	15 Oct 57	
Rqmts for OSI Agent Eniwetok	Scty	1 Nov 57	31 Dec 57
Logistics Annex to Ops Plan	D/M	Nov 57	
AEC Badging	Scty	1 Nov 57	8 Mar 58
Final determination of billets in EPG	JTF-7		1 Nov 57
Establish & Publish Flying Safety Regs and SOP's	D/O	1 Nov 57	Jan 58
Space allocation completed	D/M	15 Nov 57	5 Dec 57
Crash Badge system established	D/O	1 Nov 57	Dec 57
H-21's Operational EPG	D/O D/M		1 Dec 57
Final planning conference	D/O D/M	3 Dec 57	5 Dec 57
3rd & 4th qtr fund rqmts for FY 58 to TG	JTF-7		15 Dec 57
Aircraft modifications complete	D/M		15 Dec 57
Total aircraft participation firm	D/O		15 Dec 57
SOP or Ops order on IFR of F-84's enroute to EPG published	D/O		15 Dec 57
Movement directive completed, approved	D/O D/M		15 Nov 57

~~CONFIDENTIAL~~

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[REDACTED]

OIG Check with 7.3	JTF-7 D/O	Jan 58	Jan 58
AOC Equip ready for ZI functional check	D/O	15 Jan 58	Jan 58
Daily shuttle flights begin to Bikini		Jan 58	Continuing
4926th begin hook up training (IFR)		15 Jan 58	1 Feb 58
Survival Training of Aircrews completed			1 Feb 58
TG 7.4 Ops Plan/Order	Plans	15 Jan 58	15 Feb 58
TG 7.4 COI Published	D/O		15 Feb 58
Aircraft loaded on carrier for shipment to Fwd area	D/M	Continuing	28 Feb 58
Installation of Nav Aids on Off-Atoll Wx & RadSafe Islands completed	JTF-7 D/O		1 Feb 58
TDY Controllers (AOC) in place KAFB	D/O,D/P		15 Feb 58
PCM Inspections completed	D/P		15 Feb 58
Com Van for AOC Depart ZI	Comm D/M	1 Feb 58	20 Feb 58
Subordinate elements announce readiness	D/O	15 Feb 58	1 May 58
TDY controllers (CIG) in place KAFB	D/O		15 Feb 58
Material pre positioned in fwd area	D/M	Continuing	1 Mar 58
AOC in place Eniwetok	D/O D/M	15 Feb 58	1 Mar 58

[REDACTED]

ADVON of Hq TG 7.4 TAU & TSU dept for fwd area		1 Feb 58	15 Feb 58
Bldg 90 ready for occupancy by TG Hqs			10 Mar 58
Flying Safety Conference EPG	D/O	25 Mar 58	
Runway Barriers in place Eniwetok & Bikini	D/M		15 Mar 58
Test Aircraft begin arriving Eniwetok			20 Mar 58
4926th Departs KAFB (F-84's IFR) with tanker and enroute support aircraft		20 Mar 58	1 Apr 58
TSU, TAU & TBU Hqs activated in fwd area			20 Mar 58
Hq 7.4 Official Files and Records packed for shipment	Adj	12 Mar 58	
Hq 7.4 transfers to EPG by Air		15 Mar 58	20 Mar 58
Begin Air rehearsals	D/O	25 Mar 58	
First scheduled Shot		1 May 58	
Start preparation of final report; Format distributed to all staff sections	D/O? Adj? Historian?	1 May 58	Last Shot + 30
Roll-up plan completed	D/M		1 Jun 58
Roll-up completed			Last Shot + 45

[REDACTED]

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~~SECRET~~

29 April 1957

ROUTINE

DTG 291724Z

~~SECRET/REST DATA~~

FROM COFS USAF WASH DC

TO CINCOSAC OFFUTT AFENEER
COMDR ARDC BALTO MD
COMDR MATS ANDREWS AFB VA
COMDR ADC ENT AFB COLO
COMDR TAC LANGLEY AFB VA
COMDR FEAF FUCHU AB JAPAN
COMDR FEAF HICKAM AFB TH
COMDR AMC WPAFB OHIO

INFO COMDR AFSWC KIRTLAND AFB NMEX
CH AFSWP WASH DC
COMDR JTF-7 WASH DC
DMA/AEC WASH DC

CITE 55434

FROM AFOOP-OS-S. THE ATOMIC ENERGY COMMISSION AND THE DEPARTMENT OF DEFENSE ARE PLANNING FOR OPERATION HARDTACK, 1958 OVERSEAS WEAPONS TEST, SCHEDULED FOR THE ENIWETOK PROVING GROUND. THE TENTATIVE STARTING DATE IS 1 MAY 1958. APPROXIMATELY 30 DEVICES WILL BE TESTED DURING OPERATION HARDTACK. THE UNITED STATES AIR FORCE WILL BE THE EXECUTIVE AGENT FOR THE TEST SERIES AND AIR FORCE PARTICIPATION WILL FOLLOW THE GENERAL PATTERN ESTABLISHED DURING PREVIOUS OVERSEAS NUCLEAR TESTS. ARDC WILL MAN, TRAIN, AND ORGANIZE AIR TASK GROUP 7.4. THE AIR TASK GROUP WILL CONSIST OF THREE UNITS, /1/ A TEST BASE UNIT PROVIDED BY ARDC, /2/ A TEST AIRCRAFT UNIT ORGANIZED BY ARDC BUT COMPOSED OF ELEMENTS PROVIDED BY MAJOR USAF COMMANDS AND DEPARTMENT OF DEFENSE AGENCIES OPERATING AIRCRAFT, AND /3/ A TEST SUPPORT UNIT PROVIDED BY MATS. THE MISSION AND FUNCTION OF TASK GROUP 7.4 AND SUBORDINATE UNITS WILL PARALLEL THOSE ASSIGNED FOR OPERATION REDWING. REFERENCE SHOULD BE MADE TO TASK GROUP 7.4 REDWING PLANNING DIRECTIVE, TASK GROUP 7.4 OPERATIONS ORDER 1-56, AND THE FINAL REPORT OF THE COMMANDER, TASK GROUP 7.4 FOR OPERATION REDWING. THIS MESSAGE CONSTITUTES AUTHORITY FOR INITIAL PLANNING FOR OPERATION HARDTACK BY CONCERNED USAF COMMANDS AND UNITS. DETAILED INSTRUCTIONS COVERING THIS OPERATION WILL BE FURNISHED ON OR ABOUT 1 JULY 1957.

~~SECRET/REST DATA~~

C-04-938

PAGE 1 OF 1 Incl 13 p.1

~~SECRET~~

~~RESTRICTED DATA~~
~~ATOMIC ENERGY ACT 1954~~

SECRET

Headquarters
4950TH TEST GROUP (NUCLEAR)
Air Force Special Weapons Center
United States Air Force
Kirtland Air Force Base, New Mexico

SWSO

26 June 1957

SUBJECT: Support Aircraft Required for HARDTACK Inter-Atoll (Eniwetok-Bikini) and Project Island Airlift

TO: Commander
Joint Task Force SEVEN
Washington 25, D. C.

