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Commander Task Group 132.3

Final Report - Operation IVY

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Joint Task Force 132

Commander Task Group 132.3

FINAL REPORT - OPERATION IVY

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Final Report - Operation IVY
ComTaskGroup 132.3

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4 December 1952

ABSTRACT OF FINAL REPORT ON OPERATION IVY - 5 DECEMBER 1952

Joint Task Force 132, operating under the Chief of Staff, U.S. Army as Executive Agent for the Joint Chiefs of Staff, was formed under the command of Major General P. W. CLARKSON, USA, to conduct tests at the AEC Pacific Proving Ground in the Fall of 1952 - OPERATION IVY.

Task Group 132.3 under Rear Admiral C. W. WILKINS, USN, was the Naval Component of this Joint Task Force.

This report relates to the activities of the Naval Task Group; its mission, organization, training and execution of plans. Conclusions reached as a result of observations made during the operation, and recommendations made for the consideration of those who may have a part in planning similar operations in the future are set forth in some detail in the various parts of the report indicated in the following Table of Contents. The most significant of the Conclusions and Recommendations are:

a. CONCLUSIONS

1. The operation was successful.

2. There were no significant operational casualties to personnel or material.

3. There was no evidence of attempts by unfriendly forces or agents to reconnoiter the test area or to interfere with operations.

4. The timing of the movement of subordinate units to the forward area was appropriate.

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5. All units upon reporting to the Task Group were well trained, equipped and capable of performing their assigned tasks.

6. The forces provided the Task Group were adequate for the accomplishment of the mission; however, several units, e.g. the Boat Pool, the Patrol Squadron and the Helicopter Unit, were extended to the practical limit of their capabilities.

7. The logistic support furnished the Task Group was excellent.

8. There was considerably greater participation by the Task Group in the Scientific Projects than was contemplated in the concept of the operation.

9. The assignment to the Task Group of civilian manned vessels without adequate crypto aids and without communication personnel experienced in naval communications placed an added burden upon already overloaded communication facilities and introduced a serious communications security hazard.

10. The prior publication in the nation's press and periodicals of amazingly accurate predictions and speculations concerning classified aspects of the operation weakened the security consciousness of some personnel.

b. RECOMMENDATIONS CONCERNING FUTURE OPERATIONS.

1. To facilitate planning, and to reduce communication requirements, it is recommended that the staffs of the Task Force Commander and the Task Group Commander be physically located adjacent to one another during the planning phase and be embarked in the same ship when both are afloat for operations.

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2. It is recommended that the capabilities of the Navy Task Group personnel and facilities to support and assist in scientific projects be explored in planning, and that, when appropriate, the Task Group be assigned tasks in this field.

3. In the determination of force requirements, consideration should be given to the scope and probable duration of contemplated operations in relation to Operation IVY, with recognition of the fact that in IVY several units were extended to the practical limit of their capabilities.

4. It is recommended that the Navy Task Group be organized basically into elements appropriate to the evacuation plan, giving consideration to requirements of the scientific program.

5. In deciding upon security operations to be undertaken, a realistic evaluation of the most probable intentions of unfriendly powers should be made and precautionary measures should be planned accordingly.

6. If civilian manned ships are assigned for the operation, it is recommended that experienced communication teams of naval personnel be placed aboard them with adequate crypto aids.

7. In formulating communications plans it is recommended that careful consideration be given to the summary of conclusions and recommendations set forth on page 16-16 and 16-17 of this report.

8. It is recommended that "Q" clearance requirements be re-examined in the light of current AEC-DOD regulations with a view toward reducing their number significantly.

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8. It is recommended that the regulations concerning badge requirements, restricted areas and personnel identification in effect during Operation IVY be re-examined with a view to liriting restricted areas to those compounds in which and sites at which hightly classified material is located.

10. It is recommended that scheduled announcements by the AEC be made after each shot

11. It is recommended that mail from the operating area be censored.

12. It is recommended that for Operation CASTLE Japtan Island be reserved for recreational use as it was in Operation IVY.

13. This material contains information affecting the national defense of the United States within the meaning of the espionage laws, Title 18, U.S.C., Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

C. W. Wilkins

C. W. WILKINS
Rear Admiral
Commander Task Group 132.3

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Joint Task Force 132
TASK GROUP 132.3

FINAL REPORT OF COMMANDER, TASK GROUP 132.3 ON OPERATION IVY

SUBMITTED TO COMMANDER, JOINT TASK FORCE 132

Part Number	Subject
ABSTRACT	Summary, Conclusions and Recommendations
1.	Mission of Task Group 132.3
2.	Organization and Command Relationships
3.	Planning and Training
4.	Movement to the Forward Area and Assembly of Subordinate Units
5.	On-Site Operations and Rehearsals
6.	Search and Rescue
7.	Shot Phase Evacuation, Afloat Operations and Reentry
8.	Intra-Atoll Surface and Helicopter Transportation
9.	Disposition of Forces and Equipment (Roll-up)
10.	Hostile Alert Plan
11.	Typhoon Plan
12.	Radiological Safety
12. - I	Report of Radiac Instruments Used on Operation IVY by Naval Forces
13a.	Convoy and Escort Element - Movement of CURTISS
13b.	Surface Security Operations
13c.	Patrol Squadron TWO Security Patrols
13d.	Air Defense and Carrier Aircraft Operations
13e.	Underwater Detection Unit
14.	Mobile Boat Pool
15.	Intelligence and Security
16.	Communications
17.	Medical
18.	Recreation

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PART I - MISSION OF TASK GROUP 132.3

1. The mission assigned to Commander Task Group 132.3 was set forth in Commander Joint Task Force Operation Plan No. 2-52 to be the following:

a. Provide for the security of the ENIWETOK Danger Area by:

(1) Maintaining the status of the closed area.

(2) Detecting, warning, and escorting unauthorized vessels out of the Danger Area.

b. Provide suitable water transportation and shipboard command facilities for the experimental devices to meet the requirements of CTG 132.1.

c. Provide shipboard command facilities for CJTF 132, and administrative space for Headquarters, TG 132.1 and Headquarters, TG 132.2.

d. Provide ship to shore and intra-atoll surface and helicopter transportation, to include flights for damage survey and recovery of scientific samples and film.

e. Provide shipboard facilities to house the JTF while afloat.

2. The mission assigned to Commander Task Group 132.3 as set forth in paragraph 1. above, was further expanded by CJTF 132 in Annex G to CJTF 132 Operation Plan No. 2-52, which set forth the summary of tasks for the Naval Task Group as follows:

a. By use of assigned destroyers and patrol aircraft, conduct

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search of the ENIWETOK Danger Area so as to detect the presence of unauthorized vessels.

b. By means of radar surveillance, reconnaissance flights, and combat air patrol, detect the presence of unauthorized aircraft in the ENIWETOK Danger Area.

c. Deny entry to the closed area of unauthorized vessels and aircraft.

d. Coordinate with CTG 132.1 and CTG 132.2 the efforts of the boat pools.

e. Utilizing the CURTISS, transport special devices as directed.

f. Provide suitable escort for the USS CURTISS when transporting special devices.

g. Maintain a plot of ships and aircraft transiting the Danger Area.

h. Control harbor facilities in ENIWETOK Atoll in coordination with CTG 132.2.

i. When directed, assume responsibility for the search and rescue mission within the Danger Area. Utilize Task Force equipment operating in the ENIWETOK Area in accomplishing this mission.

j. Provide ship to shore and intra-atoll surface and helicopter transportation, to include flights for damage survey and recovery of scientific samples and film.

k. Direct the movement of personnel between ship and shore during the evacuation and reentry periods.

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l. Provide space on the USS RENDOVA for a mobile radiological laboratory and associated operations of the radiological safety unit of TG 132.1.

m. Provide decontamination facilities for aircraft aboard the CVE.

n. Provide for radiological safety of the embarked task group units upon evacuation of ENIWETOK Atoll.

o. Provide for transportation of approximately 20 Air Force aircraft from the west coast (U.S.) to KWAJALEIN Island.

p. Assist the U.S. Coast Guard in monitoring the LORAN station while the Task Force is afloat.

q. Monitor the progress of the installation of special equipment of task group elements.

r. Provide necessary transportation for the establishment of the outlying weather stations.

s. By means of amphibious aircraft, and such other shipping as is available, provide transportation for limited resupply of weather stations.

t. Provide for delivery of Task Force priority air cargo from KWAJALEIN to the Task Force while afloat.

u. Provide for gathering of weather information from Task Group elements as required by the Task Force Weather Central.

v. By means of amphibious aircraft, collect scientific data and water samples from outlying islands.

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3. Although nowhere in the assignment of mission or tasks was it specifided that the Naval Task Group would support individual scientific projects and programs, a large number of units of the task group eventually were delegated to such support either as secondary or primary assignment. This subject will be covered more fully in the sections on planning and on operations.

4. Paragraphs 1 and 2 above formed the basis upon which CTG 132.3 made his assignment of tasks to units of the Navy Task Group.

5. Comments.

The missions and tasks assigned to the Navy Task Group for this operation were appropriate and adequate except for the omission of one requirement, that of support for scientific projects by units of the Navy Task Group.

6. Recommendations.

It is recommended that the Navy Task Group Commander be assigned an additional task for the next operation, such as, "Using aircraft and appropriate surface units, provide, within own capabilities, limited support for test projects being conducted by the Scientific Task Group Commander."

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PART 2 _ ORGANIZATION AND COMMAND RELATIONSHIPS

1. General.

The basic diagram of the organization of Task Group 132.3 was as given in the block diagram on page 2-4 of this section. This organization was generally satisfactory, although specific changes were made on occasions to meet new requirements or to profit by experience gained in earlier operations.

Two changes in the organization were made which were effective during practically the entire period the Task Group was in the forward area. These changes were 1) LST 836 was removed from the Transport Element, TE 132.31, and was assigned to the support of the BIKINI buildup for CASTLE, and 2) the ESTES was effectively removed from the same Task Element for the entire operation by the requirement that, as firing ship for MIKE Shot and as the Unit in which the Senior Air Controller was embarked for KING Shot, she could not remain with the remainder of the units of the TE 132.31 during periods when the Task Group was at sea. This resulted in the Commanding Officer of LEO acting as CTE 132.31 for MIKE Shot, and in TE 132.31 being reorganized with certain other units as a Main Body with ComCortDesDiv 11 as OTC for KING Shot.

a. Task Group 132.3 organization for MIKE Shot.

The Task Group organization for MIKE Shot was the same as that given in the block diagram in the OpPlan and on page 2-4 of this section with the following exceptions which were reflected in OpOrder No. 2-52.

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(1) FLETCHER (DDE-445) and RADFORD (DDE-446) were assigned to TE 132.30, Weapons Element, as TU 132.30.1 and TU 132.30.2, respectively.

(2) ESTES (AGC-12) and LST 836 were removed from TE 132.31, TRANSPORT ELEMENT. Commanding Officer of LEO, CAPT R. P. Walker, thus was OTC of this Task Element vice Commanding Officer of ESTES, CAPT J.S. HOLTWICK. ESTES acted independently as firing ship and as Command Ship for CJTF 132, and the LST 836 was on independent duty at BIKINI.

(3) TE 132.33, Destroyer Element, did not function as a tactical unit, CARPTENTER acting as plane guard for RENDOVA, OBANNON acting as Control DDE assisting in control of TG 132.4, jet aircraft in flight refueling operations, and FLETCHER and RADFORD screening CURTISS.

(4) OAK HILL acted independently on a scientific project support mission until after the detonation, at which time scientific requirements on that ship ended and she rejoined TE 132.32 and the Commanding Officer of OAK HILL assumed the status as OTC of TE 132.32. Commanding Officer of AG WAM acted as OTC of TE 132.32 in absence of Commanding Officer of OAK HILL.

b. Task Group 132.3 organization for KING Shot.

Because of the departure of several units of TG 132.3 from the Task Force during the period between MIKE and KING Shots, it was found desirable to effect additional changes in the Task Group organization for that shot. The organization so effected is given in the block diagram on page 2-5 of this section.

2. Comments.

The organizations described herein proved to be basically sound and to

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be adequate to accomplish the assigned missions and tasks.

3. Recommendations.

It is recommended that the Task Group be organized for administrative purposes in the preliminary planning stages along lines of the anticipated basic tactical organization for operational requirements. However, it must be expected that each different shot will most likely impose modifications upon the original organization.

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[redacted] BASIC ORGANIZATION, TASK GROUP 132.3

Joint Task Force 132
Task Group 132.3

COMMANDER
TASK GROUP 132.3
RADM C.W.WILKINS

- TE 132.30 WEAPONS ELEMENT CAPT J. HULME
  - TU 132.30.0(F) CURTISS (AV-4) CAPT J. HULME
  - TU 132.30.1 DDE
  - TU 132.30.2 DDE
- TE 132.31 TRANSPORT ELEMENT CAPT J.S.HOLTWICK
  - TU 132.31.0 ESTES (AGC-12)(F) CAPT J.S. HOLTWICK
  - TU 132.31.1 LST 836 LT M.J. WALKER
  - TU 132.31.2 GEN. E.T. COLLINS (TAP-147) CAPT H.E. RANDALL MASTER
  - TU 132.31.3 DAVID C. SHANKS (TAP-180) CAPT C.O. HICKS MASTER
  - TU 132.31.4 USS LEO (AKA-60) CAPT R.P.WALKER
- TE 132.32 SERVICE & HARBOR CONTROL ELEMENT CDR E.J. YOUNGJOHNS
  - TU 132.32.0 OAK HILL(LSD-7) CDR E.J. YOUNGJOHNS (F)
  - TU 132.32.1 BOAT POOL LT W.L. BOND
  - TU 132.32.2.FUELING UNIT AGAWAM (AOG6)LCDR A.F.HAMBY
  - TU 132.32.3 TOWING UNIT LIPAN (ATF-85)LT.R.G. JOHNSON
  - TU 132.32.4 TOWING UNIT YUMA (ATF-94)LT.R.J.REYNOLDS
  - TU 132.32.5 UNDERWATER DETECTION UNIT LTJG R.E. CLYMER
  - TU 132.32.6 TOWING UNIT ARIKARA (ATF-98)LT.L.T.STORY
  - TU 132.32.7 SEISMOGRAPHIC UNIT EX-ATA SPENCER F. BAIRD
  - TU 132.32.8 SEISMOGRAPHIC UNIT EX-ATA HORIZON CAPT N.L. FERRIS, MASTER
  - TU 132.32.9 SPECIAL MOORING UNIT - USS ELDER (AN-20) LT T.A. ALLEN
- TE 132,33 DESTROYER ELEMENT CORTDESDIV ELEVEN CAPT M. DURSKI
  - TU 132.33.0 (F) CARPENTER (DDE-825) CDR E.F. BALDRIDGE
  - TU 132.33.1 FLETCHER (DDE-445) CDR G.L. RAWLINGS
  - TU 132.33.2 RADFORD (DDE-446) CDR J.H. BARNARD, II
  - TU 132.33.3 O'BANNON (DDE-450) CDR E.B. JARMAN
- TE 132.34 CONVOY & ESCORT ELEMENT RADM C.W. WILKINS
  - TU 132.34.0 CURTISS (AV-4) CAPT J.HULME (F)
  - TU 132.34.1 DDE
  - TU 132.34.2 DDE
- TU 132.3.0 CARRIER UNIT CAPT W.L.KABLER RENDOVA (CVE-114)
  - TU 132.3.1 PATRON TWO #2 PBM-5A CDR M.J. BERG

LEGEND:
———— LINE OF COMMAND
- - - - LINE OF LIAISON
(F) INDICATES FLAG

2-4

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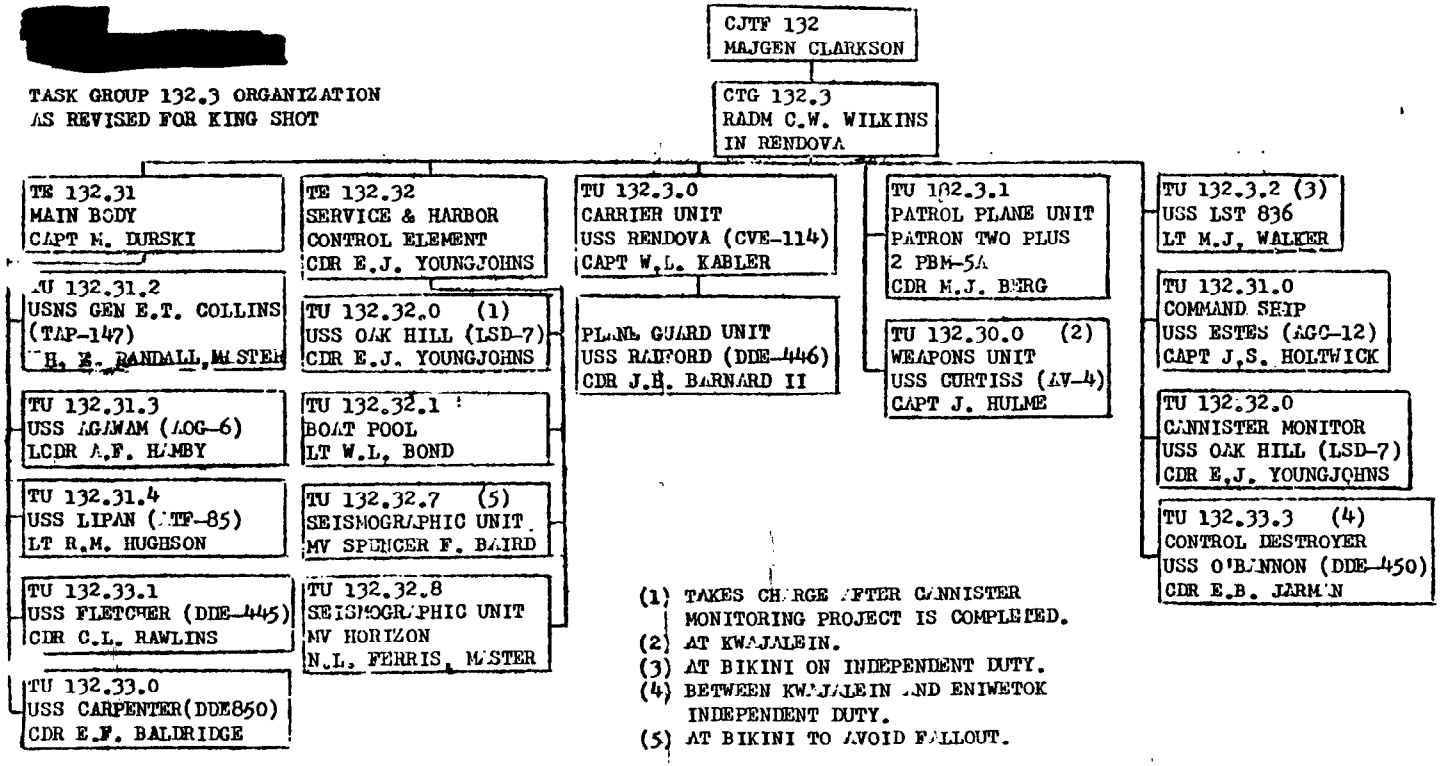
TASK GROUP 132.3 ORGANIZATION
AS REVISED FOR KING SHOT



(1) TAKES CHARGE AFTER CANNISTER MONITORING PROJECT IS COMPLETED.
(2) AT KWAJALEIN.
(3) AT BIKINI ON INDEPENDENT DUTY.
(4) BETWEEN KWAJALEIN AND ENIWETOK INDEPENDENT DUTY.
(5) AT BIKINI TO AVOID FALLOUT.

2-5

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PART 3 - PLANNING AND TRAINING

1. Planning

Planning for IVY at the level of the Navy Task Group Staff was commenced in late April and early May at the office of CTG 132.3 in the Naval Gun Factory, Washington, D. C. Although some personnel had reported to the staff prior to this time, the Task Group Commander and his Chief of Staff reported in late April and the Operations Officer in early May. It was after this time that effective planning for the Navy Task Group could be undertaken. The office space assigned to CTG 132.3 was located in Building 126 at the Naval Gun Factory in Washington. This presented the disadvantage of being physically separated from the Joint Task Force Headquarters in Temporary Building U at the corner of Constitution Ave. and 12th St. N.W. with no secure means of telephone communication between the two offices.

The Task Force Staff was organized well prior to the assembling of the Task Group Staff, and as a result had done much preliminary planning of a basic nature affecting Navy Task Group affairs prior to the reporting of CTG 132.3. It was some time before CTG 132.3 and his staff caught up with the planning done by the Task Force Staff and were able to coordinate Navy Task Group planning with that being done by various Task Force echelons relative to acquisition and preparation of Navy units for participation in the prospective operations.

At the time when staff planning for the Navy Task Group was initiated, it was generally firm that the following units would be assigned to TG 132.3:

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USS CURTISS (AV-4)	2 APA's or 2 AP's
USS RENDOVA (CVE-114)	2 AKA's or 2 AK's (later modified)
USS ESTES (AGC-12)	1 PATRON
USS OAK HILL (LSD-7)	1 DD or DDE DIVISION
LST 836	2 ATF's
BOAT POOL	UNDERWATER DETECTION UNIT

It had already been established that the first shot to be fired would be the thermo-nuclear device (MIKE Shot) with target date of 1 November, and that the second shot (KING) would probably follow MIKE in about two weeks' time. Predictions of yield from the MIKE device, which was to be fired statically on Elugelab (FLORA) Island, were not firm and blast and wave effects at points as far away as Parry and Eniwetok Islands, 19 and 20 nautical miles, respectively, from MIKE Shot Island, had not been estimated with sufficient accuracy to allow making the decision whether to leave or not to leave small craft of the Navy Task Group Boat Pool at their moorings off those two islands. It also had been determined 1) that all personnel should be evacuated from the islands of the atoll because of the possible hazard from radioactive fallout and thermal and secondary blast effects and 2) that no ship would be allowed inside a distance of 25 nautical miles from MIKE shot Island at zero hour, this distance being considered safe for personnel on board ship even in the event that the maximum possible yield should be obtained from the device. A minimum slant range of 20 miles for aircraft was established at the same time, but this minimum distance was increased just before MIKE Shot. The minimum distance of 25 miles set for surface craft with personnel embarked required that all major units of the Navy Task Group evacuate the lagoon for the thermo-nuclear shot.

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Requirements for evacuation of the atoll for KING shot at that time were not firm. It was estimated that KING shot would follow MIKE by about fourteen days, KING being air dropped over RUNIT (YVONNE) Island. The yield from KING Shot was expected to be substantially lower than that from MIKE, but the distance of the detonation from PARRY and ENIWETOK Islands in this case would be 9 and 12 nautical miles, respectively, and the hazard to personnel from fallout, thermal and secondary blast effects were at that time considered to be of possible importance.

On 12 May it was decided that the concept of the organization, tasks, and operations of the Navy Task Group were sufficiently firm that a draft copy of CTG 132.3 OpPlan 1-52 could be written in time for it to be available for the CTG 132.3 to submit to members of the staffs of CINCPACFLT and COMSERVPAC for informal comments as he passed through Pearl Harbor about 27 May on his way to inspect the site in the forward area. The draft copy of the OpPlan was finished on 23 May and was taken to Pearl Harbor by a member of the Navy Task Group Staff accompanying the Commander. On his return through Pearl on 2-3 June the Commander received comments on the OpPlan from both CINCPACFLT and COMSERVPAC staff members. During his return flight to Washington, CTG 132.3 incorporated the recommended changes into the draft OpPlan, and on 6 June, the day after his return to Washington, the formal version of CTG 132.3 OpPlan 1-52, less certain annexes and appendices, was completed and submitted for final typing. Distribution of this OpPlan to prospective units of the Task Group and other interested agencies was made shortly after the middle of June.

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On 10 June an Evacuation Conference was held at Los Alamos and was attended by representatives of the Task Force Headquarters and the various task groups. In this conference were discussed the maximum wave, blast and thermal effects to which shore installations and small craft left at moorings might be subjected. The hazard from radioactive fallout was also discussed, but far less concrete answers were given on this subject. The conclusions, in general, regarding the most probable effects were:

(1) Only a very few special structures on ENIWETOK and PARRY Islands might receive some damage from blast effects; in general, damage should not be expected.

(2) Thermal effects would not be a cause for any concern on either PARRY or ENIWETOK Island, nor at small craft moorings off these islands.

(3) The maximum possible waves which might be expected in the lagoon would have the following characteristics:

(a) In deep water (greater than 50 foot depth) the waves would be approximately 16 to 17 feet high (maximum) near ENIWETOK and PARRY Islands.

(b) The velocity of the waves would be some 30 to 40 knots, with a distance between crests of 1 to 3 miles.

(c) Waves break in a depth of water twice the height of the wave, and on breaking, the wave itself doubles its original height. Consequently, waves off ENIWETOK and PARRY Islands might possibly break in about 35 feet of water and reach a height of 32 to 35 feet upon breaking.

(d) After breaking, the waves would fast lose their energy and merely wash up on the beach without passing over either PARRY or ENIWETOK Island.

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(4) In view of (3), small craft left at moorings in the southern end of the lagoon in over 50 feet of water or hauled out onto high ground on either ENIWETOK or PARRY Island would suffer no damage from wave effects.

(5) Maximum wind velocity at small craft moorings would be a ninety mile gust decaying linearly to zero velocity in ten seconds. A more probable maximum figure would, however, be 45 knots. Neither of these would pose any threat of damage to small craft properly secured at buoys.

(6) Varying estimates of possible fallout were made but no definite predication was given as to the time the Task Force might expect to be able to reenter the lagoon.

Prior to the availability of the information received at this conference it had been variously estimated that any small craft left within the lagoon might be destroyed by wave or blast effects from MIKE Shot, and a letter received from CNO dated 1 May stated that it was considered that arrangements should be made to evacuate all small craft from the ENIWETOK Lagoon during that Shot. Because of the lack of availability of an additional LSD for assignment to the Task Group, this would have required the OAK HILL to make at leasttwo trips with small craft to KWAJALEIN prior to evacuation of a final load to sea the afternoon before the shot. This evacuation of small craft during the time when the demand for small craft services was to be greatest would have placed very great obstacles in the way of completing final preparations and evacuation for MIKE Shot.

The result of the conference of 10 June was made known to CNO and a second letter of instruction was received from CNO dated 24 July, in which it was stated that in view of the changes in estimates of wave

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heights and blast effects, and since it appeared to be impracticable to make arrangements to evacuate all small craft, therefore, "---to the degree that it is compatible with requirements for small craft services in the pre-shot phase, it is considered that the maximum number of these craft should be evacuated from the lagoon, utilizing facilities available."

This change in instruction cleared many of the difficulties which had appeared insolvable during efforts toward planning for the MIKE Shot evacuation and reentry, and allowed the Navy Task Group to approach those two problems on a more realistic and desirable basis. However, coordinated planning with other task groups for the MIKE Shot phase was not practicable until after staffs of the various task groups had arrived in the forward area and the firm requirements of other task groups were made known to the Navy Task Group Commander.

It might be noted here that planning for MIKE Shot was never completely firmed-up. The magnitude of the test program and the overall difficulty of the operation resulted in the concept being changed in various ways almost continuously. Changes in ship movements up and down the channel to the northern end of the lagoon were made even as late as M-1 day, and modifications to the evacuation concept even for the firing party were likewise required. Nevertheless, the final evacuation was executed smoothly with all units participating displaying commendable initiative and sound judgment.

Planning for the operation was based largely upon three considerations. These were, 1) The concept of operations as stated in Annex A to CJTF 132 Operation Plan No. 2-52; 2) the mission of the Navy Task Group Commander as set forth in paragraph 3.c. of CJTF 132 Operation Plan No. 2-52 and the tasks

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assigned to the Navy Task Group in Annex G to the same Operation Plan, and 3) the forces made available to CTG 132.3 to carry out his assigned mission and tasks 2) is included in this report as Part 1.

To accomplish the assigned tasks, a basic organization of the Navy Task Group was set forth in CTG 132.3 Operation Plan No. 1-52 with specific tasks being assigned the commander of each major Task Element and Task Unit. These major Task Elements and Task Units were:

(a)	TE 132.30	Weapons Element
(b)	TE 132.31	Transport Element
(c)	TE 132.32	Service and Harbor Control Element
(d)	TE 132.33	Destroyer Element
(e)	TE 132.34	Convoy and Escort Element
(f)	TU 132.3.0	Carrier Unit
(g)	TU 132.3.1	Patrol Plane Unit

After arrival in the forward area it was found to be desirable to make certain minor modifications to the above organization due to certain slight changes in concept for MIKE Shot and to requirements for support of scientific projects demanding that certain TE flagships be away from their subordinate units at the time of detonation. Further changes were made between MIKE and KING because of experience gained in MIKE Shot operations, altered requirements for support of some of the scientific projects, and release from the Task Force of some TG 132.3 units between MIKE and KING Shots. Basically, however, operations were planned around the original Task Group organization. The reader who requires additional information relative to changes made for MIKE and KING is referred to

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CTG 132.3 Operation Orders Nos. 2-52 and 3-52.

A description of the organization of each Task Element and major Task Unit, together with its assigned tasks, is given below. Certain pertinent comments are given in appropriate cases.

(a) TE.132.30 Weapons Element CAPT John HULME

1. TU 132.30.0 USS CURTISS (AV-4)
2. TU 132.30.1 DDE
3. TU 132.30.2 DDE

The tasks assigned to the Commander Weapons Element were:

(1) Receive, transport and safeguard special devices as directed.

(2) Provide berthing and shipboard assembly facilities as required by Commander Task Group 132.1.

(3) Provide for radiological safety of the embarked Task Force personnel during evacuation period.

(4) Assist in maintenance of TG 132.3 Boat Pool.

