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Folder FINAL REPORT-OP. REDWING

127021

27 August 1956

~~SUBJECT: Final Report by Commander, Joint Task Force SEVEN on Operation REDWING~~

TO: Joint Chiefs of Staff  
Chairman, Atomic Energy Commission

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This report is submitted in compliance with Directives for Conduct of  
Operation "REDWING" approved by the Joint Chiefs of Staff on 8 July 1955.

MISSION

1. The mission of Joint Task Force SEVEN was to prepare for and conduct  
tests of experimental weapons and devices, and in association therewith make  
diagnostic measurements and conduct DOD weapons effects programs.

DISCUSSION

2. (See Enclosure)

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CONCLUSIONS

- 3. The assigned mission was successfully accomplished.
- 4. The 17 weapons and devices tested performed essentially as predicted.

Broad scientific achievements were:

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b. Further progress was made toward fulfilling the requirements for  
atomic IRBM and ICBM warheads.

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e. The design principles incorporating the  
successfully confirmed.

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f. Progress was made toward development of new  
weapons.

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g. The "clean" weapon principle was proved.

5. Generally, the objectives of the military effects programs were attained.

Specifically:

a. Data was obtained to better define the delivery capabilities of  
late model Air Force and Navy aircraft for weapons of the yield ranges tested

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in Operation REDWING.

b. Experiments were successfully carried out to investigate fallout under a great variety of conditions.

c. With correlation of data from several experimental sources, basic blast, thermal and nuclear radiation effects were obtained from a high yield air burst.

6. The B-52 proved suitable for free-fall delivery of ~~SECRET~~ weapons.

7. The task force received full cooperation from all three military Services in providing military support.

8. The failure of military task groups to retain an adequate number of experienced personnel during the interim period following Operation CASTLE resulted in the loss of continuity and experience, and adversely affected the early planning for Operation REDWING.

9. Observed fallout patterns throughout the operation indicated that the forecasting techniques used were satisfactory.

10. The danger area established for this operation was adequate and the measures taken to prevent radioactive contamination of transient ships and aircraft were effective.

11. Present Service practices concerning radiological safety proved satisfactory for the rad-safe problems encountered during the operation.

12. Presence of representatives of U. S. news media served to publicize the extensive safety precautions taken during REDWING, and thus served to offset to some extent unfavorable foreign reaction to U. S. atomic tests.

13. The Uncleared Observer Program was practicable and was accomplished without unauthorized or inadvertent disclosure of classified information.

14. The objective of furthering the United States national interest by improving the mutual defense capability of the United States, Canada and the United Kingdom was enhanced through the invitation of British and Canadian observers.

15. The intelligence estimate provided by the Joint Intelligence Committee of the Joint Chiefs of Staff was realistic in the light of REDWING experience.

16. The REDWING security program was adequate and effective.

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17. Establishment of a Joint Office of Test Information in Washington is an acceptable method of handling press releases. Assignment of individual public information specialists as advisors to CJTF SEVEN is not desirable.

18. In view of the difficulty of submitting realistic airlift requirements on a four-month lead basis, it would be highly desirable for CJTF SEVEN to be authorized to submit firm requirements on a sixty-day lead basis.

19. High supply priorities enabled the task force to receive critical material and equipment in sufficient quantities and in time to permit the expeditious accomplishment of the assigned mission.

20. The agreement of 1 July 1955 between AEC and DOD on costs and responsibilities for operations at the Pacific Proving Ground proved satisfactory within the task force during Operation REDWING.

RECOMMENDATIONS

21. That the Joint Chiefs of Staff and the Chairman, Atomic Energy Commission note the above conclusions.

22. That the interim strengths of the task group headquarters be maintained during interim periods sufficiently to insure continuity and experience for subsequent operations.

23. That, because of the complexity of problems involved, future atomic tests be considered on an individual basis with respect to attendance of observers, both foreign and U. S., and members of the news media. Further, that consideration be given to including in future observer programs highly selected executives from industry who hold appropriate clearances.

24. That the military Services continue to afford highest supply priorities to Joint Task Force SEVEN.

25. That the AEC-DOD agreement of 1 July 1955 remain in effect during the interim and next operational phase.

26. That a danger area similar to that established for Operation REDWING be established for future operations conducted in the PFG.

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*B. Hall Hanlon*  
B. HALL HANLON  
Rear Admiral, U. S. Navy  
Commander

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ENCLOSURE

DISCUSSION

1. INTRODUCTION

a. On 8 July 1955 Commander, Joint Task Force SEVEN (CJTF SEVEN) received instructions from the Joint Chiefs of Staff to prepare for and conduct Operation REDWING at the AEC Pacific Proving Ground (PPG). Rear Admiral B. Hall Hanlon, USN, Commander, Joint Task Force SEVEN was designated by the Chairman, Atomic Energy Commission as the senior representative of the AEC at the PPG effective 15 March 1956. The command post opened on Parry Island, Eniwetok Atoll, Marshall Islands, on 15 April and closed on 23 July 1956.

b. Eighteen detonations were scheduled for the operation. Seventeen of the original eighteen were detonated; one device, PAWNEE, was cancelled because of the success of LACROSSE. Yields of the various weapons and devices ranged from ~~DELETED~~ Scientific and weapons effects experimental programs were conducted in conjunction with these detonations. This report covers the operational, security, communications, logistical, administrative and fiscal aspects of JTF SEVEN. The Task Force Commander's Report Film, Operation REDWING will be completed and forwarded on or about 1 October 1956.

c. The planning date of 1 May 1956 was established for the first detonation. On 23 March 1956 CJTF SEVEN reported to the Executive Agent that the task force expected to be ready to conduct its first detonation on schedule. The following is a tabulation of detonations:

<u>SHOT NAME</u>	<u>READY DATE SCHEDULE</u>	<u>DATE OF DETONATION</u>	<u>YIELD</u>	<u>LOCATION AND TYPE SHOT</u>
CHEROKEE	1 May	21 May	<del>DELETED</del>	Bikini - Air Drop
LACROSSE	1 May	5 May	38.1 ± 2 KT	Eniwetok - Ground
ZUNI	8 May	28 May	3.53 ± 0.18 MT	Bikini - Ground
ERIE	23 May	31 May	<del>DELETED</del>	Eniwetok - Tower
SEMINOLE	28 May	6 June	13.5 ± 0.7 KT	Eniwetok - Ground
YUMA	1 June	28 May		Eniwetok - Tower
FLATHEAD	2 June	12 June		Bikini - Barge
BLACKFOOT	7 June	12 June		Eniwetok - Tower
INCA	8 June	22 June		Eniwetok - Tower
NAVAJO	8 June	11 July		Bikini - Barge
HURON	12 June	22 July		Eniwetok - Barge
DAKOTA	13 June	26 June		Bikini - Barge
OSAGE	14 June	16 June		Eniwetok - Air Drop
KICKAPOO	18 June	14 June		Eniwetok - Tower
APACHE	20 June	9 July		Eniwetok - Barge
MCHAWK	1 July	3 July		Eniwetok - Tower
TEWA	7 July	21 July	5.0 ± 0.25 MT	Bikini - Barge
PAWNEE				(On a contingent basis depending on performance of LACROSSE)

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2. ORGANIZATION AND COMMAND RELATIONSHIPS

a. The task force was organized into a headquarters and five functional task groups designated as:

- (1) Task Group 7.1 (Scientific)
- (2) Task Group 7.2 (Army)
- (3) Task Group 7.3 (Navy)
- (4) Task Group 7.4 (Air Force)
- (5) Task Group 7.5 (AEC Base Facilities)

b. Forces were provided by the three military Services and by the AEC and its contractors. Appendix A depicts the general organization for REDWING. Appendix B depicts the organization of Headquarters, JTF SEVEN.

c. Organization, mission and major equipment of the task groups are depicted in Appendices C thru G.

3. MILITARY SUPPORT

On 25 June 1955, CJTF SEVEN submitted a report to the Joint Chiefs of Staff outlining the military support requirements for Operation REDWING based on a 13 shot concept. On 8 July 1955 the JCS approved the list of requirements and authorized CJTF SEVEN to modify the support requirements through direct coordination with the Services involved as modifications were made in the operational concept of the test series. The Joint Chiefs of Staff instructed each military Service to establish priorities to insure the timely manning and equipping of the task force. Subsequently the operation was expanded to include 18 shots. Additional military support was requested as the need developed and was provided by the Services as requested. Military forces and major equipment provided are reflected in Appendices B thru G. The task force received full cooperation from all three military Services.

4. PLANNING AND TRAINING

a. Navy and Air Force Task Group Headquarters were not retained following Operation CASTLE. The failure to retain adequate planning staffs resulted in the loss of continuity and experience, and retarded the buildup phase of those organizations. This was particularly true in the Navy Task Group where close liaison was essential with Fleet and Type Commanders as the ships and aircraft which participated in Operation REDWING, almost without exception, were required

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to undergo various alterations prior to the Operation.

b. A planning directive for Operation REDWING was issued on 10 August 1955. As the concept became more firm, Operation Plan 1-56 was issued on 20 January 1956 to cover the period of the operational phase (15 March - 10 August 1956). This plan became an order on 15 March 1956. Numerous meetings were held in Washington with representatives of the task groups and other interested agencies concerning various aspects of the operation. Frequent command and staff visits were made to the task groups to discuss REDWING matters. Responsibility for training of forces provided by the military services remained with the respective Service commanders. The highlight of training prior to the operational phase occurred in January 1956, when the Air Force and Navy Task Groups conducted a communications rehearsal in the Pacific Ocean near San Diego, California.

#### 5. ON SITE OPERATIONS

a. The Operational Phase of REDWING commenced on 15 March 1956 as recommended by AEC and concurred in by the Department of Defense. Arrival of major components in the forward area was phased to coincide with the operational needs. Meanwhile, construction of test facilities progressed substantially as planned.

b. By 3 April 1956, task force elements had arrived in the PPG and detailed preparations were begun for the conduct of a full scale rehearsal. Since CHEROKEE event was considered to be the most complex of the scheduled shots, the task force Commander had directed in February that the rehearsal would be for CHEROKEE. The rehearsal was conducted on 27-28 April. This was the only full scale scheduled rehearsal during the operation. Several communications checks and limited scale rehearsals by task groups were held both prior and subsequent to the CHEROKEE rehearsal.