1. The requirement for HARDTACK support aircraft as outlined herein is based on the following assumptions:

a. That the frequency of flights required by JTF SEVEN and the Task Groups, between Eniwetok and Bikini, must be of primary consideration in determining aircraft support required.

b. That two (2) C-54 aircraft will be assigned to the 4951st Support Squadron (Test) and that all C-47's presently assigned to this Squadron will be withdrawn prior to or at the beginning of the operational period. (o/a 1 March 1958.)

c. That there will be no Documentary Photography Element participating in HARDTACK from which some airlift support would be available. If it develops that there will be a Documentary Photography Element of three (3) C-54's and the same support is received from them as during REDWING the number of aircraft shown in paragraph 2 below can be reduced by one (1) in each of the months shown. It must be pointed out that the Doc Photo aircraft provided all the airlift to Tarawa during REDWING. During HARDTACK there will be an additional site requiring support at Naru which is approximately 800 miles from Eniwetok.

d. That there will be an increase of all traffic of at least 25% over REDWING, based on a JTF SEVEN statement that the scope of HARDTACK would be greater than REDWING, and the addition of one weather island site (Naru).

e. That the operational period of HARDTACK will correspond to that of REDWING.

f. That support aircraft will be able to maintain an average flying hour rate of 65 flying hours per month per aircraft throughout the operational period.

SECRET

Incl 14, p.1

~~SECRET~~

SWSO, 4950th TESTGUP(N), dtd 26 Jun 57, subj: SARFHL-A(E-B)&PIA(S)

2. Based on the above assumptions, the following number of aircraft, in addition to the two (2) C-54's, will be required during the operational phase of HARDTACK. (It must be pointed out that no allowance has been made for flights to support any VIP observer program. These flights would have to be provided from the excess Bikini-Eniwetok round trips available during the operational period. See attached detailed breakdown, Incl. #1, Note 3.) (S)

	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>
Flying Hours	130	195	260	195	195
Aircraft (65 hrs/no/acft)	2	3	4	3	3

3. Since there will be two (2) C-54's assigned to the 4951st, it would be preferable from a supply and maintenance standpoint for the additional support aircraft to be C-54's. These aircraft would be manned and maintained by personnel of the Command furnishing the aircraft and attached to the 4951st. Aircraft should be operational ready in the Eniwetok Proving Ground as follows: two (2) aircraft on 1 March 1958; one (1) additional aircraft on 1 April 1958; one (1) additional aircraft on 15 April 1958; to be operational ready on above dates, aircraft should arrive at the Eniwetok Proving Ground 15 days prior to operational ready dates. Aircraft would be released by Commander, Task Group 7.4 as support aircraft requirements are decreased. (S)

4. If C-54's cannot be made available, it is preferred that the aircraft be furnished by a tactical unit as a complete support package on the same order that the helicopter support was furnished during REDWING, since this was so successful. C-123 aircraft are preferred. (U)

5. Request your Headquarters take necessary action to insure that the above airlift support is provided during Operation HARDTACK. (S)

4 Incls.
1-4 Charts

PAUL R. WIGNALL
Colonel, USAF
Commander

Cys Furnished
HEDARDC, ATTN: Maj McLeroy
HEDAFSWC, ATTN: SWOTZ

~~SECRET~~

~~SECRET~~

Forecast
Airlift and Aircraft

	Feb	Mar	Apr	May	Jun	Jul
a. Forecast Traffic 25% increase over REMAINING Number Flights Required, at REMAINING Rate, to Handle Increased Traffic	1,092 62	1,900 107	2,693 190	3,147 290	2,162 105	1,340 82
b. Number Flights Available, 4 C-54's at 65 hr/month/air- craft - 1:20 min per flight. *2 C-54's in Feb. Capability of 4 C-54's in Split-loaded configuration (20 seats on left side) 20 pax - 2.5 tons cargo per flight. **2 C-54's in Feb.	105 97*	228 105	234 195	288 195	207 295	150 195
3. With Optimum Scheduling and Capability above (a), Number of Flights Required is	54	95	134	157	108	67
c. Aircraft Required to Support This Number of Flights (a). Number of aircraft required to accomplish Iniwetok-Bikini lift PLUS weather island support in event there are no Doc Photo C-54's. (See Note #4.)	2	2	3	4	3	2
6. Photo C-54's. (See Note #4.)		4	5	6	5	4

NOTES:

1. During February and March two (2) C-54's should provide a daily round trip schedule to Bikini plus additional round trips on Monday, Wednesday, and Friday and have eleven (11) round trips in reserve for emergency flights.
2. Three (3) aircraft during April should enable us to meet a schedule of two (2) round trips daily and have thirteen (13) round trips in reserve for emergency.
3. Four (4) aircraft would make available three (3) round trips per day - plus.
4. The average monthly flying time devoted to Weather Island support by Doc Photo C-54's during REMAINING was 76 hours. The minimum time required to support these plus HANE during HARDTACK will be 126 flying hours or equivalent to two (2) aircraft.

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Total 18, p. 3


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RECENT
COMBINED
C-47 and C-54 AirLift

	Feb	Mar	Apr	May	Jun	Jul
Hours Flown	125	275	280	347	247	178
Passengers Carried	875	1,520	2,155	2,518	1,730	1,072
Cargo (Tons)	48	86	147	149	83	67
Number Flights	84	184	188	232	166	120
Average Bomber Pax Per Flight	10.4	8.3	11.5	10.9	10.4	8.9
Average Pax Tons Per Flight	.9	.65	1.0	.95	.90	.75
Average Cargo Tons Per Flight	.57	.47	.78	.65	.50	.56
Average Tons Per Flight (Cargo & Pax)	1.47	1.12	1.78	1.60	1.40	1.31

CONFIDENTIAL

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FLIGHTING
C-47 Airlift - Four Aircraft

	Feb	Mar	Apr	May	Jun	Jul
Hours Flown	125	260	264	320	236	173
Passengers Carried	875	1,500	2,050	2,310	1,690	1,050
Cargo (Tons)	48	78	126	141	79	66
Number Flights - 1120 per Flight	84	174	176	214	188	116
Average Pax per Flight	10.4	8.6	11.6	10.8	10.7	9.0
Pax Tons per Flight - 170 pounds per Pax	.9	.7	1.0	.9	.9	.8
Cargo Tons Per Flight	.57	.45	.71	.65	.50	.57
Pax & Cargo Tons Per Flight	1.47	1.15	1.71	1.95	1.44	1.37
Potential Per Flight	2.5	2.5	2.5	2.5	2.5	2.5


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CONFIDENTIAL

REVENUE

C-54 Airlift (Doc Photo Aircraft)
(Eniwetok - Bikini)

	Feb	Mar	Apr	May	Jun	Jul
Hours Flown		15	16	27	21	5
Passengers Carried		20	109	208	40	22
Cargo (Tons)		8	21	8	4	1
Number Flights - 1420 Per Flight		10	12	18	8	4
Average Pax Per Flight		2	9	11.6	5	5.5
Pax Tons Per Flight - 170 pounds per pax		.15	.75	1.0	.62	.44
Cargo Tons Per Flight		.8	1.8	.44	.5	.25
Pax & Cargo Tons Per Flight		.95	2.55	2.44	.92	.69
Potential Per Flight		5.00	5.00	5.00	5.00	5.00

Incl 19, 20, 6

CONFIDENTIAL

~~SECRET~~
HEADQUARTERS
JOINT TASK FORCE SEVEN
WASHINGTON 25, D. C.

J-3/

30 July 1957

SUBJECT: Air Operations Center (AOC) on BIKINI Atoll

TO: Commander
4950th Test Group (Nuclear)
Kirtland Air Force Base, New Mexico

1. Reference is made to your letter of 14 June 1957, subject as above, with inclosed staff study.

2. Your proposal for a BIKINI shore based AOC cannot be supported by this headquarters for Operation HARDTACK. While recognizing that many advantages would accrue to the task force in having a shore based AOC, the following considerations have been made in reaching this conclusion:

a. Projected communication improvements in the ship CIC will:

(1) Insure UHF air-ground communications to the distance desired by TG 7.4.

(2) Provide the channel selection, equipment operation flexibility, and inter-position communications within the CIC desired by TG 7.4.