The Task Element was activated only after the arrival of the CURTISS at ENIWETOK on 12 September. There were no particular DDE's assigned permanently to it; rather, one DDE was assigned on a five-day rotational basis to act as a defense ship at anchor for the CURTISS in the northern end of ENIWETOK Lagoon until just prior to evacuation of the Atoll for MIKE Shot. When the CURTISS departed for KWAJALEIN on M/1, one DDE was assigned to escort her and then return to ENIWETOK. When the CURTISS departed KWAJALEIN on K/3 for the United States, all four ships of CORTDESDIV ELEVEN WITH COMCORTDESDIV ELEVEN as Task Element Commander escorted CURTISS as far as the

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vicinity of the Hawaiian Islands, where the four escorts were relieved by the two DE's WHITEHURST and SILVERSTEIN for the remainder of the voyage to the San Francisco area, the command of the Task Element for this part of the voyage shifting to the Commanding Officer of the CURTISS.

While at Eniwetok, the CURTISS remained moored to a buoy in berth 881 off ELUGELAB, the MIKE Shot Island, until MIKE Shot evacuation. As soon as certain personnel and equipment could be off-loaded at PARRY Island after reentry, CURTISS then proceeded under escort to KWAJALEIN. At both places she provided shop facilities and personnel berthing accommodations for certain TG 132.1 scientific and technical components.

On her voyage from KWAJALEIN to Port Chicago after MIKE Shot, the CURTISS returned the bulk of the AEC classified equipment and material and all the critical material from the forward area.

(b)	TE 132.31	Transport Element	CAPT J. S. HOLTWICK, Jr.
	1. TU 132.31.0	USS ESTES (AGC-12)	CAPT J. S. HOLTWICK, Jr.
	2. TU 132.31.1	USS LST 836	LT M. J. WALKER
	3. TU 132.31.2	USNS GEN.E.T. COLLINS (TAP-147)	CAPT H.E. RANDALL Master
	4. TU 132.31.3	USNS DAVID C. SHANKS (TAP-180)	CAPT C. O. HICKS Master
	5. TU 132.31.4	USS LEO (AKA-60)	CAPT R. P. WALKER

The tasks assigned to the Commander Transport Element were:

(1) Provide space and shipboard command facilities for the Task Force Commander.

(2) Provide administrative space for the headquarters of TG 132.1 and TG 132.2.

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(3) Provide transportation for the establishment and supply of outlying weather stations.

(4) Provide space and shipboard facilities for the Task Force Weather Central when the Task Force is embarked.

(5) Provide for billeting of Task Force personnel afloat.

(6) Provide for radiological safety of the embarked Task Force personnel during evacuation period.

(7) Provide shipboard space and command facilities for the Senior Air Controller, Task Group 132.4.

The Transport Element as originally conceived was to have been composed only of ships used for evacuating personnel and equipment from the islands of the atoll at shot time. Therein occurred one of the first planning casualties. As previously mentioned, the LST was removed from the group very early. Next came a scientific requirement that the ESTES, as firing ship, take a station during MIKE Shot well removed from all other ships and on a definite bearing at a prescribed distance from the Shot Island. Also, her presence was required in the lagoon until early morning MIKE Shot day to receive the firing party which was the last group to leave MIKE Shot Island. These requirements removed her from tactical command of her Task Element. Finally, on KING Shot, it was decided that the ESTES had to remain at her buoy for reasons of communications with the JTF headquarters on the beach. The Commanding Officer of the LEO was finally designated CTE 132.31 for MIKE Shot, and for KING the one remaining ship of this Task Element, the COLLINS, was placed in a new Task Element created for that shot, the Main Body, under the tactical

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command of COMCORTDESDIV ELEVEN. The LST 836 was at BIKINI at the time of both MIKE and KING Shots. LEO and SHANKS were not in the area for KING Shot.

(c)	TE 132.32	Service and Harbor Control Element	CDR E.J. YOUNGJOHNS
1.	TU 132.32.0	USS OAK HILL(LSD-7)	CDR E.J. YOUNGJOHNS
2.	TU 132.32.1	Boat Pool 2 AVR 19 LCM 4 LCP(L) 5 LCU	LT W. L. BOND
3.	TU 132.32.2	Fueling Unit USS AGAWAM (AOG-6) YON 146 YOG 69	LCDR A.F. HAMBY
4.	TU 132.32.3	Towing Unit USS LIPAN (ATF-85)	LT R.M. HUGHSON
5.	TU 132.32.4	Towing Unit USS YUMA (ATF-94)	LT R.J. REYNOLDS
6.	TU 132.32.5	Underwater Detection Unit	LTJG R.E. CLYMER,Jr.
7.	TU 132.32.6	Towing Unit USS ARIKARA (ATF-98)	LT L.T. STORY
8.	TU 132.32.7	Seismographic Unit EX-ATA SPENCER F. BAIRD	
9.	TU 132.32.8	Seismographic Unit EX-ATA HORIZON	CAPT N.L. FERRIS Master
10.	TU 132.32.9	Special Mooring Unit USS ELDER (AN-20)	LT T.E. ALLEN

The tasks assigned to the Commander Service and Harbor Control Element were:

(1) Transport landing craft to and from Eniwetok Atoll as directed.

(2) Provide water transportation within Eniwetok Lagoon.

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(3) Operate and maintain the TG 132.3 Boat Pool in coordination with the boat pools of TG 132.1 and TG 132.2. (Note: the underlined words are not included in the original task assignment------ inserted here as more indicative of the desired meaning)

(4) Control Harbor facilities in Eniwetok Atoll in coordination with Commander Task Group 132.2.

(5) Operate and maintain underwater detection systems at harbor entrances.

(6) Be prepared to assist in Search and Rescue Operations.

(7) Provide towing and salvage services as directed.

(8) Provide POL replenishment services for task force units at Eniwetok Atoll.

The planning done in setting up this Task Element and assigning its tasks proved to be fairly well adequate. Upon arrival of the Task Group Commander in the forward area it was found desirable to divide the harbor control functions with CTG 132.2, who assumed port director functions over all transient units not attached to TG 132.3 which had civilian crews, while CTE 132.32 exercised harbor control functions under CTG 132.3 over all U. S. Naval ships and all MSTS ships with civilian crews attached to TG 132.3.

The duties of SOPA (Administration) for the southern end of the lagoon were also delegated to CTE 132.32. Prior to the arrival of CTG 132.3 he had been exercising the function of SOPA; it was found to be convenient to have him continue this function after the arrival of the Task Group Commander.

Planning pertaining to other units of this Task Element will be covered in discussions of the evacuation effort and in the support given to the

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Scientific Task Group and will not be covered here.

It was a tribute to the Task Element Commander and his subordinate units that his command performed its extremely varied and difficult assignments in a most outstanding manner.

(d) TE 132.33 Destroyer Element CortDesDiv ELEVEN CAPT M. DURSKI

1. TU 132.33.0 USS CARPENTER (DDE 825) CDR E.F. BALDRIDGE
2. TU 132.33.1 USS FLETCHER (DDE 445) CDR C. L. RAWLINGS
3. TU 132.33.2 USS RADFORD (DDE 446) CDR J. H. BARNARD,II
4. TU 132.33.3 USS O'BANNON (DDE 450) CDR E. B. JARMAN

The tasks assigned to the Commander Destroyer Element were:

(1) Conduct surface and anti-submarine search of designated area to detect and deny passage of unauthorized vessels.

(2) Provide escorts and plane guards as directed.

(3) Perform rescue missions as directed.

(4) Monitor the control of cloud sampling aircraft and be prepared to take control if directed.

The basic planning for this Task Element as reflected in Annexes E, R, and T to CTG 132.3 Operation Plan 1-52 required very little modification throughout the operation. One DDE (O'BANNON) was required to take a special station away from the Task Group on shot days to assist in control of TG 132.4 cloud-sampling aircraft and tankers. Enroute to this station prior to MIKE Shot, the services of this DDE were used to plant some dan buoys in the water some 100 or more miles from the Atoll, and after the shot this same DDE engaged in a very extensive search for recovery of these buoys. With these exceptions, however, there were few

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deviations in their operations from that prescribed in the original Operation Plan.

(e) TE 132.34 — Convoy and Escort Element — RADM C. W. WILKINS

1. TU 132.34.0 — USS CURTISS (AV-4) — CAPT John HULME
2. TU 132.34.1 — DD or DDE
3. TU 132.34.2 — DD or DDE
4. TU 132.34.3 — DDE
5. TU 132.34.4 — DDE

The tasks assigned to the Commander Convoy and Escort Element were:

(1) Receive, safeguard and transport experimental devices from the continental UNITED STATES to ENIWETOK.

(2) The Convoy and Escort Element will proceed in convoy in accordance with separate instructions. Upon arrival of RENDOVA at ENIWETOK this element will be dissolved and CTG 132.3 will shift his flag to RENDOVA.

There was no deviation from the task assignment as set forth in the above. (See TE 132.34 under Part 4).

(f) TU 132.3.0 — Carrier Unit, USS RENDOVA (CVE-114), 6 F4U-5N 4 TBM-3R 5 HRS-2 — CAPT W. L. KABLER

The tasks assigned to Commander Carrier Unit were:

(1) Transport approximately (20) U.S. Air Force aircraft from the West Coast to Pearl Harbor and Kwajalein Island, with accompanying Air Force personnel

(2) Provide space and command facilities for CTG 132.3.

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(3) Provide space for a mobile radiological laboratory and associated operations of the radiological safety unit of Task Group 132.1.

(4) Provide combat air patrol for Task Force to detect the presence of and to deny entry into the designated areas of unauthorized aircraft.

(5) Provide ship-to-shore helicopter transportation, and assist TG 132.4 in providing intra-atoll helicopter transportation.

(6) Provide for delivery of priority air cargo to and from KWAJALEIN Island while the Task Force is embarked.

(7) Provide decontamination facilities for embarked aircraft.

(8) Maintain a plot of ships and aircraft transiting the Danger Area.

(9) Assist U. S. Coast Guard in monitoring Eniwetok Loran Station while the Task Force is afloat.

(10) Assist in maintenance of TG 132.3 Boat Pool.

Basic planning concerning the RENDOVA largely held up intact during the operation, except that it subsequently became necessary to furnish far greater helicopter support for pre- and post-shot operations of TG 132.1 for both MIKE and KING Shots than was anticipated. Later developments also obviated the need for RENDOVA's assistance in monitoring the LORAN Station during the evacuation. As in the case with many other units, it became necessary to assign the RENDOVA to assist in the support of certain scientific projects.

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(g) TU 132.3.1 Patrol Plane Unit CDR M. J. BERG
VP-2 (augmented)
9 P2V-4 2 P2V-5 2PBM-5A

The tasks assigned to the Commander Patrol Plane Unit were:

(1) Conduct air search and anti-submarine patrol of Eniwetok Danger Area in accordance with Annexes E, S, and T (of CTG 132.3 Operation Plan No. 1-52).

(2) Provide air escort for Weapons Unit as directed.

(3) Search for and locate task force elements in distress in accordance with Annex K.

(4) Provide transportation for limited resupply of weather stations.

(5) Provide transportation for collection of water samples from outlying atolls.

(6) Perform long range reconnaissance as directed.

This unit generally carried out operations as originally planned with a few exceptions. First of all, the PBM unit was called upon to assist with some two extra flights per week to BIKINI in support of the CASTLE Buildup on that atoll. Second, there was a call for assistance locally in the world-wide monitoring program after MIKE Shot. And third, there were additional requirements for support of certain scientific projects. All these points are discussed elsewhere.

Most of the basic planning accomplished while the Task Group Staff was in Washington proved to be quite sound and to require little modification. However, detailed evacuation and reentry planning could not be accomplished prior to the assembly in the forward area because the evacuation time schedule and boating and helicopter requirements of the other task groups were not known.

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Unfortunately, the requirements for personnel evacuation of TG 132.1 could not be firmed up sufficiently well in advance of MIKE Shot for any concrete time schedule to be formulated for that operation, nor was any firm passenger list of their personnel made available to either of the two evacuation transports, COLLINS and SHANKS, until after the boarding of the final evacuees. Evacuation conferences were held some three times a week for about five weeks at the Task Force Headquarters on Parry Island in which many problems pertaining to evacuation were discussed, but the objective first announced by the committee, that of formulating a complete and detailed evacuation schedule for the Task Force, proved to be impossible of accomplishment.

Fairly early in the planning stage in Washington it became apparent, (although nowhere was the requirement stated among the tasks assigned to TG 132.3) that ships and aircraft of the Task Group would be required to render various types of support to a number of the scientific projects being conducted by TG 132.1. Eventually every major ship supported at least one or more projects, and several aircraft of PATRON TWO were employed on shot days for the same purpose. One of the major problems encountered in this matter was the large number of trailers the various projects required to be embarked on ships of the Navy Task Group. This required considerable effort and ingenuity on the part of both staff and surface units to place these trailers to the satisfaction of all concerned and provide for specific electrical power requirements without overloading ships or interfering with other missions and tasks. Generally, insufficient attention was given by those in charge of "trailer projects" to peculiar electrical power requirements. Eventually, however, all requirements for trailer based projects afloat were met to the apparent

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satisfaction of all concerned.

2. Training.

Training of the units assigned to Task Group 132.3 was not a responsibility of the Navy Task Group Commander but of their type commanders. CINCPACFLT established the policy that all units would be trained and ready to perform their assignments upon reporting to CTG 132.3 for operational control. Special training for entire units was required in only two cases, that of the TG 132.3 Boat Pool and the Underwater Detection Unit, and this was accomplished prior to their reporting to the Task Group. In general, all units accelerated their training in radiological defense, but this again was done under the supervision of the various Type Commanders and not under CTG 132.3.

The TG 132.3 Boat Pool was organized and trained at the Amphibious Training Unit of the Amphibious Training Command at San Diego. The officers of the Boat Pool were ordered to temporary additional duty with the TG 132.3 staff in Washington prior to reporting to the Boat Pool. Other than for this familiarization and planning period these officers so spent, the entire basic training of the Boat Pool was conducted under the overall supervision of CINCPACFLT. After the Boat Pool personnel arrived at Eniwetok, it was found desirable to give them familiarization night training in the lagoon, but this was more a matter of local familiarization rather than indoctrination.

The Underwater Detection Unit was organized and equipped as directed by CINCPACFLT and trained at the U.S. Naval Harbor Defense School, Naval Station, Treasure Island. CTG 132.3 received this unit fully equipped and trained.

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A few individual units had special communications equipment installed for the operation which required that certain personnel be sent to appropriate service schools to learn its care. This schooling again was accomplished through U.S. Pacific Fleet facilities under the supervision of Type Commanders.

The Security Forces, COMTDESDIV ELEVEN and PATRON TWO, came to the Task Group fully trained and thoroughly equipped to carry out their missions. Other units of the Task Group having non-security missions were also fully trained upon reporting.

Radiological Defense personnel of the Task Group Commander's Staff inspected each unit of the Task Group for readiness to participate in radiological defense operations. Each unit was found to be generally prepared to carry out the necessary tasks; in some individual cases, however, units were found to require better familiarization with certain specific aspects of the rad defense problem and were assisted in meeting these requirements prior to shot time.

Reporting dates for the various officers of the staff generally did not permit any extensive schooling to be given them. Six officers of the staff, including the Task Group Commander, attended the five day Special Weapons Orientation Course at the Special Weapons Center, Sandia, N.M.. The Assistant Operations Officer for Air attended the four weeks' CIC Watch Officer's Course at the CIC Team Training School, San Diego.

The Task Group Commander monitored the special training being given to personnel of units scheduled to report to his operational control by obtaining from them semi-monthly status reports in which was listed the progress of special training of personnel for IVY.

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3. Comments.

The basic planning done by the Task Group Staff while it was in Washington proved to be sound, generally, after operations were comenced in the Forward Area. Likewise, operational planning performed in the Forward Area produced the results desired. A major difficulty was encountered in the forward area, however, because of the physical separation of the Task Force Commander's Staff and the staff of CTG 132.3. This difficulty was accentuated by the lack of secure telephone communications between the one staff on shore and the other afloat. This decreased the efficiency of the Navy Task Group Staff because of slowness in receiving information and because of time wasted boating to and from numerous conferences ashore with the result that a much greater load than otherwise would have been required was placed upon the Task Group Commander and all his major assistants.

The Navy Task Group Commander was later than he wished to be in distributing his operation orders for each of the two test shots. In the case of MIKE Shot, the late times at which both the final evacuation requirements and the requirements for the H-hour positioning of ships supporting scientific test projects were made known to him caused delay. For KING Shot, it was only the late date at which requirements for placing of ships supporting scientific projects were received that appreciably delayed the publication of the operation order.

The planning for KING Shot was completed in time to meet all requirements. However, had KING event required complete evacuation of the atoll, the Navy Task Group Staff most likely could not have accomplished the required planning in proper manner in time to meet KING Shot requirements because very

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little information of KING requirements was available prior to M/3 days. This is pointed out because, in the present concept of CASTLE, requirements may exist for three evacuation efforts in successive two weeks' periods, two evacuations at ENIWETOK followed by one at BIKINI. At the time of the first of these shots, planning for the other two must be in the more advanced stage than was the planning for KING Shot at the time of MIKE evacuation.

Training, in general, was entirely adequate for the satisfactory accomplishment of the mission.

4. Recommendations.

In the light of the experience of the recent operation and the possible requirements of the next, it is recommended that:

a. Every effort be made to cut down the physical separation of the Task Force Headquarters and the Navy Task Group Commander during periods ashore and afloat. To this end, it is recommended that the Navy Task Group Commander and his staff be given necessary space in the Task Force Headquarters on Parry Island, and that the Navy Task Group Commander have his flag in the ship in which the Task Force Commander is embarked whenever the Task Force Headquarters is afloat.

b. During CASTLE, planning affecting evacuation be conducted concurrently on all shots requiring major evacuation efforts, since only by this means can planning for three closely spaced evacuation efforts divided between two atolls be accomplished in time.

c. All scientific project officers expedite submission of test

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requirements affecting the Navy Task Group either logistically or operationally in order that satisfactory planning may be accomplished without excessive last minute changes and additions.

d. Nuclei of both TG 132.3 Boat Pool and Underwater Detection Unit be retained for use in CASTLE. By doing this, the benefit of the training and experience gained by these units can to a large extent be made available for Operation CASTLE. (Note: This recommendation has been implemented.)

e. Training for units of the Navy Task Group be accomplished for CASTLE in the same manner that their training was accomplished for IVY, i.e., as may be directed by CinCPacFlt but under the supervision of Type Commanders, with CTG 132.3 monitoring the status of training through obtaining periodic status reports from each unit scheduled to report to the Navy Task Group.

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PART 4 - MOVEMENT TO THE FORWARD AREA AND ASSEMBLY OF SUBORDINATE UNITS

Units moving to the Forward Area may be placed broadly into three categories depending upon the time of their arrival. Those units which arrived prior to 20 August 1952 were almost entirely service units; those which arrived between 20 August and 15 October were mostly units of the security force or ships assigned scientific missions, whereas those arriving after 15 October, except for the Scripps Institute vessel SPENCER F. BAIRD and the net tender USS ELDER, were units whose missions were evacuation of either personnel or material, including small craft and yard craft, from Eniwetok Atoll for MIKE Shot.

The buildup of Task Group 132.3 forces in the forward area was planned so that the service units would arrive and establish necessary service facilities at Eniwetok prior to the assembly of the remainder of the Task Group in the forward area. The arrival of the defense units was timed either to precede or to coincide with the arrival at Eniwetok on 12 September of the CURTISS, which carried the major shipment of classified AEC equipment and critical materials. The arrival of the evacuation units, such as transports, cargo ship, and tugs, was scheduled for about 10 days prior to MIKE Shot in order that certain planning exercises and preliminary evacuation might be accomplished prior to the commencement of the major evacuation effort on 27 October. With a few exceptions, this general timing of movements proved to be appropriate for the accomplishment of the mission. The exceptions were on the side of early arrivals rather than late ones.

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1. Units arriving prior to 20 August:

a. TU 132.32.2 Fueling Unit USS AGAWAM (AOG-6)
YOG-69
YON-146

Fuel requirements of both shore based units and ships of JTF 132 were anticipated by COMSERVPAC, who took early and adequate action to assure that they were met. Vessels of the TG 132.3 Fueling Unit were assigned from SERVPAC forces and were the first units of TG 132.3 to arrive in the forward area. Replenishment of their supplies by SERVPAC units was accomplished at all times without request from the Task Force. Vessels of the Fueling Unit were:

(1) YON 146, a concrete oil barge of 62,900 bbl capacity which left Pearl Harbor on 1 July in tow of the MOCTOBI (ATF-105) and arrived Eniwetok 21 July. The Commanding Officer of AGAWAM assumed custody of the YON 146 upon arrival of AGAWAM at Eniwetok on 30 July. Throughout the operation, the YON 146 served as the fuel barge for all except diesel powered surface units of the Task Group.

(2) YOG 69, a self-porpelled barge of 6,800 bbl capacity which left Pearl Harbor 10 July in tow of the TAKELMA (ATF-118), arrived Eniwetok on 26 July. The Commanding Officer of AGAWAM assumed custody of the YOG 69 on his arrival at Eniwetok and the Petty Officer in Charge of the YOG 69 assumed custody of the YON 146 under the CO of AGAWAM. The YOG-69 was used for storage of diesel fuel and motor gas for the Task Force.

(3) AGAWAM (AOG-6), 16000 bbl capacity, which arrived at Eniwetok from Pearl Harbor 30 July. On his arrival the Commanding

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Officer of AGAWAM assumed custody and control of both the YON-146 and the YOG-69 and reported with them to CTG 132.3 for operational control. Commanding Officer of AGAWAM served as fuel coordinator for the Task Group, with AGAWAM storing diesel fuel, motor and aviation gasoline. It was generally the AGAWAM which replenished POL storages ashore on Eniwetok and Parry islands from offshore fueling connections off those islands.

b. TU 132.32.0 USS OAK HILL (LSD-7)

OAK HILL was assigned to Operation IVY from the Atlantic Fleet because of lack of available LSD's in the Pacific. The OAK HILL departed Norfolk, Virginia, on 16 June 1952 via Panama, San Diego, Pearl Harbor and Kwajalein for Eniwetok, arriving at destination on 1 August. She spent the period 3-14 July at San Diego, where 2 LCU's, 5 LCM's and certain TG 132.3 Boat Pool personnel and equipment were onloaded for Eniwetok and Kwajalein. After departing San Diego, the OAK HILL proceeded via Pearl Harbor and Kwajalein, spending 22-24 July and 31 July in the two places, respectively. After offloading some cargo at Kwajalein she proceeded to Eniwetok, arriving there on 1 August at 0730M, at which time the Commanding Officer of OAK HILL reported to CTG 132.3 for operational control and assumed duties as CTE 132.32 and as representative of CTG 132.3 at Eniwetok. The Commanding Officer of OAK HILL served as CTE 132.32, Commander Service and Harbor Control Element, for the entire operation.

The primary mission of the OAK HILL at Eniwetok was to serve as a floating base for personnel of the TG 132.3 Boat Pool and as the major

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repair facility and evacuation ship for Boat Pool boats.

c. TU 132.32.1 Task Group 132.3 Boat Pool 2 AVR
5 LCU
19 LCM
4 LCP(L)

Small craft composing the TG 132.3 Boat Pool were transported and assembled in the forward area as indicated in the following table:

Number and Type	Procured From	Shipped Via	Date of Arrival in Fwd Area
1 AVR (Nr 77479)	MINSY (BuAer)	USNS SGT MILLER	25 Mar (about)
1 AVR (Nr 77482)	MINSY (BuAer)	USS DIPHDA	2 Oct 1952
4 LCM	BuShips	USNS SGT MERRELL	May 1952
3 LCM	BuShips	USNS SGT CRAIG	June 1952
7 LCM	BuShips	USNS JOE E MANN	23 July 1952
5 LCM	BuShips	USS OAK HILL	1 Aug 1952
3 LCU (666,667,851)	ComPhibPac (LCU Div 13)	USS TORTUGA	1 Aug 1952
2 LCU (709,764)	ComPhibPac (LCU Div 13)	USS OAK HILL	1 Aug 1952
1 LCP(L)	NAV STA SDIEGO	USNS SGT MERRELL	May 1952
3 LCP(L)	NAV STA SDIEGO	USS TORTUGA	1 Aug 1952

Of the above 19 LCM's, 13 were procured from the Naval Station San Diego and 6 from Mare Island Naval Shipyard. All small craft were delivered without crews except the LCU's, which came from an active LCU squadron and were delivered to the Task Group by ComPhibPac with full wartime crews.

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Task Group boat personnel other than LCU crews were assembled and trained at San Diego under ComPhibTraComPac in accordance with directives from CINCPACFLT. The officer personnel of the Boat Pool reported to the Washington D. C. Headquarters of CTG 132.3 in May, where they participated in staff planning for organization and operation of the Boat Pool and prepared lists of spare parts and equipment required for operations in the forward area. This planning, particularly that done toward procurement of spares and equipment, proved to be of greatest value in future operations.

After completion of training, Boat Pool personnel were transported to the forward area in two echelons. The first echelon, composed of LT Bond, the Officer in Charge of the Boat Pool, plus 21 enlisted men arrived at Eniwetok by air on 21 July. The remainder of the Boat Pool personnel arrived in the OAK HILL on 1 August. LCU's and LCU crews also arrived on 1 August in the OAK HILL and the TORTUGA.

During the time which intervened between the arrival of AVR's, LCM's and LCPL's delivered by MSTS shipping and the arrival of the Boat Pool personnel in the forward area, the Boat Pool boats were given caretaker upkeep by the Naval Detachment attached to Task Group 132.2, the Army Task Group at Eniwetok. The Boat Pool personnel discovered upon arrival that the boats had not been delivered in proper operating condition by the supplying activities and that the next several weeks had to be spent overhauling the boats and placing them in operating condition. This was particularly true of the AVR No. 77479 which was delivered from Mare Island Naval Shipyard with a cracked

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engine block and badly in need of hull repairs. Delivery was made also without electronics equipment. This required extensive work on the part of the Boat Pool in the forward area to place the boat into proper operating condition and to install some $18,000 worth of electronics gear obtained from rear area sources and a new engine obtained from the Boat Pool spares. Because of this experience with AVR 77479, CTG 132.3 requested a delay in shipment of the following AVR from Mare Island until it could be ascertained at the Shipyard that installation of all electronics gear was completed and that engines and hull were in proper condition. This delayed delivery of this boat in the forward area for several weeks until 2 October, a date well past the time when it was needed for operations.

The Boat Pool was not ready to meet operational requirements until the latter part of August because of the extensive work required on the craft received for the operation.

d. TU 132.32.5 Underwater Detection Unit

The Underwater Detection Unit was assembled in June at the Amphibious Training Command, Amphibious Base, Coronado, California, and given the two weeks' Harbor Defense Course at the Fleet Training Center, Treasure Island, San Francisco, California. The personnel of the unit moved to the forward area by air, arriving there on 17 July.

The equipment of the Underwater Detection Unit consisted of five sets of the Accoustic System Mark 6 Mod 0, a passive listening harbor defense system which receives underwater sounds in the audio

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frequency band. Pairs of hydrophones are connected by submarine cable to the control equipment ashore. The equipment delivered included a six months' supply of spares, but due to poor packaging and to rough handling enroute, those spares which remained usable upon delivery had to be used immediately to place the equipment in operating condition. (A full letter report of the condition of these systems upon receipt was made to BuOrd.) The personnel of the unit had to lay some 450,000 feet of cable in order to install fourteen pairs of hydrophones in the Wide Passage and three pairs in the Deep Entrance. This was accomplished using LCM's from the Boat Pool, and the systems were in operating condition on 10 August. The difficulties encountered by this unit and the initiative and industry shown by all hands in overcoming them reflect the highest credit upon the entire unit.

2. Units arriving in the Forward Area between 20 August and 15 October.

In general, the units arriving during the period from 20 August to 15 October were the air and surface units of the security force plus the ships whose missions were to support certain scientific activities. One exception to this was the LST 836, which had to make the round of four atolls to deliver material and personnel of Task Group 132.4 and assist in establishing weather stations. After completing that mission, it continued on to certain other atolls where other personnel of TG 132.4 erected visual navigational aid panels for benefit of the Air Force jet aircraft cloud samplers which were to operate in the area on the occasions of the two tests.

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a. TU 132.3.1 — Patrol Plane Unit VP-2 (Augmented) — 9 P2V-4, 3 P2V-5, 2 PBM-5A

PATRON TWO, consisting of twelve P2V aircraft, was assigned to Task Group 132.3 from AIRPAC. In addition to its own aircraft, Commander Task Group 132.3 assigned to PATRON TWO for operational control two PBM-5A furnished by COMAIRPAC from FASRON 110. Administration of the PBM detachment, however, was given to Commanding Officer, Naval Station Kwajalein.

The mission originally planned for the P2V aircraft of PATRON TWO was purely one of security. For this purpose it was desired that PATRON TWO be ready to operate as soon as the CURTISS arrived in the forward area. The PBM-5A aircraft, however, were procured with the intention that they provide limited resupply for the weather stations on outlying atolls. These missions required that both groups of aircraft arrive no later than the latter part of August.

(1) PATRON TWO (P2V aircraft, only)

Movement of PATRON TWO aircraft commenced from the squadron's base at Whidbey Island on 15 August. Aircraft of the squadron departed in three or two plane sections at thirty minute intervals commencing 0900 local (Tare) time on 15 August. All sections arrived Kwajalein on 22 August. Stops were made enroute at Alameda, Barber's Point, and Johnston Island. One aircraft of the squadron, SB-12, did not participate in the deployment at this time because of a late requirement that it proceed to NAS Squantum for testing of certain equipment for Scientific Project 6.7a. This aircraft because of numerous mechanical difficulties enroute from Squantum to Kwajalein did not arrive in the forward area until 14 October.