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c. Prior to each shot at Bikini, all personnel and ships except a seven-man firing party were evacuated from that atoll. For ZUNI event no firing party remained. Personnel were embarked in ships of Task Group 7.3 which proceeded to deployment stations located about 30 miles to the southeast. Reentry of ships and personnel was effected as soon as the radiological situation permitted. For shots at Eniwetok, personnel and equipment were evacuated from the northern camp sites to safe areas on the southern islands of that atoll. Ships were evacuated from the Eniwetok lagoon prior to some of the shots at

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that atoll.

d. Preparation for LACROSSE progressed so successfully that the scheduled date of detonation was advanced to 28 April. However, as a result of unfavorable weather conditions it was not detonated until 0625½ on 5 May. This was a ground shot at Eniwetok. The performance of the device was so satisfactory that the back-up shot, PAWNEE, which was scheduled on a contingent basis, was dropped from the schedule.

e. The CHEROKEE event was the first U. S. drop of a thermonuclear weapon. Delivery was made from a B-52 and proved conclusively that this type aircraft is entirely suitable for the free-fall delivery of [REDACTED] weapons. Due solely to an error by the bombardier, however, the target was missed by about 19,000 feet. All preparations for the shot were completed on 7 May, but because of unfavorable weather conditions at Bikini it was delayed until 0551 on 21 May. On 20 May a Japanese fishing vessel was detected by the task force patrol planes in the northeast part of the danger area. After being directed to proceed in a northerly direction, the vessel cleared the danger area at 0130 on 21 May. Due to insignificant radiological contamination of the Bikini islands, early reentry and recovery of scientific data proceeded with dispatch.

f. ZUNI was detonated on the ground at Bikini at 0556 on 28 May, and two hours later YUMA was detonated on a tower at Eniwetok. This was the first time that two shots had ever been fired on one day in the PFG. No difficulty with contamination was expected or experienced in connection with YUMA because of its low yield. The absence of significant contamination and predicted high water waves at ENYU Island, the base camp at Bikini, permitted early reentry and recovery operations. Off atoll sites at Kwajalein, Wotho and Rongerik were alerted to the possibility that ZUNI might produce high water waves; however, none occurred at those locations. By the afternoon of shot day, normal work was resumed at both atolls in preparation for subsequent detonations.

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g. ERIE was detonated on a tower at Eniwetok at 0615½ on 31 May. The cloud trajectory forecast indicated that the Kwajalein-Guam air route would become contaminated at altitudes 30,000 feet and below. Consequently CJTF-7 recommended to CINCPACFLT that this air route be closed for a 12 hour period

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beginning H plus 6 hours. CINCPACFLT in turn made the same recommendation to appropriate Air Route Traffic Control Centers.

h. SEMINOLE was detonated on the ground at Eniwetok at 1255 $\frac{1}{2}$  on 6 June. This detonation was witnessed by Secretary of Defense Wilson.

i. After two days delay because of unfavorable weather, FLATHEAD was detonated on a barge at Bikini at 0626 on 12 June. Simultaneous with the FLATHEAD detonation BLACKFOOT was detonated on a tower at Eniwetok. Sample return flyaways were combined for these two shots. The flexibility exhibited by the task groups during this phase further demonstrated the two-shot, two-atoll concept as being entirely within the capability of the task force. Control of the operation at Bikini as well as at Eniwetok was exercised by the Commander from the Headquarters location at Eniwetok Atoll.

j. On the morning of 14 June, after several delays because of rain showers, KICKAPOO was detonated on a tower at Eniwetok at 1126 hours.

k. The OSAGE event occurred at 1314 on 16 June. This was an air drop at Eniwetok. The OSAGE drop was extremely accurate, the error being estimated to be less than 200 feet.

l. INCA was detonated on a tower at Eniwetok at 0956 on 22 June. Although the yield was about double that expected, adequate safety precautions prevented unexpected damage or contamination. DAKOTA, which was scheduled for detonation at Bikini earlier the same morning had to be postponed a few minutes before shot time because of deteriorating weather conditions. It was then decided to take advantage of this postponement by placing certain test aircraft which had been scheduled for DAKOTA in the INCA array. It was necessary that these aircraft be returned to base, re-serviced, re-instrumented and positioned in the INCA aircraft array within 3 $\frac{1}{2}$  hours. This was accomplished without incident.

m. After a one-week delay because of adverse weather, DAKOTA was detonated on a barge at Bikini at 0606 on 26 June. The actual yield exceeded the maximum predicted yield by about 25%. Four test effects aircraft sustained minor blast and thermal damage. All aircraft returned to Eniwetok except the B-52 which was diverted to Hickam AFB because of possible flap damage. This was in accordance with a prearranged plan which enabled use of the 13,000 foot runway at Hickam for a no-flap landing. The effects aircraft participation in this event

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was considered the most successful of the entire operation.

n. MOHAWK, originally scheduled as the last event for Eniwetok was detonated on a tower at 0606 on 3 July. Since the shot site was only 13 miles north of Parry Island and the yield was expected to be in the ~~range~~ range, safety measures were taken in addition to the usual safety precautions. Water towers on Parry and Eniwetok Islands were more securely anchored, major ships were evacuated from the lagoon and specific evacuation stations were assigned to all personnel. Favorable atmospheric conditions existed however, and no damaging overpressures occurred on these islands.

o. Following MOHAWK, the four remaining shots were scheduled for Bikini. It appeared that the operational period could be shortened considerably by rescheduling one or more of these at Eniwetok, thereby using both atoll shot sites and gaining maximum advantage of favorable weather periods. Study of available facilities confirmed the feasibility of this plan and APACHE was rescheduled for Eniwetok and detonated in the Mike Crater at 0606 on 9 July. Early reentry, which was some four hours earlier than anticipated, permitted expeditious recovery of data.

p. After two days delay because of unfavorable wind conditions, NAVAJO was detonated on a barge at Bikini at 0556 on 11 July. As anticipated, the lagoon side of Enyu Island and airstrip were inundated by an eight foot water wave. No substantial damage was sustained. The airstrip was inoperative for a four hour period because of debris on the runway. There were no adverse effects on subsequent operations at Bikini.

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q. After three days delay because of unfavorable winds, TEWA was detonated on a barge at Bikini at 0554 on 21 July. On 20 July task force patrol planes sighted an American merchant vessel in the northwest corner of the danger area. However, it was directed out of the danger area well before shot time. Following the detonation of TEWA weather conditions deteriorated and it was anticipated that some fallout would occur at Eniwetok. In order to be able to implement emergency evacuation plans in the event it became necessary, the USNS AINSWORTH, USS CURTISS and USS KNUDSON were ordered to Eniwetok from Bikini. However, fallout resulting from TEWA was not sufficient to require evacuation. This was the last detonation of the REDWING series at Bikini.

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r. After having been delayed three weeks because of technical difficulties with the device, HURON, originally scheduled for Bikini, was changed to Eniwetok and detonated on a barge at O616 on 22 July. This change in site shortened the operation by about five days. Again, due to expected high yield, additional safety precautions were taken. This was the last detonation of the REDWING series.

6. WEAPONS AND DEVICES TESTED

a. GENERAL

(1) The test series was designed to achieve four objectives vital to the continued progress in research and development of atomic weapons and in the improvement of atomic defense. These were:

(a) To proof test certain weapons in stockpile or to be stockpiled in the near future.

(b) To continue developmental research on promising weapons.

(c) To continue long range weapon research of new techniques, ideas and designs.

(d) To conduct a weapon effects program required by the Department of Defense.

(2) Certain aspects of this test series were of particular interest. The program incorporated a proof test of a stockpile fusion weapon [REDACTED] and a small fission warhead [REDACTED] for air-to-air rockets. The quest for a Class D thermonuclear weapon, that is, one weighing not more than three thousand pounds and producing a yield of [REDACTED] occupied a considerable portion of the REDWING schedule. There were in fact five shots devoted to this program. Four shots were made investigating the [REDACTED] and one the [REDACTED]. A feature associated with two of the larger devices [REDACTED] involved a "clean" design of thermonuclear weapons. In the "clean" weapon the major

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and

a reduction in fallout contamination would be achieved. In addition Operation REDWING incorporated development tests of devices and continued the research of small devices suitable for use in air-to-air, surface-to-air, and surface-to-surface missiles.

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b. PROOF TEST SERIES

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It was placed

in the REDWING series primarily to satisfy the DOD requirements for the inclusion of a special military weapon effects test to determine information urgently needed by the Services on radioactive fallout, blast, and thermal effects of thermonuclear weapons. However, in order to obtain as much technical information as possible for application to future design of thermonuclear weapons,

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This,

however, had no effect upon the device. The bomb behaved essentially as expected.

The weighted value of the yield given was

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f. TABULATION OF DATA ON WEAPONS AND DEVICES

A tabulation of data on weapons and devices tested is provided in Appendix H. The figures given in this appendix are values for dimensions and weights of experimental devices as fabricated for assembly and ease of handling. They do not represent the dimensions and weights of engineered weapons developed from such devices.

7. MILITARY EFFECTS PROGRAMS

a. The effects programs for REDWING were the most extensive yet undertaken for an overseas operation. Forty seven projects were conducted under eight programs. Some 900 project personnel and about 50 AFSWP personnel were directly involved in field operations. Most of the experiments were conducted in the PPG, but one extensive and several minor projects collected data from widely scattered stations in the Pacific and Continental U. S.

b. While the objectives of the programs were numerous, the three major objectives were:

(1) To define the special weapons delivery capabilities of late model Air Force and Navy aircraft.

(2) To document the radioactive fallout from high yield devices, to include the initial and final distribution of activity, the time history of accumulation locally and at sea, and the physical and chemical nature of the radioactive material.

(3) To document the basic blast, thermal, and nuclear radiation effects from a high yield air burst.

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c. Preliminary indications are that adequate data were obtained to verify or correct the predicted delivery capabilities of the effects aircraft for weapons of the yield ranges tested in REDWING. Thermal and blast limits were determined for critical components and it may be that redesign of some components will result in better delivery capabilities. As an important result of the tests, considerable improvement is expected in theoretical methods for predicting dynamic responses of aircraft to detonations from nuclear weapons.

d. The fallout program was designed to investigate fallout under the greatest possible variety of conditions. Of the five shots studied one was the high yield air burst, one was a high yield surface burst, and three were barge shots.

Devices having |

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were studied. The data col-

lected are so voluminous and complex that further analysis and interpretation will be necessary before final conclusions can be made. It was desired to prove predictions that there is no substantial fallout hazard from a high yield air burst over land. Since CHEROKEE burst over water instead of land the prediction was not proved, but the negligible fallout received tends to support it.

e. In general, only limited data concerning the basic phenomena associated with a high yield air burst were obtained since the bombing error placed the burst outside the range of most of the instrumentation. However, it was possible to salvage data from some experiments by getting correlating data from participation on other shots, by further laboratory investigations, and by piecing together data from the film records of other experiments. In other cases such as the study of the response of structures to long duration blast loading, no alternate methods of getting the data were possible and the project objectives were largely unaccomplished.

f. In summary, except for loss of data on CHEROKEE, it is believed that final evaluation of the experimental data should satisfy the military effects programs objectives. Preliminary results and conclusions of each project will be published by AFSWP as Interim Test Reports. Upon complete evaluation of data final reports will be published as AFSWP Weapons Test Reports.

8. METEOROLOGY

a. The task force Weather Central was composed of highly qualified Air Force and Navy personnel. All were given intensive training in tropical analysis and forecasting prior to their deployment to the PPG.

b. To insure the collection of sufficient data for reliable weather forecasts, the task force:

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(1) Established communications facilities in the PPG to receive facsimile charts of surface and upper air analyses from Tokyo and Hawaii.

(2) Established task force weather observing stations at Rongerik, Tarawa, Kusaie and Kapingamarangi.

(3) Requested and received through the U. S. Weather Bureau special weather observations from Truk, Ponape, Majuro and Wake.

(4) Increased the number of daily upper air observations at Eniwetok and Kwajalein weather stations.

(5) Operated an aerial weather reconnaissance squadron of ten WB-50's from Eniwetok, which flew a minimum of two twelve-hour missions daily over selected routes at altitudes from 1500 to 30,000 feet.

(6) Received weather information from all Naval task force ships.

(7) Supported the development of and used special weather sounding balloons which penetrated the tropical tropopause to an average height of 90,000 feet.