(3) Provide broad-band receivers to pick up aircraft which are not precisely on frequency.

b. TAONGI will not be a firing site on Operation HARDTACK. Therefore, the air control area in the Eniwetok Proving Ground will not be increased over that of Operation REDWING.

c. Only three effects test aircraft are programmed for Operation HARDTACK. These are a B-52, an A4D and an FJ4. The B-52 will have an airborne positioning capability. It is doubtful that the two Navy aircraft will participate in BIKINI shots, though this requirement is now under study by the Bureau of Aeronautics. In any event the control of high performance aircraft at Bikini shot times will be far less complex than was our experience during REDWING.

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Incl 13 p. 1

SECRET

J-3/

SUBJECT: Air Operations Center (AOC) on BIKINI Atoll

d. It is expected that sampling aircraft control can again be effected with airborne assistance from dual-control B-57-B's. While this does not eliminate all flying safety hazards of B-57-D's sampling operations, it is not considered that their critical operating characteristics are sufficient to justify a BIKINI land based AOC.

e. Evacuation of BIKINI will be required on at least 4 and perhaps 5 of the high yield BIKINI shots. Therefore afloat AOC operations would frequently be necessary even if an AOC were constructed on BIKINI.

3. The foregoing considerations are applicable only to Operation HARDTACK. Air task group planning should continue to include the study of air control requirements for subsequent overseas atomic test operations. It may be anticipated that the task force will again convene a construction conference in the Eniwetok Proving Ground during Operation HARDTACK, as was done during Operation REDWING. This conference will develop facility requirements for the period FY 59-62. If the shipboard AOC is then deemed substandard, your proposal should be reintroduced by CTG 7.4.

FOR THE COMMANDER:

Copy furnished:
Commander, AFSWC

PERRY R. GRIFFITH
Brigadier General, USAF
Chief of Staff

SECRET

~~SECRET~~

Headquarters
4950TH TEST GROUP (NUCLEAR)
Air Force Special Weapons Center
United States Air Force
Kirtland Air Force Base, New Mexico

SWSM

10 July 1957

SUBJECT: Concept of Air Task Group Logistics Support, Operation HARDTACK (S)

TO: See Distribution

1. Reference is made to secret message, Headquarters, United States Air Force, cite 55434, dated 29 April 1957, announcing the beginning of the planning phase of Operation HARDTACK to be held in the Eniwetok Proving Grounds in 1958. (S)

2. For your information the staff of the 4950th Test Group (Nuclear) is performing like duties on the staff of Task Group 7.4. (U)

3. The attached document, Logistics Support for HARDTACK, is forwarded as aid in such preliminary planning as can be accomplished at this time. It is anticipated that the Task Group Logistics Plan will be published on/or about 1 August 1957. (S)

1 Incl:
a/s

PAUL R. WIGNALL
Colonel, USAF
Commander

DISTRIBUTION:

Comdr, JTF-7, Wash, D.C. (3)
Comdr, ARDC, Balto, Md. (2)
Comdr, MATS, Andrews AFB, Md. (4)
Comdr, AMC, MCSDCP, Mr. Douglass (3)
Wright-Patterson AFB, Ohio
Comdr, SAC, Offutt AFB, Nebraska (4)
Comdr, TAC, Langley AFB, Virginia (4)
Comdr, ADC, Ent AFB, Colorado (4)
Comdr, 4951st Spt Sq (T), APO 187, (3)
San Francisco, California
Comdr, 4925th Test Gp (A), ATTN: (3)
Maj F. N. Pool, Kirtland AFB, NMex
Comdr, FC, AFSWP, ATTN: WET, (2)
Mercury, Nevada
Comdr, Task Group 7.1, Los Alamos, (2)
New Mexico
Comdr, USA, Task Group 7.2, APO 187, (3)
San Francisco, California
Comdr, Task Group 7.5, P.O. Box 5400, (3)
Albuquerque, New Mexico
Comdr, 4926th Test Sq (S), Kirtland AFB, (4)
New Mexico

~~SECRET~~

Incl 16, p. 1

[REDACTED]

SWSM Hq 4950th TG (N), 10 Jul 57, Subj: Concept of Air Task Group Logistics Support, Operation HARDTACK ()

Comdr, AFSWC, ATTN: SWM, Kirtland (3)
AFB, New Mexico
Comdr, NASWF, Kirtland AFB, NMex (2)
Comdr, SMAMA, ATTN: SMSIL, Maj Brush (3)
McClellan AFB, California
Chief, AFSWP, Washington, D.C. (3)
Comdr, FEAF, APO 925, San Francisco, (3)
California
Comdr, WADC, ATTN: WCO, Lt Col R.W. Yundt, (3)
Wright-Patterson AFB, Ohio
Comdr, AFCRC, L.G. Hanscom Field, Mass. (3)
Comdr, 4900th Air Base Group, Kirtland AFB, (2)
New Mexico

~~SECRET~~

LOGISTICS SUPPORT FOR HARDTACK (S)

The following is based on the present HARDTACK concept and experience gained on REDWING, and is intended for use as a preliminary planning document. (S)

1. GENERAL RESPONSIBILITIES: (S)

a. Prior to arrival in the overseas operating area (Eniwetok Proving Grounds), all units assigned or scheduled for assignment to Task Group 7.4 will receive logistical support from those ZI and overseas agencies normally responsible therefor. This support will include requirements that are incident to the organization, manning, equipping, and training of all units concerned. (U)

b. Upon arrival in the overseas operating area, all units of Task Group 7.4 based on Eniwetok and Bikini Atolls will receive general logistical support from Task Group 7.4 and the Test Base Unit (4951st Support Squadron (Test)). (S)

c. The Commander, Army Task Group 7.2 will furnish housekeeping supply support to all units of Task Group 7.4 housed and operating on Eniwetok Island. This support will include billeting, messing, commissary, laundry, salvage, general purpose vehicles, bus transportation, clothing and equipment repair, billeting supplies, PX and sales stores. (S)

2. SUPPLY: (S)

a. Units of Task Group 7.4 will receive supplies in accordance with procedures outlined in Air Force Manual 67-1, pertinent USAF directives, and directives issued by Headquarters, Task Force-SEVEN and Task Group 7.4. Detailed information concerning the methods of supply, and accounting procedures will be published by Headquarters, Task Group 7.4 at a later date. (S)

b. Each unit will furnish to the maximum extent possible supplies and equipment needed in the overseas operating area. (U)

c. Each unit, with the exception of the Test Base Unit, will prepare lists of supplies and equipment needed in the overseas operating area, and submit same, on call, to the Director of Materiel, Headquarters, 4950th Test Group (Nuclear) (Task Group 7.4). These lists of supplies and equipment will be divided into two (2) categories: Kit "A", those items which will be transported to the overseas operating area in unit aircraft and/or shipped as TAT (to accompany troops); and Kit "B", those items to be prepositioned in the overseas operating area. (S)

(1) Kit "A" will include those items which are peculiar to the unit aircraft, and must include those items which are required for en-route support. Maximum use must be made of those items which are on hand at the unit's home station. (S)

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Incl 16, p. 3

(2) Kit "B" will include those items to be prepositioned in the overseas operating area, such as aircraft spares, aircraft engines, wheels and tires, and special ground-handling and maintenance equipment. (S)

(3) Supply Levels:

(a) It is anticipated that equipment and spare parts for at least 120 days will be required to support HARDTACK. (S)