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Only the regular P2V plane crews traveled in squadron aircraft to the forward area. The remaining 225 officers and enlisted men of the squadron were transported by MATS aircraft and by the USNS AINSWORTH. Squadron gear was moved by surface transportation. Except for SB-12, the movement was completed by 11 September and on that date VP-2 commenced screening TE 132.34 when that Task Element reached a point 500 miles from ENIWETOK. The Commanding Officer of PATRON TWO reported to CTG 132.3 for operational control at 1330M on 12 September, immediately after CTG 132.3 in CURTISS arrived at Eniwetok.

(2) PBM DETACHMENT (2 PBM-5A aircraft)

The two PBM-5A aircraft assigned to Task Group 132.3 were provided from FASRON 110. These aircraft departed from the continental United States on 23 August and reported to the Commanding Officer of PATRON TWO for operational control at Kwajalein on 2 Sept. The first resupply flight was made on 6 September. Administration of the detachment and maintenance of the aircraft were assigned to the Commanding Officer of Naval Station Kwajalein.

b. TU 132.31.1 USS LST 836

The LST 836 was assigned to the Task Group from PHIBPAC. Its initial tasks were three in number; 1) to transport personnel and equipment to establish TG 132.4 weather detachments on Majuro, Kusaie, Ponape, and Bikini; 2) to plant seadrome markers at Kusaie, Ponape, and Bikini to aid TG 132.3 PBM's in flights to and from those places; and 3) to transport material and a TG 132.4 construction crew to erect

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visual navigational aids for aircraft on the atolls of Rongelap, Rongerik, Wothe and Ujae. Material and personnel for establishing the weather station at Majuro, Kusaie and Ponape were onloaded at Pearl Harbor together with material with which to plant seadrome markers. The latter material was obtained belatedly and actually caused a delay in departure in the ship because of a late transfer of responsibility to procure materials and lay out the seadromes. Material and personnel for the Bikini weather detachment were onloaded at Eniwetok between stops at Ponape and Bikini. Material and a construction crew to erect visual navigational aids (panels) were also onloaded at that time. The schedule executed by the LST 836 on this mission was:

ATA		PLACE	ATD		PURPOSE
		San Diego	242300Z	July	Reporting to CTG 132.3 on arrival
	5 Aug	Pearl Harbor	181900Z	Aug	Onload pers & equipment
271907Z	Aug	Majuro	310130Z		Weather Station
022200Z	Sept	Kusaie	050600Z		Wea Sta & Seadrome
052000Z		Ponape	090200Z		Wea Sta & Seadrome
102100Z		Eniwetok	150000Z		Onload BIKINI Wea Sta equip and personnel and nav aids equip & assembly crew
152000Z		Bikini	190600Z		Wea Sta, Seadrome, & panels
192140Z		Rongelap	20		Panels
210611Z		Rongerik	220400Z		Panels
221900Z		Wotho	232300Z		Panels
240800Z		Ujae	260400Z		Panels

From Ujae the LST 836 returned to Eniwetok, the initial phase of its mission completed, at 1600M on 26 September.

The LST 836 reported to CTG 132.3 for operational control on 5 August upon her arrival at Pearl Harbor from San Diego. CTG 132.3 then requested COMHAWSEAFRON to exercise movement control over her until the arrival of CTG 132.3 in the forward area. CTG 132.3 assumed movement control of the LST 836 on 12 September at Eniwetok upon the arrival

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of his flagship at its destination.

c. TE 132.34 Convoy and Escort Element USS CURTISS (AV-4)
USS COLLETT (DD-730)
USS MANSFIELD (DD-728)
USS CARPENTER (DDE-825)
USS FLETCHER (DDE-445)
USS RADFORD (DDE-446)
USS O'BANNON (DDE-450)

TE 132.34 was formed as the Convoy and Escort Element at 0840 local time (Tare) on 28 August in the San Francisco Bay area when the DD's COLLETT and MANSFIELD reported to CTG 132.3/CTE 132.34/CTE 55.06 for operational control to escort the Weapons Ship, CURTISS, from the San Francisco Area to the rendezvous position for exchange of escorts and refueling in the vicinity of the Hawaiian Islands. At the fueling rendezvous, COLLETT and MANSFIELD were relieved by the four DDE's of CORTDESDIV ELEVEN, the CARPENTER, FLETCHER, RADFORD and O'BANNON.

The CURTISS, TU 132.34.0, was assigned to Task Group 132.3 from AIRPAC. On 18 August 1952 the CURTISS moved from San Diego to NSC Oakland to onload special equipment and classified material, arriving at Oakland on 19 August. CTG 132.3 and Staff arrived at Alameda by air from Washington, D.C., at 1600 local (Tare) time 26 August and broke his flag in CURTISS at 1630 on the same date. The Administrative Staff of CTG 132.3 embarked in the RENDOVA on that date. The CURTISS reported to CTG 132.3 for operational control at 270001T. Loading at NSC Oakland was completed the evening of 27 August and at 280930T CURTISS got underway and proceeded to PORT CHICAGO for loading of explosives, critical material and additional classified equipment, arriving PORT

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CHICAGO at 281300T. Loading at PORT CHICAGO was completed and CURTISS got underway for ENIWETOK at 290835T and stood down the bay escorted by two armed Coast Guard craft which continued as escorts as far as the Golden Gate Bridge.

At 291220T CURTISS was joined by the COLLETT and the MANSFIELD off San Francisco Lightship, and at the same time was joined by patrol aircraft of VP-47 which patrolled in pairs until the Task Element was 500 miles from the Lightship.

At 0000Z on 1 September while still at Pearl Harbor, COMCORTDESDIV ELEVEN with CORTDESDIV ELEVEN reported to CTG 132.3 for operational control.

COLLETT and MANSFIELD continued with CURTISS as screen as far as the position, Lat. 17-28N Long. 159-08W, where at 0700W on 5 September rendezvous was effected with TG 97.7 consisting of the TOLOVANA, which refueled CURTISS, and CORTDESDIV ELEVEN composed of the four DDE's previously listed.

Prior to arrival at a point on the track 500 miles from OAHU, anti-submarine air cover was provided by aircraft of VP-22 from NAS Barbers Point until the Task Element again reached a distance 500 miles from OAHU. The period during which this air cover was provided extended from 1315W on 3 September until 0100W on 6 September.

Fueling of the CURTISS from the TOLOVANA was completed at 1000W 5 September and operational control of COLLETT and MANSFIELD was passed to CTG 97.5 in TOLOVANA. TG 97.5 then departed from the rendezvous for Pearl Harbor and TE 132.34, consisting of CURTISS

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screened by CORTDESDIV ELEVEN, proceeded on the assigned track to Eniwetok. On arrival at Pearl Harbor, COLLETT and MANSFIELD reported to COMCRUDESPAC for operational control.

During the fueling operation the Task Element had to reverse course because of the direction of the sea. This caused the formation to fall more than fifty miles behind the SITREP position specified by COMHAWSEAFRON, so radio silence was broken by the flagship in order to send a corrected position and a new ETA at Eniwetok to COMHAWSEAFRON. Prior to this time the formation had maintained radio silence on all circuits except VHF and UHF. After this transmission was completed radio silence on long range frequencies was again imposed and maintained until the arrival of the Task Element at Eniwetok.

Anti-submarine air cover was again provided the Task Element when at 0300M on 11 September it arrived at a point 500 miles from Eniwetok. Aircraft of PATRON TWO based at KWAJALEIN provided two plane ASW cover until after entry of the Task Element into Eniwetok Lagoon at 1245M on 12 September.

Entry of the Task Element into Eniwetok Lagoon was made via the West Channel of the Wide Passage. During the morning of 12 Sept, prior to arrival of CURTISS and escorts, small craft of TE 132.32 wire-dragged and visually searched the waters of the channel for mines with negative results. CORTDESDIV ELEVEN formed entry screen prior to entry of CURTISS, who transited the channel without incident. TE 132.34 was dissolved upon arrival of CURTISS and the Task Element 132.33, Destroyer Element, was activated with COMCORTDESDIV ELEVEN in CARPENTER

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the Task Element Commander. At the same time Task Element 132.30, Weapons Element, was activated with the only unit in the Task Element at that time being CURTISS, TU 132.30.0.

All ships fueled from the YON-146 as soon as possible after entering the lagoon.

d. TU 132.31.0 USS ESTES (AGC-12)

According to the original concept it was intended that the ESTES should have as its primary tasks the functions of providing space and shipboard command facilities for the Task Force Commander during the period when Eniwetok Atoll would be evacuated. To fulfill this mission, the ESTES would not have had to arrive in the forward area prior to 20 October. Early in the planning period, however, demands were made for the ESTES to accommodate CTG 132.1 and a large section of his staff and advisors during the evacuation period; also, CTG 132.4 and his staff required the facilities of the CIC and Air Operations Center on board the ESTES for control of TG 132.4 aircraft on shot rehearsal and on shot days. Remote control firing arrangements had to be made for the static detonation of the MIKE device, and CTG 132.1 chose the ESTES as the most suitable ship for the installation of the necessary firing control circuits and the television equipment with which to monitor the MIKE device during the pre-shot evacuation hours. The requirements thus made on the ESTES by the scientific program required that the ESTES arrive in the forward area some thirty days earlier than otherwise would have been the case in order that sufficient checks might be obtained on the

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vital circuits she had to provide for MIKE Shot.

Installation of all necessary special equipment in the ESTES as well as the addition of a helicopter platform on her stern was accomplished at the Mare Island Naval Shipyard during the period 12 July to 2 September 1952.

ESTES reported to CTG 132.3 for operational control at 0001 local (Tare) time on 27 August and was sailed from Mare Island Naval Shipyard at noon local time on 2 September, stopping enroute at Pearl Harbor 8-10 September. She arrived ENIWETOK at 1700 local (Mike) time on 18 September. Previously mentioned precautions against mines were taken during her entry through Wide Passage.

e. CTG 132.3 and STAFF

Commander Task Group 132.3 and his staff, which had been assembled at the Naval Gun Factory in Washington, left there the morning of 26 August for Alameda by Special Air Mission Flight to embark in units of the Task Group on the West Coast.

The CURTISS and its escorts were scheduled to sail from the West Coast on 29 August and to arrive at Eniwetok on 12 September. The RENDOVA, on the other hand, was to sail on 15 September and to arrive in the forward area about the first of October. The Task Group Commander could not delay his arrival in the forward area sufficiently to embark in the RENDOVA, his assigned flagship, so he chose to embark with an operational staff in the CURTISS, leaving an Administrative Staff headed by the Chief of Staff in the RENDOVA to handle all matters for the Task Group Commander while the CURTISS was observing radio silence for the two weeks' period she would be enroute. The RENDOVA would not be required to maintain radio silence.

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This splitting of the staff worked fairly successfully until the arrival of the CURTISS in the forward area on 12 September. Requirements on the Operational Staff then increased to such an extent that the workload became excessive. Shortly after the RENDOVA sailed from San Diego on 15 September, the Task Group Commander decided to have the Administrative Staff disembark at Pearl Harbor and proceed with essential files by air for the remainder of the trip. This was arranged by dispatch, and the Administrative Staff disembarked from the RENDOVA on 22 September, the day following its arrival in Pearl Harbor, and then proceeded by MATS flight to Eniwetok, arriving on 24 September East Longitude date.

On her arrival at Eniwetok on 12 September, CURTISS with CTG 132.3 embarked proceeded to the northern end of the lagoon off the MIKE Shot island. This resulted in a wide separation between the flagship and the Task Force Headquarters on Parry Island and the other units of the Naval Task Group off Eniwetok Island. On 18 September, however, the ESTES arrived and moored to a buoy in berth B-1 off Parry Island. Since the Task Force Commander did not require space in the ESTES for some weeks to come, CTG 132.3 in order to be nearer the Task Force Headquarters and other units of JTF 132 transferred to the ESTES off Parry Island while awaiting arrival of the permanent flagship, RENDOVA. When the Administrative Staff arrived on 24 September, the staff was assembled in the ESTES.

CTG 132.3 transferred with his staff to the RENDOVA on 4 October, shortly after her arrival at Eniwetok.

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f. TU 132.3.0 Carrier Unit USS RENDOVA (CVE-114)
6 F4U-5N
4 TBM-3R
5 HRS-2

The RENDOVA was assigned to Task Group 132.3 from AIRPAC. Because of certain special functions she was to perform in the operation her complement of aircraft had to be especially organized for the mission at hand. In addition, some modifications in her communication equipment were required. The assignment of a special complement of aircraft and aircrews from units of AIRPAC was made as follows:

6 F4U-5N	9 Officers	33 men	from VC-3
4 TBM-3R	6 Officers	from FASRON 7	a/c from AIRPAC pool
3 HRS-2	12 Officers	22 men	from HS-2
2 HRS-2	8 Officers	6 men	from HMR-362

These aircraft and crews were on board the RENDOVA prior to her departure for the forward area on 15 September.

In addition to her own special air group, on her outward voyage to the forward area the RENDOVA transported 16 F-84G's to be used by TG 132.4 as cloud sampling aircraft and 4 C-47's to be used in inter-atoll airlift. The F-84's were transported to Kwajalein; the C-47's were offloaded at Pearl Harbor and then flown via Johnston Island to Kwajalein. In addition to the above aircraft, a fairly large amount of associated squadron equipment was transported, as well as a total of 30 officers and 61 enlisted men; to Pearl Harbor and to Kwajalein.

Also loaded in the RENDOVA at San Diego for the operation were two U.S. Army Signal Corps trailers to be used by Task Group 132.1 in radiological safety operations. These trailers were placed on the hangar deck and remained there until offloaded on return to the United

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States.

The RENDOVA reported to CTG 132.3 for operational control on 15 September and was sailed on the outward trip from San Diego at 0900 local (Tare) time on that date. Stops were made at both Pearl Harbor and at Kwajalein primarily to offload, respectively, the C-47 and F-84G aircraft and associated personnel and equipment. Prior to arrival at Pearl Harbor it was discovered that repairs would be needed for the AN/SPS-6B air search radar antenna. These repairs were completed at Pearl Harbor within the scheduled layover period 21-23 September. The layover at Kwajalein on 30 September - 1 October was a little longer than anticipated, amounting to a total of about 30 rather than 24 hours as had been planned. This delay was caused by weather unfavorable for offloading aircraft and cargo. The ship did not go alongside the pier but remained at anchor in the lagoon and transferred aircraft and cargo to shore by means of lighters.

Prior to the arrival of the RENDOVA at Eniwetok the West Channel of the Wide Passage was searched and dragged for mines. A plane guard destroyer was directed to rendezvous off the Wide Passage, and all fixed wing aircraft were launched and sent to Eniwetok Airstrip to remain there while the RENDOVA was at anchor in Eniwetok Lagoon.

g. TU 132.32.8 MV/ HORIZON

The HORIZON was the first of two Scripps Institute of Oceanography vessels to report to CTG 132.3 for operational control during IVY, the other such vessel being a sister ship, the SPENCER F. BAIRD. Since these ships were manned by civilian crews and were involved

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only in scientific missions, they were placed under the operational control of the Navy Task Group Commander only so that he might control their movements during critical times when they might possibly have been exposed to the hazard of radioactive fallout or of contamination from radioactive water after the test shots.

The HORIZON departed San Diego on 26 September and proceeded on a great circle course at a speed of about 11 knots for Eniwetok. In accordance with the expressed desire of CINCPACFLT, CTG 132.3 by order of CJTF 132 took operational control of the HORIZON when she was 800 miles from Eniwetok on 12 October. The HORIZON arrived at Eniwetok the evening of 15 October and, after refueling and obtaining fresh water from units of TG 132.3, loaded necessary explosives for seismic survey work and commenced her scheduled scientific projects in the Eniwetok-Bikini area.

3. Units arriving at Eniwetok after 15 October 1952.

Units arriving at Eniwetok after 15 October, with the exception of the net tender USS ELDER and the Scripps vessel SPENCER F. BAIRD, were ships whose tasks were to provide facilities for the evacuation of personnel and certain items of equipment from Eniwetok Atoll for the test shots. By 21 October all units of the Navy Task Group except the BAIRD were assembled at Eniwetok and ready to participate in the necessary planning, rehearsals, and evacuation effort.

a. TU 132.31.3 USNS DAVID C. SHANKS (TAP-180)

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The SHANKS was one of two MSTS transports with civilian crews obtained for the purpose of evacuating shore based personnel from Eniwetok Atoll. This ship, with a capacity of 313 cabin and 608 troop class accommodations, was used primarily for the purpose of embarking personnel of TG 132.1 (Scientific Task Group) for MIKE Shot. SHANKS was empty of all passengers upon reporting to CTG 132.3 for operational control at Eniwetok at 1145 local (Mike) time on 18 October. Prior to reporting, she had made a voyage from San Francisco to Honolulu and Guam, departing from San Francisco on 26 September and from Guan on 15 October.

b. TU 132.31.1 USNS GEN E. T. COLLINS (TAP-147)

The COLLINS, second MSTS ship to report to the Navy Task Group like the SHANKS was manned by a civilian crew. She reported to the operational control of CTG 132.3 upon her arrival at Eniwetok at 0700 local (Mike) time on 20 October.

The COLLINS had a much greater troop capacity than the SHANKS, being capable of embarking 307 cabin and 2578 troop class personnel. Spaces in the COLLINS were allocated chiefly to the TG 132.2 and TU 132.4.1.1 personnel from Eniwetok Island, with certain overflow personnel from TG 132.1 and the Task Force Headquarters also being assigned to this ship for evacuation purposes.

c. TU 132.32.4 Towing Unit USS YUMA (ATF-94)

The YUMA was assigned to the Navy Task Group from SERVPAC. She was one of three ATF's so obtained for the primary purpose of evacuating small craft and yard craft of the TG 132.1, TG 132.2, and TG 132.3 Boat Pools from the atoll for MIKE Shot because of the possible threat of destructive waves within the lagoon. The YUMA and another ATF, the

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ARIKARA, were sailed as TU 56.2.4 from Pearl Harbor by COMHAWSEAFRON at 1300 local (William) time on 11 October and arrived at Eniwetok 0800 local time (Mike) on 20 October. YUMA reported to CTG 132.3 for operational control at the time of her arrival at Eniwetok.

d. TU 132.32.6 Towing Unit USS ARIKARA (ATF-98)

The ARIKARA was assigned to the Navy Task Group from SERVPAC for the same general mission as that of the YUMA. The two ships were, as related above, sailed to Eniwetok in company. The ARIKARA reported to CTG 132.3 for operational control at the same time as the YUMA at 0800M on 20 October.

e. TU 132.31.4 USS LEO (AKA-60)

The LEO, a Navy manned attack transport, was assigned from MSTS primarily for the purpose of evacuating prior to MIKE Shot a number of dewars belonging to TG 132.1 and two AVR's.

LEO was sailed from San Francisco on 6 October with certain cargo for Kwajalein and Eniwetok. She arrived at the latter place at 0830 local (Mike) time on 20 October and reported to CTG 132.3 for operational control at 1200M of the same day.

f. TU 132.32.3 Towing Unit USS LIPAN (ATF-85)

The LIPAN was the third of three tugs assigned to the Navy Task Group from SERVPAC. Its general mission corresponded to that of the other two ATF's, although it was required to remain in the Eniwetok Area longer than either of the other two because of later requirements for support of a scientific project in which the HORIZON was engaged.

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The LIPAN and the ELDER were sailed by COMHAWSEAFRON as TU 56.2.5 from Pearl Harbor at 1300 local (William) on 10 October and arrived at Eniwetok at 0800 local (Mike) time on 21 October. The LIPAN reported to CTG 132.3 for operational control 1502M on 20 October.

g. TU 132.32.9 Special Mooring Unit USS ELDER (AN-20)

The ELDER was obtained from SERVPAC solely for the purpose of installing deep water moorings off the MIKE shot island and handling associated gear to be attached to these moorings in support of Scientific Project 6.7a. The ELDER was sailed from Pearl Harbor in company with the LIPAN as mentioned above. She arrived at Eniwetok at 0800M on 21 October and reported to CTG 132.3 for operational control as of 1000M on that date.

h. TU 132.32.7 M/V SPENCER F. BAIRD (Ex-ATA)

The SPENCER F. BAIRD, second of the Scripps Institute vessels to report to the operational control of CTG 132.3, was originally scheduled to arrive at Eniwetok on 2 November, the day after MIKE Shot. Since this would have involved a possible hazard from fallout while enroute, CINCPACFLT expressed the desire that the BAIRD report to the operational control of CTG 132.3 upon departure from San Diego so that this ship might be routed to Eniwetok along a safe track.

The departure of the BAIRD from San Diego was delayed until 1700 local (Uncle) time on 27 October. This postponed her scheduled arrival at Eniwetok until 14 November, the day after which KING Shot was first scheduled to occur. Accordingly, CTG 132.3 assumed operational control of the BAIRD upon her departure from San Diego and directed her to take a great circle course for Eniwetok, intending in the meantime to

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issue later routing instructions as they might become necessary.

While the BAIRD was still some 2,000 miles from Eniwetok, members of the Scripps Institute scientific party informed CTG 132.3 that the BAIRD was to be used at a later date for delicate radioactivity counting operations and hence should be kept clear of any area where she might possibly become contaminated with radioactive fallout or with contaminated water. Accordingly, CTG 132.3 on 13 November, one day prior to BAIRD's scheduled arrival, ordered her to put in at BIKINI and await further orders. Subsequent to that, KING Shot was delayed three days. Some three hours after KING Shot on 16 November the BAIRD was instructed to continue her voyage. She arrived at Eniwetok at 0700M on 17 November. Her activities on site were then confined to the southern end of the lagoon to prevent her being contaminated by the "hotter" water in the northern end of the lagoon.

4. Time at which TG 132.3 reached peak strength.

Prior to the arrival of the BAIRD, several ships no longer needed after MIKE Shot were released from the Task Force and departed from the area. Actually, the BAIRD did not arrive until after the departure of ELDER, SHANKS, YUMA and ARIKARA. TG 132.3 thus reached its peak strength on 21 October and began its decline from this peak with the departure of YUMA, ARIKARA and ELDER on 8 November, followed by the SHANKS on 11 November.

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5. Comments.

The movement of subordinate units to the forward area was expeditiously accomplished and the timing was appropriate. The only major difficulty encountered was the need for the entire TG 132.3 staff to be assembled in the forward area at the same time that the Task Group Commander arrived at ENIWETOK.

6. Recommendations.

a. If the Task Group Commander again embarks for passage to the Forward Area in the Weapons Unit or any other ship maintaining radio silence during its voyage, it is recommended that the staff be divided again in a manner similar to the division made for IVY. However, it is recommended that the Administrative Staff remain at the rear headquarters until the Task Force Commander has reached his destination, and then with files proceed immediately by air to join the Task Group Commander in the Forward Area.

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PART 5 - ON-SITE OPERATIONS AND REHEARSALS

1. On-site Operations:

a. Routine Operations.

The Navy Task Group was unique among the three task groups of the Armed Services in the extent of daily operations required of it throughout its entire time in the forward area, either in direct support of the preparations for the tests or in furnishing security for the Task Force as a whole. In providing this support some of the Navy units, particularly PATRON TWO and the RENDOVA's helicopter unit, amassed very impressive operational statistics. The contribution of the TG 132.3 Boat Pool was no less important and its performance was equally impressive although the mission performed was less spectacular to the casual observer.

The on-site routine operations of the individual task units of TG 132.3 are covered in several other parts of this report, namely:

(1) Part 7 - Shot Phase Evacuation, Afloat Operations and Re-entry.

(2) Part 8 - Intra-atoll Surface and Helicopter Transportation

(3) Part 12 - Radiological Safety.

(4) Part 13 - Security (Convoy and Escort Unit, Surface Patrols, Air Patrols, Movements of CURTISS, etc.)

(5) Part 14 - Mobile Boat Pool.

In each of the above parts of this report will be found descriptions of the more significant operations by units of the Task Group while in the forward area.

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b. Operations in Support of the Scientific Test Program.

Operations by the Navy Task Group in support of the Scientific Test Program, other than the operations of the TG 132.3 Boat Pool, the RENDOVA Helicopter Unit, the USS ELDER and the Scripps Institute vessels HORIZON and BAIRD were limited largely to Shot day participation by various units, plus occasional pre-shot rehearsal runs by the ESTES and the OAK HILL for project communications checks and calibration purposes.

The scientific projects directly supported by the units of the Navy Task Group were the following:

Project 5.4a - Fallout Distribution and Particle Size (Dan Buoy and Sticky Plates Project).

Project 6.2 - Air Mass Motion Studies

Project 6.4b - Sea Waves

Project 6.7_a - Underwater Pressures in Deep Water

Project 6.11 - Free Air Pressures as a Function of Time

Project 7.5 - Transportation of Airborne Debris

Project 9.2 - Effects on the Ionisphere With Respect to the Propagation of Radio Waves.

Project 11.4 - Seismic Refraction Survey

Project 11.5 - Marine Survey

Atomic Energy Commission World-wide Fallout Monitoring Program Support.

(1) Project 5.4a - Fallout Distribution and Particle Size (Dan Buoy and Sticky Plates Project)

The Dan Buoy portion of the project was concerned with measuring fallout from the atomic cloud up to distances of approximately 250 miles from Ground Zero.

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Because the Dan Buoys used to house the collector bottles were equipped with radar reflectors to assist in their being located for recovery, no buoys were planted in any position from where they might have drifted into within 75 miles of ENIWETOK by MIKE Day. This portion of the project was limited to MIKE Shot, only.

Two ships, the YUMA (ATF-94) and the O'BANNON (DDE-450) were used prior to MIKE Shot Day to launch some 19 Dan Buoys in such positions that they were expected to drift to desired locations for them at shot time, generally along arcs 100 and 150 miles east of the Shot Island. After MIKE Shot and commencing at daylight on M + 1, the O'BANNON with aircraft of Patron TWO assisting searched for and recovered twelve (12) of the 19 Dan Buoys over a five day period. The RENDOVA maintained a plot of the expected positions of the buoys and assisted as well as possible in coordinating the recovery efforts which, however, were primarily effected by the O'BANNON.

In the second part of the program, ten ships of TG 132.3 installed one foot square sticky surface plates in various places on board ship above the spray level of the temporary washdown system to collect fallout samples. Some information was obtained relative to particle size from light fallout collected on these plates.

(2) Project 6.2 - Air Mass Motion Studies.

Support from TG 132.3 for this project was required only for MIKE Shot. Ten obsolescent 3 in. 50 cal. naval A.A. guns were procured by the project officer from the Navy for installation on shore.

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They were used to fire shells which were especially loaded by the Army for this project and which were set to burst at desired positions in space just prior to MIKE detonation. The motion of the smoke from the bursts was photographed to obtain data on air mass motion.

The only support required from TG 132.3 for this project was the assistance of six enlisted personnel from the Gunnery Department of the USS CURTISS to assist in mounting these guns ashore, wiring and preparing them for the one round each fired just prior to MIKE Shot.

(3) Project 6.4b - Sea Waves.

The Scripps Institute Motor Vessel HORIZON carried out this project, which was conducted for MIKE Shot, only. Certain instruments were placed within the lagoon at ENIWETOK, outside the reef at BIKINI, and approximately 26 and 72 miles in a northerly direction from shot island on sea mounts to record the wave effects produced by the MIKE detonation. All instruments except those which went adrift from one sea mount were recovered by the HORIZON after MIKE Shot.

(4) Project 6.7a - Underwater Pressures in Deep Water.

This project was conducted for MIKE Shot only. Support for it was required from PATRON TWO, USS CURTISS, USS ELDER, and USS YUMA. The ELDER, eventually assisted by the YUMA, placed moorings in depths of water up to 3,600 feet to the seaward side of TEITEIRIPUCCHI Island and to three of these moorings attached a total of four nine thousand pound "can" buoys with pressure gauges suspended at various depths below them. At shot time, one P2V aircraft of PATRON TWO which had been especially modified for this purpose orbited at 10,000 feet approximately 30 miles east of SHOT Island;

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the CURTISS at shot time was 35 miles east of SHOT Island. Telemetering signals in line of sight transmission were picked up by equipment in the orbiting aircraft and were relayed to the CURTISS.

It was intended that the ELDER recover the buoys after the test. However, a search of the area after MIKE Shot was made but none of the can buoys with instruments was found.

(5) Project 6.11 - Free Air Pressure as a Function of Time.

In this project, parachute suspended canisters were dropped by an Air Force B-29 on a radial line from Ground Zero shortly before H-hour. Each canister contained a telemetering transmitter which transmitted signals indicating measurements of pressure and heat. These signals were received by project equipment mounted in three van type trailers embarked in the OAK HILL.

The support required from TG 132.3 for this project was only that rendered by the OAK HILL. She embarked the three van type trailers plus three smaller generator trailers while on the West Coast and kept them on board until her return to the U.S. Prior to each of the two test shots, the OAK HILL had to get underway and try different complicated maneuvers to meet special space-time requirements for her position prior to and at the time of each shot. These special maneuvers were part of the instrument calibration and drop time coordination requirements for the project. Project personnel were also embarked for several days at the time of each of the two shots.

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(6) Project 7.5 - Transportation of Airborne Debris

The Navy Task Group supported this project for both MIKE and KING Shots. The CURTISS, ESTES, and RENDOVA participated in MIKE; the OAK HILL, ESTES, and RENDOVA participated in KING.

Large ships with sufficient equipment and personnel to make the desired observations were either selected because they were in favorable positions to give necessary length of base lines for the desired results from these observations or, if some were not otherwise required to occupy specific positions at shot time, they were placed in favorable postions for purposes of this project.

In this project, movement of the airborne debris after the detonation of each shot was determined by surface measurements of the height, bearing and distance of the visible cloud and mushroom. Measurements were made for one hour at 30 second intervals using sextants, gyro repeaters, and range and altitude determining radars. The results were forwarded to the Project Officer in TG 132.1.

(7) Project 9.2 - Effects on the Ionosphere With Respect to the Propagation of Radio Waves.

The Navy Task Group supported this project in both MIKE and KING Shots. Two P2V aircraft, one being used as a standby in case of transmitter failure, were placed 250 miles west of ENIWETOK and required to orbit at a specified altitude in an elongated elliptical pattern twelve miles in length. While orbiting from H-1 until H + 2 hours one aircraft transmitted on assigned frequencies to project receiver units on BIKINI.