(8) Supported the development of and successfully used high-altitude sounding rockets to rapidly obtain wind velocities above 100,000 feet. The heads of these rockets contained metal foil (window) which was emitted at preselected altitudes to provide a radar target. The rockets were launched from task force destroyers which had special launchers installed and special modifications to the fire control radars and computers which enabled them to acquire and track these targets.

c. Forecasts prepared by the Weather Central were used by the Staff Weather Officers and the Fallout Prediction Unit in their weather-fallout presentations. These briefings were given to the Commander, Joint Task Force SEVEN at frequent intervals prior to each shot. In addition, the Weather Central disseminated weather forecasts and information to all operating units of the task force.

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d. Because of the peculiar meteorological conditions in the tropical Pacific Ocean areas, special techniques are required for forecasting the weather in these areas. It is therefore necessary that meteorologists have special training in these techniques before they can cope with the problems associated therewith. Following Operation CASTLE in 1954 this training was obtained for task force meteorologists through liaison with the Oahu Research Center, Hawaii. The task force is now in the process of establishing a similar center in association with the University of Hawaii which will study weather forecasting problems at the PFG. The mission of this center will be to test

new operational forecasting techniques, to make climatological studies of the tropical Pacific Ocean areas, and to provide a nucleus of trained meteorologists for future PFG operations.

9. RADIOLOGICAL SAFETY

a. To insure radiological safety, the task force employed a Fallout Prediction Unit which made fallout forecasts for each shot. This unit was manned by personnel from the U. S. Weather Bureau, UCRL, LASL, Sandia Corporation and the U. S. Air Force. The fallout models and forecasting techniques used during the operation were established after extensive research and study of fallout data obtained from previous atomic tests. Observed fallout patterns throughout the operation indicated that these forecasting techniques were satisfactory.

b. As a further safety measure, the task force established a radsafe monitoring network of 16 stations around the PFG. All were equipped with radiological detection instruments and manned by trained personnel. They were linked with task force headquarters by radio. Daily radiation measurements were made and any readings higher than normal were reported. There were no instances of dangerous fallout on any populated areas.

c. In addition to the precautions taken through establishment of the ground net of reporting stations, task force aircraft based at Eniwetok and Kwajalein conducted aerial radiological surveillance flights over all populated areas in the Northern Marshalls after each detonation. Flight patterns to cover the Southern Marshalls, Marianas and Hawaiian Islands were also developed for use in these areas should they be threatened by radiological fallout. However, it was not necessary to implement this plan during the operation. For the larger yield shots, WB-50 aircraft were used as cloud trackers to follow the trajectory of the atomic cloud. There were no reported incidents of contamination of air and surface routes outside the established danger area.

d. Public announcement was made on 1 March 1956 by the AEC, with the concurrence of the State Department and CNO, that effective 20 April 1956 a danger area would be established around Eniwetok and Bikini Atolls. This area was approximately 850 miles long and 450 miles wide. Foreign government

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were notified by the State Department and appropriate notices to mariners and airmen were published by CNO. Concentrated searches were conducted prior to each shot by patrol aircraft to insure that the area was clear of transient ships. Ships detected in or near the boundary of the danger area were directed to clear the area and were kept under surveillance to insure that the area was clear at detonation times. No transient ships or aircraft were contaminated by radioactive fallout during the operation. All significant fallout from detonations occurred within the limits of the danger area. The area proved to be adequate and the safety measures to prevent contamination of transient ships and aircraft were effective.

e. The maximum permissible radiation exposure (MPE) for task force personnel was established by the task force commander with concurrence of AEC at 3.9 roentgens per 13 week period. This exposure was authorized without limitation on rate of exposure and without regard to the individual's radiation exposure history. Authorization for individual exposure in excess of established MPE was granted by CJTF SEVEN for a very limited number of individuals when operational requirements provided justification. Functions performed by task force radiological safety units were typical of Service radsafe functions. Protection of task force personnel did not present any unusual difficulty.

#### 10. PERSONNEL AND ADMINISTRATION

a. During the period preceeding Operation REDWING, tables of distribution were prepared by CJTF SEVEN and the task groups to reflect estimated personnel requirements for the operation. These T/Ds were submitted to the Services and approved. At a later date, additional personnel were found to be necessary and were obtained on a temporary duty status without difficulty. Peak military strength reached approximately 9,500 persons.

b. Responsibility for the administration, discipline, internal organization and unit training of task group forces remained with respective Service commanders. This was in accordance with the policy of the Joint Chiefs of Staff and was entirely satisfactory.

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c. Postal service in the PFG was increased considerably over previous operations. Additional military post offices were established on Parry Island at Eniwetok Atoll and on Enyu Island at Bikini Atoll. Frequent air transporta-

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tion between the United States and the PPG resulted in excellent mail service. This was most helpful in maintaining high morale throughout the operation.

d. A unique postal service was provided the United Kingdom colony at Tarawa. The task force had a weather detachment there and supplied it with weekly flights from the PPG. Since this service was far more frequent than normally available to the British people at Tarawa, arrangements were made to reroute their mail through the PPG during the period 15 April to 15 July 1956. The service was greatly appreciated by them and contributed to the excellent relations which existed between the colony and the task force.

#### 11. OBSERVER PROGRAMS

a. In October 1955 the task force developed a plan for an official observer program for Operation REDWING and submitted it to the Chief of Naval Operations. This plan proposed that invitations be confined to high government and military officials having a direct interest in the operation, and recommended a maximum of 100 observers to be divided equally between the AEC and DOD. The Chief of Naval Operations forwarded this plan to the Military Liaison Committee and recommended that it be forwarded to the AEC for concurrence or comment. In view of anticipated foreign observer participation the Military Liaison Committee referred the proposal to the Joint Chiefs of Staff for review before taking formal Committee action. The Joint Chiefs of Staff concurred in the plan but recommended that the maximum overall observer participation for REDWING be increased to 110 in order to provide for 10 observers from the Permanent Joint Board on Defense (PJBD). The Deputy Secretary of Defense approved the increase, with an allocation of 50 spaces to the AEC, 50 to the DOD, and 10 to the PJBD. The DOD allocation included five spaces for the United Kingdom and five spaces for Canada. The objective of the foreign observer program was to further the United States national interest by improving the mutual defense capability of the United States, Canada, and the United Kingdom. It was noted during the operation that many U. S. observers in the Official Observer Program were of lower rank or position than had been envisaged during development of the plan.

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b. In March 1956 the DOD and the AEC announced an additional program for representatives of U. S. news media and the Federal Civil Defense Administration to view the CHEROKEE shot. Although these representatives were not cleared for access to classified information, necessary security measures were established and plans for accommodating these observers in the PFG were rapidly developed. The Navy installed special communication equipment in the USS MT MCKINLEY and diverted the ship to Kwajalein. The news and FCDA personnel provided their own transportation to Hawaii. They were flown from there by MATS to Kwajalein and taken aboard the MT MCKINLEY. They arrived in the PFG on 5 May and witnessed the LACROSSE detonation. After several delays because of weather, they witnessed the CHEROKEE detonation on 21 May. They were then returned to Hawaii where they made their own arrangements for transportation to the U. S. Though their presence was not without complications, it is considered to have been a very worthwhile program for public enlightenment on atomic testing, as wide coverage was given in the newspapers, radio and television. This coverage included world wide dissemination of task force radiological safety precautions which served to allay concern among foreign peoples.

c. No representatives from industry as such participated in the observer programs. For future atomic tests, it is believed desirable that consideration be given to including in the observer programs highly selected industrial representatives, who hold appropriate clearances, of stature not below that of the vice-president level. It should be expected that this kind of program would enhance good relations between government and industry, and provide for an exchange of technical information and new ideas to the mutual advantage of the DOD, AEC and industry.

## 12. INTELLIGENCE, SECURITY AND PUBLIC INFORMATION

### a. Intelligence

(1) Daily and weekly intelligence summaries were received from the various service intelligence agencies and from the CIA in order that CJTF SEVEN might be kept informed of the general situation in, and adjacent to, the area of operations.

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(2) A special intelligence estimate of enemy capabilities to interfere with the activities of the task force was requested from the Chief of

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Naval Operations. This estimate was prepared by the Joint Intelligence Committee of the Joint Chiefs of Staff and formed the basis of the task force Commander's estimate of enemy capabilities. The task force was considered to be primarily vulnerable to 1) inadvertent release of classified information through failure of personnel to observe security precautions, 2) espionage, through penetration of subversive personnel into the task force, or by defection of personnel within the task force and 3) sabotage, accomplished by penetration of subversives into the task force or by defection of personnel within the task force. Reconnaissance by means of aircraft, submarines or surface ships, and attack by any combination of military forces were considered as capabilities but their employment was considered as a remote possibility; the former being extremely limited capabilities for obtaining vital information, and the latter being considered only as an adjunct to the outbreak of open hostilities.

(3) Plans were established to ensure the prompt reporting and early evaluation of contacts in the PPG; however, none of the contacts reported was believed to have its origin in hostile forces.

b. Security

(1) In accordance with directives of the Joint Chiefs of Staff, CJTF SEVEN reported to CINCPAC for movement control and general security with respect to the task force and the PPG. The PPG was closed to all personnel, ships, and aircraft except those participating in the operations and providing logistic support, and access to the area was controlled by CINCPAC Letter FF-1, A16-1, Serial 020 dated 1 April 1952. A badge system was used to control travel of personnel within the PPG.

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(2) JTF SEVEN security policy was designed to counter enemy capabilities to gain information on the activities of the task force. Headquarters, JTF SEVEN Standing Operating Procedures were published to provide instructions relative to basic security indoctrination, personnel clearances, badge identification systems, official photography, and departure security procedures. In addition to these standing instructions, specific security instructions were issued to cover special events. An extensive security poster program was conducted, and a movie program consisting of short security films was employed.

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[REDACTED]

(3) Surface and air security and safety patrols of the PPG and the danger area were carried out by Naval security forces. Physical security of highly sensitive areas ashore was provided by Army security forces. Guarding of devices at shot sites and in transit thereto was performed by both Naval and Army security forces.

(4) A new problem of security at the PPG was introduced with the approval of the unclassified observer program for REDWING. This group included representatives of U. S. news media and the Federal Civil Defense Administration. None of the members of this group was cleared for access to classified information. During their stay in the PPG, they were given numerous unclassified briefings, were conducted on tours of areas and installations, and the news photographers were permitted to take photographs of unclassified areas and installations under close supervision of security personnel. No classified information was released to participants in this program.

c. Public Information

(1) Releases to the press, pertaining to JTF SEVEN operations and activities, were made only by the AEC and DOD. For this purpose a Joint Office of Test Information (JOTI) was established in Washington, and all proposed press releases were forwarded to that office for clearance and release. Information specialists from the AEC and the DOD were assigned to CJTF SEVEN as advisors on public information matters. Since all proposed news releases were forwarded to, and released by JOTI, it is felt that information advisors are not required in the forward area.

(2) An exception to the above policy was made in connection with the Uncleared Observer Program. In order to provide press service in the forward area, the JOTI group met the observers in Hawaii and remained with them throughout their stay at the PPG. The representatives of the news media received their information from briefings, releases by CJTF SEVEN, interviews, and through general observation and photography. News copy was not censored at any time. Press media transmissions from the USS MT MCKINLEY totaled 172,713 words of press via Pearl, Guam or Kwajalein, 55 photographs via photo facsimile through Pearl or Guam, and 2 to 4 radio broadcasts daily via San Francisco, or Guam.