(b) The initial preparation of project kits will be based on a 120 day level of supplies and equipment. (S)

d. The Director of Materiel, 4950th Test Group (N)(TG 7.4) will review and screen requirements lists against reported stocks in the hands of the Test Base Unit, and earmark such items as are on hand by notifying AFB 2872 (Base Supply-Test Base Unit). Project "A" Kits will be returned to the submitting unit for requisitioning action and preparation for shipment. Project Kit "B" will be forwarded to the Task Group 7.4 Logistics Liaison Officer, Headquarters, Sacramento Air Materiel Area (SMAMA), McClellan Air Force Base, California, who will initiate supply action for direct shipment to the overseas operating area. (S)

e. Resupply within the overseas operating area will be through the Test Base Unit, AFB 2872 at Eniwetok. (U)

f. The Test Base Unit will requisition its requirements through normal supply channels. (U)

g. The Test Base Unit will submit to the Director of Materiel, 4950th Test Group (N)(T.G. 7.4), upon call, a stock status report indicating quantities of material on hand and available for issue to other units of Task Group 7.4. (U)

h. The Test Base Unit will receive and process through AFB 2872, Project Kit "B" items, and issue items to the appropriate unit of Task Group 7.4 as required. (S)

i. The Task Group 7.4 Logistics Liaison Office at SMAMA will be responsible for the control, expediting, and follow-up of supply requisitions, and the flow of Task Group supplies and equipment to the overseas operating area. (S)

3. MAINTENANCE:

a. All units and elements of Task Group 7.4 will be capable of performing organizational and field maintenance of assigned aircraft in accordance with pertinent regulations and technical orders. (S)

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Logistics Support for HARDTACK (Cont'd)

b. The Test Base Unit will establish a field maintenance capability utilizing assigned personnel and base shops and equipment. The field maintenance activities will be augmented with personnel from all participating units, on a basis of the number hours of field maintenance support required.

c. The Director of Materiel, 4950th Test Group (N) (T.G. 7.4) will establish a Maintenance Control Unit to exercise management control over the maintenance effort and to expedite the delivery of supplies and equipment. The Maintenance Control Unit will be organized and operate in accordance with procedures outlined in AFM 66-1.

4. TRANSPORTATION:

a. Shipments to water and aerial ports of embarkation will be in accordance with existing directives and other directives to be published at a later date by Commander, Joint Task Force-SEVEN and 4950th Test Group (N) (T.G. 7.4).

b. It is anticipated that the availability of airlift will be extremely limited. It is therefor mandatory that computation and submission of requirements lists be on a time scale that will permit the maximum use of surface lift.

5. CONSTRUCTION: Commander, Joint Task Force-SEVEN is responsible for construction in the EPG. Recommendations for additional construction will be submitted to the Commander, 4950th Test Group (N) (T.G. 7.4) for further submission to the Commander, Joint Task Force-SEVEN.

6. LOGISTICAL REPORTS: Reports will be submitted as required by the Commander, 4950th Test Group (N) (T.G. 7.4). (U)

7. MISCELLANEOUS:

a. Aviation and ground POL will be available in the overseas operating area based on requirements submitted.

b. Class "K" clothing; shorts, cotton, khaki and short sleeved shirts, has been requisitioned through Commander, Joint Task Force-SEVEN on a basis of four (4) sets per individual. Commander, Joint Task Force-SEVEN has advised that service shoes will not be available for issue.

c. Upon receipt of instructions from Headquarters, Joint Task Force-SEVEN, and Headquarters, Air Materiel Command, Commander, Task Group 7.4 will issue roll-up plans and instructions to all units of Task Group 7.4. Each unit of Task Group 7.4 will furnish a pro-rata share of personnel to permit the timely and efficient disposal of all excesses on hand at the close of test operations.

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~~CONFIDENTIAL~~
HEADQUARTERS
JOINT TASK FORCE SEVEN
Washington 25, D. C.

J-4/

3 JUN 1957

SUBJECT: Tentative Vehicle Allocation for HARDTACK

TO: Commander, Task Group 7.1, P. O. Box 1663, Los Alamos, New Mexico
Commander, U.S. Army Task Group 7.2, APO 187, San Francisco, Calif.
Commander, Task Group 7.3, Naval Gun Factory, Washington 25, D. C.
Commander, 4950th Test Group (Nuclear), Kirtland AFB, New Mexico
Commander, Task Group 7.5, P. O. Box 5400, Albuquerque, New Mexico
Commander, AFOAT, Temporary Building "T", Washington 25, D. C.

1. Attached, as inclosure 1, is tentative vehicle allocation for HARDTACK.
2. Requisitions have been submitted to Department of Army by CJTF SEVEN to fulfill requirements.
3. It is planned that all vehicles will be shipped to arrive in the Eniwetok Proving Ground no earlier than 180 days and no later than 90 days prior to the start of HARDTACK.

FOR THE COMMANDER:

1 Incl:
Vehicle List

W. T. WILSON
Capt AGC
Asst Adj Gen

~~CONFIDENTIAL~~

Incl 17, p.1

[REDACTED]

ARMY CASHED
TERRITORY VEHICLE ALLOCATION

<u>TYPE VEHICLE</u>	<u>HQ</u>	<u>TG 7.1</u>	<u>TG 7.2</u>	<u>TG 7.3</u>	<u>TG 7.4</u>	<u>TG 7.5</u>	<u>AVAIL-1</u>	<u>TOTAL</u>
ASSEMBLERS			2					2
APPARATUS, XCOMMUNICATION		4	2					6
BUSSES			6					6
COACHES			2		46			48
TRAILERS, 1/2 TON, 2-100		3						3
TRAILERS, WATER, 1 1/2 TON		6						6
TRAILERS, LOW BED			2					2
TRUCKS, 1/2 TON, (JEEPS)	11	145	50	3	49		2	259
TRUCKS, 3/4 TON (WEAPON CARRIERS)		70	2	2				74
TRUCKS, 1/2 TON, COMMERCIAL	1	53	19	2	54			129
TRUCKS, 1 1/2 TON COMMERCIAL	1	4	7	1	8			21
TRUCKS, 2 1/2 TON, CARGO		17	6	1	5			29
TRUCKS, 2 1/2 TON, GAS			2					2
TRUCKS, 2 1/2 TON, WATER			1					1
TRUCKS, DUMP			5					5
TRUCKS, TRACTOR, 5 TON		3	3					6
TRUCKS, WRECKER, 5 TON			1					1
TOTAL	13	305	110	9	126	46	1	500

Total 17,10.2

~~SECRET~~
Headquarters
AIR FORCE SPECIAL WEAPONS CENTER
Air Research and Development Command
Kirtland Air Force Base, New Mexico

SWP

14 March 1957

SUBJECT: (S) Officer Personnel Requisitions for Operation "HARDTACK"

TO: Commander
Air Research and Development Command
Attention: RDSPMO
Post Office Box 1395
Baltimore 3, Maryland

1. Attached are AF Forms 390 listing total known officer personnel requirements for Operation "HARDTACK". At this time, it appears all these 28 UMD positions for the 4950th Test Group (Nuclear) and 4952nd Support Squadron must be filled from other than this Center's resources. Additionally, these requisitions should remain valid until filled, and will be added to the mechanized roster in accordance with current requisitioning procedures. Note that the AF Forms 390, broken out in Groups I, II, and III, are comprised of lines number 396 through 423, and we have added a suffix "HT", to denote "Hardtack Manning" and thus hope to preclude necessity of security classification of the mechanized requisitions. (U)

2. All officers selected to fill these requisitions must possess a minimum security clearance of Final Secret. Officers selected will be assigned duty station at Kirtland Air Force Base for a minimum period of 45 days prior to proceeding on TDY to test location. Period of TDY will probably extend to a maximum of 6 months. (U)

3. Note further that, at this time, unit manning precedence rating is unknown. Air Force Special Weapons Center precedence is VI; however, message your Headquarters, cite RDSTTW-7-35-E, AIRAD 848/56, dated 18 July 1956, established precedence rating of 1-B, II-3 for "Plumbbob" manning. It is requested that 100% manning be effected, and manning precedence added when known. (U)

4. For our planning purposes, and maximum effectiveness of mission accomplishment, it is deemed mandatory that officers be in place not later than reporting dates specified. (U)

~~SECRET~~

Incl 14, p. 1

SECRET

SWP Subj: **SECRET** Officer Personnel Requisitions for Operation
"HARDTACK"

5. Informational copies of ARDC Form 6, M&L Roster, will be furnished your Headquarters, beginning 1 July 1957, reflecting status of manning for this operation. (U)

FOR THE COMMANDER:

Incl (5 cys)
a/s

O. J. MOSMAN
Colonel, USAF
DGS/Personnel

SECRET

Incl 18, p. 2

OFFICER PERSONNEL REQUISITION

REPORTS CONTROL SYN'

TO: **Commander**
Air Research and Development Command
P.O. Box 1395, Baltimore 3, Md.