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The aircraft were so stationed that, after each shot, the transmissions had to travel through the vicinity of the cloud in reaching the receivers. Measurements were made on the received signals which determined the effect of the explosions on the ionosphere with respect to the propagation of radio waves.

The RENDOVA assisted in stationing the aircraft and routing them through safe areas on their return after the tests.

(8) Project 11.4 - Seismic Refraction Survey

This project was accomplished by the Scripps Institute vessels HORIZON and BAIRD, with the HORIZON being assisted by the LIPAN (ATF-85) prior to the arrival of the BAIRD. Explosive charges of increasing weights, depending on the distance involved, were fired . underwater from one of the ships moving on prescribed tracks inside or outside the atoll. Listening was done on a ship anchored at various places inside the lagoon or with receivers at various depths in a 4,000 foot test hole previously sunk on MIKE Shot Island. The listening unit recorded the transmission times and other data for determining certain geological data relative to the structure of the atoll. Since surveys were made both before and after MIKE Shots, evidence of change resulting from that shot might thereby possibly be determined.

The LIPAN received the heaviest contamination of any commissioned ship of TG 132.3 as a result of operating fairly close to MIKE Shot Island in support of this program as listening ship after MIKE Day. This contamination was not of major importance, but it was not possible to give the LIPAN final radiological clearance prior to its departure from the ENIWETOK area.

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(9) Project 11.5 - Marine Survey

In this project, which was conducted during the period of ten days prior to MIKE Shot evacuation and ten days after MIKE Shot reentry, a party of approximately six scientists from the Applied Fisheries Laboratory of the University of Washington were embarked in the OAK HILL and, using TG 132.3 Boat Pool LCM's and LCPL's, collected various water and marine form samples on the rim and from within the lagoon. Limited laboratory and other working space was furnished on board the OAK HILL.

(10) AEC World-wide Fallout Monitoring Program.

By request of CINCPACFLT, aircraft of PATRON TWO were made available to AEC monitoring personnel to make three airborne reconnaissance flights in the general Marshall Islands area to check for fallout. The flights varied in length from 972 miles to 1306 miles. This was part of a world-wide program to determine the amount of fallout occurring in the various areas of the world as a result of MIKE Shot.

Other support of the Scientific Task Group was largely on a routine daily operations basis.

2. Rehearsals:

The Navy Task Group participated in two rehearsals, one prior to each of the two test shots.

a. MIKE Shot Rehearsal. (MX Rehearsal) MX Day 27 October, H Hour 0930M

MIKE Shot rehearsal was conducted on M-4 day on the principle that all task groups would participate to the maximum degree practicable with the limitations, however, that necessary normal operations in preparation for the actual test would continue without interruption and that the

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rehearsal would not include evacuation activities. The missions of this rehearsal were:

(1) To conduct a realistic and thorough Joint Task Force dress rehearsal for MIKE event.

(2) To perform a complete electronics and communications check to the end that all circuits and all transmitters that would be used on M Day were operated and checked for interference with electrical scientific instrumentation.

(3) To ascertain the readiness of task groups to execute missions set forth in CJTF 132 Operation Order No. 2-52 and CJTF 132 Operational Directive No. 1. (Operational Directive No. 1 pertained to MIKE Event, itself).

The tasks assigned to Task Group 132.3 were the following:

(1) Conduct intensified surveillance of the ENIWETOK Danger Area, consistent with normal operational missions.

(2) Rehearse those portions of the operation involving employment and disposition of the following ships and aircraft which would be required to be on specific station, at H Hour on MX Day:

ESTES	O'BANNON
OAK HILL	INSTRUMENTED P2V PATROL AIRCRAFT
RENDOVA	

(3) Rehearse appropriate portions of damage survey, recovery and reentry helicopter operations, coordinating with other task groups as required, provided such operations did not interfere with the M-4 schedules for MIKE preparation activities.

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The ESTES participated by embarking the Task Force Commander and essential members of his staff, headquarters communications personnel, CTG 132.1 and his immediate staff, and CTG 132.4 and the Senior Air Controller prior to 1700M on M-5 and then proceeding north to anchor near the CURTISS off shot island. ESTES got underway about 0300M after picking up certain personnel of the firing party from the shot island and proceeded down the channel and out via the Deep Entrance to its assigned station for H Hour. Firing circuits and communications were tested and the Air Control functions were performed. After completion of the rehearsal, the ESTES returned to its assigned buoy off Parry Island. The role of the ESTES in evacuation of the firing party was altered prior to MIKE Shot four days later, for on that occasion the ESTES did not proceed northward from Parry but remained at her buoy off Parry and received the firing party which was brought down by an AVR from Shot Island, arriving at the ESTES about 0230M.

The CURTISS did not participate in the rehearsal since its presence was required off Shot Island to continue support of preparations at that site for MIKE Shot.

The OAK HILL got underway about M-1 at 1810M and proceeded to sea via the Deep Entrance. Her assigned station at H Hour was 135°T distance 30.4 miles from MIKE Shot Island, as required by Project 6.11. The tests with OAK HILL were satisfactory and OAK HILL returned to the lagoon soon after H Hour. The change in evacuation concept, in which the firing party was brought down from Shot Island by AVR, required the OAK HILL not to leave on M-1, but at 0245M on M-Day after loading the AVR which brought the firing party from Shot Island to the ESTES.

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The RENDOVA got underway at 1800M on M-5 and proceeded to sea via West Channel of Wide Passage, remaining near her H Hour position until H Hour, and then taking on all fixed wing aircraft except three fighters, which were left ashore for Combat Air Patrol. After taking aircraft on board, the RENDOVA returned to the lagoon.

The O'BANNON, after embarking an Air Force liaison officer, at 1315M M-5 got underway and proceeded to her Control Station at position 10° 30'N 165° 00'E, approximately half way between Kwajalein and Eniwetok. O'BANNON's services on M-4 were rendered without incident and, lacking other information as to conclusion of the exercise, she was given permission to return to Eniwetok after it had been ascertained that all aircraft requiring her presence at the Control Station had landed safely.

Two instrumented P2V aircraft were ordered to a station 250 miles west of Eniwetok to send radio transmissions on designated frequencies to Project 9.2 receivers on Bikini. These aircraft were on station transmitting on the project test frequencies from H-1 until H+2 hours, orbiting according to a prescribed pattern at a fixed altitude.

At 0745M, all units of Task Group 132.3 activated certain designated radio and radar circuits in order to give scientific project personnel the chance to check for possible interference. These circuits were kept activated until 1200M.

b. KING Shot Rehearsal. (KX Rehearsal) KX Day 9 November, H Hour 1130M

Except for certain minimum requirements prescribed in CJTF 132 Operational Directive No. 4 (KX Rehearsal), the degree of participation in the rehearsal was at the discretion of the task group commanders. The

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rehearsal commenced at 0600 on KX Day (K-4, which for K Day of 13 November was 9 November) and was concluded upon completion of token helicopter operations and the return of all participating aircraft on their base about H plus 7 hours on KX Day.

The tasks assigned by the Task Force Commander for TG 132.3 were:

(1) Support CTG 132.1 in the conduct of the rehearsal, as required.

(2) Provide the following components at the rehearsal positions indicated:

OAK HILL	- On station at sea
ESTES	- Moored to buoy in lagoon (Air Operations Center operative)
HELICOPTERS	- Token number launched from Parry Island as required for simulated recovery operations.
O'BANNON	- On station at 10°-30'N, 165°E.

The ESTES remained at her buoy off Parry Island in order to have secure landline telephone communications with the Task Force Headquarters, this being required by the fact that ESTES performed the task of controlling all test aircraft in the area.

The RENDOVA did not get underway, nor did any other unit of TG 132.3 other than those listed above, because of requirements to continue with support of preparations for KING Shot.

For the purposes of this rehearsal a ban was placed on the use of certain communication frequencies for the period H-5 minutes to H plus 1 minute, and with certain specified exceptions complete radar silence for the period H-1 to H hour.

Again, in order to complete the electronics interference check, the two P2V aircraft were dispatched to their stations 250 miles west of Eniwetok to conduct transmissions from H-1 until H plus 2 hours.

The KX Rehearsal was completed without event and aircraft and ships returned to their normal bases. The participation by the Navy Task Group was a token operational participation plus electronics and electronics interference check.

In both MIKE and KING rehearsals the participation was limited in scope because of the pressure of tight test preparations schedules. Many units could not be spared for full participation, particularly in the MIKE rehearsal. This lack of complete Task Group participation in the rehearsal for MIKE was noticed when the units put to sea from MIKE Evacuation, particularly in tactical communications when the units assumed stations at sea on MIKE Evacuation. Circuits which had been checked out at fairly close range in port failed in many cases when the distances between units were no more than moderate even for the type communications concerned, and this resulted in some difficulties in maneuvering the heterogenous group prior to and after the shot.

The evacuation for KING Shot went more smoothly because, in this case, there was one dummy run between the very limited rehearsal and the evacuation for the actual event. In the first rehearsal for KING, except for the O'BANNON, only the OAK HILL put to sea, and that was done to satisfy the requirements of Project 6.11. The first scheduled KING Day, 13 November, found all major units except ESTES putting to sea as required and all test aircraft on station. However, after one 40 minute postponement the shot was further postponed for at least 48 hours. This dry run was, at least as far as communications were concerned, not too much better than MIKE. However, the dry run did serve this time as a very good rehearsal, so when KING finally was dropped on 16 November, the evacuation of units and maneuvering at sea occurred with almost no effort. This pointed up the

value of full scale participation of all units in each rehearsal.

From the time of reporting to the Task Group until the time of being detached, each unit was practically forced to abandon its normal program of intra-type competitive exercises except those which did not require the assistance of another ship or aircraft. Type training, except for very limited training by RENDOVA aircraft based ashore, had to be neglected almost entirely, either due to lack of necessary auxiliary facilities or to operational requirements imposed upon the units concerned. This interruption in the normal training cycle unavoidably resulted in hardships on almost all of the individual commands.

3. Comments.

The operations described in this section were conducted without any exceptional difficulties or deficiencies. Project 6.7a, however, required last minute support beyond that originally planned, largely because of the late date at which project personnel and material arrived in the forward area. In addition, it was discovered that a net tender is not a suitable ship from which to attempt to place heavy moorings and attach buoys such as were used in a project of this type.

During the operations of the Scripps Institute vessels HORIZON and SPENCER F. BAIRD, it was necessary to communicate with them by radio in plain language only, since they were manned by civilian crews and had no codes or ciphers. This restricted communications with them and resulted in several minor inconveniences plus working a hardship on the ships in certain instances.

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4. Recommendations.

a. For any assignment similar to that performed by the ELDER (AN-20) in IVY, an ATF (Fleet Tug) should be used. Handling heavy objects in a rough sea from and on the sloping deck of a net tender is both difficult and dangerous.

b. In any future operation in which ships with civilain crews participate, U.S. Navy communication teams with necessary secure codes or ciphers should be embarked in order that secure means of communications may be provided.

c. In future operations, all scientific project officers requiring support of units of the Navy Task Group should be required to establish early and continuing liaison with the Navy Task Group in order that satisfactory planning may be accomplished prior to the last moment before the final deadline.

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PART 6 - SEARCH AND RESCUE

1. As provided in CJTF 132 Operation Order 2-52, Commander Task Group 132.4 was delegated the SAR responsibility for all JTF air and surface units in the Kwajalein/Eniwetok area during Operation IVY. This was a change from the original concept wherein CTG 132.4 was assigned primary responsibility throughout the operation except that CTG 132.3 was to assume primary responsibility within a limited area when directed by CJTF 132 during intensified periods of activity. It was agreed by representatives of CJTF 132, CTG 132.3, and CTG 132.4 that this original plan of passing responsibility back and forth, particularly at these critical times, was unsatisfactory, and that one activity should retain control throughout the entire operational period. This, of course, did not obviate the responsibility that is inherent upon any Commander in respect to his own forces, no matter how far down the chain of command.

In view of the fact that CTG 132.4 was located at Kwajalein, where a SAR coordination center was in operation, and that aircraft with SAR missions were organic to the forces of TG 132.4, it was agreed that CTG 132.4 was the most logical commander to exercise control of SAR for CJTF 132.

Two specific SAR incidents occurred in which CTG 132.3 was directly involved. At 1120M on 27 October an emergency IFF signal was detected by ships of TG 132.3. This signal was seen bearing 116°T distance 110 miles from Eniwetok. The course of the aircraft send-

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ing the signal was 090°. No emergency radio transmissions were heard, and, after a short period of time, the IFF signal disappeared. The only known traffic near that location was a TG 132.4 MR-29. The P2V on patrol, unfortunately in a position near the northwest corner of the Danger Area, was immediately diverted by CTG 132.3 and taken under positive control by the CIC in the flagship. The standby P2V, at Eniwetok, was alerted for scramble, and the P2V in rest status was alerted. The O'BANNON, patrolling the southern sector, was immediately directed at best speed toward the position of the IFF signal. The standby P2V was airborne within fifteen minutes and, upon request of Base Operations, Eniwetok, the rest P2V was scrambled. The diverted search aircraft was then returned to its normal patrol. Additionally, two C-47 aircraft were scrambled by Base Operations, Eniwetok. All four aircraft were under positive radar control of the CIC in the RENDOVA.

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A message was sent immediately to the SAR Coordination Center, Kwajalein, and CTG 132.4 regarding the situation and the action taken. Approximately one and one half hours later, CTG 132.3 was advised by despatch from the SAR Coordination Center that an R5D aircraft was proceeding to Kwajalein on three engines, and that an SA-16 aircraft from Kwajalein had effected rendezvous and was accompanying this R5D.

On 31 October at 1717M, the P2V aircraft that was making a search in the significant sector west of Eniwetok lost the port engine approximately 470 miles from Eniwetok. The pilot further reported his starboard engine to be running rough. Inasmuch as this aircraft was in communication with the CIC in the RENDOVA, to which he made his routine position reports and

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all contact reports, CTG 132.3 was able to take immediate action which consisted of diverting the P2V aircraft on patrol to intercept, rendezvous with, and accompany this aircraft to base or stand by in the event ditching became necessary; dispatching the CARPENTER, on patrol to the west of Eniwetok, at best speed to lend assistance as necessary; and notifying CTG 132.4 and the SAR Coordination Center of the situation and the action taken. An SA-16 was sent from Kwajalein and arrived at approximately the same time as the aircraft in trouble arrived at Eniwetok. The assisting P2V effected rendezvous and accompanied the aircraft in trouble approximately 300 miles to Eniwetok. At a point approximately 110 miles from Eniwetok both aircraft and the destroyer had radio and radar contact with each other and the destroyer could have expeditiously carried out rescue operations had a ditching become necessary.

In both cases, because operations were being controlled in a location physically removed by some 354 miles from the SAR headquarters, the necessary communications injected a delay in establishing coordination between CTG 132.3 and the SAR headquarters in Kwajalein.

It is considered that in both cases the action taken was the proper initial action for the "scene of action" Commander to take. Had there been specific SAR forces stationed at Eniwetok they would have been of further assistance.

On MIKE day morning, during the period of evacuation and with only an eight man emergency crew manning the airstrip, two F-84 sampler aircraft attempted to make emergency landings at Eniwetok because of impending fuel exhaustion. One aircraft did land successfully; the other, Pebble Rod 4,

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ditched approximately three miles short of the runway near buoy number 4 in the Wide Passage. Although CTG 132.4 was controlling this incident from the ESTES, and Eniwetok Tower was giving DF steers to the aircraft in distress, CTG 132.3, by monitoring the voice circuits in the CIC on the RENDOVA was able to provide helicopters to the extent that one was in position to observe the F-84 ditch, another was approaching the lagoon at the time of ditching, and a third had taken off from the RENDOVA and was on his way into the lagoon. Upon request of CTG 132.4, the OAK HILL was directed to the lagoon to unload an LVR to augment the helicopter search for the pilot. Unfortunately, the pilot was not observed nor was his body recovered. After reentry was completed, forces of TG 132.3 unsuccessfully searched from 4 to 13 November in an attempt to locate the aircraft and recover the body of the pilot. (See appendix I).

It is concluded and recommended that:

(a) The basic Search and Rescue Plan was satisfactory and is recommended for use in future operations.

(b) Positive, rapid communications are an absolute necessity between the flagship (or ship exercising primary control for the Navy Task Group Commander) and the Task Force and/or area SAR Coordination Center. To this end, a direct circuit should be provided between TG 132.3 flagship and the JTF 132 and/or SAR Coordination Center.

(c) Specific SAR aircraft be assigned to the several locations where major operations are being conducted, rather than all being concentrated in one location.

(d) That the Navy Task Group Commander must be prepared at all

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times to take immediate action with his available forces in the event of any SAR incident which becomes apparent to him. The Navy surface forces are the only suitable forces available for rescue of personnel at sea and helicopters are indispensable for close in rescue. THE IMPORTANCE OF IMMEDIATE, POSITIVE ACTION BY THE COMMANDER ON THE SPOT CANNOT BE OVEREMPHASIZED.

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UNDERWATER DETECTION UNIT
c/o U.S.S. OAK HILL (LSD-7) UDU1323/10:rem
FLEET POST OFFICE 17 November 1952

[redacted]

APPENDIX I

From: Officer in Charge
To: Commander Task Group 132.3

Subj: Efforts to Locate Lost F-84 Aircraft

1. This Unit, in conjunction with certain personnel of the MV HORIZON conducted extensive underwater search to attempt to locate the F-84 aircraft lost on 1 November 1952. Search efforts by this Unit were commenced on 4 November and continued through 12 November.

2. On the morning of 4 November the originator was contacted by CAPT. WHITEHEAD, USAF and Mr. SIEMS, AF Contract Technician, and search was commenced in the water area where investigation of eyewitness reports indicated to be the probable location of the aircraft. Visual scanning of the lagoon bottom was possible by means of towing a swimmer equipped with a face mask and breathing tube (snorkle) from an LCP(L). Services of the helicopter pilot (CAPT. FOSS, USMC) who was witness to the crash, were received in the afternoon to hover with helicopter over the spot believed to be the last known position of the lost aircraft. This spot was buoyed and an expanding rectangular search of the bottom was conducted about this point. The Air Force personnel did not accompany the search party on any further trips. Search continued on 5 November until an area about 400 yards by 500 yards centered 500 yards east and 100 yards south of Wide Passage Channel buoy #4 was completely covered. Due to sea and wind conditions the search could not be pursued on 6 November.

3. Mr. Bascom, Mr. Beckwith and Mr. Barr of the MV HORIZON joined search efforts with this Unit on 7 November, providing a means to search deeper water areas not completely visible from the surface by use of an "Aqua-Lung" that enabled either Mr. Bascom or Mr. Beckwith to scan the bottom from about 80 feet depth while being towed by the small boat. The search party worked in teams of two men, one at 80 feet depth with breating apparatus and the other on the surface as a safety watch and to relay signals from the underwater searcher. Mr. Bascom and Mr. Barr constituted one team, and Mr. Beckwith and LTJG Clymer composed the other. Search efforts continued by these personnel through 12 November (less 8 November) and completely covered an area bounded on the west by a line down the center of the Wide Passage main channel running from abeam of buoy #6 to 600 yards south of buoy #4, on the north by a 290-110 line through buoy #6, on the east by a line parallel to the west boundary 800 yards to the east and on the south by an E-W line 600 yards south of buoy #4. In addition two passes were made along a line extending from buoy #4 for 2000 yards toward the SW end of the flight strip on Prod.

4. Absolutely no evidence of the lost aircraft was discovered on the bottom in the area searched. Mr. Bascom and LTJG Clymer followed all possible leads furnished by such personnel as Capt. Foss, aircraft control tower operator, and crash boat coxswain in order to cover all possible areas of assumed location of the aircraft.

Copy to: CTE 132.32
Copy furnished CTG 132.4 on 11-20-52

/s/ ROY E CLYMER, JR.
ROY E CLYMER, JR.

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PART 7 - SHOT PHASE EVACUATION, AFLOAT OPERATIONS AND REENTRY

One of the tasks assigned to the Navy Task Group by the Task Force Commanders Operation Order was to "Provide Shipboard facilities to house the Joint Task Force while afloat".

The original concept of the evacuation for the MIKE Shot in IVY contemplated the evacuation of all personnel from ENIWETOK plus a large number of vehicles and other equipment that might be damaged during the tests to ships of the Navy Task Group. This original concept relative to the evacuation of material from ENIWETOK was later reduced to include only equipment and supplies required to insure a rapid reentry capability of the garrison force. Some of this reentry equipment was not evacuated on ships of the Navy Task Group but was left ashore at locations convenient to LCM landing beaches as directed by the Task [redacted]

Early in the evacuation planning the concept was promulgated by the Task Force Commander that the bulk of the personnel concerned would be evacuated in two MSTS Transports. In June the Navy Task Group Commander wrote a letter to the Commander Military Sea Transportation Service, Pacific that stated the problems and requested that every effort be made to insure that the evacuees from ENIWETOK would be made as comfortable as possible on board the transports. The Commander MSTS, Pacific replied immediately to this letter and said that MSTS Pacific would cooperate to the fullest extent possible to insure the success of the evacuation. Subsequent events proved that the MSTS transports arrived on station fully prepared for their tasks which they carried out to the complete satisfaction of all concerned.

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At about this time, June 1952, MSTS requested from the Navy Task Group Commander a list of evacuees scheduled to be evacuated in the MSTS transports for the purpose of planning the billeting of passengers. The Navy Task Group Commander on 20 June 1952 requested these names from the Task Group Commanders concerned. Due to the many transfers that were constantly taking place within the scientific Task Group, these lists were never made up until a few days before the evacuation. By that time billeting could not be effected by means of the normal methods of the MSTS. Accordingly billeting was done during the last few days by means of the joint efforts of the Commanding Officer of the Military Detachment aboard the transports and the troop quartermaster representing the embarked passengers. Although this is not the customary method of billeting a large number of passengers aboard transports, all passengers were accommodated in an acceptable fashion.

Prior to the afloat phase of the evacuation numerous conferences were held at Joint Task Force Headquarters with representatives of all the Task Groups in attendance. These conferences served as a clearing house for evacuation information among the various task groups. Many details were ironed out at these conferences, some of these concerning mail, baggage, documentation, uniforms for military, dress for civilians, handling of pets and assignment of transport quartermasters. The questions of greatest interest to the Naval Task Group were: Would the passengers be available to be loaded aboard the ships in time for the ships to make their scheduled departure; would boats of the naval boat pool be made available for loading into OAK HILL in sufficient time;

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would the floating dry dock and barges under loan to AEC be available for towing at an early time, and would floating craft of Holmes and Narver boat pool left behind be positioned safely during the evacuation. Another question of interest to the Navy (and of the entire Task Force) was the question of assurance that every person based ashore was on board ship prior to the departure of the last Naval vessel to leave prior to the explosion of the MIKE Device. Most of these matters were settled satisfactorily within the committee.

The concept of the evacuation for IVY contemplated the loading of the elements of the Scientific Task Group (mostly civilians) in one transport and the Army Task Group plus scientific Task Group overflow in the other transport. The Task Force Headquarters and Scientific Task Group Headquarters personnel were evacuated in the ESTES. The CURTISS carried key scientific personnel who were not scheduled to participate in the KING Shot as the CURTISS was originally scheduled to proceed after MIKE Shot direct to KWAJALEIN and to remain there for KING Shot. Two small scientific groups were evacuated in the OAK HILL together with Army Reentry Team.

The RENDOVA carried Task Force Rad-Safe personnel with mobile RadSafe laboratories and certain key airstrip personnel designated to fly into ENIWETOK and reactivate the airstrip as soon as possible after the Shot. A breakdown of those carried by evacuation ships during the MIKE Shot of IVY is submitted below:

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	Cabin	Troop
USNS COLLINS (Army Task Group plus 370 civilian)	319	1343
USNS SHANKS (Civilian Task Group)	314	507
USS ESTES (Task Force Headquarters & Scientific Task Group)	101	181
USS CURTISS (Mostly Key scientists)	102	24
USS RENDOVA (RadSafe, Key Airstrip personnel)	68	30
USS LEO (AEC, Army, Navy)	9	15
USS OAK HILL	13	21
	926	2121
TOTAL:		3047

By far the major portion of the evacuees were from the Scientific and Army TasksGroups, as the major portion of the Naval Task Group was permanently embarked in the ships of the Task Group or were members of the P2V Squadron based on KWAJALEIN Island together with the major portion of the Air Force Task Group. The various naval units based ashore were evacuated as follows: personnel attached to the RENDOVA air group were returned to the RENDOVA; personnel assigned to the UDU Team were evacuated to the COLLINS together with Naval personnel assigned to the Army Boat Pool; P2V Squadron personnel temporarily assigned to the airstrip on ENIWETOK Island were evacuated via P2V airlift to KWAJALEIN.

One P2V plane had engine trouble on the evening of M-1 day and had to return to ENIWETOK airstrip. that evening. The pilots and crew of this plane were evacuated to the RENDOVA that evening via RENDOVA helicopter. This emergency delayed sailing of the RENDOVA several hours but the RENDOVA had no difficulty reaching her assigned evacuation operating area.

The Army Task Group commenced its shore to ship movement on M-6. On this date 5 officers and 150 enlisted men, members of the Army Port Company, moved aboard the COLLINS. These men were acting as longshoremen on PENDLETON and COLLINS and it was felt that in the interest of having them

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Available for work during the last few days prior to the shot it would be advantageous to have their movement to the COLLINS completed prior to M-4.

The major movements of the Army Task Group to the COLLINS took place on M-4 day (50 officers, 497 enlisted men) and M-3 day (36 officers, 506 enlisted men). These movements took place after the evening meal. Four LCM's were used for this purpose. Except for a slight delay in boarding due to unusual swells in the lagoon no difficulties were encountered.

The final Army movement to the COLLINS (7 officers, 61 enlisted men) took place on M-1 day. This group consisted of the final roll-up personnel and one officer and man (USCG) attached to the ENIWETOK LORAN station. All passengers were aboard the COLLINS in ample time for her to sortie from the lagoon on schedule, at 1720 on M-1 day.

The scientific Task Group moved to ships of the Navy Task Group on M-3 (271 persons), M-2 (310 persons) and M-1 (871 persons). The ship carrying the most passengers of the Scientific Task Group was the SHANKS. On M-3 this vessel was moved to the North to anchor off GENE and act as a base for the scientific and construction personnel. The SHANKS together with the CURTISS, also anchored in the Northern anchorage area, loaded 100 persons on M-3 and 160 persons on M-2. This group of personnel were moved by Holmes and Narver water taxis and one Holmes and Narver LCM. At 0900, M-1 day, the SHANKS left the northern anchorage and proceeded to the southern anchorage off PARRY Island where 290 persons were loaded during the day in 4 LCM trips from PARRY.

[redacted]

[redacted]

One LCU evacuated 302 persons from PARRY to SHANKS without incident at 1230, M-1 day. The SHANKS sailed about one-half hour later than her scheduled sortie time of 1740M on M-1 but she had no difficulty clearing the harbor prior to darkness or reaching her assigned operating area on time. The delay was caused by the fact that it was not clear to the ship whether or not all of its passengers were in fact on board. As soon as this situation was clarified, the ship put to sea.

While in the northern area the CURTISS assisted in the evacuation effort with her own ship's boats. At 1400 on M-1 CURTISS dispatched two LCPL's to southern islands to lift final passengers scheduled to embark in CURTISS at 0345 on M day. These final passengers for the CURTISS were the remaining Task Group 132.1 personnel and the Special Upper Air Weather Detachment from ENIWETOK Island. At 2310 on M-1, CURTISS shifted berth from ~~Northern anchorage to berth~~ C-4 in Southern end of lagoon. This final load was on board CURTISS in time for that ship to clear the lagoon at 0425 on M day.

The ESTES loaded the majority of its passengers by means of her own boats. As the ESTES had only 281 passengers, the transportation of these passengers involved little more than the ESTES scheduling one LCPL to leave PARRY Island every hour on the hour during daylight hours on M-3, M-2 and M-1 day with one important exception. The firing party departed from the firing station at the northern end of the lagoon at 0045, M day, for the southern end of the lagoon in the best AVR on hand. The AVR proceeded to the OAK HILL and transferred firing party to ESTES boats. The firing party then proceeded to ESTES where they embarked with the ESTES getting underway on schedule at 0300.

[redacted]

[redacted]

The OAK HILL in the meantime had loaded the AVR and proceeded to sea at 0222 about one-half hour ahead of schedule.

The passengers for the RENDOVA (68 cabin and 18 men) were embarked by boat pool LCM's on M-2 and M-1 without incident. The RENDOVA returned her own air group personnel plus 1 officer and 32 men based ashore to assist with operation of ENIWETOK Airstrip in her own boats and planes. The emergency field operation reentry party of TE 132.4.1.1 was evacuated to the RENDOVA in the RENDOVA helicopters. RENDOVA F4U and TBM aircraft were flown aboard at sea on M-4 and M-1 days.

Passengers for the OAK HILL consisted of 21 enlisted men of the Army Reentry Team that were loaded on M-2 in an LCM without difficulty and 13 cabin class passengers of the scientific Task Group that were placed on board prior to M-4 day.

The LEO loaded all passengers (9 cabin, 15 troop) on M-3 and M-2 days. The LEO was scheduled to load one priority dewar and 2 AVR's for evacuation and subsequent reentry. The AVR's scheduled for evacuation in the LEO were the second best Navy AVR and the AVR belonging to the Army Boat Pool. The AVR belonging to the Army Boat Pool had been in the forward area for over two years and was in a poor state of hull preservation. while being lifted aboard the LEO in it cradle the after frame of the cradle collapsed and the boat slid aft in the cradle. In sliding aft two holes were punched in the side of the AVR. One hole about 20" X 28" was punched a short distance aft of the bow in the vicinity of the keel. The other smaller hole was near the keel underneath the galley.