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13. LOGISTICS

a. Transportation

(1) Transportation activities of JTF SEVEN are unique in the nature and sensitivity of the items involved, and the great need for flexibility to meet scientific and construction demands. Requirements for movement of personnel and cargo by air and surface lift were originated by the various task groups and submitted to CJTF SEVEN. After review and consolidation, requirements were submitted through channels to the Executive Agent, CNO, for presentation to the JMTC. MATS and MSTs equipment were used to lift all task force personnel and cargo requirements not lifted by assigned organic support aircraft or ships.

(2) The phasing of men and material to the forward area began during July 1955 and was not completed until the end of April 1956. Airlift by MATS was used extensively to lift essential personnel, priority supplies, and the majority of test devices to the PPG. Lift of devices by air necessitated the development of a comprehensive plan for emergency support, including escort aircraft, RADSAFE monitors, explosive ordnance disposal teams, and special landing and takeoff routing for aircraft lifting weapons and special device components. Return of radioactive samples required a great effort on the part of MATS, and the mission was accomplished in a highly satisfactory manner, including increased efficiency within the PPG in the gathering and preparation of samples for lift. The slippage in construction schedules in January, February and March 1956 required additional emergency airlift allocations. Major movement problems were caused by delay in construction schedules, late additions, changes necessitated by flexibility in scientific planning, and unpredictable delivery of vendor items to ports of embarkation. The unpredictable termination date of the operation further accentuated the difficulty of accurately predicting airlift requirements for movement of material back to the U. S. In an operation such as REDWING, which was required to meet changing scientific criteria, it was very difficult to accurately firm air requirements on a four-month lead basis. The current JMTC concept is acceptable for such an operation, it would be desirable for CJTF SEVEN to submit to the Executive Agent firm

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requirements on a sixty-day lead basis with the privilege of revising requirements to meet unavoidable changes. MSTs ships lifted a great amount of cargo, construction materials, and vehicles, including nearly 120 large van type trailers equipped as laboratories and for other scientific purposes. Task Group 7.3 ships assisted in specialized lift requirements. USS CURTISS (AV-4) lifted source and special nuclear materials including test weapons and devices. This ship also returned unused test materials to San Diego at the end of the operation. USS BADOENG STRAIT (CVE-116) lifted helicopters and other aircraft to and from the PFG.

(3) To expedite the processing and movement of material and personnel into aerial and water ports of embarkation, existing task force liaison offices were used at Travis AFB, California, Hickam AFB, T. H. and Naval Supply Center, Oakland, California. The liaison office at Naval Station, Kwajalein, M. I., was reopened for this operation.

(4) Over 18,000 passengers and 3000 short tons of cargo and mail were airlifted by MATS between CONUS and the PFG. About 600 passengers and 195,000 measurements tons of cargo including POL were lifted by MSTs and COMSERVPAC ships. These figures do not include passengers and cargo lifted by assigned organic support ships and aircraft. Appendix I shows air and surface logistics data.

(5) To support transportation activity within the PFG (Eniwetok and Bikini Atolls), and to support weather and scientific stations outside the PFG (Kapingamarangi, Kusaie, Tarawa, Rongerik, Wotho, Ujelang, and Utirik), C-47, C-54, SA-16, and L-20 aircraft and H-19 helicopters were used extensively. Two LSTs and an LSD were used in lifting bulky and heavy cargo and for the construction of the weather and scientific stations. A considerable number of LCPLs, LCMs and LCUs were used, along with other surface craft, within the atolls. Generally, traffic operated on established schedules, which were revised as necessary to conform to changes in lift requirements. Between atolls, over 13,000 passengers and 675 short tons of cargo were airlifted on C-47 and C-54 aircraft; 60,000 measurement tons of cargo were moved by ship. The weather and scientific project islands required airlift by SA-16, C-47, and C-54 aircraft in excess of 2000 passengers and 150 short tons of cargo,

[REDACTED]

while almost 13,000 measurement tons of cargo were lifted by ships. Traffic in H-19 helicopters and L-20 aircraft within Eniwetok atoll exceeded 31,000 passengers and 20 short tons of cargo, and within Bikini atoll 30,000 passengers and 50 short tons of cargo. Appendix J shows air and surface logistic data for this activity.

b. Supply

(1) General

(a) The military Services, through existing supply and service agencies, furnished logistic support for the military elements of the task force. CJTF SEVEN submitted 200 requisitions for controlled and highly critical items to the various military agencies of the Department of Defense. In addition, CTG 7.2 (Army), CTG 7.3 (Navy), and CTG 7.4 (Air Force), submitted requisitions through normal supply channels for Army, Navy and Air Force supply, respectively, to meet their assigned logistical mission. Some delay was experienced in receiving supply. However, these delays did not seriously hinder the JTF SEVEN mission. The Secretary of the Army established logistics priorities per AR 11-8, "ARMY PROGRAMS", of 1 June 1955, which was superseded by AR 11-8 of 31 October 1955, whereby Joint Task Force SEVEN was furnished Priority 1A (Highest National Priority) on all matters of supply. This assisted CJTF SEVEN in accomplishing his mission. The Secretary of the Navy and the Secretary of the Air Force also established top level priorities.

(b) The AEC through its appropriate field agencies provided logistical support for the AEC elements of the task force.

(c) Cross-servicing between the AEC and the military Services was authorized per existing regulations of the AEC and DOD.

(2) General Responsibilities

(a) In accordance with a decision of Joint Chiefs of Staff dated 25 February 1955, CJTF SEVEN reported to CINCPAC for movement control, logistic support, and for the purpose of general security of the task force and Eniwetok and Bikini Atolls.

(b) Petroleum, oil, and lubricants (POL) were supplied through existing slating procedures established by CINCPAC.

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(c) The Commanding General, United States Army, Pacific (CG USARPAC) was responsible for furnishing and assisting JTF SEVEN elements in the forward area with the following services: postal service, property accountability, emergency technical supply support, and certain other services.

(d) Audit service was furnished by Pacific Region, Army Audit Agency, APO 958, San Francisco, California.

(3) Organic Logistic Support

(a) The Commander, Task Group 7.1, in coordination with the AEC and its field representative, Commander, Task Group 7.5, provided equipment and technical materials required for implementation of the test program.

(b) The Commander, Task Group 7.2:

1 Provided sales stores, clothing and shoe repair, and laundry service to all elements of the task force on Eniwetok and Japtan Islands.

2 Provided general purpose vehicles and spare parts to all elements of the task group.

3 Furnished special purpose vehicle spare parts common to both Army and Air Force on a reimbursable basis.

4 Furnished on a reimbursable basis housekeeping equipment and supplies for all task force elements on Eniwetok and Japtan Islands except in those cases falling under the purview of Change 6, Paragraph 38-1, SR 35-225-6, of 16 July 1953.

5 Operated consolidated messes on Eniwetok and Japtan Islands.

6 Performed stevedoring and cargo handling on Eniwetok and Japtan Islands.

(c) The Commander, Task Group 7.3:

1 Provided living accommodations, laundry, and sales store facilities for all task force personnel afloat.

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2 Operated and maintained the Navy Boat Pool.

3 Provided the necessary surface lift for establishment of the off atoll sites.

4 Assisted CTG 7.4 in the resupply and maintenance of off atoll sites.

5 Operated recreational facilities on Japtan and Enyu Islands for Navy personnel afloat.

(d) The Commander, Task Group 7.4:

1 Was responsible for compiling all requirements of fuels and lubricants for Eniwetok and Bikini Atolls.

2 Operated the POL farm on Eniwetok Island.

3 Furnished equipment peculiar to the Air Force, special purpose vehicles, and spare parts, as well as the maintenance thereof to all elements of the task force.

4 Provided for the resupply of the weather islands and the project site islands.

(e) Commander, Task Group 7.5:

1 Provided engineering services, comprehensive scientific test and base facility support construction, and construction materials required.

2 Provided subsistence, quarters, laundry, medical, and recreational services on Eniwetok (except Eniwetok and Japtan Islands) and Bikini Atolls.

3 Provided housekeeping and laundry service on Eniwetok Island for quarters assigned to TG 7.1 and TG 7.5.

4 Provided warehousing and property accounting for materials and equipment shipped to the PFG for TG 7.5.

5 Operated boat pools in coordination with TG 7.3 at Eniwetok and Bikini Atolls.

6 Accomplished all stevedoring and cargo handling in PFG except on Eniwetok and Japtan Islands.

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7 Performed all construction at Weather and Project islands, and provided subsistence, housekeeping, and related services at Project islands.

(4) Procurement

[REDACTED]

(a) Essential materials and services, which could not be obtained from military or AEC sources, were procured commercially in Hawaii or CONUS, within the limitations of available funds subject to the following conditions:

1 Wherever possible, procurement was accomplished through existing procurement agencies of the DOD and the AEC.

2 Procurement with task force funds was in accordance with existing Armed Forces Procurement Regulations.

(5) Roll-Up

(a) Disposition instructions were requested 1 March 1956 of all agencies of DOD from whom CJTF SEVEN had property on loan for Operation REDWING. This timely action facilitated the "Roll-Up Phase" of the operation.

(b) Each task group Commander published a roll-up plan prior to 1 May 1956. These plans permitted the accomplishment of the major portion of the material roll-up prior to redeployment of the using personnel and units.

c. Maintenance and Construction

(1) Maintenance of fixed plant facilities on Parry, Enyu, and off atoll islands was performed by the AEC contractor. Task group forces augmented by the AEC contractor provided maintenance of fixed plants on Japtan and Eniwetok Islands.

(2) Fixed plant construction projects essential for REDWING were operational by the end of the first week of April 1956. Construction was completed on 30 major fixed plant projects during the operation.

(3) In preparation for return of Rongelap natives who were evacuated after the [REDACTED] shot of Operation CASTLE in 1954, requirements and criteria were developed for rehabilitation and construction of native facilities on Rongelap Island.

d. Medical Facilities

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(1) The medical facilities in the forward area proved entirely adequate and were based on a 15 day forward area evacuation policy. The Army Task Group provided hospital facilities on Eniwetok Island. The AEC Contractor provided an infirmary and aid stations on Parry Island and at various Bikini camp sites. The Navy Task Group provided medical services to the forces afloat.

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14. COMMUNICATIONS

a. REDWING communications were characterized by a necessity for 24 hour a day reliability, flexibility to meet changing operational requirements, and the ability to rapidly handle a large volume of high precedence, classified radiotelephone and radioteletype traffic with a high degree of security. Planning began nearly a month prior to the completion of CASTLE (May 1954) when task force communication officers met to establish estimates of REDWING requirements and to make recommendations for an improved communications system. Within thirty days after the completion of CASTLE, estimated requirements for cryptographic equipments were submitted to the National Security Agency and by late November 1955, six months prior to the first REDWING shot, the major portion of task force communication requirements had been submitted to the three Services for necessary action.

b. Major communications projects, designed to further improve facilities in the PPG during Operation REDWING, included: (1) Relocation of the Eniwetok Island receiver station to Japtan Island to provide noise free reception and adequate receiver and transmitter station separation; (2) Installations of later model teletype equipment in the Joint Relay Center, Eniwetok, to handle the estimated increase in traffic; (3) Installation of short and long range ciphony (voice encoding) equipment on important scientific circuits; (4) Installations of multi-channel voice and teletype equipment on the ENIWETOK - USS ESTES command link; (5) Installations of multi-channel voice and teletype equipment on the ENIWETOK - BIKINI circuit to provide improved inter-atoll service; (6) Procurement of machine cryptographic devices for eight Central Pacific Islands to provide more rapid communication service for off atoll weather, radsafe and scientific projects.

c. Especially trained maintenance personnel required for newer or more complex communication equipment were provided by the various Services on a temporary duty basis for the operational period.