FROM: **Commander**
Air Force Special Weapons Center
Kirtland Air Force Base, New Mexico

DATE SUBMITTED
16 November 1957

MONTHLY REPORT NUMBER
July 1957

ADDITIONAL DESIRABLE QUALIFICATIONS	GRADE	AFSC	OFFICER GROUP	ORGANIZATION			STATION			CONTROL NUMBER			MANDATORY QUAL.	DESIRABLE QUAL.	COMMAND USE
				NUMBER	KIND	TYPE	NAME	CODE	COMMAND	MO.	LINE NUMBER				
16-19	39	40-44	45	46-49	50-52	53-54		55-58	59-61	62	63-66	67-69	69-70	71	
				4950th Test Group (Nuclear)			Rptg MGR								
	4	1435	I	Ops Off (repl for Capt Self)			1 May 57			3968X			C-2		
	4	1435	I	Ops Off (vacant)			1 Jun 57			3978X			C-2		
	4	1444	I	Flying Safety Off (vacant)			Sep 57			3988X			C-2		
	4	15254	I	Acft Obsvr, Nav-Bomber (W/O ops 0 exper)			1 Jan 57			3998X			C-2		
	2	7024	II	Historical Off (vacant)			Aug 57			4008X			C-2		
	5	7316	II	Pers Staff Off (vacant) (AFSC 7016 acceptable)			ASAP			4018X			C-2		
	4	7716	II	Provost Marshal (vacant)			Oct 57			4028X			C-2		
	2	1644	III	Interceptor-Controller (vacant)			15 Feb 58			4038X			C-2		
	5	3016	III	Comm Fleet Off (repl for Fustkebaum) Lt Col			1 Jul 57			4048X			C-2		
	4	3016	III	Comm Fleet Off (repl for Opt Cunningham) ASAP						4058X			C-2		

REMARKS:

TYPED NAME AND GRADE OF AUTHORIZING OFFICIAL

SIGNATURE

OFFICER PERSONNEL REQUISITION

REPORTS CONTROL SYM

NO: 4-17-714

TO: **Commander**
Air Research and Development Command
P.O. Box 1395, Baltimore 3, Md.

FROM: **Commander**
Air Force Special Weapons Center
Kirtland Air Force Base, New Mexico

DATE SUBMITTED
14 March 1957

PERCENT OF REQUIREMENTS
July 1957

ADDITIONAL DESIRABLE QUALIFICATIONS	GRADE	AFSC	OFFICER GROUP	ORGANIZATION			STATION			CONTROL NUMBER			DESIRABLE O.P.L.	MANDATORY O.A.L.	CONVENE USE		
				NUMBER	A. NO.	TYPE	NAME	CODE	COMMAND	NO.	LINE NUMBER	57-55				57-56	57-57
				45-45	50-55	53-54		53-56	55-57	62	53-55	57-56				55-72	71
	5	6436	III	Supply Staff OTC (vacant)					1 Jul 57		4087			C-2			
	4	6436	III	Supply Staff OTC (vacant)					1 Jul 57		4087			C-2			
Medical Support Squadron																	
	4	10440	I	Pilot, transport (vacant)					1 Sep 57		4187			C-2			
	3	1124P	I	Pilot, fighter (vacant)					1 Sep 57		4187			C-2			
	2	1124P	I	Pilot, fighter (vacant)					1 Sep 57		4187			C-2			
	2	1124P	I	Pilot, fighter (vacant)					1 Sep 57		4187			C-2			
	2	1124P	I	Pilot, fighter (vacant)					1 Sep 57		4187			C-2			
	2	1124P	I	Pilot, fighter (vacant)					1 Sep 57		4187			C-2			
	2	1124P	I	Pilot, fighter (vacant)					1 Sep 57		4187			C-2			
	2	1134P	I	Left Observer, Bomber (vacant)					1 Sep 57		4187			C-2			

REMARKS:

TYPED NAME AND GRADE OF AUTHORIZED OFFICIAL

SIGNATURE

OFFICER PERSONNEL REQUISITION

REPORTS CONTROL SYMBOL

NSN 4-AF-324

TO: **Commander
Air Research and Development Command
P.O. Box 1395, Baltimore 3, Md.**

FROM: **Commander
Air Force Special Weapons Center
Kirtland Air Force Base, New Mexico**

DATE SUBMITTED
14 March 1957

MONTH OF REQUIREMENTS
July 1957

ADDITIONAL DESIRABLE QUALIFICATIONS 18-19	GRADE	AFSC 40-44	OFFICER GROUP 45	ORGANIZATION			STATION			CONTROL NUMBER				DESIRABLE QUAL. 67-68	MANDATORY QUAL. 69-70	COMMAND USE 71
				NUMBER 46-49	KIND 50-52	TYPE 53-54	NAME	CODE 55-58	COMMAND 59-61	MO. 62	LINE NUMBER 63-66					
	3	6884	II	Accountant (vacant)					1 Sep 57			415HT		C-2		
	2	7724	II	Air Police Off (vacant)					1 Jan 58			416HT		C-2		
	4	9356	II	Med Service Avn Med (vacant)					1 Jan 58			417HT		C-2		
	3	3054	III	Air Electronics Off (vacant)					1 Oct 57			418HT		C-2		
	4	4316	III	Aft Maint Staff Off (CA, MCI) (vacant)					1 Oct 57			419HT		C-2		
	3	6424	III	Supply Off (MCI) (vacant)					1 Oct 57			420HT		C-2		
	3	6424	III	Supply Off (vacant)					1 Oct 57			421HT		C-2		
	2	6424	III	Supply Off (vacant)					1 Oct 57			422HT		C-2		
	2	6424	III	Supply Off (vacant)					1 Oct 57			423HT		C-2		

REMARKS:

TYPED NAME AND GRADE OF AUTHORIZING OFFICIAL

SIGNATURE

THOMAS W. WILLIAMSON, Major, USAF, Chief Pers Div, DCS/Pers

Headquarters
4950TH TEST GROUP (NUCLEAR)
Air Force Special Weapons Center
United States Air Force
Kirtland Air Force Base, New Mexico

SWSP

5 December 1956

SUBJECT: Personnel Requisitions

TO: Commander
Air Force Special Weapons Center
Kirtland Air Force Base
New Mexico

1. The 4951st Support Squadron (Test) at Eniwetok is currently encountering considerable difficulty in regards to projected gains of personnel as compared to projected losses.

2. The following numbers and types of personnel were requisitioned for assignment to 4951st in accordance with current directives; however, to date no orders assigning replacement personnel have been received nor has confirmation of requisition been made in any manner:

a. Reference letter Headquarters 4930th Support Group (Test),
Subject: Warrant Officer and Airmen Requisition for Month of November 1956, dated 1 May 1956.