[redacted]

[redacted]

A second cradle (in a much better state of preservation than the first cradle) was sent out to the ship with an additional set of adjustable slings. The damaged boat was hoisted aboard in this cradle.

It is believed that the primary cause for the occurence of this casualty was the inadvertent use of the wrong slings in hoisting the boat. It is further believed that the damage was aggravated by the poor material condition of the cradle and possibly the poor condition of the boat itself.

During the period H-3 to H-1 days the BALD EAGLE arrived with reefer cargo to top off all large ships and all DDE's. Although it placed a heavy strain on available boating, all ships received all cargo consigned to them. The destroyers were able to go alongside the reefer ship thus cutting down the boat requirements. Although it is relized that the ServPac reefers operate on a 28 day schedule and that the BALD EAGLE's arrival was changed several ~~times so as not to arrive on~~ or about the shot date, it is believed that the optimum time for ships to top off provisions would be about seven days before a scheduled shot. This would insure that adequate boating would be available.

In this connection the fuel top off by the TOLOVANA (AO-64) and the NIAGARA FALLS (AOG-53) on the 24th and 25th of October was eminently satisfactory in all respects. The timing of this fueling was ideal with respect to evacuation activities.

In the evening of H-3, H-2 and H-1 days a personnel muster was held on all units of the Navy Task Group in order that the Task Group Commander might be kept informed of the current evacuation situation aboard ships of the Task Group.

[redacted]

[redacted]

The musters and muster reports received proved most beneficial in this regard.

At 2017 on M-1 the Naval Task Group Commander reported that all Task Group personnel were on board except one AVR crew, 2 LCPL crews from CURTISS and crew of crippled P2V plane landing at ENIWETOK Airstrip, plus rescue helicopter crews and crash crew attending the emergency landing.

At 2030 on M-1 the crew of crippled P2V plane with helicopter and crash personnel were reported off the island and on board the RENDOVA.

At 0420 on M Day CURTISS LCPL's were hoisted aboard and report was made that all Naval Personnel were clear of Atoll.

Units of the Navy Task Group less the destroyer element which was on patrol cleared the harbor for the Idlo evacuation in the following sequence:

M - 7 day	YUM left harbor with YON 146 in tow and YOG 69 in company for KWAJALEIN.
M - 5 day	HORIZON departed lagoon for installation of instruments at positions 26 and 72 miles north of lagoon. HORIZON was in position 72 miles north of lagoon at shot time on M day.
1700, M-2	O'BANNON departed lagoon for position 10°30'N 165°E to act as control DDE for cloud sampling aircraft and tankers. Laid certain Dan Buoys for project 5.4 enroute.

[redacted]

[redacted]

0950M, M-1 AGEHAM (AOG-6) via WIDE PASSAGE

1000M, M-1 ARIKARA (ATF-98) with 3 Holmes and Narver barges in tow via WIDE PASSAGE. The YUMA (ATF-95) stood by ARIKARA until tow was clear of channel.

1000M, M-1 ELDER (AN-20) via Deep Entrance.

1200M, M-1 LIPAN (ATF-85) with Holmes and Narver AFDL in tow via Wide Passage. Two Holmes and Narver YTL's were loaded in the AFDL. The YUMA (ATF-94) stood by LIPAN until tow was clear of channel.

1630, M-1 LSD underway from GENE, where she had been loading a high priority dowar on deck, via Deep Entrance.

1710, M-1 Five Navy LCU's under escort of YUMA (ATF-94) via Deep Entrance.

1720, M-1 [redacted] (TAP-147) via Wide Passage.

1800, M-1 SHINES (TAP-180) via Wide Passage.

2025, M-1 RENDOVA (CVE-114) via Wide Passage.

0220, M day OAK HILL (LSD-7) via Deep Entrance.

0310, M day ESTES (AGC-12) via Deep Entrance.

0410, M day CURTISS (AV-4) via Deep Entrance.

0615, M day PATRON TWO secured patrol of area.

During the evacuation the destroyers were assigned as follows: Two DDE's to escort the CURTISS; one DDE to act as plane guard, and one DDE to act as A/C control destroyer half way between ENIWETOK and KWAJALEIN. The missions of the control destroyer (equipped with Mk X IFF) were as follows:

[redacted]

[redacted]

to provide a reference point (Lat 10°30'N-Long 165°E) for intermediate area aerial refueling operations; to assist the USAF lead KB 29 tanker in rendezvousing fighters, if required, and to augment SAR facilities in the intermediate refueling area.

On leaving the lagoon ships proceeded to operating areas as follows:

(a) LEO, COLLINS and SHANKS proceeded to area SSE of Atoll and maneuvered under tactical command of LEO at distances from 33 to 50 miles south of the shot island.

(b) The AGAWAM, ARIKARA with barges in tow, ELDER, LIPAN with AFDL in tow and YUMA with 5 LCU's under escort proceeded to area ESE of Atoll and maneuvered under tactical command of AGAWAM at distances from 30 to 50 miles of the shot island. This [redacted] unit was joined by the OAK HILL who assumed operational control on arrival, about H plus 40 minutes. The OAK HILL on departure from the atoll had proceeded on various courses and speeds through various positions in support of a scientific measuring program. The shot position of OAK HILL was 30.4 miles 135°T from the shot island.

(c) CURTISS escorted by FLETCHER and RADFORD proceeded to a shot position bearing 090°T distance 35 miles from ground zero.

(d) RENDOVA with CARPENTER as plane guard proceeded to a shot position bearing due south distance 30 miles from ground zero.

[redacted]

[redacted]

Prior to reaching this position RENDOVA operated in area SSE distant 20 to 30 miles from shot island

(e) ESTES proceeded to operating area SE of Atoll distant 28 to 50 miles from shot island. At shot time ESTES was in position on bearing 155°T distance 30 miles from shot island.

Following the MIKE Shot and when no longer required on scientific project stations, the ships of the Navy Task Group remained in assigned operating areas at sea pending the determination of radiological hazards from fallout and subsequent establishment of reentry time.

Two destroyers continued to screen the CURTISS until about H plus 4 hours when the CURTISS joined a cruising formation that included the ESTES and RENDOVA. FLETCHER, RADFORD and CARPENTER formed screen for this formation. During flight operations RENDOVA with CARPENTER as plane guard cleared this formation ~~and proceeded independently~~.

The LST 836 at BIKINI stood by for a possible evacuation of personnel stationed on BIKINI. However, due to favorable weather conditions this evacuation did not take place.

The LST 827 of the Pacific Fleet and not under the operational control of the Navy Task Group evacuated the native population of Ujelang Atoll.

At 2030 on M day the Task Force Commander announced that reentry hour (R hour) would be at 0900M on M plus one, barring unforeseen circumstances.

At 0900 M / 1 ships of the Navy Task Group commenced reentry into the lagoon as follows:

[redacted]

[redacted]

(a) ESTES and CURTISS entered through Wide Passage West Channel at R hour.

(b) COLLINS, SHANKS and LEO through Deep Entrance at R plus one hour.

(c) OAK HILL, AGAWAM, LIPAN with AFDL in tow, YUMA escorting 5 Navy LCU's, ARIKARA with 3 Holmes and Narver barges in tow and ELDER commenced entry into lagoon via Wide Passage East Channel commencing about R hour.

The RENDOVA remained at sea on M day fueling destroyers and conducting flight operations. Late in the afternoon RENDOVA sent her F4U's and TBM's to ENIWETOK airstrip which had been declared safe from a radiological point of view. On completion of launching aircraft, the RENDOVA returned to anchorage in the lagoon. The army reentry party and key personnel from Headquarters, JTF 132 and the scientific Task Group commenced movement to ENIWETOK and PARRY Islands on return of ships from lagoon. This was accomplished by the Navy Boat Pool with the assistance of RENDOVA helicopters. General unloading began on M + 2 and for the most part was completed on M + 3. Isolated cadres of scientific personnel such as radsafe group on RENDOVA remained on board ship to continue the monitoring program.

On M plus 2 YUMA departed for KWAJALEIN to tow the YON 146 and escort the YOG 69 from KWAJALEIN to ENIWETOK.

On M plus 4 the Patrol Squadron resumed staging their patrol flights at ENIWEKOK having resumed their patrols from KWAJALEIN on M plus 1.

On M plus 6 the LST 836 left BIKINI to return to ENIWETOK.

[redacted]

[redacted]

Following the return to the lagoon from MIKE Shot evacuation, preparations were made by the Task Force for the KING Shot.

KING Shot was originally scheduled for 13 November but owing to poor weather conditions this event was delayed until 16 November.

Early in the planning for KING event it was decided that an evacuation of personnel and material such as was undertaken during the MIKE Shot would not be required. It was decided, however, that the large ships with the exception of the ESTES would leave the lagoon during the KING Event. Nevertheless, a plan for the evacuation of personnel based ashore was made so that if the area became contaminated due to unexpected fallout the Naval Task Group would be able to transport all personnel from the area.

Planning for an emergency evacuation during KING Event of all personnel from the [redacted] took into account the following considerations:

(a) Ships available for passengers - COLLINS, ESTES, RENDOVA and OAK HILL.

(b) Evacuation to take place only in event of dangerous fallout.

(c) Baggage would not be brought on board by passengers.

(d) In any event, evacuees would probably remain on ships no longer than 24 hours.

(e) There were 3814 passenger spaces available in ships of the Navy Task Group to evacuate 2700 persons.

(f) Same personnel would board the ESTES during KING Event as during the MIKE Event.

[redacted]

[redacted]

(g) About 1580 persons (mostly Army personnel) would be transported to COLLINS from ENIWETOK Island via 4 Navy LCU's. One Navy LCU and 2 Navy LCM's would stand by to assist.

(h) About 1000 Scientific Task Group personnel would be transported by 4 Holmes and [redacted]. JTF 132 personnel (about 100) would be moved from PARRY Island to ESTES via 2 Holmes and Narver LCM's.

(i) ESTES boats would pick up crews of Holmes and Narver and Navy LCU's after LCM's and AVR's crews had secured craft to buoys. These crews would be taken to COLLINS after which ESTES boats would return to ESTES for hoisting. Ships of the Naval Task Group left ENIWETOK Lagoon in the following order for the KING Shot evacuation:

1800, K-1 O'BANNON departed for control destroyer position at Lat 10° - 30'N, Long 165° - 00'E.

0500, K day OAK HILL departed for station bearing 050° True distance 17 miles from Ground Zero.

0800, K day COLLINS departed via Wide Passage West Channel for station 5 miles [redacted].

0810, K day AGAWAM stood out via Wide Passage East Channel, and formed 1500 yards astern of COLLINS.

0815, K day LIPAN stood out via East Channel, Wide Passage and formed 1500 yards astern of AGAWAM.

0820, K day RENDOVA stood out Deep Entrance and operated within AN/TRC communication range of ESTES.

[redacted]

[redacted]

RADFORD reported to RENDOVA as plane guard.

0845, K day CARPENTER (ComCortDesDiv-11 embarked) and FLETCHER joined up with AGAWAM, COLLINS and LIPAN. ComCortDesDiv 11 assumed tactical command of this element. The OAK HILL joined this formation shortly after the KING Shot.

These ships maneuvered southeast of the Atoll until 1230 (about one hour after KING Shot) when in order to avoid possible fallout they steamed due east and north east at best available speed, remaining within one hour's run of Deep Entrance.

At 1400 when it was considered that all danger from fallout was over the ships headed in the general direction of ENIWETOK.

At 1550 KING day all ships were instructed to return to the lagoon, all danger of contamination being considered at an end.

During the KING Event the CURTISS and LEO were at KWAJALEIN, and the LST at BIKINI. The following ships and craft remained in ENIWETOK lagoon during the KING Shot; ESTES; YOG 69; YDN 146; Holmes and Narver Boat Pool, AFDL, YTL's, Barges and LCU's; Army Boat Pool; Navy LCU's, Navy LCM's not loaded in OAK HILL and AVR's.

[redacted]

[redacted]

PART 8 - INTRA-ATOLL SURFACE AND HELICOPTER TRANSPORTATION.

A task assigned to the Navy Task Group by the Task Force Commander was to "Provide ship to shore and intra-atoll surface and helicopter transportation, to include flights for damage survey and recovery of scientific samples and film."

To carry out the surface task the Navy was assigned a boat pool consisting of 5 LCUs (with 1 officer and 60 men of assigned crews) plus 19 LCMs, 2 AVRs, 4 LCPLs, 3 officers and 140 men. The OAK HILL was assigned by the Navy Task Group Commander a primary mission of serving as a tender for the Navy Boat Pool. The boat pool provided omnibus water transportation between ships of the Task Group and shore installations on Parry, Eniwetok, Teiteiripucchi and other islands within the Atoll. The Navy Boat Pool also provided a considerable water lift in support of Task Group 132.1 construction operations and of their evacuation of material from the northern to the southern islands of the atoll. This group of boats in addition carried out many tasks in connection with the provisioning, supplying, loading and unloading of ships in the lagoon. It is noteworthy that during the month of October 1952, LCPLs and LCMs attached to the Navy Boat Pool averaged over 100 engine hours each. During IVY the 19 LCMs ran over four thousand engine hours and the LCPLs ran over one thousand engine hours. Part 14 of this report deals with the specific problems of the Navy Boat Pool during IVY.

To carry out the helicopter mission assigned to the Navy for IVY, a Navy and Marine helicopter detachment was formed of three (3) HRS-2

[redacted]

[redacted]

type aircraft, twelve (12) pilots and twenty two (22) men of the Navy Helicopter Anti-Submarine Squadron TWO and two (2) HRS-2s, (8) pilots and six (6) men from the Marine Helicopter Transport Squadron 362.

This detachment of helicopters and men was attached to the U.S.S. RENDOVA during operation IVY.

Over a thousand different missions were flown during the relative short period of the operation, most of which were in support of the Scientific group of the Joint Task Force. These missions included many in which the newly attached hydraulic hoists were put into use lifting equipment from the ground and sea.

During operation IVY over six hundred hours were flown with an average pilot time of approximately fifty seven hours apiece. Over sixteen hundred (1600) landings were made on land and over seven hundred (700) were made on the carrier and ships equipped with a helicopter landing platform making a total of over twenty three hundred (2300) landings.

Nearly two thousand (2,000) passengers and approximately fifteen thousand (15,000) pounds of cargo were carried in support of the scientific task group. Ten thousand (10,000) pounds of cargo were carried while delivering U.S. and Guard Mail to ships operating at sea or beyond the economical range of the boat pool boats.

Helicopters were required and utilized on several emergency missions, one of which made use of the hoists when the RENDOVA's doctor, corpsman and chaplain were flown to another ship in an attempt to save a drowned man's life. Another emergency flight required the landing on

[redacted]

[redacted]

PART 9 - DISPOSITION OF FORCES AND EQUIPMENT (Roll Up)

One of the major phases of Operation IVY was the roll-up or disposition phase which was generally to commence after the KING Shot on 16 November. A peculiarity of IVY that was not a prime consideration in previous off shore test series was the fact that Operation CASTLE was planned for execution about 9 months following IVY. In order to provide a continuity of expeditious economical support operations for CASTLE, its requirements were prime determinants in requesting and making disposition of naval forces and materiel following the operational phase of IVY. There will be no representative of the Navy Task Group in the forward area between Operations IVY and CASTLE.

In effecting disposition of forces and equipment, CJTF 132 Operation Order No. 3-52 (DISPOSITION OF FORCES AND EQUIPMENT AT CONCLUSION OF IVY) dated 0800M, 11 November 1952, was used as a guide (See recommendation 1). Since the great percentage of Naval forces and materiel committed to IVY consisted of commissioned ships, aircraft squadrons and in service craft assigned from the Pacific Fleet, personnel and materiel problems were in general concluded with the return of operational control of the ship or unit concerned to the appropriate type commander of the Pacific Fleet. Appendix A to Part 9 lists all units assigned to TG 132.3 during IVY with reporting and release dates. Exceptions were:

(a) Staff of CTG 132.3 with personnel and materiel allowances.

(b) Boat Pool under CTG 132.3 with personnel and material allowances.

(c) Underwater Detection Unit under CTG 132.3 with personnel and materiel allowances.

[redacted]

[redacted]

Officer personnel for CTG 132.3 Staff, TG 132.3 Boat Pool and TG 132.3 Underwater Detection Unit were provided by BuPers in accordance with a Task Group allowance. Retention of the allowance and the personnel for CASTLE has been requested with recommendations for minor changes in the allowance and expectation that there will be rotation of personnel.

Enlisted personnel were procured from two sources: (1) A contingent (14 men) composed principally of clerical-ratings for the Flag Allowance in the Washington Office were provided by BuPers; (2) An augmentation of the Flag Allowance (communicators, stewards branch and boat crew personnel) for the flagship, the Boat Pool and UDU were provided by ComServPac. In roll-up, ComServPac ordered the transfer of 21 men of the Boat Pool to the Naval Detachment of TG 132.2. The remainder of the Boat Pool and the Underwater Detection Unit will be transferred to ComPhibTraPac for reorganization and training for CASTLE. Of the Flag Allowance 11 will be returned to Washington on shift of the flag from the flagship and the remainder (28) will be made available to ComServPac.

All units assigned to the Navy Task Group for IVY, other than those listed above, were considered to have personnel and materiel allowances organic to that unit and were redeployed as directed by their fleet, force or type commander upon release from operational control of CTG 132.3 and when no longer required by CJTF 132.

The PBM aircraft detachment from KWAJALEIN is required for logistical support of the BIKINI site in the IVY - CASTLE interim and will remain in the forward area until airstrip is completed at BIKINI, about March 1953.

[redacted]

[redacted]

a small towed barge in a running sea to pick up an injured man and transport him to the medical facilities in MENDOVA.

All available helicopters were called upon to aid in the air-sea rescue of an Air Force pilot who was forced to ditch his aircraft in the lagoon.

Navy helicopters made the initial aerial survey of the atoll after both the MIKE and the KING Shots. The helicopters left the carrier at H hour plus 10 minutes during both these events.

The following is a tabulation of the Navy and Marine helicopter operations during IVY.

(a) Total number of sorties	1104
(b) Percentage of effort	
(in support of Navy Task Group)	22.8%
(in support of other Task Groups)	77.2%
(c) Total aircraft time	619.9 hours
(d) Total pilot time	1,102.9 hours
(e) Average pilot time	57.0 hours
(f) Percentage of aircraft availability	94.0%
(g) Hours of maintenance required	235.5 hours
(h) Man hours of maintenance required	1,355.5 hours
(i) Pilot availability	100.0 %
(j) Landings ashore	1640
(k) Carrier landings	695
(l) Total landings	2335
(m) Total number of passengers carried	1,988
(n) Total weight of U.S. and Guard Mail	10,000 pounds
(o) Total additional cargo	15,000 pounds

[redacted]

[redacted]

Recommendations concerning future boat pools are contained in part 14 of this report.

For similar future operations a helicopter detachment with a mission such as that assigned in IVY should consist of six (6) helicopters of the HRS-2 type, twenty four (24) pilots and twenty eight (28) enlisted men with specialist ratings as follows: 1 leading chief, 18 aviation machinist mates (to include six plane captains), 2 aviation metalsmiths, 2 aviation electronicsmen, 2 aviation radiomen, 1 yeoman and 2 aviation storekeepers, with additional supporting ratings of: 4 SD/TN, 1 BM(MAA), 1 AN (Compt. Cleaner) and 1 AN (mess cook).

[redacted]

[redacted]

[redacted]

In connection with roll-up action, the Navy Task Group was directed to deliver to Holmes and Narver, Inc., the forward area contractor for the AEC, the following craft to be replaced prior to CASTLE:

1 - LCU

6 - LCM

Holmes and Narver had requested permission from CJTF 132 by letter to exchange similar craft with the Navy and to return two - YC wooden barges (YC 950, 989) no longer required. In order to prevent duplication of shipping actions and to conserve deck loading spaces in Task Force shipping, which was needed for return of some 33 van trailers, CJTF 132 recommended to CNO that the Navy Task Group provide craft from their boat pool in the area. This was approved and the necessary action taken as follows:

Transferred by the Navy on a loan basis to Holmes and Narver from TG 132.3 Boat Pool under provisions of OpNav Instruction 4000.10:

LCU 764

LCM C29079, C46971, C48911, C28694, C48013, C52811

Holmes and Narver returned to the Navy the following craft for inspection by Board of Inspection and Survey and determination of disposition under provisions of OpNav Instruction 4000.10

LCU 716

LCM C48854, C48878, C49003, C51811, C51816, C53894

It is noted here that a three day delay in completion of the test phase provided additional time for the boat pool element commander to plan for this exchange of craft. Had the tests been completed on schedule, a large number of boat pool LCM's would have been inactivated and preserved for shipment by the time approval of CNO was received (See recommendation 2).

[redacted]

[redacted]

Prior to departure from the forward area it was necessary to issue instructions and direct action in the following areas:

(a) Direct all units holding materiel on a loan basis to return same to the proper accountable officer or authorize retention of the materiel.

(b) Provide general disposition instructions to all units for materiels provided by CTG 132.3 for IVY including:

1. Ships washdown equipment.
2. Instruments from TG 132.3 Radiac Instrument Pool.
3. Tools and calibration sources from Radiac Instrument Pool.
4. Special protective clothing allowances.
5. High Density Goggles and Film Badges.
6. Classified matter originated by CTG 132.3

(c) Provide specific instructions as follows:

1. Disposition for Staff vehicle, Admirals' Barge and Staff boat.
2. Disposition of two ICPL's issued to CJTF 132 and temporarily assigned to ESTES.
3. Return of all Task Group recreational materiel to NSC Pearl marked for ComServPac.
4. Provide disposition instructions for small craft of boat pool:
   a. Exchange LCPL with CTG 132.2 (No. C60640 for MWB No. 22057).
   b. Exchange 2 LCM's with CTG 132.2 (No. C53886, C48158 for C51821 and C49019).

[redacted]

[redacted]

c. Transfer 2 BuAer AVR's (No. 77282 and 77479) to CTG 132.2 who will ship their BuShips AVR No. 20987 as directed for overhaul or survey.

d. Transfer 6 LCM's to Holmes and Narver as directed by CNO and CinCPacFlt (For numbers see above).

e. Deliver 1 LCU to Holmes and Narver as directed by CNO and CinCPacFlt (LCU No. 764).

f. Return boat pool equipment to Naval Amphibious Base, Coronado.

g. Return boat pool spare parts stock to Naval Amphibious Base, Coronado for rework and filling of allowances prior to next deployment.

(d) The above disposition of the boat pool will leave the following boats to be retained at Coronado under ComPhibTraComPac for maintenance pending next deployment:

1 - MMB (No. 22057)

3 - LCPL (No. C-60671, C-60651, C-60675)

4 - LCU (709, 667, 666, 851)

13 - LCM (No. C49082, C29139, C28956, C49041, C48600, C53025, C52822, C48720, C48903, C47637, C52376, C51821, C49019).

(e) Ship LCU 716, to ComFOURTEEN in OAK HILL awaiting final disposition.

[redacted]

[redacted]

(f) The following boat to be turned in as directed by BuShips without replacement:

1 - AVR (Shipped by CTG.132.2) (No. 20987 in LEO)

(g) The above boats and craft were to be lifted as follows:

1. Via OAK HILL (LSD-7) (Dep. ENIWETOK 26 Nov.); LCU 709, LCU 667, LCU 716 (H & N)*, plus 3 LCM, 2 LCPL, 1 MWB nested.

* For delivery to Com 14 at Pearl Harbor.

2. Via COMSTOCK (LSD-19) (Dep. ENIWETOK 1 Dec.); LCU 666, LCU 851 plus 2 LCM and 1 LCPL nested. Also 5 LCM on well deck.

3. Via surface lift to be arranged by CJTF 132:

9 - LCM

(h) The Underwater Detection Unit installation on ENIWETOK will be left in a caretaker status under CTG 132.2. This includes storage of shore end components and spares in dehumidified Signal Corps storage on ENIWETOK and leaving underwater components in place. The UDU personnel will remain as a unit for CASTLE at Amphibious Base, Coronado.

Communications equipment placed aboard ships of the Navy Task Group by BuShips at the request of CJTF 132 will, if not in excess of allowance, and not authorized for retention on board, be removed and disposed of as directed by BuShips or other proper authority.

Transportation of personnel and cargo from the forward area was governed by CJTF 132 policies. Specific Navy Task Group actions were as follows:

[redacted]

[redacted]

(a) Provided shipping instructions for baggage and materiel being returned from the forward area to a rear area activity. These supplemented previous instructions in CTG 132.3 OpPlan 1-52.

(b) Utilized surface lift to the maximum practicable extent consistent with CinCPacFlt future deployment dates.

(c) Promptly released personnel no longer required. In this connection 49 personnel of Patrol Squadron Two were returned, utilizing available surface lift, 7 days prior to release of the squadron to ComAirPac operational control.

(d) Originated request for special airlift of 181 Patrol Squadron Two personnel plus 11,800 pounds baggage and 7,500 pounds critical squadron allowances. This was necessary because of early redeployment of the squadron and followed ComAirPac policy to airlift squadron personnel required to support a regular squadron movement. This lift was handled by Naval Aircraft of Fleet Logistics Air Wings and did not affect JTF 132 airlift space allocations.

(e) Arranged for special flight via Naval R5D cargo aircraft of 2 officers and 2 men plus 6,000 pounds of Staff, CTG 132.3 files and equipment from NAS, San Diego to Washington, D.C. on 6 December.

(f) Coordinated disposition of Patrol Squadron Two equipment and spares to insure that instructions were issued for all items. About 40 M/T from ENIWETOK and 600 M/T from KWAJALEIN to be returned to continental United States by surface lift in November and December.

[redacted]

[redacted]

CONCLUSIONS

1. That the disposition problem for the Navy Task Group was greatly simplified because of the large percentage of personnel and materiel organic to ships and units requiring only release from operational control of CTG 132.3 to essentially complete their roll-up operation.

2. That CJTF 132 OpOrder 3-52 (Roll-up) was received after individual disposition instructions for the majority of areas of importance to the Navy Task Group had already been issued to units concerned, and therefore no detailed roll-up order, as such, was issued. Disposition instructions were promulgated by letters, numbered instructions and dispatches as listed in Appendix B - Part 9 of this report.

3. That TG 132.3 units were provided with the necessary disposition instructions embodying the roll-up principles of CJTF 132.

RECOMMENDATIONS

1. That CJTF 132 issue a Roll-up Operation Order containing the necessary guide lines for the Task Groups at least two weeks prior to the end of the operational phase. This will enable the Task Groups to issue Roll-up Operation Plans with pertinent Annex's added later as disposition action firms up.

2. That the AEC contractor and CTG 132.2 examine their boat pool materiel-wise with a view towards replacement of worn out or unserviceable units with Navy Boat Pool craft at the conclusion of test operations. They should make their requirements known at least 30 days prior to the end of the operational phase in order to allow time for the necessary decisions, inspections and other preparations for transfer. This anticipation of requirements will further permit the Navy Task Group to in-

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[redacted]

activate its craft for shipment in an orderly fashion.

[redacted]

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PART 9 - APPENDIX A

LIST OF SHIPS AND UNITS ASSIGNED TO TASK GROUP 132.3 WITH REPORT AND RELEASE DATES

SHIP OR UNIT	REPORTED FOR OP CONTROL	RELEASED OP CONTROL
AGAWAM (AOG-6)	30 July	17 November
ARIKARA (ATF-98)	20 October	7 November
BAIRD (SCRIPPS)	28 October	22 November
HORIZON (SCRIPPS)	13 October	22 November
COLLINS (TAP-147)	20 October	20 November
COLLETT (DD-730)	29 August	6 September
MANSFIELD (DD-728)	29 August	6 September
CORTDESDIV-11 CARPENTER (DDE-825) FLETCHER (DDE-445) RADFORD (DDE-446) O'BANNON (DDE-450)	1 September	24 November
CURTISS (AV-4)	27 August	1 December
ELDER (AN-20)	21 October	4 November
ESTES (AGC-12)	27 August	8 December *
LEO (TAKA-60)	20 October	26 November
LIPAN (ATF-85)	20 October	17 November
OAK HILL (LSD-7)	1 August	15 December *
LST 836	5 August	12 December *
RENDOVA (CVE-114)	15 September	8 December *
SHANKS (TAP-180)	18 October	11 November
SILVERSTEIN (DE-534)	22 November	30 November
WHITEHURST (DE-634)	22 November	30 November

[redacted]

[redacted]

SHIP OR UNIT	REPORTED FOR OP CONTROL	RELEASED OP CONTROL
YOG 69	30 July	17 November
YGN 146	30 July	17 November
YUMA (ATF-94)	20 October	7 November
PATRON TWO	12 September	19 November
PBM Detachment	2 September	20 November
Underwater Detection Unit	Activated 17 July	- -
Task Group Staff	Activated 9 February	- -
	At full allowance 17 July	
TG 132.3 Boat Pool	Activated 1 August	- - -

*Estimated

[redacted]

[redacted]

[redacted]

PART 9 - APPENDIX B

DISPOSITION INSTRUCTIONS PROMULGATED DURING CTG 132.3 ROLL-UP (ORIGINATED BY CTG 132.3 UNLESS INDICATED)

Serial, DTG, or Reference No.	Date	Addressees	Subject Summary
CTG 132.3 Notice 5510	20 Oct.	Dist. List	Disposal of Classified Records Originated by CTG 132.3
CTG 132.3 Instruction 4622.1	24 Oct.	Dist. List	Marking and Shipment of Supplies Destined for Return from Overseas.
240344Z	Oct.	ESTES	Disposal TG 132.3 recreational materiel.
[redacted]	Nov.	CJTF 132	Airlift for VP-2 personnel.
520	7 Nov.	Dist. List	Return High Density Goggles, etc.
521	9 Nov.	CURTISS	Retain SCR508 in excess.
BuShips 102330Z	Nov.	CTG 132.3	Authority exchange 2 ICM, 1 ICPL with TG 132.2.
ComAirPac 110234Z	Nov.	PatRon-2	Disp. for squadron allowances and equipment.
527	11 Nov.	RENDOVA	Radiac Instrument Pool Roll-up and Shipment.