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d. Radioteletype circuits, equipped in most instances with automatic encryption (on-line) equipment, were the primary means of communications both within the PPG and to areas outside the PPG. The bulk of the scientific traffic was routed directly to Los Alamos and in turn relayed from Los Alamos

to AEC agencies throughout the United States. Air Force traffic was routed directly to Hickam AFB for further relay through AIRCOMNET channels. The bulk of the Army and Navy traffic was routed directly to the Army relay station at Hawaii for further relay or transfer through ACAN or NTX channels. Other radio-teletype circuits linked ENIWETOK and BIKINI Atolls and major task force ships. Except for a small amount of special traffic authorized to be transmitted directly to areas outside the PPG all task force traffic was routed to and from one joint relay crypto center on ENIWETOK. Back-up communications were available for all principal circuits. Approved submarine and landline buoy cable systems linked islands at ENIWETOK and BIKINI and major ships at anchor in both atolls. Telephone and radiotelephone systems were interconnected to provide maximum flexibility. A radiotelephone facility was available from the PPG to HAWAII with interconnection to the Hawaiian Telephone Co. to provide service to the United States.

e. Peak traffic through the Joint Relay Center at ENIWETOK exceeded 65,000 messages per month, and the number of calls through the ENIWETOK dial exchange exceeded 14,000 per day. This far exceeded the totals of any previous overseas test. To further tax the capabilities of the task force outgoing message systems, PRIORITY and higher traffic ran 50% and more on many of the radioteletype links.

f. Communications required by the newsmen for press coverage of the LACROSSE and CHEROKEE events were provided by CNO. Press communication facilities in the PPG were located aboard the USS MT MCKINLEY and included radioteletype, radiotelephone and facsimile. JTF SEVEN communications participation was limited to coordination of frequencies, enforcement of necessary radio silence periods and insuring that the position of the MT MCKINLEY did not interfere with operational task force circuits.

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g. To assist CJTF SEVEN with his PPG communications security responsibilities, the Army Security Agency provided a four-officer and thirty-eight man monitoring detachment. The unit monitored and analyzed over 100,000 radio, teletype, telephone, CW and flashing light transmissions. Actual security violations were negligible.

h. The integrated REDWING communications system in the PPG met all operational demands.

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[REDACTED]

15. FINANCE AND FISCAL MATTERS

a. Funds for the conduct of Operation REDWING were provided by the Atomic Energy Commission and the Department of Defense. By joint agreement 1 July 1955 the AEC and DOD have divided certain costs of operating the Pacific Proving Ground. This agreement proved satisfactory within the task force during Operation REDWING. By Secretary of Defense Memorandum, the cost split between normal service operating expenses, budgeted for by the Services, and extra expenses, budgeted for by the task force and AFSWP, is specified in broad general categories. Some programs and projects were jointly funded with the ratio determined through negotiation. Wherever practicable, mission assignments were made to eliminate joint funding as much as possible.

b. To defray the joint task force share of extra expense referred to above, the commander had certain funds made available from the appropriation, Maintenance and Operation, Army. These funds were used for travel, transportation, communications, materials, supplies, and services properly allocable to the task force as extra expenses. As of 30 June 1956, \$9,064,000 in extra expenses allocable to REDWING had been obligated from Fiscal Year 1955 - 56 funds.

c. Expenses which could be directly identified with a DOD scientific program or the DOD share of the joint AEC-DOD program were funded by the Chief AFSWP from the appropriation Research and Development, Army. The Service Research and Development appropriations further augmented the DOD scientific program with funds under AFSWP coordination. The OSD approved program for Research and Development funds in support of the DOD scientific program amounted to \$16,692,669.

d. Total costs of the operation to all participants was not accumulated through any detailed costing system. By compiling cost data from AEC and DOD reports and by costing service contributions a total cost to the Government on the order of \$160,000,000 is indicated. This figure does not include costs of developing and producing the devices tested.

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e. The resolution of funding problems within the broad guidelines furnished by the OSD presented difficulties in several areas, especially in supporting ships and craft which were used primarily as test vehicles. Satisfactory solutions to all problems were reached through negotiation. However, in order to clarify the guidelines for future application, a proposed revision to the

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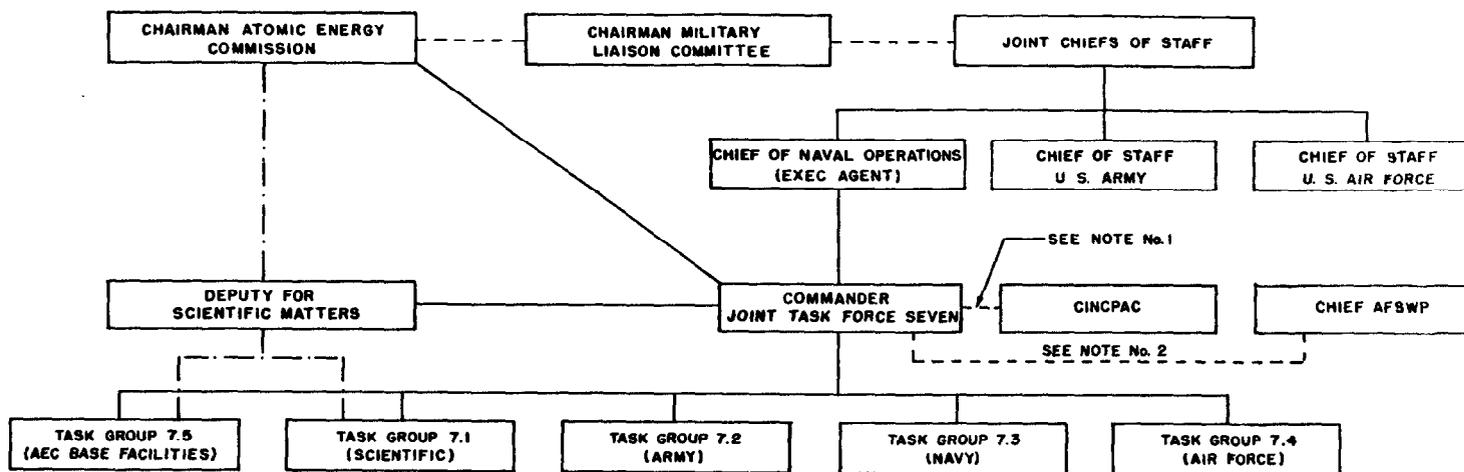
current OSD guidance memorandum of 9 March 1953 was prepared by the task force for OSD consideration. This proposal was coordinated with AFSWP and the Services and the new guideline memorandum was issued 18 August 1956.

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# ORGANIZATION FOR OPERATION REDWING (OPERATIONAL PHASE)



**LEGEND:**  
 ——— OPERATIONAL CONTROL  
 - - - LIAISON  
 ···· AEC POLICY

**NOTE 1:** BY DECISION OF THE JCS ON 25 FEB 1953, THE COMMANDER OF THE JOINT TASK FORCE WILL REPORT TO THE APPROPRIATE COMMANDER UNDER THE JCS (CINCAC) FOR MOVEMENT CONTROL, LOGISTIC SUPPORT AND FOR THE PURPOSE OF GENERAL SECURITY OF THE TEST AREA AND TASK FORCE.

**NOTE 2:** BY DECISION OF THE JCS ON 23 APRIL 1953, THE CHIEF OF THE ARMED FORCES SPECIAL WEAPONS PROJECT (AFSWP) WILL EXERCISE, WITHIN ANY TASK FORCE ORGANIZATION, TECHNICAL DIRECTION OF THE WEAPONS EFFECTS TESTS OF PRIMARY CONCERN TO THE ARMED FORCES AT ATOMIC TESTS CONDUCTED OUTSIDE THE CONTINENTAL UNITED STATES. PRIOR TO THE OPERATIONAL PHASE OF AN OVERSEAS TEST OPERATION, THE TASK FORCE COMMANDER WILL CONSULT THE CHIEF OF AFSWP ON MODIFICATIONS OR DELETIONS TO THE DEPARTMENT OF DEFENSE WEAPONS EFFECTS TEST PROGRAMS.

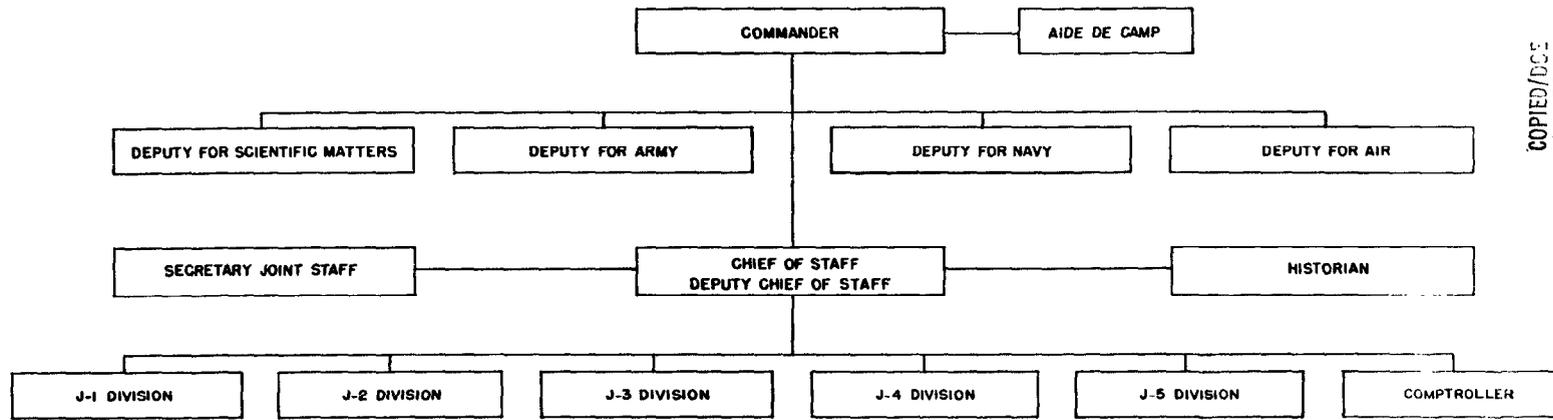
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APPENDIX A

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# HEADQUARTERS, JOINT TASK FORCE SEVEN ORGANIZATION



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APPENDIX B

### MISSION

PREPARE FOR AND CONDUCT TESTS OF EXPERIMENTAL WEAPONS  
AND DEVICES, AND IN ASSOCIATION THEREWITH MAKE DIAG-  
NOSTIC MEASUREMENTS AND CONDUCT DOD WEAPONS EFFECTS  
PROGRAMS.