<u>NUMBER</u>	<u>GRADE</u>	<u>AFSC</u>
1	SSGT	30150C
1	A1C	55250
1	SSGT	56751
1	MSGT	59170*
1	MSGT	64174
1	TSGT	64175
1	MSGT	73170*

*Information was previously received from Headquarters ARDC to the effect that people possessing these AFSC's would report to Parks Air Force Base on or about 15 November 1956. As of 1 December they have yet to arrive at their destination.

b. Reference letter Headquarters 4930th Support Group (Test),
Subject: Airman's Requisition for Month of December 1956, dated 2 June 1956.

<u>NUMBER</u>	<u>GRADE</u>	<u>AFSC</u>
1	SSGT	70250
5	A1C	70250

Incl 19, p.1

SWSP, Hq 4950th Test Gp (N), 5 Dec 56, Subj: Personnel Requisitions

c. Reference letter Headquarters 4930th Support Group (Test),
Subject: Airmen Requisition for Month of January 1957, dated 2 July 1956.

<u>NUMBER</u>	<u>GRADE</u>	<u>AFSC</u>
1	SSGT	70250
1	A1C	70250

d. Reference letter Headquarters 4930th Support Group (Test),
Subject: Airmen Requisition for Month of February 1957, dated 4 August 1956.

<u>NUMBER</u>	<u>GRADE</u>	<u>AFSC</u>
2	A2C	70230

3. The present difficulty appears to have been generated primarily by a failure to provide adequate information to the 4951st Support Squadron (Test) regarding replacement personnel. A great aid toward alleviation of this problem would be the establishment of a system whereby the gaining organization (4951st) has assurance that it receives copies of Special Orders assigning airmen against their requirements as stated in personnel requisitions. Such orders should be issued and forwarded far enough in advance of reporting date so as to insure that the 4951st this Headquarters can have a more accurate projection of their manning status at any time.

FOR THE COMMANDER:

LOUIS B CHRESTENSEN
Captain USAF
Director of Personnel

SWG

12 April 1957

SUBJECT: Personnel Manning of the 4951st Support Squadron (Test),
Eniwetok, Marshall Islands

TO: Commander
Air Research and Development Command
ATTN: Director of Personnel
Post Office Box 1395
Baltimore 3, Maryland

1. The purpose of this letter is to explain the opinion that the present personnel manning system is inadequate to the peculiar needs of the 4951st Support Squadron (Test) at Eniwetok, and to request that you establish modifications to the system which will permit manning this unit more efficiently.

2. It is vitally important that carefully selected and well qualified replacement personnel for the 4951st are provided to the 4951st on schedule. It is a small unit many thousands of miles from its Headquarters. The manning has been cut to the bone. In function and, therefore, there is an absence of flexibility. There is no outside support available to take care of emergencies. The unit is at an extremely isolated location, and the most vital concern of each man there is the date of his return to the ZI. Any uncertainties which may exist with respect to availability of replacements on schedule so that men can leave on schedule are a source of low morale.

3. As of 1 April 1955 the 4951st (then the 4930th Test Group) was authorized 62 officers and 533 airmen. In April 1956 the authorizations were 55 officers and 498 airmen. The 4951st is now authorized 17 officers and 186 airmen as a permanent UMD. It is true that some reductions in functions took place along with these drastic cuts in manpower. It can readily be understood, however, that the manpower authorizations have steadily been reduced to the point where there is only one airman authorized for many of the key jobs that must be done. If the key airman is not in place for duty, then the job is not accomplished. As an example there is only one parachute rigger in the UMD. If he's not present, the parachutes don't get repacked.

Incl 20, p. 1

SWG, Hq AFSWC, 12 April 1957, Subj: Personnel Manning of the 4951st Support Squadron (Test), Eniwetok, Marshall Islands

4. The present system of providing personnel replacements for the 4951st does not provide that unit with positive assurance that replacements will arrive on schedule. Requisitions are submitted five months in advance of when the replacements are required. These requisitions are processed through the Headquarters of the 4950th Test Group (Nuclear) and this Headquarters, both at Kirtland Air Force Base, then to your Headquarters where they are either acted upon by directive to one of the Centers of the ARDC, or they are passed on to Headquarters USAF. In either case the Headquarters which actually writes personnel movement orders on an individual who is to go to Eniwetok is supposed to send a copy of these orders to the 4951st. This is the only indication the 4951st gets with respect to action on their requisitions. It happens very frequently that these copies of orders are never sent to Eniwetok, and the arrival of an individual is the first notification the 4951st gets of his coming.

5. During a recent visit to Eniwetok by staff members of this headquarters, the following conditions were found to exist:

a. A shortage of 49 airmen. Of 183 authorized, 134 were assigned. Some of these shortages have existed since November 1956. Personnel requisitions were submitted on schedule for each airman position that is not now filled.

b. A shortage of one officer, the Base Accountable Supply Officer, who should be rotated 15 April 1957, with adequate replacement overlap. Personnel requisition was submitted on schedule for this officer position, however, at this writing there is no officer on orders as a replacement.

c. Losing organizations have not forwarded copies of assignment orders (AFM 30-3) far enough in advance for effective planning by the 4951st Support Squadron. Because of this, follow-up or tracer actions have always had to be after the fact, resulting in long periods of time during which personnel requirements are not met.

d. As of 28 March 1957 the 4951st had assignment orders for 16 firefighters, all of whom would be overages to the UMD upon arrival. In an attempt to alleviate the situation, an electrical message was sent from the 4951st, containing 10 firefighters for the Bikini Detachment, the requisition for which was submitted 4 March 1957. At this writing, there are six firefighter overages because all of these individuals reported to the port 8 April 1957. It is believed that these overages were caused by a double requisition, resulting from a status request being treated as another requisition.

SWG, Hq AFSWC, 12 April 1957, Subj: Personnel Manning of the 4951st Support Squadron (Test), Eniwetok, Marshall Islands

6. The Army unit at Eniwetok (Task Group 7.2) is manned directly out of Headquarters USA. The Commander of Task Group 7.2 receives a report from Headquarters USA that shows every officer that is scheduled for assignment to his organization for six months in the future. Whether they do this with enlisted men or not, we do not know. The fact that they do it with officers does provide the Commander, Task Group 7.2, and all of his officers with a great feeling of confidence and satisfaction that is lacking in our unit.

7. We believe that the main feature lacking in the present system for manning the 4951st is the absence of a means to check actions on personnel requisitions on a regular basis. We believe that this means should be engineered into the system and that there should be published at regular intervals (minimum 90 days - desirable 30 days) a report listing all of the individuals of the 4951st together with the return date of each. The report should include in the case of each individual who is to return to the ZI within the next 90 days from the date of the report plus the report interval, the name, serial number, AFSC, marital status, present duty assignment, address, and date of reporting to the port for transport to Eniwetok of the individual who is to replace him.

8. We have given consideration to the question of how the requirement described in paragraph 7 above could best be accomplished. Our first thought was that this is something that the AFSWC could do provided that our personnel resources here would permit us to man the unit directly from AFSWC resources. We have concluded that our resources will not permit this. We believe, however, that with perhaps a few exceptions, Headquarters ARDC does have the resources with which to man the 4951st.

9. It is immediately apparent that the presently specified six months lead time in the submission of requisitions is inadequate, especially if these requisitions must funnel through two Headquarters here at Kirtland before going forward to you or to Headquarters USAF for implementation. Either we must increase the lead time or cut out some of the channels.