[redacted]

[redacted]

Serial, DTG, or Reference No.	Date	Addressees	Subject Summary
528	11 Nov.	CURTISS, ESTES	Retain washdown gear.
529	11 Nov.	Dist. List	Disposition Ships Washdown gear.
CNO 131620Z	Nov.	CTG 132.3, CinCPacFlt	Approve caretaker status UDU according 132.3 ser 00405 of 18 Oct. 1952.
558	14 Nov.	RENDOVA, OAK HILL, AGAWAM	Protective Clothing Pool Roll-up and Shipment.
CNO 142045Z	Nov.	CinCPacFlt, CJTF 132, BuShips	Approves exchange 6 LCM and 1 LCU with H & N.
180396Z	Nov.	BuShips	Disp. request for 132.3 and CJTF 132 staff boats.
CNO 202045Z	Nov.	CinCPacFlt, CTG 132.3, BuShips	Approves transfer balance Navy Boat Pool craft and personnel to ComPhibTraPac. Approves transfer 2 AVR to CTG 132.2.

[redacted]

[redacted]

Serial, DTG, or Reference No.	Date	Addressees	Subject Summary
240145Z	Nov.	BuDocks	Disp. 132.3 Staff Jeep.
CNO 241346Z	Nov.	CinCPacFlt	Approves retention UDU as a unit at Amphib Base, Coronado.
NavAirLogControl Lant 252131Z	Nov.	VR-1	Setting up special R5D cargo flight for 132.3 couriers, files and equipment.

[redacted]

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[redacted]

PART 10 - HOSTILE ACTION ALERT PLAN

1. General.

The Hostile Action Alert Plan was contained in Annex E of CTG 132.3 Operation Plan No. 1-52. In general, it stated the possible objectives of the enemy, the enemy's potential in the Eniwetok Test Area short of open warfare, and summarized the missions of the respective Task Group Commanders in the event of a hostile threat. Two conditions of alertness were established, those being:

WHITE ALERT to indicate that hostile action or attack on our forward area installation is imminent and will occur within a specified period of time.

RED ALERT to indicate that one or more of the Joint Task Force units or forward area positions are being subjected to hostile reconnaissance or attack.

The actions to be taken by CTG 132.3 were:

a. WHITE ALERT:

(1) Prepare to assume missions and initiate action under RED Alert status to the maximum extent possible.

(2) Temporarily postpone all activities not essential to the defense of the atoll area, protection of critical materials and devices, and protection of key scientific personnel.

(3) Intensify air and surface searches of the ENIWETOK Area to detect and report the location and movements of hostile forces.

(4) Be prepared to evacuate or destroy all classified documents and materials as listed in certain specified JTF 132 letters.

[redacted]

[redacted]

b. RED ALERT:

(1) Immediately discontinue all test preparations in the forward area and carry out tasks assigned below:

(a) Weapons Element

a. USS CURTISS (AV-4)

(A) Close the SHOT Island to provide fire support while evacuating key scientific personnel and critical equipment and material from SHOT Island.

(b) Transport Element

a. U.S.S. ESTES (AGC-12) act as command vessel for CJTF-132

b. USNS COLLINS and USNS SHANKS

(A) Evacuate civilian personnel as ordered by CTG 132.3

(B) Prepare to evacuate TG 132.2 forces if necessary.

[redacted] Assist in evacuation of personnel and material as directed.

(c) Service and Harbor Control Element

a. Assume operational control of TG 132.1 boats.

b. On order of CTG 132.3 conduct limited amphibious operations in support of TG 132.2.

(d) Destroyer Element

a. Patrolling DDE

(A) Proceed to contact point

b. Ready DDE

(A) Patrol Deep Entrance

c. Anchored DDE #1

(A) Patrol Wide Passage

[redacted]

[redacted]

d. Anchored DDE #2

(A) Proceed to Contact Point.

e. Carrier Unit

(A) Provide close air support to ground forces as directed.

(B) Repulse enemy air attacks.

(C) Assist TG 132.2 with helicopter landing of troops and equipment as required.

f. Patrol Plane Unit

(A) Ready Plane and Patrol Plane proceed to contact point.

(B) Ready all available planes for attact on enemy forces.

2. [redacted]

There was no occasion during the operation to place the Hostile Action Alert Plan into effect. The plan as outlined above is considered adequate.

3. Recommendations.

None.

[redacted]

[redacted]

PART 11 - TYPHOON PLAN

1. General.

A typhoon plan was included as Annex Q to CTG 132.3 Operation Plan No. 1-52. This plan was superseded prior to MIKE Shot by Annex X of CTG 132.3 Operation Order No. 2-52. Each of these plans listed certain tasks for the various units to perform before and after sortie in event of a typhoon emergency. PATRON TWO which was based at Kwajalein was required to draw up a separate typhoon plan which was coordinated with the typhoon plans of TG 132.4 and of the Naval Station, Kwajalein. There was no occasion during Operation IVY to place any of these plans into effect.

2. Comments.

Because of the generally slow movement along a westerly tract to be expected of almost any typhoon which might threaten Eniwetok, it was planned that sortie orders would be issued by dispatch to cover the units of the Task Group present at Eniwetok at the time of the emergency rather than to try to use the order of departure and the cruising formations set forth in the two appendices to Annex Q of CTG 132.3 Operation Plan No. 1-52.

In view of the fact that almost all typhoons forming east of Eniwetok travel to the west of Eniwetok prior to curving northward, it was anticipated that the Task Group would, upon departure from the Atoll, set one of two different courses:

a. If the tract of the typhoon center appeared to be moving so as to remain south of the atoll but still to be passing close enough to the atoll to be a possible threat to ships present, the Task Group would

[redacted]

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take a course to the northeast in order to open the distance from the anticipated track and also in order to achieve a more favorable position to the eastward in the event that the typhoon should later veer to a more northwesterly course earlier than might normally be expected.

b. If the typhoon appeared to be headed for the atoll or to the northward of the atoll, the Task Group would then have taken a course southward to open the distance from the center and to place itself in the less violent (navigable) semicircle.

The formulation of a typhoon plan by PATROL TWO required some length of time because of the necessity for fully coordinating theirs with those of the Naval Station, Kwajalein, and TG 132.4. This delay caused PATROL TWO not to have a fully prepared typhoon plan during the first part of its stay in Kwajalein.

3. [redacted]Recommendations.

a. That a basic typhoon plan be drawn up for surface units based at ENIWETOK similar in scope to that contained in Annex X of CTG 132.3 Operation Order No. 2-52.

b. That any such plan as that recommended in 3.a. not specify sortie instructions, since these instructions can be adequately covered by dispatch while preparing to get underway. This obviated the necessity of making changes in the Operation Plan each time there is a significant change in the composition of the Task Group.

c. That each Naval Air Unit based in the Eniwetok-Kwajalein-Bikini Area prepare a typhoon plan fully coordinated with the typhoon plan for CTG 132.4 and that for Naval Station Kwajalein immediately upon the arrival of the unit in the forward area.

[redacted]

[redacted]

12. RADIOLOGICAL SAFETY

Temporary Washdown Systems.

Some of the problems in radiological safety posed by Operation IVY were unique for operations at ENIWETOK. A few of the more important of these were:

a. The expected yield from MIKE Shot far surpassed that of any device or weapon yet fired. Since MIKE would be fired from a static position practically on the surface of an island, the radioactive fallout from the shot might pose a far more serious problem in radiological safety than any shot in any test yet conducted.

b. For the first time at Eniwetok, following MIKE Shot, contamination of the lagoon on a large scale might result.

c. Because the Special Upper Air Weather Detachment on Eniwetok Island could not remain ashore to obtain upper air winds data after H-5 hours on MIKE Day due to evacuation requirements, MIKE Shot would have to be fired with upper wind data several hours old at shot time. This increased the fallout hazard to the evacuation fleet because of possible unpredicted shifts in what were previously thought to be favorable upper winds.

In order to protect surface units against contamination by heavy radioactive fallout, BuShips was authorized to design a temporary washdown system to be installed aboard ships of TG 132.3. The theory of the installation was that a ship underway with this washdown spray system installed could, by operating the spray system and maneuvering properly

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[redacted]

to obtain full assistance from the wind in wetting down the entire ship's topside area, fill the pores of wood, paint, and other porous surfaces and materials with relatively uncontaminated sea water, thereby preventing fallout particles from finding a ready resting place. Instead, they would flow readily into drains and over the side with the spray runoff without lodging on board. Tests on the preliminary installations of such systems indicated that contamination from fallout could be prevented by a factor greater than 90% by using this system properly. With this system installed in each ship it was believed that the hazard from fallout could be reduced to acceptable proportions.

The material for this system was procured, packaged at the U.S. Naval Radiological Defense Laboratory, and shipped to the ships of [redacted] TG 132.3. Two civilian engineers from BuShips were sent to the forward area to assist the ships' forces during the installation, checking and testing of the systems. All systems were installed and tested with the ships underway prior to M-3 Day.

During the installation and initial checking it was considered necessary to make several changes in locations of or to add additional nozzles to obtain adequate spray coverage. The civilian engineers from BuShips recommended changes which were immediately made by ships' forces and all the systems were installed so that adequate spray coverage was obtained. Since the temporary washdown systems are new and fleet personnel are not familiar with the basic concept and operation of these systems it is strongly recommended that two engineers from

[redacted]

[redacted]

BuShips be requested to assist ships' personnel during the installation and checking of these systems used on ships in future operations.

The washdown equipment procured for use on Operation IVY was not expended. Ships have been issued instructions to descale and paint all steel parts, flush fire hose with fresh water, disassemble, sort, package and ship all equipment to the U.S. Naval Supply Center with markings to "Hold for BuShips Disposition". The USS CURTISS (AV-4) and USS ESTES (AGC-12) have been issued supplementary instructions to hold the washdown equipment on board for possible use on future operations.

Exercises and Inspections.

All units of Task Group 132.3 were given an atomic defense exercise and inspection by members of the Staff, CTG 132.3 and officers from [redacted] assisting ships prior to M-3 Day. The inspection and exercising of all units was considered satisfactory and the CTG 132.3 reported to CJTF 132 that all units of Task Group 132.3 were prepared to handle any radiological situation which might occur after the detonation of MIKE or KING shot.

During the course of the exercises and inspections it was noted that an occasional individual was not as familiar with his job or equipment as he should be. These cases were pointed out to the Commanding Officers and immediate action was taken in all cases to correct these deficiencies. All ships were encouraged to bring their monitors and radiac equipment to the RENDOVA and use the radiation source available at the Task Group Radiac Repair Center to recalibrate their instruments and also give the monitors additional experience in using a radiac instrument in a

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radiation field. Most of the ships sent their monitoring personnel to the RENDOVA to use the radiation source. In addition to the use of the radiation source the groups were given a two hour lecture on radiac equipment and its use by members of the Task Group Radiac Repair Center

The atomic defense exercise consisted of providing the Commanding Officer of the ship with a hypothetical situation in which radioactive fallout was occurring. The observers who were stationed at the bridge, damage control central, personnel decontamination centers, main battle dressing station, and with at least two repair parties would hand out dose rate readings at the various problem times which were announced over the ship's public address system. The observers would note how these readings were recorded and transmitted to damage control central. In damage control central the readings were recorded and an evaluation of the radiological situation was made by the Damage Control Officer and the Bridge advised of action to be taken. The Bridge would then order certain actions to be taken and the observers would note how effectively the orders were carried out.

As a result of these exercises each ship noted where their system could be improved. In some instances it was necessary for talkers to become more familiar with the words "roentgen" and "milliroentgen", other ships needed to improve their system for recording the dose rate readings, and three ships needed to give their monitors more instruction in reading their radiac instruments. The field of atomic defense is new to most ships and even though they had made a concentrated effort to

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[redacted]

train personnel in formal courses at the Fleet Training Centers it was necessary to give the men additional supervision and training. After arrival in the forward area all ships held training exercises, gave indoctrination lectures, showed training films, etc., to increase their efficiency in handling atomic defense problems.

During the inspections a detailed check was made of atomic defense bills, the training received by officers and enlisted personnel, the amount and operating condition of radiac equipment on board, facilities and equipment for personnel and material decontamination, familiarity of Atomic Defense Officer in solving total dosage, stay time, and radioactive decay problems and the pre-contamination preparation of the ship.

The results of these inspections are:

[redacted]

a. All units had prepared an acceptable atomic defense bill. The format and basic theory varied widely but this is directly attributable to the fact that no usable official doctrine is available to be used as a guide in preparing atomic defense bills. Several ships had prepared special bills or supplements to existing bills to handle the special type of radioactive fallout problem which could exist during and after the testing of high yield devices.

b. All units had sent personnel to Fleet Training Centers for specialized training prior to reporting to CTG 132.3 for op-control. This training consisted of the standard 2 or 6 weeks atomic defense courses for officers and the 1 or 5 day courses in monitoring or atomic defense indoctrination for enlisted men. A limited number of men were

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[redacted]

sent to radiac repair courses. In general, each unit had two or three officers with special training, and most ships had sent 75 to 100 percent of the enlisted men to the atomic defense indoctrination or monitoring courses. It was readily apparent that all commands had made a concentrated effort to send a maximum number of personnel to the training courses available.

c. All units had 100% of their allowance of radiac equipment aboard and, with the exception of the AN/PDR 10A (Alpha Survey Meters), the equipment was in an exceptionally high state of operational readiness.

d. All units had acceptable facilities and equipment for personnel and material decontamination. The personnel decontamination facilities in most ships were the existing crews or officers' showers which were [redacted] readily accessible from a weather deck. Two ships had rigged special salt water showers, and in one ship it was an acceptable solution to the personnel decontamination problem. In all ships the personnel decontamination facilities were far from being ideal and all facilities would have had considerable cross-contamination if large amounts of radioactive contamination had been encountered. However, in view of the high expense, the limited amount of space available, and the limited use to which a personnel decontamination facility would be used, it was considered practical to make the best use of the limited facilities currently available aboard ships.

Material decontamination facilities available could accomplish only gross decontamination by salt water hosing, cleaning with standard cleaning gear, and paint removal.

[redacted]

[redacted]

e. All Atomic Defense Officers were familiar with the solution of problems involving total dosage, stay time and radioactive decay problems. They were all shown where the generally accepted rules of thumb would break down when working with a fallout problem where the activity was increasing over a long period and the rate of decay did not indicate the true increase or decrease in the activity present.

f. All units were inspected in detail to determine that essential pre-decontamination preparations were made; such as (a) stowage of all unnecessary organic material such as manila line, canvas, cocoa mats, etc., (b) topside appurtenances were weather tight, (c) waterways, ports and scuppers were clear.

[redacted]

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Atomic Defense Operations Following MIKE Shot.

After MIKE Shot all Task Elements started reporting radiation intensities on the schedule and using the code set forth in the CTG 132.3 Op-Plan 1-52. This simplified code did not require encryption and thereby enabled the Task Group Commander to maintain an accurate current analysis of the radiological situation. (The code word AIRDRY was used to indicate average gamma radiation intensity and the code word BULLSEYE was used to indicate maximum gamma radiation intensity). On M-Day the MV HORIZON was the only ship to encounter any radioactive fallout. At shot time on M-Day the HORIZON was standing by wave instruments at Seamount #72, approximately 72 miles north of ground zero. At 0745M the ship was ordered to get underway on a course 045°T at 11.5 knots for four hours [redacted] and then started circling on new station approximately 110 miles NNE of ground zero. At 1240M medium precipitation radioactive fallout was detected and the ship was closed up, ventilation secured and the washdown system started. Upon receipt of a message from the HORIZON that fallout was being encountered the ship was ordered to proceed southward. After 2½ hours steaming at 11.5 knots the ship reported clear of the fallout area and that the peak radiation intensity encountered was an average of 8 mr/hr (gamma only) and a maximum of 35 mr/hr (gamma only). After the areas of highest activity, on the masts above the spray from the washdown system, were hosed down and the ship's decks were washed down the radiation levels decreased to an average of 3 mr/hr with a maximum of 20 mr/hr. When the ship returned to Eniwetok on 6 November

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[redacted]

the radiation intensity had decreased to an average of ½ mr/hr with a maximum of 3 mr/hr.

During the period H plus 48 to H plus 72 hours after MIKE Shot a small amount of radioactive fallout was encountered by the ships present at Eniwetok. This fallout averaged 1 mr/hr (gamma only) with a maximum in a few isolated instances approaching 3 to 4 mr/hr (gamma only). Since this small amount of fallout was in excess of that allowed to give ships a final radiological clearance, personnel from the Staff, CTG 132.3, went aboard all ships present and monitored the ships to determine where radiation levels were in excess of 6/10 mr/hr. Ship's personnel were then instructed to decontaminate these areas. All ships were successful in removing the contamination from fallout below these levels. In addition to this contamination from fallout the LCU's 666, 667, 851, 709 and 764 and the USS LIPAN (ATF-85) were contaminated above tolerance levels while they were operating in the contaminated waters or on the contaminated beaches in the northern sections of Eniwetok Lagoon. The contamination encountered by these vessels was not considered excessive and presented no hazard to personnel, however, they could only be granted operational radiological clearances when they departed Eniwetok. The amount of effort and expense required to ultimately decontaminate these vessels is considered justified, since they were utilized for the direct support of technical projects under the cognizance of Task Group 132.1. The main sources of contamination on the LCU's were the ramps (1-40 mr/hr beta plus gamma), engine cooling systems (1-2 mr/hr beta plus

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[redacted]

gamma), and the rusty exhaust pipes (2-5 mr/hr beta plus gamma). The main contamination in the USS LIPAN was in the evaporators (2.5 mr/hr beta plus gamma), fire and flushing systems, anchor chain (20 mr/hr beta plus gamma) and the exterior of the hull below the waterline. By 19 November the contamination levels on the LCU's and the LIPAN had been reduced to a maximum of about 3 mr/hr (beta plus gamma) on the LCU's on the rusty exhaust pipes and to 2.5 mr/hr (beta plus gamma) in the second effect of the evaporators aboard the LIPAN.

The maximum contamination of the helicopters on scientific survey and recovery missions and the resultant contamination of RENDOVA is described in the following paragraphs taken from the report submitted by Commanding Officer, USS RENDOVA:

[redacted]

"The ship's contamination from MIKE Shot was limited to contamination dropping upon the decks from the return of initial monitoring flights of two helicopters. One helicopter was launched at H plus 5 minutes. It returned to the ship at H plus 1 hour 5 minutes with a maximum gamma radiation of 400 mr/hr. At the end of two more flights to the shot area contamination had collected to 500 mr/hr at H plus 8 hours. Shipboard decontamination reduced the contamination to 120 mr/hr at H plus 10 hours. The other helicopter was launched at H plus 2 hours 20 minutes. It returned to the ship at H plus 4 hours 30 minutes with a maximum gamma radiation of 1 r/hr. After sitting on after end of flight deck the contamination had decreased to 900 mr/hr at H plus 5 hours 45 minutes. Shipboard decontamination

[redacted]

[redacted]

reduced the contamination to 400 mr/hr at H plus 9 and 250 mr/hr at H plus 13 hours.

"Maximum intensity to the interior of the ship was 35 mr/hr at H plus 4 hours 30 minutes. This reading was taken on the 02 deck directly below the parked helicopter. On M plus 3 the contaminated helicopters were based ashore and there was no significant indication of radiation above background level in the area aboard ship where the helicopters had been parked.

"On M plus 3 there was a slight fallout of beta radiation with an isolated maximum intensity of 4 mr/hr. The ship did not encounter any initial contamination from KING Shot but on K plus 1 there was a slight fallout of beta radiation with an isolated maximum intensity of 6 mr/hr.

[redacted] Approximately two hundred fifty (250) film badges were issued to shipboard personnel prior to each test. On M plus 4 and K plus 2 these badges were collected and forwarded to 132.1 for developing and processing. Twenty four (24) IM9B/PD pocket dosimeters were issued to personnel at various stations throughout the ship. These had readings of 0 mr to 250 mr on M plus 4. An estimated four hundred (400) personnel were monitored at the decontamination station and of these approximately seventy-five (75) did not pass the tolerance of no significant indication over background level on initial test. It is estimated the maximum degree of personnel contamination was 4 mr/hr at H plus 4 hours resulting from the handling of contaminated helicopters.

"The MIKE shot shipboard process of decontaminating the helicopters

[redacted]

[redacted]

consisted of removing all disposable materials, vacuuming the interior and washing and scrubbing of the exterior with fresh water. This resulted in only the high concentration of contamination remaining, being imbedded around the engine, and was approximately 50% effective overall. After the helicopters were based ashore the imbedded contamination around the engine was reduced to acceptable operating tolerance of 125 mr/hr by several decontaminating processes used by squadron personnel. Keeping flight and weather decks of the ship wet by frequent washdowns with salt water reduced the contamination. The forward section gave no significant indications above background level. Accurate readings on the after section was not possible until M plus 3 due to the high intensity of the helicopters. After removal of the contaminated helicopters a thorough scrub down of the exterior decks with soap and salt water reduced the intensity to a background level.

"On M plus 3 the contaminated helicopters and contaminated clothing were transferred ashore for extensive decontamination."

[redacted]

[redacted]

Atomic Defense Operations Following KING Shot.

After KING Shot a trace (6 mr/hr maximum of beta plus gamma in spots 3 to 12 feet apart) was detected during the period H plus 24 to H plus 30 hours. This trace amount of fallout was readily cleaned up by all ships present and no decontamination problems were encountered.

Lagoon Water Sampling.

Protection of surface units from contaminated lagoon water could be achieved only by preventing units from remaining or operating in those areas of the lagoon where contamination was present to an unacceptable degree. To accomplish this, it was planned so that surface and subsurface water samples would be taken twice a day along a line across the lagoon several miles above the normal ships anchorages. After determining the lower lagoon to be safe for reentry, routine sampling at points along this line would indicate the possible approach of contaminated water in sufficient time to remove any ships from areas threatened. No such movement of ships was required after reentry. In addition, selected water samples were taken routinely at points nearer the MIKE Shot Island.

All samples taken in the southern portion of the lagoon upon analysis in the radio-chemical trailer aboard RENDOVA showed zero activity. The analyses of samples taken in the northern portion of the lagoon showed beta and gamma activity up to approximately 100,000 disintegrations per minute per milliliter. The analyses of these samples were passed to TU-7, CTG 132.1, daily and were incorporated in a daily summary of radiation intensity levels over the entire atoll.

[redacted]

[redacted]

Radiological Clearances.

Final radiological clearances were granted the following ships in accordance with NAVMED P-1325:

USS RENDOVA (CVE-114) (and fixed wing aircraft)	USS ESTES (AGC-12)
USS CURTISS (AV-4)	USS OAK HILL (LSD-7)
USS AGANAM (AOG-6)	USS LEO (AKA-60)
USS FLETCHER (DDE-445)	USS CARPENTER (DDE-825)
USS RADFORD (DDE-446)	USS O'BANNON (DDE-450)
USS YUMA (ATF-94)	USS LST 836
USS ELDER (AN-20)	USS ARIKARA (ATF-98)
USNS GEN. E.T. COLLINS (TAP-147)	USNS DAVID C. SHANKS (TAP-180)
YON 146	YOG 69

[redacted] Operational radiological clearances were granted USS LIPAN (ATF-84) and LCU's 666, 667, 851, 709, and 764, and RENDOVA Helicopters.

CONCLUSIONS

1. No significant contamination from radioactive fallout was received by any of the ships of Task Group 132.3; except the M/V HORIZON which encountered a slight amount of fallout.

2. All units were adequately trained and equipped to undertake their atomic defense responsibilities on Operation IVY.

RECOMMENDATIONS

1. That the temporary washdown systems again be installed on all ships which participate in the future testing of high yield weapons.

2. That all ships on future tests continue to report to Navy Task

[redacted]

[redacted]

Group prepared to undertake their atomic defense responsibilities and that the Navy Task Group not undertake any type of atomic defense training program.

3. That all ships on future tests again be exercised and inspected for atomic defense readiness by a member of Navy Task Group Staff.

4. That radiac equipment to fill a ship's allowance again be supplied the ship by type commanders and BuShips, independently of the Navy Task Group.

5. That the Navy Task Group Commander again monitor through routine status reports submitted prior to their reporting to the Task Group, the progress of training in atomic defense operations of units scheduled to report to his operational control.

[redacted]

6. That a standard format be provided all ships for use as a guide in the preparation of RadDef Bills.

APPENDIX I - REPORT OF RADIAC INSTRUMENTS

[redacted]

Appendix I to Radiological Safety

REPORT OF RADIAC INSTRUMENTS USED ON OPERATION IVY BY NAVAL FORCES

1. General: This report consists of three parts: —

A. Instrument evaluation. A brief description of operating difficulties are outlined in this section along with recommendations for their correction.

B. Recommended changes to the TG 132.3 Radiac Repair Center allowance of equipment.

C. Balance sheets showing radiac instruments received and their disposition.

2. Instrument Evaluation.

a. High Range Survey Meters

[redacted] ~~(a) (a)~~ AN/PDR-T1B: This instrument was the most used by the Navy Task Group. In transit to forward area in ships of the Task Group some of these instruments were kept in refrigerated storage at about 40°F in order to preserve batteries. Upon removal from this storage moisture condensed on the inside of the case rendering the instruments inoperative. Storage in a cool (below 80°F) but not air conditioned compartment aboard ship also resulted in the same type failure. Instruments were subsequently dried with alcohol and hot air. Some battery failures resulted from warmer stowages, such as repair party lockers aboard ship.

(b) It is recommended that a silica jel type cartridge be installed in the switch space of this instrument to prevent moisture

condensation in this space. It is further recommended that this instrument be modified by providing a battery case which can be installed as a unit with a single plug in a separate watertight compartment. Thus, the batteries could be rapidly installed in the set from a cool storage without the attending condensation problems.

(c) Chamber capacitance is still a minor problem in this instrument. This, it is believed, could be overcome by the installation of an additional switch section so that both sides of the high resistances used to control the grid voltage on the V-1(CK571AX) tube are disconnected when not in use.

(2) (a) AN/PDR-18: Only a few of this type of instrument were used on this operation. In general this instrument appears extremely reliable, except that it does drift considerably from the calibrated position [redacted] It is felt that this difficulty is possibly attributable to cyclic variation of the high voltage supply system during use.

(b) As with the AN/PDR-TIB, the modification of the battery compartment to allow cold storage and rapid installation of batteries is highly desirable.

b. Low Range Survey Meters

(1) The AN/PDR-27 and AN/PDR-27C were used exclusively by this Task Group. These instruments are generally reliable; however, there were approximately 15 cases of failure of the Z 201 unit. Approximately 250 of these instruments were used during the course of the operation.

[redacted]

[redacted]

(2) It is again recommended that these units also be modified so that the batteries may be installed and removed as a unit.

(3) The ear phones used with these instruments are a minor annoyance because their lead is about a foot too short. When carrying the instrument in the hand, the arm cannot be fully extended with the ear phones in use. In addition, pads should be provided on ear pieces to eliminate external noises when using ear phones.

(4) A beta emitting set of standards should be made part of the radiac center allowance to allow for calibration of these instruments in disintegrations/minute.

c. Alpha Detection Instruments

(1) The AN/PDR-10A was the only portable alpha detection unit used by this Task Group. Moisture in the chamber renders this instrument inoperative in an extremely short period of time; drying of the instrument is difficult. This instrument was too unreliable to use under field conditions. Task Unit 7 of CTG 132.1 reported that the beta threshold was unreliable and the Radiac Repair Center of this Task Group found that the instrument would "peg" at full scale detection due to moisture in the chamber even after careful drying when used aboard ship for a short period of time.

(2) It is recommended that:

(a) A removable plug be installed at the opposite end of the chamber from the silica jel cartridge to permit a free flow of drying air through the instrument.

[redacted]

[redacted]

(b) A watertight container of silica jel be included in the spare parts of these instruments for rapid change of silica jel in chamber cartridge. Spare silica jel so provided would not have to be dried prior to installation in cartridge.

(c) The storage box (CY-955/PDR-10A) be provided with a watertight lid to prevent moisture from reaching the instrument while in storage.

d. Dosimetry

(1) No particular difficulty was experienced with these instruments. The PP/354/PP, electrostatic chargers, operated satisfactorily; however, these instruments are difficult to control and charging dosimeters is extremely awkward and slow. Three of these instruments had holes in the locking bars too small to admit the dosimeter. [redacted]

3. Radiac Repair Center Equipment.

a. There were certain deficiencies in the allowance of equipment for the Radiac Repair Center. It is recommended that the maintenance equipment allowance be revised to include the following:

2 - Simpson 206 multimeters

2 - Weller or similar type pistol grip soldering irons

1 - Jar or airtight tin of silica jel (about 2 lbs)

1 - Tube tester, Mutual Conductance Type similar to Hicock 547A

25% - Replacements for wire wound resistors for AN/PDR-18

2 - Hair drier type electric blowers

[redacted]

10 - Porceleanized "Danger - Radiation" signs similar to those used by the AEC

1 - 250 mg radium or equivalent cobalt source

b. In addition to maintenance equipment it is felt that there will be a recurring need for continuous water monitoring devices. For IVY operations jury rig water monitoring devices were employed. These devices consisted of an IM/39RD in which was substituted a special water jacketed GM tube. The discharge from the salt water side evaporator distiller condenser was checked every 15 minutes with this equipment. Because of high engine room temperatures, it was not considered feasible to leave this equipment connected at all times. It is felt that a more satisfactory arrangement would be a 115V a c. instrument connected to a recorder.

c. For roll-up operations it is suggested that packaging materials such as moisture proof paper, shock cushioning material and collapsed wooden or cardboard boxes be included for Radiac Repair Center Pool instruments.

d. An excess of spare batteries and electronic tubes were allowed the Radiac Repair Center for Operation IVY. This allowance was 150% spare electronic tubes and 500% spare batteries for all task group instruments. Based on IVY experience it is felt that 50% spare electronic tubes and 250% spare batteries for all task group instruments are adequate.