### KEY PERSONNEL

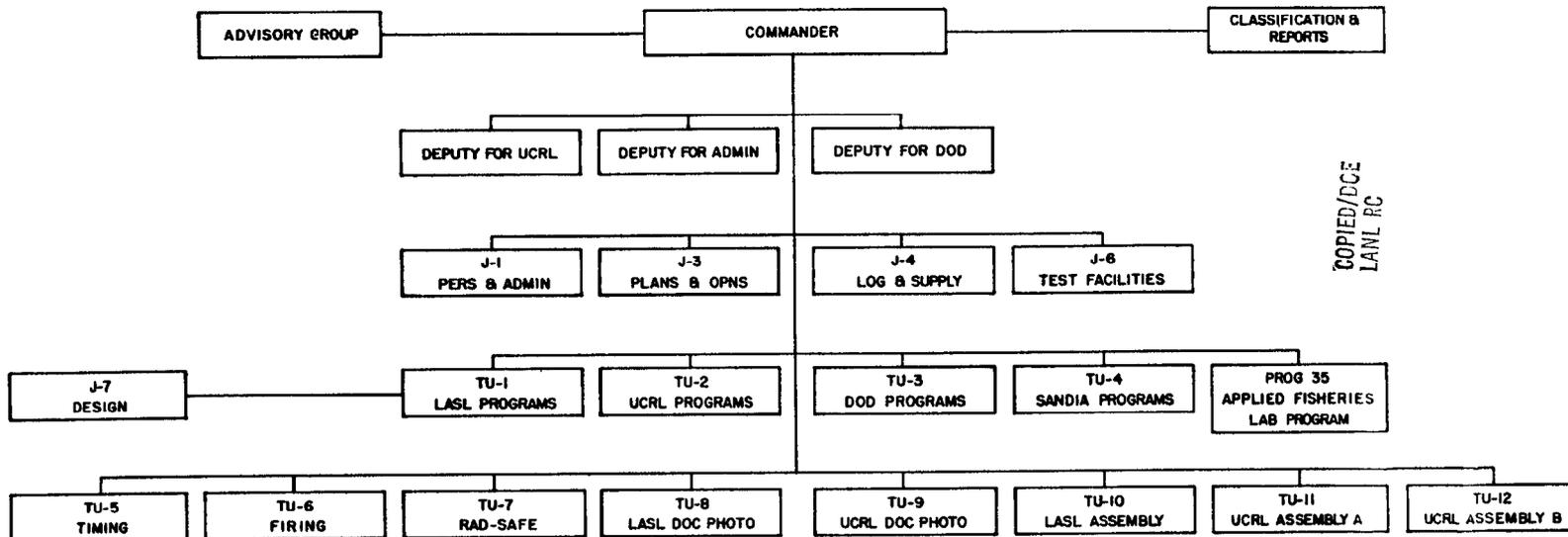
- RADM B. HALL HANLON, USN, Commander
- RADM L. B. SOUTHERLAND, USN, Chief of Staff
- DR. W. E. OGLE, AEC, Deputy for Scientific Matters
- MAJ GEN J. C. MACDONALD, USA, Deputy for Army
- RADM J. H. WELLINGS, USN, Deputy for Navy
- BRIG GEN P. B. GRIFFITH, USAF, Deputy for Air
- COL E. LEDOUX, USAF, J-1
- CDR T. E. Mc CORMACK, JR., USN, J-2
- COL D. O. BYARS, JR., USA, J-3
- CAPT B. H. COX, USN, J-4
- COL H. A. VEST, USA, J-5
- CDR A. P. BOILEAU, USN, Comptroller

### OPERATIONAL STRENGTH

OFF	EM	CIV (OFF GR)
87	121	1
TOTAL - 209		

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# TASK GROUP 7.1 (SCIENTIFIC) ORGANIZATION



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### MISSION

- POSITION, ARM, AND DETONATE THE ATOMIC WEAPONS AND DEVICES.
- MAKE DIAGNOSTIC MEASUREMENTS OF THE DETONATIONS AND CONDUCT WEAPONS EFFECTS PROGRAMS.
- PROVIDE CERTAIN RADSAFE SERVICES FOR THE TASK FORCE.

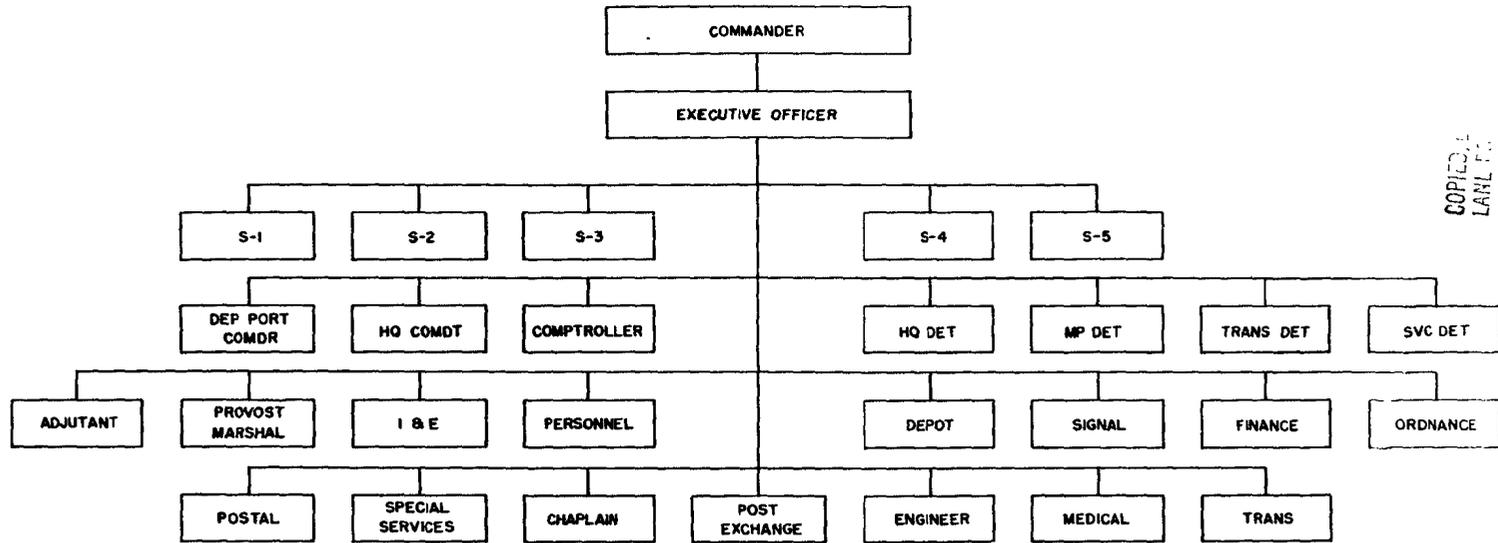
### OPERATIONAL STRENGTH

OFF	EA	CIV (OFF GR)
311	481	928
TOTAL - 1682		

### KEY PERSONNEL

DR. G. L. FELT, Commander	COL. K. D. COLEMAN, USAF, TU-3
DR. G. W. JOHNSON, Deputy for UCRL	MR. D. B. SMISTER, TU-4
MR. D. CURRY, Deputy for Administration	MR. H. E. GRIER, TU-5
COL. L. L. WOODWARD, USAF, Deputy for DOD	MR. E. L. JENKINS, TU-6
DR. R. C. SMITH, Classification and Reports	MAJ G. L. JACKS, USA, TU-7
MR. A. V. KELLY, Personnel and Administration	MR. L. A. GARDNER, TU-8
COL. V. T. KERWIN, USA, Plans and Operations	MR. R. H. JAEGER, TU-9
MR. H. S. ALLEN, Logistics and Supply	MR. F. K. TALLMADGE, TU-10
MR. R. H. CAMPBELL, J-6	MR. F. FAIRBROTHER, TU-11
MR. J. H. HILL, J-7	MR. A. C. HAUSSMANN, TU-12
DR. K. BOYER, TU-1	DR. L. R. DONALDSON, Prog 35
DR. G. W. JOHNSON, TU-2	

# TASK GROUP 7.2 (ARMY) ORGANIZATION



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LANL P.C.

APPENDIX D

## OPERATIONAL STRENGTH

OFF	EM	CIV (OFF GR)
M	1085	1
TOTAL - 1170		

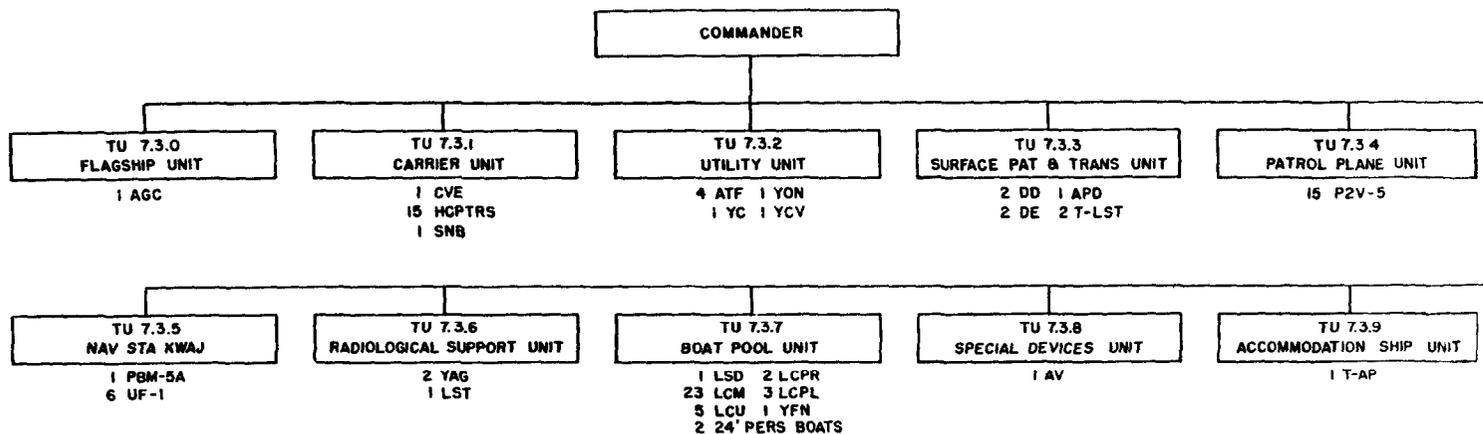
## MISSION

- PROVIDE FOR GROUND SECURITY WITHIN THE PPG.
- OPERATE COMMUNICATIONS AND OTHER BASE FACILITIES AT ENWETOK AND JAPTAN ISLANDS.
- PREPARE TO CONDUCT EMERGENCY POST-SHOT EVACUATION OF ALL ARMY PERSONNEL BASED ON ENWETOK ISLAND.
- PROVIDE MILITARY POLICE SECURITY OF EXCLUSION AREAS.

## KEY PERSONNEL

COL R. M. LILLY, USA, Commander	MAJ C. V. CASH, USA, S-1
LT COL T. S. CLARK, USA, Executive Officer	LT COL A. P. ROSS, USA, S-2
LT COL H. E. BONEK, USA, Deputy Port Commander	MAJ J. R. WALDIE, USA, S-3
MAJ J. L. TREADWELL, USA, Headquarters Commandant	LT COL J. A. COULTER, USA, S-4
CAPT F. V. PLAUTZ, USA, Comptroller	MAJ W. A. KOENIG, JR., USA, S-5

# TASK GROUP 7.3 (NAVY) ORGANIZATION



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APPENDIX E

### MISSION

- CONDUCT SECURITY AND SAFETY PATROLS (AIR AND SURFACE SHIP) AS REQUIRED.
- PROVIDE SURFACE SHIP TRANSPORTATION BETWEEN ENIWETOK AND BIKINI AND OTHER ATOLLS AS REQUIRED.
- PROVIDE SHIPBOARD COMMAND, CONTROL AND COMMUNICATION FACILITIES FOR CJTF SEVEN AND THE TASK GROUPS.
- PROVIDE SHIPBOARD FACILITIES TO ACCOMMODATE ELEMENTS OF THE JOINT TASK FORCE WHILE AFLOAT, INCLUDING PRE-SHOT EVACUATIONS AS DIRECTED BY CJTF SEVEN.
- PROVIDE SUPPORT TO SCIENTIFIC PROJECTS AS REQUESTED.