10. One way in which the desired results might be achieved is for your Headquarters to take direct responsibility for manning the 4951st. Requisitions and Overseas Returnee Reports could be sent direct from Eniwetok to your Headquarters with only information copies to Kirtland. Your Headquarters could require reports of completed actions of assignments to and from 4951st and use these reports to prepare the consolidated report referred to in paragraph 7 above.

SWG, Hq AFSWC, 12 April 1957, Subj: Personnel Manning of the 4951st Support Squadron (Test), Eniwetok, Marshall Islands.

It is realized that this system would place an additional burden on your Headquarters, but so far we have been unable to think of any other way to do the job efficiently. Incidentally, it appears to us that this proposal would be in line with USAF plans eventually to control all overseas manning on a centralized basis.

11. We would appreciate an opportunity to discuss this subject at staff level as soon as possible and hope that we can devise some arrangement which will permit more efficient manning of the 4951st. We are convinced that the present system must be modified to meet the unique situation at Eniwetok.

FOR THE COMMANDER:

WM. B. KIEFFER
Colonel, USAF
Deputy Commander

BLtr fr SWG AFSWC, Kirtland AFB, N.M., 12 Apr 57, Subj: Personnel
Manning of the 4951st Support Squadron (Test)

RDSP

1st Ind

16 May 1957

Hq, Air Research and Development Command, Post Office Box 1395
Baltimore 3, Maryland

TO: Commander, Air Force Special Weapons Center, Kirtland Air Force
Base, New Mexico

1. A thorough review of the personnel situation at Eniwetok and of past procedures used for manning the 4951st indicates that most of the previous difficulty encountered was caused by inadequate control of personnel manning actions. The need for immediate action to establish rigid manning controls for this unit is apparent. All manning actions related to this unit consequently are now being monitored by this headquarters to insure that procedures are effective and that manning is timely and adequate. However, it is not intended that the direct responsibility for manning the 4951st be changed. This is, and should continue to be, the responsibility of Air Force Special Weapons Center.
2. It is recommended that immediate action be taken to designate one AFSWC activity as responsible for manning the 4951st. This activity should be responsible for insuring that the records relating to the manning of the 4951st are maintained on a current and up-to-date basis at all times and should be the only one authorized to submit officer and airman requisitions to this headquarters.
3. To relieve the morale problem stemming from uncertainty with respect to the availability of replacements, this headquarters will insure that the unit designated receives 90 days advance notification of arrival of replacements, identifying each with the specific position for which intended. In addition, major Zone of Interior commands will be advised by Headquarters USAF to comply with so much of AFM 30-3 as requires distribution of orders from losing organizations in advance of arrival of replacements.
4. This headquarters has established a Kardex system which reflects the 4951st UMD authorized positions, the names of individuals assigned to these positions, DEROS, names and dates of arrival of scheduled replacements, and other information necessary to insure that overages and shortages do not develop. This system will remain in effect at this headquarters until such time as manning controls at all echelons have proven effective.

BLtr fr SWG AFSWC, Kirtland AFB, N.M., Subj: Personnel Manning of the 4951st Support Squadron (Test), 12 Apr 57.

5. Through effective manning controls and improved personnel operating procedures, it is believed that the difficulty previously encountered in manning this unit can be overcome.

6. Request this headquarters be advised of the AFSWC activity delegated the responsibility for manning the 4951st. It is suggested the responsible unit be authorized direct communication with this headquarters on all matters relative to the manning of the 4951st.

BY ORDER OF THE COMMANDER:

ARNOLD L. SMITH
Colonel, USAF
Director of Personnel

[REDACTED]
SWB, Hq 4950th Test Group (N), 21 May 1957 Subj: Use of Military
Police in Lieu of Air Police on Eniwetok During Operational Periods

SWO

1st Ind

Headquarters, Air Force Special Weapons Center, Kirtland Air Force
Base, New Mexico JUN 3 1957

TO: Commander, 4950th Test Group (Nuclear), Kirtland Air Force Base,
New Mexico

This headquarters agrees that the use of Air Police on Eniwetok
during operational periods is desirable.

BY ORDER OF THE COMMANDER

1 Incl:
As stated, dtd
15 May 57

A. W. CARNEY
Colonel, USAF
DCS/Operations

[REDACTED] Incl 22, p.1

[REDACTED]
Headquarters
4950TH TEST GROUP (NUCLEAR)
Air Force Special Weapons Center
United States Air Force
Kirtland Air Force Base, New Mexico

SWS

21 May 1957

SUBJECT: Use of Military Police in Lieu of Air Police on Eniwetok
During Operational Periods

TO: Commander
Air Force Special Weapons Center
ATTN: SWGC
Kirtland Air Force Base, New Mexico

1. A study has been made on the above subject (copy attached) and decision has been reached to maintain presently authorized Air Police manning during operational periods at Eniwetok. (S)

2. To help with the extremely important morale problem, (reference paragraph 4b, inclosure #1) this Headquarters will request of Joint Task Force Seven authorization to direct participating Air Force commands to provide approximately eight (8) Air Police to conduct joint patrol of the various recreational areas. (S)

1 Incl:
As stated, dtd
15 May 57

A. G. THOMPSON
Colonel, USAF
Deputy Commander

[REDACTED] Incl 22, p. 2

~~XXXXXXXXXXXXXXXXXXXX~~
Headquarters
4950TH TEST GROUP (NUCLEAR)
Air Force Special Weapons Center
United States Air Force
Kirtland Air Force Base, New Mexico

SWSV

15 May 1957

Memorandum for Commander, 4950th Test Group (N)

SUBJECT: Use of Military Police in Lieu of Air Police on Eniwetok
During Operational Periods (U)

1. PROBLEM: To determine the feasibility of using Military
Police in Lieu of Air Police at Eniwetok during operational periods. (U)

2. FACTS HEARING ON THE PROBLEM:

a. Basic functions of the Air Police are similar to those
of the Army Military Police, however some Air Police functions at
Eniwetok would be peculiar to normal police functions and would
require some special training of Military Police. (See Appendix "A")

b. The Test Base Unit security section, with support of the
Air Police, is responsible for functions which could not feasibly be
accomplished by the Army Military Police. (See Appendix "B")

c. Morale can be a big problem on Eniwetok, especially
during an operational test period. (See Appendix "C") (U)

3. CONCLUSIONS:

a. Complete or partial absorption of Air Police functions by
Army Military Police could be realized, however:

(1) Complete absorption would require extensive special
training which would be of only a one-time value to the Military Police
personnel. In addition, it is not felt that the Army will readily accept
the concept of assuming the difficult functions peculiar to the Air Police,

~~XXXXXXXXXXXXXXXXXXXX~~
Incl 22, p. 3

[REDACTED]

SWSV, Hq 4950th Test Group (N), subj: Use of Military Police in Lieu of Air Police on Eniwetok During Operational Periods (U)

nor is it felt that the Test Base Unit Commander would want these functions performed by another service.

(2) Partial absorption would require a minimum of special training.

(3) In either case, the over-all police manning requirements would not be reduced. As a matter of fact, the additional training required could increase the over-all police manning.

(4) The Test Base Unit Commander must have close, tight operational control of sufficient police to perform the complete Air Force Security Mission. This control would require the smoothest of coordination and liaison between services at command level.