[redacted]

4. Instrument Accounting.

(RECEIPTS)				(EXPENDITURES)			
Instrument Type	Received From	Invoice Number	Quan	Delivered To	Invoice Number	Quantity	
AN/PDR-T1B	USS LIPAN	—	1	NSY San Fran	2-53	1	
This instrument was delivered with a broken Ion Chamber							0 Balance
AN/PDR-18	NSY SFran	15753	2	USS ELDER	A-1-53	2	
	NSY SFran	002717	20	NSY San Fran	2-53	18	
	(132.1)			USS LEO	CVE-114	2	
		Total	22	"		22	
				"			0 Balance
AN/PDR-27 w/spares	NSY SFran (132.1)	002717	40	NSY San Fran	2-53	38	
AN/PDR-27 wo/spares				NSY San Fran	2-53	2	
		Total	40	"		40	
				"			0 Balance
AN/PDR-27C	NSY SFran (132.1)	014687	10	USS ELDER	A-1-53	2	
				NSY San Fran	2-53	8	
		Total	10	"		10	
				"			0 Balance
AN/PDR-10A	NSY SFran	002717	2	NSY San Fran	2-53		
	NSY SFran	014687	3	NSY San Fran	2-53	5	
		Total	5	"		5	
				"			0 Balance
IM9b/[redacted]		014687	30	NSY San Fran	8-53	26	
	NSY SFran	014689	5	USS ARIKARA	—	5	
				USS LEO	—	4	
		Total	35	"		35	
				"			0 Balance
IM50/PD	NSY SFran	002717	20	NSY San Fran	8-53	15	
				USS ELDER	A-1-53	5	
		Total	20	"		20	
				"			0 Balance
IM19/PD	NSY SFran	014687	20	NSY San Fran	10-53	24	
	NSY SFran	002717	22	NSY San Fran	8-53	18	
		Total	42	"		42	0 Balance
IM20/PD	NSY SFran	014687	17	NSY San Fran	10-53	24	
	NSY SFran	002717	20	NSY San Fran	8-53	12	
				Lost in Forward Area		1	
		Total	37	"		37	0 Balance
PP-354c/PD	NSY SFran	002717	10	NSY San Fran	8-53	13	
		014687	5	USS ELDER	A-1-53	2	
		014689	2	USS LEO	—	2	
		Total	17	"		17	0 Balance
PP3112/PD	NSY SFran	014687	4	NSY San Fran	8-53	5	
		014689	1	"			
		Total	5	"		5	0 Balance

All items marked for delivery to NSY San Francisco were delivered to the Supply Officer, USS RENDOVA (CVE-114) for delivery to NSY upon arrival U.S.

[redacted]

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PART 13-A CONVOY AND ESCORT ELEMENT - MOVEMENTS OF CURTISS

While under the operational control of CTG 132.3, the USS CURTISS made the following movements in support of AEC requirements:

a. On 29 August the CURTISS departed Port Chicago arriving at destination 12 September 1952.

Enroute she was provided with a surface escort of two DD's as far as her rendezvous with a tanker in the vicinity of the Hawaiian Islands, where the two DD's were relieved by four DDE's which reported to CTG 132.3 for operational control for the remainder of IVY. These latter escorts accompanied the CURTISS the remainder of the voyage to ENIWETOK. Also, in accordance with CINCPACFLT directive, the appropriate Sea Frontier Commanders provided the CURTISS and her escorts with ASW air cover while within 500 miles of each terminal point and also while the Task Element was within 500 miles of OAHU. Additional details of this movement are included in Part 4 under TE 132.34.

b. During the evacuation for MIKE Shot the CURTISS was screened by two DDE's at all times.

c. Movement from ENIWETOK to KWAJALEIN.

On 1 November, 2 November, CURTISS reentered ENIWETOK Lagoon with the remainder of the Task Group and, after off loading certain equipment and AEC personnel, departed at 1600M on the same day for KWAJALEIN to provide shop facilities and berthing space for TG 132.1 operations in support of preparations for KING Event. On this occasion the CURTISS was escorted by the FLETCHER (DDE-445) and her passage was covered by aerial search of the ENIWETOK Danger Area by PATRON TWO aircraft. Additional information of this phase is given in Part 7.

[redacted]

d. Movement from KWAJALEIN to PORT CHICAGO - NSC, OAKLAND.

After KING Shot, on K/2, CORTDESDIV ELEVEN, less O'BANNON, proceeded to KWAJALEIN to escort CURTISS on the initial phase of her return to the continental United States. O'BANNON had previously proceeded to KWAJALEIN from her KING Day station. CURTISS and O'BANNON sorted from KWAJALEIN at 1540N on 18 November (K/3) and rendezvoused with the three DDE's then arriving from ENIWETOK. COMCORTDESDIV ELEVEN in the CARPENTER assumed the functions of Commander Task Element 132.30, Weapons Element, which was formed at that time. Aircraft of PATRON TWO provided ASW air cover for a distance of fifty miles from KWAJALEIN.

At 2320Z on 23 November, TE 132.30 made rendezvous with the WHITEHURST (DE-634) and the SILVERSTEIN (DE-534) in position Lat 18N Long 158W. Upon being relieved by the above DE's, the four DDE's under COMCORTDESDIV ELEVEN proceeded to Pearl Harbor and upon arrival there at 1900Z on 24 November reported to the operational control of COMCRUDESPAC. Upon departure of CORTDESDIV ELEVEN from TE 132.30, the Commanding Officer of the CURTISS assumed functions of the CTE vice COMCORTDESDIV ELEVEN. From 500 miles from her destination and onward air cover was provided.

The CURTISS arrived at PORT CHICAGO about noon on 30 November. Unloading operations there were completed at 1900 local (Uncle) time and she then proceeded to NSC OAKLAND where offloading operations were completed at 1128U on 2 December. The CURTISS then reported to COMAIRPAC for operational control.

e. During all loading and unloading operations at continental ports strict security measures were placed into effect by both the CURTISS and the local commander.

[redacted]

PART 13 B - SURFACE SECURITY OPERATIONS

The surface search group consisted of CortDesDiv ELEVEN (TE 132.33) comprised of the USS CARPENTER (DDE-825), USS FLETCHER (DDE-445), USS RADFORD (DDE-446), and USS O'BANNON (DDE-450). In connection with security, the mission of this element was to assist in denying entry to unauthorized vessels and aircraft into the Eniwetok Danger Area. The tasks performed in carrying out this mission consisted of conducting surface and anti-submarine patrols in the areas specified in Annex R of CTG 132.3 Operation Plan 1-52, and maintaining certain conditions of readiness and surface and air radar watches when anchored in the lagoon.

In connection with these tasks, certain modifications were made to CTG 132.3 Operation Plan 1-52 which are summarized as follows:

[redacted] a. For the period 15-23 September, one DDE was on ASW patrol at all times conducting continuous sonar, surface radar, and air radar search. One DDE was in maintenance status in the northern end of the lagoon with the capability of getting underway on one engine and two boilers on twelve hours notice and on both engines, maximum speed, within seventy-two hours. This ship and the CURTISS constituted the Northern Defense Force and alternated each 24 hours the following duties: surface radar search between sunset and sunrise of the area outside of the reef and north of Lat 11° - 39'N and continuous all around air radar search. The remaining two DDE's were anchored in the southern end of the lagoon, one designated the ready DDE, the other the standby DDE. The ready DDE was required to be able to get underway at 25 knots on one hour notice and attain maximum speed on four hours notice. The standby DDE was

[redacted]

[redacted]

required to be able to get underway on one engine and two boilers on four hours notice and full power on twelve hours notice.

b. Starting on 22 September two DDE's were maintained on patrol with the other two anchored in the north and south end of the lagoon constituting the Northern Defense and standby DDE's respectively.

c. Except as modified by the above, and at those times the O'BANNON was not present, patrols were conducted throughout the operation in accordance with CTG 132.3 Operation Plan No. 1-52.

The O'BANNON, the one DDE equipped with IFF Mark X, was assigned additional missions of laying and recovering dan buoys for CTG 132.1 Scientific Project 5.4a for MIKE Shot and acting as station and SAR ship for aircraft of CTG 132.4 during the periods of intensified air activity for MIKE and KING Shots. She was not available for surface security during the periods M-2 to M plus 5 and from K-1.

The following contacts were reported:

a. On 1 October at 2218M the O'BANNON gained undetermined sonar contact in the Northern Patrol area and held contact for seven minutes. Further continued investigation by the O'BANNON was negative. Evaluated non-submarine.

b. On 5 October at 1030M radar contact on a slow moving air target bearing 320° T 50 miles from Point YOKE was reported by the FLETCHER. Investigation by the CAP was negative. Evaluated as a probable flock of birds.

c. On 4 November at 0258M the FLETCHER reported sonar contact bearing 115°T 162 miles from Point YOKE. FLETCHER investigated until 0406M.

[redacted]

[redacted]

APPENDIX I TO PART 13 B - OPERATIONAL SUMMARY OF TASK ELEMENT 132.33 FOR PERIOD 1 SEPTEMBER THROUGH RELEASE DATE FROM JTF 132.

1 Sep - 3 Sep 1952 Task Element 132.33 (CORTDESDIV ELEVEN) consisting of the USS CARPENTER (DDE825), USS RADFORD (DDE446), USS O'BANNON (DDE450), and USS FLETCHER (DDE445) with Commander Task Element 132.33 (COMCORTDESDIV ELEVEN) in the USS CARPENTER were in port at Pearl Harbor, T. H., for logistics and final voyage preparations prior to sortie and rendezvous with Commander Task Element 132.34.

4 Sep 1952 Task Element 132.33 in company with USS TOLOVANA (AO64) sortied from Pearl Harbor, T. H., at 050000Z and proceeded to rendezvous position Latitude 17°-28' North, Longitude 159°-08' West. Task Element 132.33 fired gunnery exercise Z-7-G during afternoon of 4 Sep 1952 commencing at 050300Z. At 050545Z Task Element 132.33 commenced screening USS TOLOVANA using a four ship bent line screen.

5 Sep - 11 Sep 1952 At 051700Z Task Element 132.33 in company with USS TOLOVANA rendezvoused with Task Element 132.34. Commander Task Group 132.3 and Commander Task Element 132.34 in USS CURTISS (AV4). At 051730Z Commander Escort Destroyer Division ELEVEN assumed duties of Screen Commander and Escort Destroyer Division ELEVEN commenced screening USS CURTISS using a four ship bent line screen while USS TOLOVANA fueled U S CURTISS. At 051945Z USS TOLOVANA completed fueling USS CURTISS and returned to Pearl Harbor with USS COLLETT (DD730) and USS MANSFIELD (DD728) while Task Element 132.34 proceeded to [redacted]

12 Sep 1952 At 112345Z Task Element 132.34 arrived off Eniwetok Atoll. CORTDESDIV ELEVEN formed four ship entry screen at 112346Z. At 120103Z USS CURTISS entered Eniwetok Lagoon followed by CORTDESDIV ELEVEN at 120115. Task Element 132.34 dissolved upon entry into Eniwetok Lagoon. Upon entry USS CARPENTER moored portside to YON in Southern Lagoon for fueling while USS RADFORD, USS O'BANNON and USS FLETCHER anchored in vicinity of YON preparatory to fueling.

13 Sep 1952 At 121934Z USS CARPENTER proceeded to North end of Eniwetok Lagoon and anchored near USS CURTISS in berth 773. USS RADFORD, USS O'BANNON and USS FLETCHER remained in Southern end of Eniwetok Lagoon and upon completion of fueling anchored in berths D4, D5, and D6 respectively.

14 Sep 1952 CORTDESDIV ELEVEN remained at anchor in Eniwetok Lagoon and made preparations for patrol duty.

15 Sep 1952 At 142100Z USS FLETCHER commenced one ship patrol of areas outside Eniwetok Lagoon as directed by Commander Task Group 132.3 and in accordance with Commander Task Element 132.33 Patrol Plan Able for 1 DDE. At 142100Z U S CARPENTER assumed duties of Defense DDE North End of Eniwetok Lagoon in berth 773. At 142100Z USS RADFORD assumed duties of Ready DDE and USS O'BANNON assumed duties of Standby DDE in berths D4 and D5 in South End of Eniwetok Lagoon.

[redacted]

[redacted]

16 Sep - 17 Sep 1952 At 151200Z USS RADFORD assumed duties of Standby DDE and USS O'BANNON assumed duties of Ready Duty DDE in South End of Eniwetok Lagoon. USS CARPENTER and USS FLETCHER continued previous tasks as Defense DDE North End Eniwetok Lagoon and patrol DDE respectively.

18 Sep 1952 At 171200Z USS RADFORD assumed duties of Ready Duty DDE and USS O'BANNON assumed duties of Standby DDE in South End of Eniwetok Lagoon. USS CARPENTER and USS FLETCHER continued previously assigned tasks as Defense DDE in North End of Eniwetok Lagoon and Patrol DDE respectively.

19 Sep 1952 At 181200Z USS O'BANNON assumed duties as Ready Duty DDE in South End of Eniwetok Lagoon. At 181900Z USS RADFORD fueled and proceeded to North End of Lagoon to relieve USS CARPENTER and assume duties as Defense DDE in berth 779. USS CARPENTER fueled and assumed duties as Standby DDE in berth D4 South End of Lagoon. USS FLETCHER remained on patrol.

20 Sep 1952 Task Element 132.33 on previously assigned tasks as follows:

USS FLETCHER - Patrol DDE
USS O'BANNON - Ready Duty DDE South End of Lagoon
USS CARPENTER - Standby DDE South End of Lagoon
USS RADFORD - Defense DDE North End of Lagoon.

21 Sep 1952 Task Element 132.33 on previously assigned tasks as follows:

[redacted] USS FLETCHER - Patrol DDE
USS O'BANNON - Ready Duty DDE South End of Lagoon
USS CARPENTER - Standby DDE South End of Lagoon
USS RADFORD - Defense DDE North End of Lagoon

USS O'BANNON underway during morning to fuel and return to anchorage D5.

22 Sep 1952 Task Element 132.33 commenced two ship patrol of areas outside Eniwetok Lagoon as direct d by CTG 132.3 and in accordance with CTE 132.33 Patrol Plan ABLE for 2 DDE's. CORTDESDIV 11 on assigned tasks as follows:

USS CARPENTER - Northern Patrol DDE
USS RADFORD - Southern Patrol DDE
USS O'BANNON - Defense DDE North End of Lagoon
USS FLETCHER - Standby DDE South End of Lagoon

Commander Task Element 132.33 shifted from USS CARPENTER to USS FLETCHER. USS FLETCHER fueled prior to assuming assigned duties.

23 Sep - 27 Sep 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - Northern Patrol DDE
USS RADFORD - Southern Patrol DDE
USS O'BANNON - Defense DDE North End of Lagoon
USS FLETCHER - Standby DDE South End of Lagoon

[redacted]

[redacted]

Evaluated non-submarine.

d. In addition, DDE's were dispatched, on different occasions, to investigate the following : - a disappearing radar contact reported by one of the patrol aircraft, a reported visual sighting of a submerged submarine by a TG 132.4 B-29, and a disappearing radar contact reported by the RENDOVA. In all cases thorough air-surface investigations were made with negative results.

On two occasions a destroyer was dispatched toward the location of aircraft in distress. Fortunately, both aircraft were able to proceed safely to base. In both cases the destroyers could have rendered prompt assistance had ditching been necessary.

Without exception, these patrols and additional tasks were conducted [redacted] smoothly, properly, and thoroughly. The complexity of the operation, with its many unpredictable controlling factors, required unexpected changes in plans and flexibility of execution. The fact that these tasks were carried out smoothly and as a matter of routine reflected only the highest credit on the Division Commander and the Commanding Officers, and demonstrated clearly the high degree of training and state of readiness of CortDesDiv 11. (See Appendix I for detailed summary of operations)

As a result of the above Surface Security operations, considered in conjunction with the Air Security Patrols, it is concluded that there were no attempts made by unfriendly submarines or surface vessels to reconnoiter the operating area.

[redacted]

[redacted]

28 Sep 1952 Task Element 132.33 changed assigned tasks as follows:

USS O'BANNON - Northern Patrol DDE
USS FLETCHER - Southern Patrol DDE
USS CARPENTER - Standby DDE South End of Lagoon
USS RADFORD - Defense DDE North End of Lagoon

Commander Task Element 132.33 shifted from USS FLETCHER to USS CARPENTER. USS RADFORD and USS CARPENTER fueled prior to assuming assigned tasks. USS FLETCHER assigned additional duty of conducting Dan Buoy Exercise in Southern Patrol Area for a period of 48 hours to determine set and drift of currents outside Eniwetok Lagoon commencing 28 Sep 1952.

29 Sep - 3 Oct 1952 Task Element 132.33 on previously assigned tasks as follows:

USS O'BANNON - Northern Patrol DDE
USS FLETCHER - Southern Patrol DDE
USS CARPENTER - Standby DDE South End of Lagoon
USS RADFORD - Defense DDE North End of Lagoon

At 011018Z USS O'BANNON gained undetermined sonar contact in Northern Patrol Area and held contact for a period of 7 minutes. USS O'BANNON continued search for a period of 42 minutes and when unable to gain contact resumed patrol. At 022355Z USS FLETCHER departed Southern Patrol Area to rendezvous with USS RENDOVA and act as plane guard. Upon completion at 030300Z FLETCHER released by RENDOVA from plane guard duty and returned to Southern Patrol Area.

4 Oct 1952 Task Element 132.33 changed assigned tasks as follows:

USS RADFORD - Northern Patrol DDE
USS CARPENTER - Southern Patrol DDE
USS O'BANNON - Standby DDE in South End of Lagoon
USS FLETCHER - Defense DDE in North End of Lagoon

Commander Task Element 132.33 shifted from USS CARPENTER to USS O'BANNON. USS FLETCHER and USS O'BANNON fueled prior to assuming assigned duties.

5 Oct - 9 Oct 1952 Task Element 132.33 on previously assigned tasks as follows:

USS RADFORD - Northern Patrol DDE
USS CARPENTER - Southern Patrol DDE
USS O'BANNON - Standby DDE South End of Lagoon
USS FLETCHER - Defense DDE North End of Lagoon

10 Oct 1952 Task Element 132.33 changed assigned tasks as follows:

USS FLETCHER - Northern Patrol DDE
USS O'BANNON - Southern Patrol DDE
USS RADFORD - Standby DDE South End of Lagoon
USS CARPENTER - Defense DDE North End of Lagoon

[redacted]

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Commander Task Element 132.33 shifted from USS O'BANNON to USS RADFORD. USS RADFORD and USS CARPENTER fueled prior to assuming assigned duties. At 092103Z USS O'BANNON ordered to intercept small Japanese fishing vessel bearing 097° True distance 72 miles from Point YOKE and instruct master to steer course North. At 100005Z O'BANNON reported Japanese fishing vessel KN2-282 of 65,000 tons gross to be on course 000° True speed 7 knots clearing area. At 100345Z O'BANNON ceased escort and proceeded to patrol area.

11 Oct - 12 Oct 1952 Task Element 132.33 on previously assigned tasks as follows:

USS FLETCHER - Northern Patrol DDE
USS O'BANNON - Southern Patrol DDE
USS RADFORD - Standby DDE South End of Lagoon
USS CARPENTER - Defense DDE North End of Lagoon

13 Oct - 14 Oct 1952 Task Element 132.33 on previously assigned tasks as follows

USS FLETCHER - Northern Patrol DDE
USS O'BANNON - Southern Patrol DDE
USS RADFORD - Standby DDE South End of Lagoon
USS CARPENTER - Defense DDE North End of lagoon

At 130100Z USS O'BANNON relieved USS FLETCHER as Northern Patrol DDE. At 130200Z USS CARPENTER and USS FLETCHER proceeded to anchor in berths D4 and D6 South End of Lagoon preparatory to provisioning from USS AREQUIPA (AF31). At 140000Z USS FLETCHER proceeded out of Lagoon and relieved USS O'BANNON as Northern Patrol DDE. USS O'BANNON then assumed duties of Southern Patrol DDE. At 140645Z USS CARPENTER proceeded to North End of Lagoon and resumed duties as Defense DDE.

15 Oct 1952 Task Element 132.33 on previously assigned tasks as follows:

USS FLETCHER - Northern Patrol DDE
USS O'BANNON - Southern Patrol DDE
USS RADFORD - Standby DDE South End of Lagoon
USS CARPENTER - Defense DDE North End of Lagoon

16 Oct 1952 Task Element 132.33 changed assigned tasks as follows:

USS CARPENTER - Northern Patrol DDE
USS RADFORD - Southern Patrol DDE
USS FLETCHER - Standby DDE South End of Lagoon
USS O'BANNON - Defense DDE North End of Lagoon

Commander Task Element 132.33 shifted from USS RADFORD to the USS FLETCHER. The USS O'BANNON and USS FLETCHER fueled prior to assuming assigned duties. The USS RADFORD assigned additional duties to conduct 48 hour Dan Buoy Exercise for determining set and drift of currents East of Eniwetok Atoll commencing at 152000Z.

[redacted]

17 Oct - 21 Oct 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - Northern Patrol DDE
USS RADFORD - Southern Patrol DDE
USS FLETCHER - Standby DDE South End of Lagoon
USS O'BANNON - Defense DDE North End of Lagoon

At 170500Z USS O'BANNON proceeded out of Lagoon for duty with Task Group 132.4. At 172100Z USS RADFORD conducted RADSAFE inspections. At 180030 USS CARPENTER conducted RADSAFE inspections. At 181930Z USS O'BANNON returned from duty with Task Group 132.4 and fueled. At 182200Z USS O'BANNON proceeded to North End of Lagoon and resumed duties as Defense DDE.

22 Oct 1952 Task Element 132.33 changed assigned tasks as follows:

USS FLETCHER - Northern Patrol DDE
USS O'BANNON - Southern Patrol DDE
USS CARPENTER - Standby DDE South End of Lagoon
USS RADFORD - Defense DDE North End of Lagoon

Commander Task Element 132.33 shifted from USS FLETCHER to USS CARPENTER. The USS RADFORD and USS CARPENTER fueled prior to assuming assigned duties. At 212000Z USS FLETCHER conducted RADSAFE inspections. At 220100Z USS O'BANNON conducted RADSAFE inspections.

23 Oct - 26 Oct 1952 Task Element 132.33 on previously assigned tasks as follows:

USS FLETCHER - Northern Patrol DDE
USS O'BANNON - Southern Patrol DDE
USS CARPENTER - Standby DDE South End of Lagoon
USS RADFORD - Defense DDE North End of Lagoon

At 232200Z USS O'BANNON entered South Lagoon for fueling and provisioning. At 240030Z USS O'BANNON proceeded out of lagoon and resumed Southern Patrol. At 250145Z Task Element 132.33 held muster and accounted for all personnel during Evacuation Rehearsal.

27 Oct 1952 Task Element 132.33 on previously assigned tasks as follows:

USS FLETCHER - Northern Patrol DDE
USS O'BANNON - Southern Patrol DDE
USS CARPENTER - Standby DDE South End of Lagoon
USS RADFORD - Defense DDE North End of Lagoon

At 262315Z USS RADFORD proceeded out of Lagoon and relieved USS O'BANNON in Southern Patrol Area. At 270115Z USS O'BANNON departed for duty with Task Group 132.4. At 270400Z USS CARPENTER departed Lagoon and patrolled off Wide Passage. At 270600Z USS CARPENTER joined USS RENDOVA and acted as plane guard.

28 Oct 1952 Task Element 132.33 on previously assigned tasks as follows:

USS FLETCHER - Northern Patrol DDE
USS RADFORD - Southern Patrol DDE
USS CARPENTER - On duty as plane guard with USS RENDOVA
USS O'BANNON - On duty with Task Group 132.4

At 272100Z USS CARPENTER fueled at sea from RENDOVA. At 272200Z Task Element 132.33 commenced three ship patrol as directed by Commander Task Group 132.3 and in accordance with Patrol Plan ABLE for 3 DDE's.

29 Oct 1952 Task Element 132.33 on previously assigned tasks as follows:

USS FLETCHER - Northern Patrol DDE
USS RADFORD - Western Patrol DDE
USS CARPENTER - Eastern Patrol DDE
USS O'BANNON - Returning from duty with Task Group 132.4

At 281900Z USS O'BANNON returned from MX Rehearsal and fueled from USS RENDOVA. At 282000Z USS RADFORD entered Lagoon and fueled from alongside USS RENDOVA. At 282100Z USS CARPENTER and USS FLETCHER exchanged patrol stations. CARPENTER to North Patrol and FLETCHER to East Patrol. At 282300Z USS RADFORD relieved USS FLETCHER in East Patrol Area and USS FLETCHER entered Lagoon for fueling alongside RENDOVA. Upon completion of fueling USS FLETCHER relieved USS O'BANNON in West Patrol Area. USS O'BANNON entered South Lagoon and anchored. All DDE's provisioned on 29 and 30 October 1952 as directed by CTG 132.3.

30 Oct 1952 Task Element 132.33 on previously assigned tasks as follows:

USS RADFORD - Northern Patrol Area DDE
USS CARPENTER - Eastern Patrol Area DDE
USS FLETCHER - Western Patrol Area DDE
USS O'BANNON - Standby DDE South End of Lagoon

At 292100Z Task Element 132.33 commenced four ship patrol as directed by CTG 132.3 and in accordance with Patrol Plan ABLE for 4 DDE's as follows:

USS FLETCHER - Northern Patrol Area DDE
USS RADFORD - Northern Patrol Area DDE
USS CARPENTER - Western Patrol Area DDE
USS O'BANNON - Eastern Patrol Area DDE

At 300500Z USS O'BANNON departed to lay outer ring of Dan Buoys and on completion proceeded to M Day station arriving prior to H-02 hours. At 300500Z USS O'BANNON assumed duties of Southern Patrol DDE.

31 Oct 1952 Task Element 132.33 on previously assigned tasks as follows:

USS RADFORD - Northern Patrol DDE
USS FLETCHER - Northern Patrol DDE
USS CARPENTER - Southern Patrol DDE
USS O'BANNON - With Task Group 132.4

At 301900Z USS CARPENTER joined USS RENDOVA as plane guard and upon release returned to Southern Patrol. At H-15h USS CARPENTER patrolled off Deep Entrance until USS RENDOVA departed Lagoon. At 310536Z USS CARPENTER departed Patrol Area for SAR mission to the northeast of Eniwetok Atoll. Aircraft with engine trouble was able to land at Eniwetok. At 310749Z USS CARPENTER ceased SAR mission and returned to rendesvous with USS RENDOVA south of Eniwetok Atoll as plane guard. USS RADFORD placed Dan Buoys as directed by CTG 132.3.

1 - 2 Nov 1952 Task Element 132.33 performing previously assigned tasks as follows:

USS RADFORD (DDE446) - North Patrol
USS FLETCHER (DDE445) - North Patrol
USS CARPENTER (DDE325) - In company with USS RENDOVA as plane guard.
USS O'BANNON (DDE450) - On duty as control destroyer with TG132.4.

At 311315Z USS RADFORD and USS FLETCHER commenced ASW patrol off Deep Entrance of Eniwetok Atoll. At 311615Z USS RADFORD and USS FLETCHER joined USS CURTISS off Deep Entrance for screening duty. At 311915Z Detonation. At 010340Z USS O'BANNON released from duty with TG 132.4. At 010630Z USS CARPENTER, RADFORD and FLETCHER formed 3 ship bentline screen on USS RENDOVA, USS CURTISS, and USS ESTES. The large ships were in column formation. CTE 132.33 assumed duties of screen commander in USS CARPENTER. At 011600Z O'BANNON commenced recovery of Dan Buoys. At 011830Z USS CARPENTER left screen and reported to USS RENDOVA for plane guard duty. Commanding Officer, USS RADFORD, assumed duties of screen commander and formed the USS RADFORD and USS FLETCHER into a 2 ship bentline screen for the large ship. At 012130Z the USS RADFORD, USS FLETCHER and USS CARPENTER fell in astern of USS RENDOVA and commenced fueling from RENDOVA in the above order. USS CURTISS and USS ESTES departed for reentry of Lagoon. Upon completion of fueling from USS RENDOVA the USS RADFORD and USS FLETCHER commenced two ship patrol using Plan B2/12 with USS RADFORD in East Patrol and USS FLETCHER in West Patrol. The USS CARPENTER continued plane guard duties upon completion fueling at 020113Z. At 020321Z USS FLETCHER directed to cease patrol in Western Patrol Area and report to USS CURTISS as screen enroute Kwajalein. At 020609Z USS CARPENTER released by USS RENDOVA and commenced patrolling Western Patrol Area.

[redacted] BEST AVAILABLE COPY

3 Nov 1952 Task Element 132.33 performing previously assigned tasks as follows:

USS CARPENTER - West Patrol
USS RADFORD - East Patrol
USS FLETCHER - On screen duty with USS CURTISS
USS O'BANNON - Recovering Dan Buoys

4 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - West Patrol
USS RADFORD - East Patrol
USS FLETCHER - returning from duty as CURTISS screen enroute to KWAJALEIN.
USS O'BANNON - Recovering Dan Buoys.

At 031458Z USS FLETCHER reported sonar contact in position Lat 10° - 11'North, Long 164° - 50' East. At 031606Z USS FLETCHER ceased sonar search. Contact evaluated non-sub and proceeded to Eniwetok. At 040300Z USS FLETCHER returned from Kwajalein and reported to CTE 132.33 for op-control and entered Lagoon to fuel and anchor.