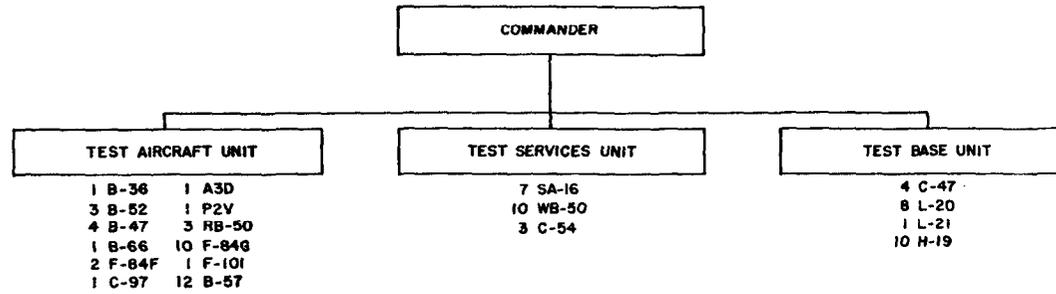
### OPERATIONAL STRENGTH

OFF	EA	CIV
354	4148	236
TOTAL - 4738		

### KEY PERSONNEL

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>RADM J. H. WELLINGS, USN, Commander</li> <li>CAPT H. T. UTTER, USN, Chief of Staff</li> <li>CDR W. G. BROWN, USN, Plans and Operations</li> <li>CDR C. A. DANCEY, JR., USN, Logistics</li> <li>LCDR B. ROTHBERGER, USN, Admin and Pers</li> <li>LCDR S. W. INKS, USN, Communications</li> <li>LCDR H. H. LEYI, USN, Security and Intelligence</li> <li>CAPT A. V. FIRTH, USN, TU 7.3.8</li> </ul> | <ul style="list-style-type: none"> <li>CAPT J. A. JAP, USN, TU 7.3.1, SOPA (Admin) Bikini</li> <li>CAPT H. G. HUNSON, USN, TU 7.3.3; SOPA (Admin) Eniwetok</li> <li>CDR W. J. BOWERS, USN, TU 7.3.4</li> <li>CAPT P. C. STALEY, USN, TU 7.3.5</li> <li>CAPT G. G. MOLUMPHY, USN, TU 7.3.6</li> <li>CAPT B. L. BAILEY, USN, TU 7.3.9</li> <li>MASTER H. CLIFFORD, TU 7.3.9</li> </ul> |
|--|--|

# TASK GROUP 7.4 (AIR FORCE) ORGANIZATION



## MISSION

EXERCISE AIR TRAFFIC CONTROL OVER ALL AIRCRAFT IN THE AIR CONTROL AREA DURING THE OPERATIONAL PERIOD.

EXECUTE ASSIGNED REDWING MISSIONS TO INCLUDE CLOUD SAMPLING, EFFECTS TEST AIRCRAFT OPERATIONS, COMMUNICATIONS SERVICES, SEARCH AND RESCUE, WEATHER SERVICE, NATS TERMINAL OPERATIONS AND OFFICIAL OBSERVER FLIGHTS.

PROVIDE AIR TRANSPORTATION BETWEEN EHIWETOK AND BIKINI AND OTHER ATOLLS AS REQUIRED.

## OPERATIONAL STRENGTH

OFF	EM	CIV (OFF GR)	CIV (EM GR)
347	1175	45	53

TOTAL - 2187

## KEY PERSONNEL

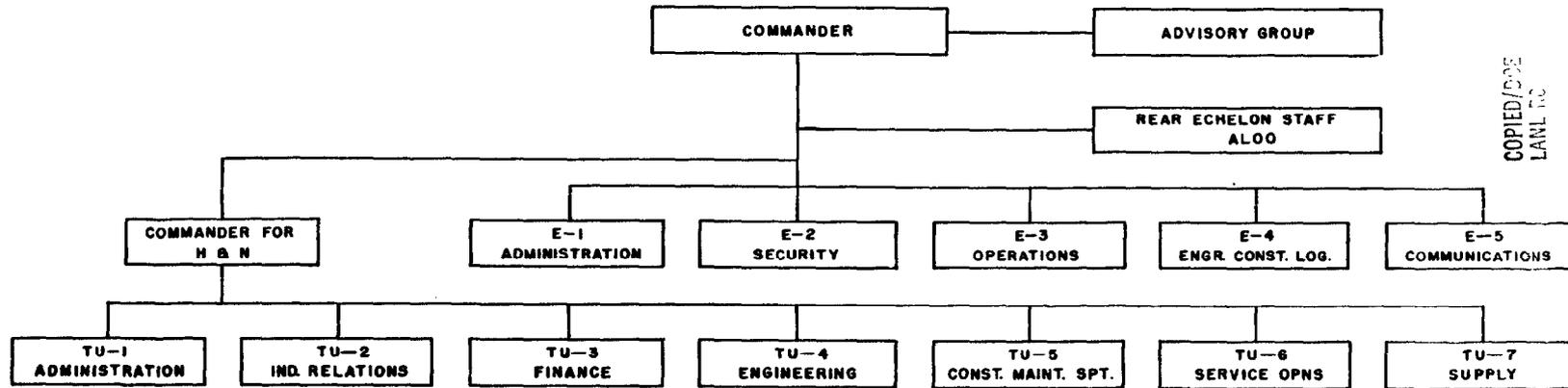
COL J. S. SAMUEL, USAF, Commander  
 COL P. R. WIGHALL, USAF, Deputy Commander  
 LT COL W. E. OBER, USAF, Chief of Staff  
 COL F. B. CARLSON, USAF, Operations  
 LT COL C. W. ROBBINS, JR., USAF, Materiel

MAJ W. A. CHAFFEE, USAF, Personnel  
 LT COL C. M. SARTAIN, USAF, Comptroller  
 LT COL W. A. FACKERTHAL, USAF, Communications  
 MAJ H. D. BLACK, USAF, Security  
 MAJ C. J. LAINO, USAF, Adjutant

COL C. A. DUSLEY, USAF, Test Aircraft Unit  
 COL W. S. BARNEY, USAF, Test Services Unit  
 LT COL L. F. MUSTON, USAF, Test Base Unit

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 LAMLR RC

# TASK GROUP 7.5 AEC BASE FACILITIES



COPIED/DDE  
LAWL RC

APPENDIX G

## MISSION

- CONTINUE TO EXECUTE MISSION ASSIGNED BY THE MANAGER, ALBUQUERQUE OPERATIONS OFFICE (ALOO) IN ACCORDANCE WITH CURRENT AEC POLICIES.
- PROVIDE NECESSARY BASE FACILITIES AND LOGISTIC SUPPORT AT ENWETOK AND BIKINI ATOLLS IN ACCORDANCE WITH EXISTING AGREEMENTS.
- PROVIDE NECESSARY STRUCTURES TO MEET DIAGNOSTIC AND MILITARY EFFECTS TEST REQUIREMENTS.

## OPERATIONAL STRENGTH

CIV (OFF GR)	CIV (RM GR)
435	2353
TOTAL - 2788	

## KEY PERSONNEL

- |                                  |                                  |
|----------------------------------|----------------------------------|
| MR. J. E. REEVES, Commander      | MR. S. HOWELL, Commander for H&N |
| MR. P. W. SPAM, Deputy Commander | MR. D. W. BULLOCK, TU-1          |
| MR. E. A. BUTTS, E-1             | MR. S. H. ROBERTSON, TU-2        |
| MR. W. R. ADAM, E-2              | MR. S. SCHMIDT, TU-3             |
| MR. C. W. KELLY, E-3             | MR. C. F. DUNLAP, TU-4           |
| MR. T. A. HARDISON, E-4          | MR. E. JEFFCOAT, TU-5            |
| MR. J. A. SUGDEN, E-5            | MR. W. H. GAMET, TU-6            |
|                                  | MR. W. U. ROHRER, TU-7           |

DEVICE

(LACROSSE)

DELETED

(CHEROKEE)

DELETED

(ERIE)

DELETED

(SEMINOLE)

DELETED

(YUMA)

DELETED

(FLAT HEAD)

DELETED

(BLACKFOOT)

DELETED

(INCA)

DELETED

COPIED/DOE  
LANE RC

APPENDIX H

CONTINUED

744C  
D

SECRET

~~SECRET~~

DEVICE										
DELETED										
(NAVAJO)										
DELETED										
(HURON)										
DELETED										
(DAKOTA)										
DELETED										
(OSAGE)										
DELETED										
(APACHE)										
DELETED										
(KICKAPOO)										
DELETED										
(MOHAWK)										
DELETED										