(5) A morale problem could develop between services as is discussed in appendix "C". (C)

4. RECOMMENDATIONS:

a. That the Air Police unit be retained under the Test Base Unit Security Section to support the Air Force mission during the build-up, operational and roll-up phases of the overseas operational test periods.

b. That, whenever feasible, Military Police and Air Police conduct joint patrols in the vicinity of the NCO Club, Duffy's Tavern, Swimmers Tavern and such other recreational areas where numerous personnel from both services frequent.

c. That other normal island police functions remain as they were during the previous overseas tests, Operation REDWING. (C)

RICHARD S. KILLINGSWORTH
S/Sgt., USAF
MCOIC, Security

Incl 22, p. 4

[REDACTED]

[REDACTED]

Appendix "A" to Memo, subj: Use of Military Police in Lieu of Air Police on Eniwetok During Operational Periods (U)

1. Reference paragraph 2a, basic memorandum. (U)
2. Listed below are those police functions which could be accomplished by the Military Police. However, some of those functions are peculiar to normal police functions and would require special training for the Military Police.
 - a. Provide 24 hour guard for the Drop Aircraft. (Four men required from 1 to 5 days, 24 hours daily, depending on circumstances.)
 - b. Provide guards for the Decontamination Pad for each shot. (Three to four guards required from H-hour to H plus 40 hours or until relieved by proper authority.)
 - c. Provide guards for the Sample Recovery area for each sampling mission. (Two to three guards required from H-1 to H plus 7 hours, or until relieved by proper authority.)
 - d. Provide guards for crashed test and support aircraft. (Four men for 2 to 6 hours for test aircraft. Twenty-four hour guard is required for support aircraft until classified equipment is removed or guard is relieved by proper authority.) (24 hour guard for an eleven day period was required for crashed C-124 during previous overseas test)
 - e. Provide guards for sensitive test material being off-loaded at Eniwetok until it is accepted and signed for by the Atomic Energy Commission. (Two men required, usually 1 to not more than 3 hours)
 - f. Provide necessary patrols to assure adequate security of the airfield perimeter. (Due to large number of personnel, vehicles and aircraft involved, very close control must be maintained over speeders, reckless drivers, etc. One to two men performing periodic checks, 24 hours daily is required.)
 - g. Provide guards for sample return aircraft until the aircraft departs from Eniwetok. (One to two men for 1 to 4 hours)
 - h. Provide for control and storage of weapons and camera equipment as is required. (Some visitors and transit personnel who have such items on board the aircraft are required to check these items of contraband with the security agency concerned.)
 - i. Provide stand-by guards for all emergency (MAYDAY) landings on Eniwetok. (Two men required for 45 minutes to 1 hour. There were a total of 58 MAYDAY landings in May and June 1956)
 - j. Maintain close coordination with the Task Group 7.4 Security Officer on all matters affecting security of Task Group 7.4 units. (I.e. Air Force provides spotter aircraft for unidentified surface vessels, submarines, aircraft in support of Task Group 7.2, who has the island security responsibility. Task Group 7.2 makes Task Group 7.4 personnel cognizant of normal island police procedures such as: The number of personnel who can ride in a jeep, swimming areas, reef dangers, etc.

These functions are normally controlled by both Military and Air Police. (U)

[REDACTED]

Incl 22, p.5

CONFIDENTIAL

Appendix "B" to Memo subj: Use of Military Police in Lieu of Air Police on Eniwetok During Operational Periods (U)

1. Reference is made to paragraph 2b, basic memorandum. (U)
2. The following Air Police and Test Base Unit Security activities are those which could not be feasibly accomplished by the Military Police. These are combined Air Police and TBU Security functions which are peculiar to Air Force operations on Eniwetok.
 - a. Provide for security of the Drop Aircraft. Although Military Police could be utilized as Drop Aircraft guards, (ref par 2a, App "A"), Air Police would be more desirous. Very tight access control and strict compliance with checklists and time schedules which are established by the Headquarters Task Group 7.4 staff and Atomic Energy Commission are required. It is felt that Air Police, being familiar with aircraft guard duty, would result in correcting a dangerous situation before it got out of hand.
 - b. Establish and operate a badge office for all Task Group 7.4 units. This job requires very close liaison with the AEC badge office located on Parry Island and all Task Group 7.4 units concerned. Through-out Operation REDWING there were approximately 1800 permanent badges issued by the TBU and AP section for access to AEC Restricted and Exclusion areas. In addition, over 1000 temporary permits were issued for such access to visitors, observers and those personnel who did not require a permanent badge. This project required the use of one man continuously. Also, one man from Headquarters Task Group 7.4 Security worked with the Air Police on badging when the workload was heavy.
 - c. Provide an Air Police investigator to investigate all incidents in which Air Force personnel are involved. This covers mostly minor thefts, preliminary security violations, vehicle accidents, etc. The OSI in conjunction with the Security Officer, Task Group 7.4 and JTF SEVEN Counter-Intelligence Corps conducts the majority of other investigations.
 - d. Provide investigative assistance for the OSI Agent working out of Headquarters Task Group 7.4 Security Office. This takes in major thefts, UCMJ Article 125 cases, racial problems, alleged sabotage, security violations which may involve compromise and other type investigations which warrant OSI investigation.
 - e. Process and maintain follow-up action on all reports of offense and incidents committed by Air Force personnel.
 - f. Process security clearances on all Task Group 7.4 personnel who arrive on Eniwetok without the prescribed clearance. (There were 53 processed in March and April 1956)
 - g. Establish and maintain a record of security clearance on all personnel of Task Group 7.4 and its units. (Approximately 2300)

CONFIDENTIAL

Incl 22, p. 6

[REDACTED]

Appendix "B" to Memo, subj: Use of Military Police in Lieu of Air Police on Eniwetok During Operational Periods (U)

h. Certify, through JTF SEVEN, to the Atomic Energy Commission, all Task Group 7.4 personnel who require access to AEC Restricted Data information. Maintain these records and terminate these certifications upon completion of the operation.

i. Conduct indoctrination lectures and testing in accordance with JTF SEVEN Security Regulations. Conduct termination lectures and require all Air Force personnel to accomplish security departure statements prior to leaving Eniwetok.

j. Establish, maintain and operate a Photographic Laboratory for all Task Group 7.4 units which have a photographic mission with the operation.

k. Maintain liaison and coordination with the Atoll Provost Marshal on all physical security problems affecting the Air Force. (U)

3. It should be noted that the Air Police maintain a dual capability of both Air Police and administrative functions while on Eniwetok. Between investigations, the AP Investigator may perform routine administrative duties as well as Air Police guard duty. Between patrols, an Air Policeman may be utilized for clerk duties. The NCOIC (Desk Sergeant) performs administrative duties which would normally be handled by an Administrative Supervisor. In summary, the Air Police provide the majority of their own administrative support through full utilization of their own resources. (U)

~~CONFIDENTIAL~~

Appendix "C" to Memo, Subj: Use of Military Police in Lieu of Air Police on Eniwetok During Operational Periods (U)

1. Reference paragraph 2c, basic memorandum. (U)
2. Morale, especially during an operational period, is a major problem on Eniwetok. History of the previous operation shows that there were a total of 4,180 personnel on Eniwetok at one time. Of these personnel, 2300 were Air Force, 1500 were Army, 320 were Holmes and Narver and 60 were Navy. In addition there were as many as 200 Navy personnel on Liberty at Eniwetok for recreational purposes. (U)
3. Although there is no reasonable explanation the fact remains that men of one service seem to resent being detained, arrested or in any way disciplined by other than their own police force. (U)
4. It is probable that dissension will arise between service members of the Army and Air Force if the Army is required to provide police functions for the Air Force. Several such cases during previous operations at Eniwetok and personal interview with two former Commanders of the 4951st Support Squadron (Test) fully substantiate this viewpoint. (U)
5. By retaining Air Police in support of Air Force and the present method of the Military Police supporting Army Police requirements and the Navy who are on liberty at Eniwetok providing their own shore patrol, it is felt that men of all services alike would rest assured of a fair shake. This policy of using the police of the service concerned to control their own men worked out very satisfactorily during the previous 1956 Test Series, Operation REDWING. (U)

~~CONFIDENTIAL~~

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GEORGE

[REDACTED]

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