DELETED

COPIED/DOE  
LANL RC

RESTRICTED BY  
Atomic Energy Act 1954

APPENDIX H

CONTINUE  
~~SECRET~~

~~TOP SECRET~~

DEVICE
(TEWA)
(ZUNI)
DELETED

DELETED

~~TOP SECRET~~

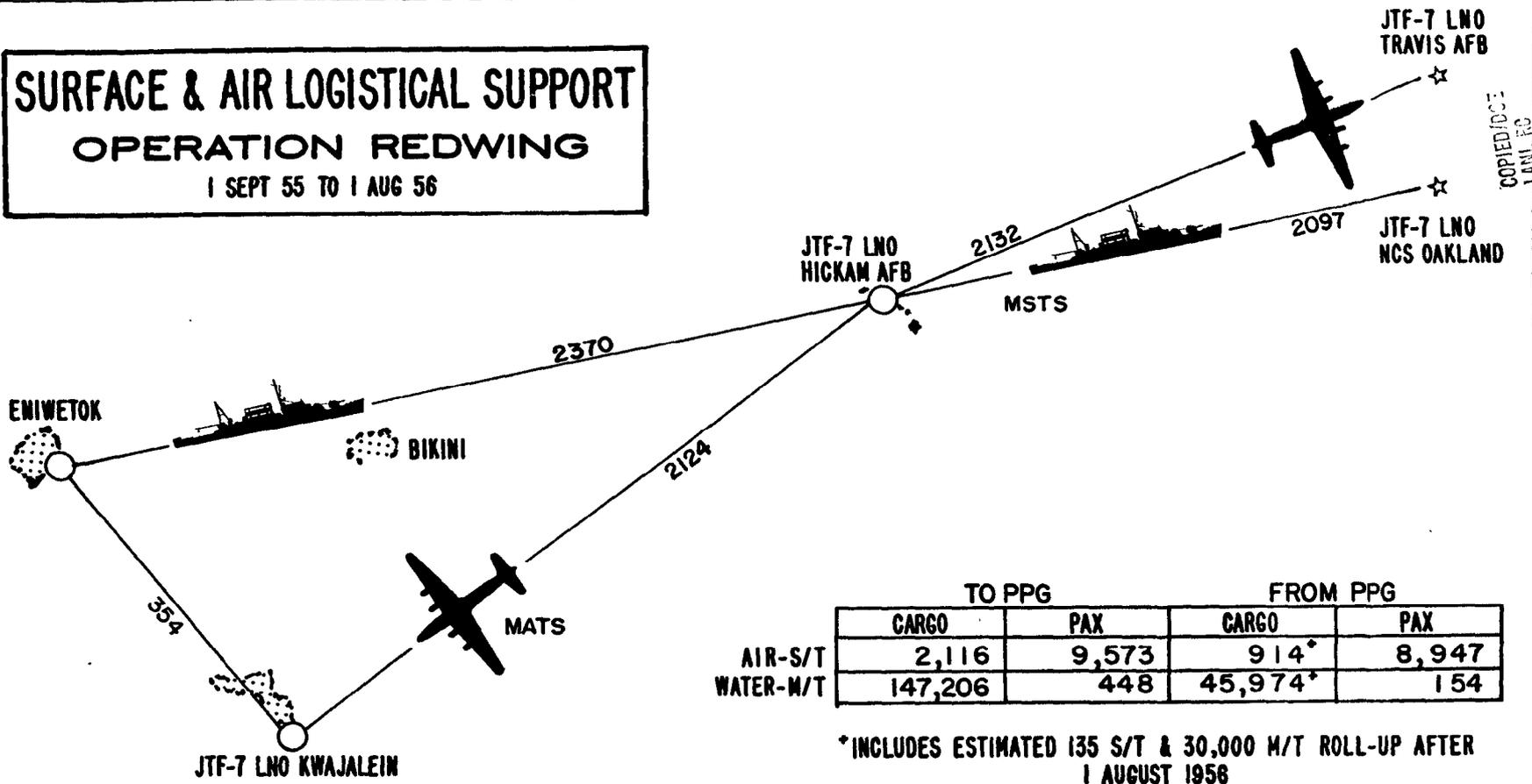
APPENDIX H

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LANL 50

354  
4

# SURFACE & AIR LOGISTICAL SUPPORT OPERATION REDWING

1 SEPT 55 TO 1 AUG 56



	TO PPG		FROM PPG	
	CARGO	PAX	CARGO	PAX
AIR-S/T	2,116	9,573	914*	8,947
WATER-M/T	147,206	448	45,974*	154

\*INCLUDES ESTIMATED 135 S/T & 30,000 M/T ROLL-UP AFTER  
1 AUGUST 1956

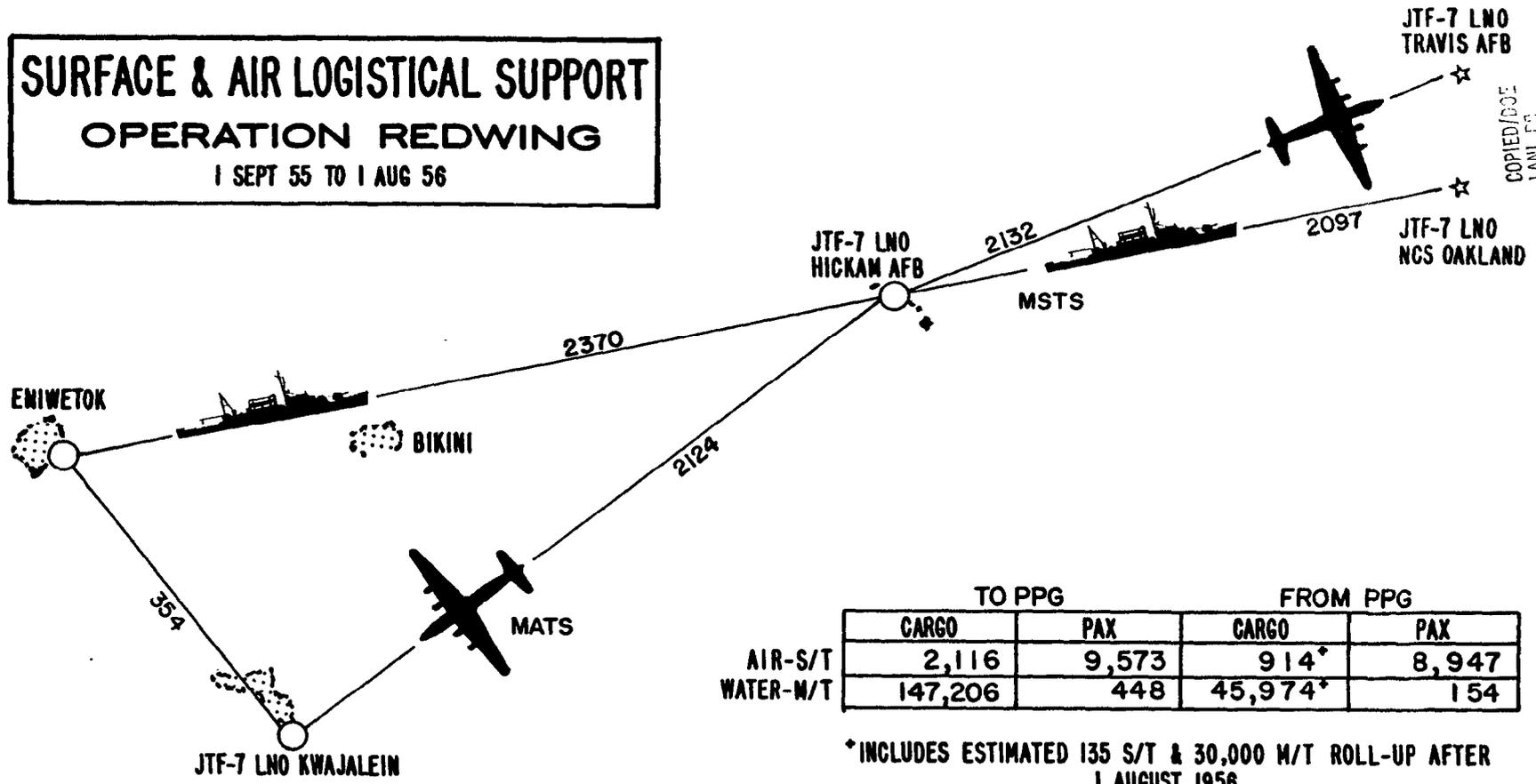
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APPENDIX I

4

# SURFACE & AIR LOGISTICAL SUPPORT OPERATION REDWING

1 SEPT 55 TO 1 AUG 56



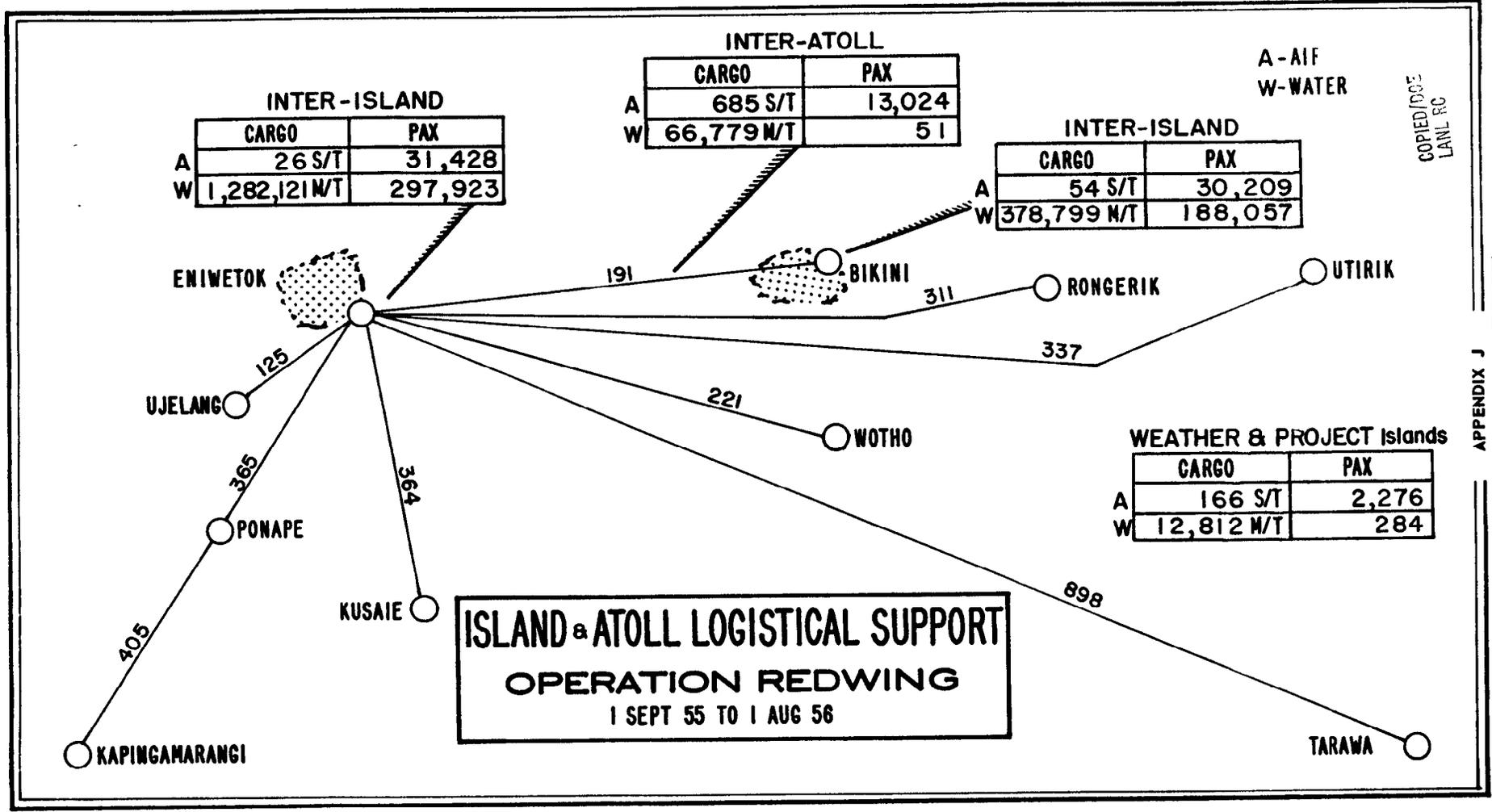
	TO PPG		FROM PPG	
	CARGO	PAX	CARGO	PAX
AIR-S/T	2,116	9,573	914*	8,947
WATER-M/T	147,206	448	45,974*	154

\*INCLUDES ESTIMATED 135 S/T & 30,000 M/T ROLL-UP AFTER  
1 AUGUST 1956

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LANL ES

APPENDIX I

47



**INTER-ISLAND**

	CARGO	PAX
A	26 S/T	31,428
W	1,282,121 M/T	297,923

**INTER-ATOLL**

	CARGO	PAX
A	685 S/T	13,024
W	66,779 M/T	51

**INTER-ISLAND**

	CARGO	PAX
A	54 S/T	30,209
W	378,799 M/T	188,057

**WEATHER & PROJECT Islands**

	CARGO	PAX
A	166 S/T	2,276
W	12,812 M/T	284

**ISLAND & ATOLL LOGISTICAL SUPPORT**  
**OPERATION REDWING**  
 1 SEPT 55 TO 1 AUG 56

COPIED TO  
LANT RC

APPENDIX J

A-AIF  
W-WATER