5 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - West Patrol
USS RADFORD - East Patrol
[redacted] - South Lagoon
USS O'BANNON - Recovering Dan Buoys

At 050248Z the USS CARPENTER ordered by CTG 132.3 to proceed to a point 84 miles and bearing 276° True from Pt. YOKE to standby two buoys sighted by patrol aircraft. At 050600Z USS CARPENTER arrived at bucy location and released standby aircraft. At 051145Z USS CARPENTER relieved of buoy standby duty by USS ANIKA. Upon being relieved USS CARPENTER returned to West Patrol Area arriving at 051800Z.

6 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - West Patrol
USS RADFORD - East Patrol
USS FLETCHER - South Lagoon
USS O'BANNON - Recovering Dan Buoys

At 060030Z USS O'BANNON returned from recovering Dan Buoys, entered Lagoon, fueled, and anchored.

7 - 8 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - West Patrol
USS RADFORD - East Patrol

[redacted]

USS FLETCHER - South Lagoon
USS O'BANNON - South Lagoon

At 072230Z USS FLETCHER relieved USS CARPENTER of West Patrol duty off Wide Passage and USS CARPENTER entered Lagoon, fueled, and anchored. At 080157Z USS FLETCHER ordered by CTG 132.3 to search for jettisoned torpedo bearing 252° True 26 miles from Pt. YOKE. At 080701Z USS FLETCHER ceased search and returned to patrol.

9 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS RADFORD - East Patrol
USS FLETCHER - West Patrol
USS CARPENTER - South Lagoon
USS O'BANNON - South Lagoon

At 081900Z USS O'BANN relieved USS RADFORD in East Patrol Area and USS RADFORD entered Lagoon, fueled, and anchored. At 082052Z USS O'BANNON ordered by CTG 132.3 to search for unidentified surface contact bearing 035° True 18.6 miles from Pt. YOKE. At 091139Z USS FLETCHER ordered to assist O'BANNON.

10 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS O'BANNON - East Patrol
USS FLETCHER - West Patrol
USS CARPENTER - South Lagoon
[redacted] - South Lagoon

At 091635Z USS O'BANNON and USS FLETCHER ordered to resume patrols by CTG 132.3 At 091830Z USS RADFORD departed Lagoon to take East Patrol. At 091900Z commenced 3 ship patrol Plan B3/12 with USS RADFORD in East Patrol, USS O'BANNON in South Patrol, and USS FLETCHER in North Patrol.

11 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS RADFORD - East Patrol
USS FLETCHER - North Patrol
USS O'BANNON - South Patrol
USS CARPENTER - South Lagoon

At 101930Z USS CARPENTER departed Lagoon for East Patrol Area. At 102000Z commenced 4 ship patrol Plan B4/12 with USS CARPENTER and USS RADFORD in East Patrol, USS O'BANNON in South Patrol, and USS FLETCHER in North Patrol.

12 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - East Patrol
USS RADFORD - East Patrol
USS O'BANNON - South Patrol
USS FLETCHER - North Patrol

[redacted]

[redacted]

At 111500Z USS O'BANNON entered Lagoon to debark hospital case and returned to patrol. At 120100Z USS O'BANNON entered Lagoon to fuel and anchor. At 120100Z USS FLETCHER to entire Western Patrol. At 120500Z USS O'BANNON picked up Task Group 132.4 Liaison Officer from FRED. At 120600Z USS O'BANNON departed Lagoon for K Day station to arrive H-4 hours. At 120700Z all ships held sight muster and reported absentees to CTG 132.3.

13 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - East Patrol
USS RADFORD - East Patrol
USS FLETCHER - West Patrol
USS O'BANNON - Enroute K Day station to arrive H-4 hours.

At 121930Z USS CARPENTER and USS FLETCHER commenced ASW patrol off Wide Passage. At 121930Z USS RADFORD commenced ASW patrol off Deep Entrance. At 122045Z USS CARPENTER and USS FLETCHER formed 2 ship ASW screen on USNS General COLLINS, USS AGAWAM and USS LIPAN. Main body commenced steaming at 4 knots on assigned K Day area southeast of Eniwetok Atoll. At 122100Z USS RADFORD joined USS RENDOVA as plane guard off Deep Entrance. At 122200Z H Hour changed from 1130M to 1210M. At 122330Z Mission cancelled. At 130000Z main body of TE 132.31 commenced reentry into Lagoon. At 130045Z commenced 3 ship patrol Plan Baker 4/12 with USS CARPENTER and USS RADFORD in East Patrol Area. USS FLETCHER assumed Western Patrol. At 130600Z USS O'BANNON ordered to return to Eniwetok Atoll for fueling and radiological clearance.

14 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - East Patrol
USS RADFORD - East Patrol
USS FLETCHER - West Patrol

At 131900Z USS O'BANNON entered Lagoon, fueled and anchored. Inspected by CTG 132.3 staff RADSAFE officers for radiological clearance. At 140600Z USS O'BANNON departed Lagoon for K Day station. At 141130Z K Day delayed 24 hours.

15 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - East Patrol
USS RADFORD - East Patrol
USS O'BANNON - Enroute K Day station
USS FLETCHER - West Patrol

At 141930Z commenced 2 ship patrol Plan B2/12. USS RADFORD entered lagoon to refuel. At 142230Z USS RADFORD relieved USS CARPENTER in East Patrol Area. At 142245Z USS CARPENTER entered Lagoon and fueled from YON146. At 150100Z USS CARPENTER assumed West Patrol, USS FLETCHER entered Lagoon, fueled and anchored.

[redacted]

[redacted]

16 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - West Patrol
USS RADFORD - East Patrol
USS FLETCHER - South Lagoon
USS O'BANNON - On K Day station

At 151930Z USS FLETCHER departed Lagoon and commenced ASW patrol in company with USS RADFORD off Wide Passage. At 151930Z USS RADFORD commenced ASW Patrol off Deep Entrance. At 152045Z USS CARPENTER and USS FLETCHER formed 2 ship ASW screen on main body and USS RADFORD joined USS RENDOVA as plane guard. At 152330Z Detonation. At 152340Z main body steamed eastward at 16 knots speed to clear cloud. At 152400Z main body changed course to 045 True to clear cloud and possible fallout. At 160110Z main body commenced maneuvering at various courses and at slow speeds to remain within 8 miles of Deep Entrance and to the north of Deep Entrance. At 160340Z main body preceeded to Wide Passage for reentry. At 160425Z main body reentered Lagoon and anchored. Task Element 132.31 dissolved upon reentry. USS FLETCHER assumed DDE Ready Duty on one hours notice. At 160530 USS O'BANNON proceeded from K Day station to Kwajalein.

17 Nov 1952 Task Element 132.33 on previously assigned tasks as follows:

USS CARPENTER - South Lagoon
USS RADFORD - South Lagoon
USS FLETCHER - South Lagoon Ready DDE
USS O'BANNON - Enroute Kwajalein

[redacted] USS RADFORD and USS FLETCHER fueled from YON146. At 170023OZ Commander Task Element 132.33 in USS CARPENTER with USS RADFORD and USS FLETCHER in company departed Eniwetok enroute Kwajalein to arrive 180300Z. Upon arrival off Kwajalein USS CURTISS and USS O'BANNON joined Task Element 132.30 and depart for rendezvous position near Pearl Harbor, T. H. Upon arrival off Pearl Harbor, T. H., Escort Destroyer Division ELEVEN relieved by USS SILVERSTEIN and USS WHITEHURST and proceeded to Pearl Harbor while USS SILVERSTEIN and USS WHITEHURST accompanied USS CURTISS to West Coast, United States.

[redacted]

[redacted]

PART 13c - PATROL SQUADRON TWO SECURITY PATROLS

Patrol Squadron TWO (TU 132.3.1) based at Kwajalein, reported for operational control on 12 September 1952 with eleven P2V and 2 PBM-5A aircraft. Resupply flights to outlying weather stations with the PBM's had commenced on 6 September; security patrols began on 16 September.

The basic search plan as set forth in CTG 132.3 OpPlan 1-52 was modified upon recommendation of CTU 132.3.1, as was the method of conducting the flights. The modification to the basic search plan consisted of adding an irregular octagon outside of the prescribed octagon. The outer sides on the east and west ends were twenty one miles and the north and south sides were ten miles beyond the basic search octagon. This provided for coverage of the entire danger area with a minimum of aircraft. (See Appendix I)

In CTG 132.3 OpPlan 1-52, each search aircraft was to begin a search from Kwajalein ending at Eniwetok, then fly a second search, starting from Eniwetok terminating at Kwajalein. Because of the maintenance required on each aircraft after every search, and because of lack of maintenance facilities at Eniwetok, this plan was changed. Each aircraft departed Kwajalein and staged to Eniwetok, assuming a standby status upon arriving. This standby status was for a period of approximately eight hours. Another aircraft from Kwajalein would then arrive and go into standby, at which time the first aircraft entered a rest period of approximately eight hours. At the end of the rest period the aircraft conducted a search mission of approximately

[redacted]

[redacted]

eight hours, at the end of which it returned to Kwajalein, having made approximately a ten hour flight. As a result, there were always two aircraft available at Eniwetok, with considerable scheduling flexibility to take care of those few occasions when mechanical difficulties either delayed or cut short a scheduled search. At no time, except as provided for at MIKE and KING shots, was the Danger Area without air security patrol.

This system also provided for intensifying coverage by the simple expedient of decreasing the time between each aircraft on patrol. Initial intensification at M-15 was accomplished by a two hour overlap. At M-4, searches were commenced at four hour intervals. Commencing M-1 day, three aircraft were on search simultaneously. Starting at M-15, a further modification was introduced, in that searches were flown for one half the search period using ECM intercept equipment only, the remaining half using ECM intercept equipment and radar. Those searches which began with ECM only added the suffix letter A to the search designator. Those starting with radar and ECM added the suffix letter B. (i.e., EASY ONE ABLE).

During the operational period, no submarines were detected. On 29 September the SS KERTOSONO, out of Rotterdam, Holland, entered the Eniwetok Danger Area. She was detected by the Air Security Patrol and directed out of the area. On 10 October a Japanese fishing vessel entered the Danger Area. The Patrol Aircraft, although detecting and making visual contact with this ship, was unable to establish communi-

[redacted]

[redacted]

cations. The USS O'BANNON was directed to this contact and was unable to establish communications. The Master and First Mate of the fishing vessel then swam over to the O'BANNON, came aboard, received instructions, and swam back to their vessel. This fishing vessel then sailed clear of the Danger Area.

On 9 November at 0817M, during KING Shot rehearsal, a TG 132.4 B-29 at 30,000 feet reported visual sighting of a submerged submarine 060°T 15 miles from point YOKE. Thorough investigation by P2V and F4U aircraft and a destroyer, who were on the scene almost immediately, was negative. At 1033M on the same day the RENDOVA reported a disappearing blip bearing 102°T 2.1 miles from point YOKE. Again thorough investigation by the aircraft and two patrolling destroyers produced negative results. Two other contacts, one on 5 October, the other on 7 October, were reported and investigated by patrolling aircraft and evaluated as weather.

All shipping routed into and through the Danger Area was detected and tracked by patrolling aircraft. A plot of all shipping and flights near and within the Danger Area was maintained in the C.I.C. in the RENDOVA.

In addition to these regular patrols of the Danger Area, searches were conducted to 800 miles in the significant sector on M-2 and M-1 days. No contacts were made on M-2 day. Three surface contacts were made on M-1 day. One ship was sufficiently far out and on a westerly course; the other two, on courses approaching Eniwetok, were warned but only one responded. Early on M day a special search was made

[redacted]

[redacted]

for the SS HARTISMERE, who had failed to respond the day before. This time she acknowledged the warning to turn south and not come within 200 miles of Eniwetok. Due to the delay in KING Shot, significant sector searches to 550 miles were flown on three occasions. No contacts were made on any of these searches.

Patrol Squadron TWO, in addition to performing scientific missions for CTG 132.1 on both KING and MIKE shot days, conducted flights immediately following each shot for CINCPACFLT as part of the AEC World-Wide Fallout Monitoring Program.

The two PBM aircraft, assigned to Commanding Officer, Naval Station Kwajalein, for administrative control and to Commanding Officer, Patrol Squadron TWO and CTG 132.3 for operational control, carried out passenger and [redacted] missions to Kusaie, Ponape, Majuro, Ujelang, and Bikini in support of CTG 132.4 and CTG 132.1. Upon completion of the operational phase, operational control of these aircraft was transferred to Commanding Officer, Naval Station Kwajalein, to continue support flights for CTG 132.1 for Operation CASTLE buildup.

Pertinent Statistics are as follows:

A. Total flight time of P2V aircraft.

August (15 thru 31)	351.7 hours
September	805.4 hours
October	1414.7 hours
November (1 thru 18)	802.7 hours
Total (15 Aug thru 18 Nov)	3374.5 hours

[redacted]

[redacted]

B. August time included flights from NAS Whidbey Island, Washington, to Naval Station Kwajalein. Eleven aircraft made this movement. SB-12 did not join the squadron until 15 October.

C. Total time for September consisted of test flights, convoy escort, and operational patrols.

D. October time consisted entirely of search flights. The total of 1414.7 hours was an all time one month high for PatRon TWO.

E. Operational patrols and convoy escort flights comprised the flight time for the November period listed. It is of note that 1525 hours were flown from 15 October to 15 November, an average of 127 hours per aircraft and flight crew for this 30 day period.

F. At the beginning of the operation an average of 20 maintenance hours per aircraft were required after each patrol. This increased progressively to the point where the average was 34 maintenance hours per aircraft.

G. The PBM aircraft summary in carrying out support flights for CTG 132.4 and CTG 132.1 during the period 30 August to 18 November is as follows:

Flights	134
Hours	357.5
Cargo	42474 lbs.
Passengers	351

[redacted]

[redacted]

Included in the above are the evacuation of three emergency hospital cases and delivery of 6000 lbs of water to Wake Island after typhoon OLIVE.

The following conclusions are set forth as a result of the experience gained in utilizing PatRon TWO during Operation IVY:

A. Although the missions of the Squadron were met in an outstanding manner, there is some doubt as to how much longer the tempo of operations could be sustained safely. From 1 October to 18 November each aircraft and crew averaged 191 hours, even though patrols were not intensified prior to KING Shot. Serious consideration must be given to the assignment of more aircraft and personnel or reduced patrol effort for any future operation of greater duration.

[redacted]

B. Although searches to a greater distance are highly desirable, average sea states in the Eniwetok area with the resultant limited radar sweep widths preclude this without a reduction of detection probability or an increase in force. When ECM equipment with improved frequency coverage and direction finding capability becomes available, expansion of the search area may be possible, although the loran station and the low frequency homer at Eniwetok minimizes the need for a submarine to use radar for navigation purposes.

C. It is highly desirable that the Navy Task Group Commander maintain positive control of not only the aircraft on search, but

[redacted]

[redacted]

also the standby and rest aircraft. Immediate contact with the air detachment personnel at Eniwetok was possible by ship-shore telephone or thru Eniwetok Tower on the tower frequency. The tower had direct communications with the air detachment duty officer by means of a specially installed army field telephone. This is particularly necessary in connection with scrambling the standby patrol aircraft or the combat air patrol.

D. Basing the squadron at Eniwetok would have resulted in certain advantages. During the month of October 195 hours were devoted to flying between Eniwetok and Kwajalein. This wasted time would be eliminated. Further, greater flexibility would be allowed in scheduling. In addition, more time would be available for maintenance, and the administration of the squadron would continue unbroken (the administrative efforts of each officer in a flight crew was lost for two working days on each patrol), and the Navy Task Group Commander would have had direct contact with the squadron commander. The main disadvantage is that of logistic support. The assignment of an ARVA type vessel complete with AUW shop, electronics shop, hydraulics shop, electric and instrument shop, complete stock of spare parts, necessary work stands, rolling stock, flood lights and other similar maintenance equipment, and a communications center would obviate this disadvantage. A portion of

[redacted]

[redacted]

the berthing and messing of the squadron personnel could be taken care of by this vessel. Basing the squadron at Eniwetok with a support vessel of this type would have been particularly advantageous during this operation because of the overcrowded condition existing at the Naval Station Kwajalein, which particularly limited aircraft parking, and necessitated towing each aircraft to a location some distance removed for engine turn-up.

It is recommended that the above conclusions be given serious consideration in planning for future operations of this type.

E. If it is not practicable to assign an ARVA to the Task Group for Patron support at Eniwetok in similar operations, it is nevertheless recommended that the squadron base at Eniwetok and draw upon the Supply Depot [redacted] maintenance and repair stock items. To facilitate supply, an R4D should be assigned for this purpose.

[redacted]

[redacted]

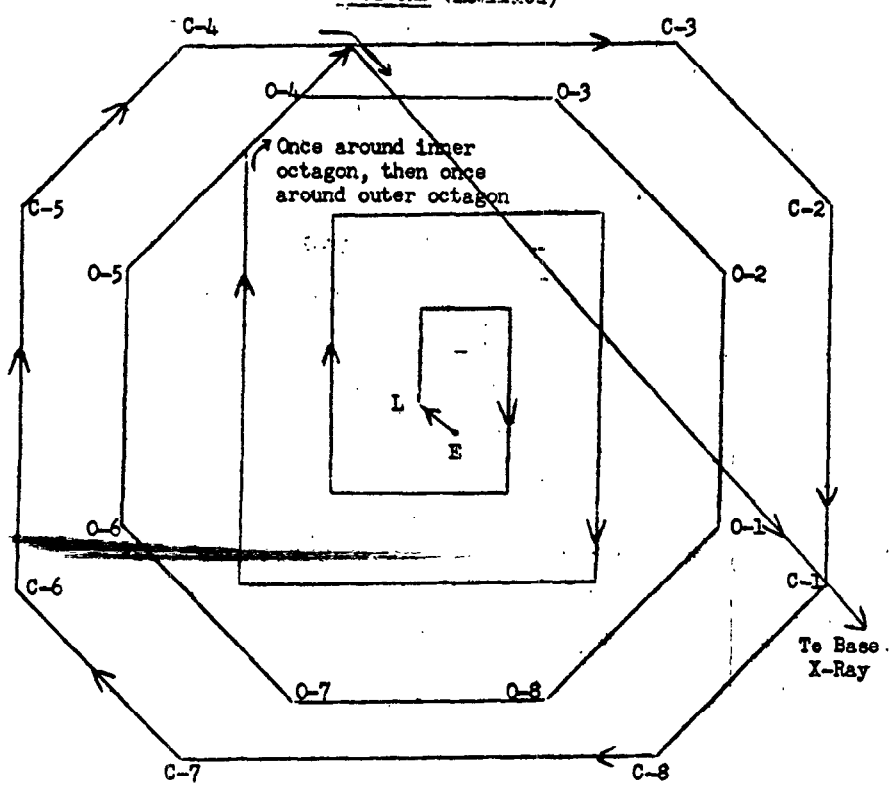
APPENDIX I TO PART 13c -- SEARCH PLAN COORDINATES

POINT	LAT (°N)	LONG (°E)
X-RAY	08-42	167-44
EASY	11-20	162-20
LOVE	11-30	162-15
OBOE 1	11-06	163-10
OBOE 2	11-52	163-10
OBOE 3	12-26	162-36
OBOE 4	12-26	161-50
OBOE 5	11-52	161-17
OBOE 6	11-06	161-17
OBOE 7	10-32	161-50
OBOE 8	10-32	162-36
CHARLIE 1	10-55	163-32
CHARLIE 2	12-05	163-32
CHARLIE 3	12-37	163-00
CHARLIE 4	12-37	161-26
CHARLIE 5	12-07	160-55
CHARLIE 6	10-52	160-55
CHARLIE 7	10-24	161-25
CHARLIE 8	10-24	163-00

[redacted]

[redacted]

EASY ONE (modified)



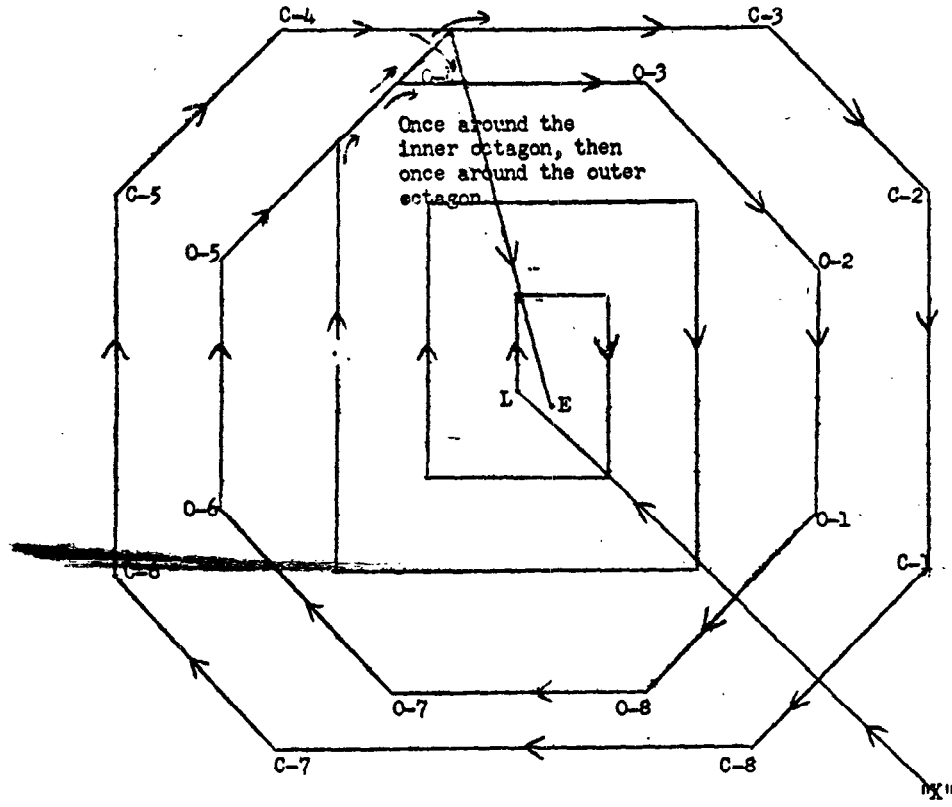
Miles to station	10	Time	—
Miles on station	1308		8.3
Miles to Base "X"	380		2.3
TOTAL	1701		10.6

The other original "EASY" plans were modified in the same manner as above.

[redacted]

[redacted]

KING ONE (modified)



Miles to station	368	time	2.3
Miles on station	1316		8.2
Miles to Base "E"	85		.5
TOTAL	1769		11.0

The other original "KING" plans were modified in the same manner as above.

[redacted]

[redacted]

PART 13D - AIR DEFENSE AND CARRIER AIRCRAFT OPERATIONS

As set forth in CTG 132.3 Operation Plan 1-52, the RENDOVA was charged with the responsibility of maintaining radar surveillance of the Eniwetok Danger Area to detect unauthorized aircraft, and to provide Combat Air Patrols for the interception of any unauthorized aircraft. The Contact Identification and Development Procedure (Annex T of CTG 132.3 Operation Plan 1-52) contained specific instructions in respect to necessary action. A detachment of six F4U-5N radar equipped night fighters provided the necessary aircraft for Combat Air Patrols.

The six fighters flew ashore on 2 October and were based on Eniwetok Island until evacuated for MIKE Shot. Between MIKE and KING shot three fighters were kept ashore, these aircraft returning aboard on KING day, subsequent to KING shot. Prior to MIKE Shot, two aircraft were maintained in readiness at all times, one in condition 2 (5 minutes notice) and one in condition 4 (30 minutes notice). In addition, predawn and sunset one plane combat air patrols were flown each day prior to MIKE day. Subsequent to MIKE Shot the predawn and sunset patrols were discontinued and two aircraft were maintained in condition 4 at all times. The ready fighter was scrambled on six occasions to intercept bogies. Five of these bogies were identified as friendly or evaluated as weather. The sixth was evaluated as a flock of birds.

In addition to operational missions, flights were made to assist the RENDOVA's Air Controller training program. As a result of this, five day air controllers were qualified as all weather air controllers.

[redacted]

[redacted]

. Although not properly a part of the carrier security forces, a detachment of four TBM-3R aircraft rounded out the fixed wing aircraft complement of the RENDOVA. They were based ashore, along with the F4U aircraft. These aircraft were to be used to fly radiological samples, recovered by helicopter, to Kwajalein from the RENDOVA during the evacuation period after MIKE shot. Because reentry to Eniwetok was effected much sooner than had been anticipated, and it was possible to make the sample flights to Kwajalein to TG 132.4 aircraft from Eniwetok, those TBM aircraft were not used for this purpose. Logistic flights for other purposes were made, however. In addition, the TBM aircraft participated in the All Weather Air Controller training program conducted by the RENDOVA.

. Both the F4U and TBM detachments maintained their carrier qualifications by frequent FCLP and refresher carrier landings, and, while conducting this proficiency training, demonstrated carrier operations and techniques to the official observers for KING Shot.

. A statistical summary of operations is as follows:

	F4U	TBM
a. Total flights	169	97
b. No. scheduled CAP flights	55	—
c. No. scrambles	6	—
d. No. training flights	93	78
e. No. misc. flights	15	19
f. Total pilot time (hrs)	263.3	110.2
g. Total night time	63.9	0.0
h. Instrument time	21.1	0.0
i. No. FCLP landings	192	152
j. No. carrier landings	22	29

. The nerve center for all of the security effort of TG 132.3 was the flagship Combat Information Center. Initially the CIC on the CURTISS

[redacted]

[redacted]

was used. When CTG 132.3 shifted his flag to the ESTES and then to the RENDOVA, upon her arrival, the CICs on those ships became the Navy Task Group CIC. Surface and air plots were maintained of all ships and aircraft passing near, transiting, or in the Eniwetok Danger Area. Status information was maintained on all TG 132.3 forces. Patrolling aircraft were tracked and plotted, and upon occasion, positively controlled by air controllers.

It was in the CIC that the Task Group Commander was able to tactically control and coordinate his security forces during the entire operation. Because VHF communications were generally unreliable due to line of sight and distance limitations, the surface patrol and plane-ship contact coordination circuit (C3.4a-215kc) was used as an expanded CI net, linking together all Task Group security ship CICs as well as [redacted] patrolling P2V aircraft. By means of this circuit, almost solid voice communications were maintained throughout the operation. This circuit was indispensible on those occasions of contact investigation and SAR incidents.

The forces assigned for this portion of the security mission were adequate for the conduct of tasks assigned. The RENDOVA CIC, air detachment, and other associated ship's departments maintained a degree of readiness which provided for the fulfillment of any required task. All operations were conducted in an outstanding manner.

It is concluded that no unfriendly aircraft attempted reconnaissance of the operating area during the on site period of operation IVY.

[redacted]

[redacted]

In view of the fact that this portion of the operation was conducted smoothly, in a routine manner according to plan, and presented no problem, there are no specific recommendations of changes to be made, other than that a circuit such as that indicated above be designated as an expanded CI net.

It is recommended, however, that a factory trained technician be available in the Task Group during the shot phases of operations to check IFF performance and insure peak operating efficiency during such periods.

[redacted]

[redacted]

PART 13-E UNDERWATER DETECTION UNIT

During Operation IVY an acoustic surveillance system Mark VI was installed at the entrance to ENIWETOK Lagoon in order to detect any submarines that might attempt to enter the lagoon.

The Underwater Detection Unit of one officer and twenty men operated this equipment that consisted of seventeen pairs of hydrophones, Mark V, and about 450,000 feet of submarine cable Mark VI. This system was operated on a basis of continuous surveillance for 24 hours per day from 10 September 1952 through 18 November 1952.

The Officer-in-Charge with ten men of the Underwater Detection Unit arrived at ENIWETOK during the week of 20-26 July 1952 in order to prepare for installation of the equipment. The remaining men of this unit arrived at ENIWETOK with the OAK HILL on 1 August 1952.

Equipment of this unit had arrived from the United States and was uncrated and ready for installation by 29 July 1952. Some of the crates containing shore control equipment had suffered considerable damage during their shipment from the United States to the forward area. A detailed report of this damage, caused for the most part by inadequate packing and crating, has been made to the Bureau of Ordnance. Replacement parts such as vacuum tubes, resistors and other small electrical items were obtained by the Underwater Detection Unit from Commander Task Group 132.2. Equipment that had been damaged during the shipment was repaired by the electrician's mates assigned to the unit. This successful and vital repair work proved that well trained and experienced electricians mates are a necessity for an underwater detection unit that is assigned to a forward

[redacted]

area.

The hydrophones were installed in lines across Wide Passage and Deep Entrance. The line of hydrophones across Wide Passage was placed from the southwestern end of ENIWETOK Island to a point about 200 yards inside the channel entrance buoys C-1 and N-2, thence in an arc that follows the bank that is inside the ten fathom curve to the eastern end of IGURIN Island. Hydrophones were placed at intervals of about 300-350 yards along this line. The line of hydrophones across the Deep Entrance was installed from the north end of Parry Island to the southern end of Japtan Island. These hydrophones were placed about 250 yards apart.

The major problem that was encountered during the installation phase was as follows. The type of cable used (MK-VI) was developed as expendable cable for use with controlled mines. This cable proved to be very difficult to handle as it had a tendency to form loops whenever it was in a slackened condition. If a loop were allowed to remain in the cable, and if subsequent tension were applied, the armor wire strands would cut into the rubber insulation thus causing a complete insulation breakdown. This characteristic of the cable was the cause of ninety percent of the cable faults encountered during this operation.

On 10 September 1952 the Underwater Detection Unit set up an operational watch at the Underwater Detection Stations. From about 2130 each eveing until about 0300 in the morning operators heard a repeated sound similar to the whine of a shipboard reduction gear

that was picked up by the hydrophone circuits. During this period of the night, it would fade and then reoccur on some or all of the hydrophone circuits. A great deal of effort was made to correlate those sounds with the known or possible unknown electrical or mechanical noises in the area. This sound was finally evaluated as coming from marine life and was heard each night at about the same time throughout the operation.

Comparison of the number of hydrophone/days of desired operations (1377) with the number of actual hydrophone/days of operations (1312) reveals an efficiency figure of 95%. Maintenance operations for the location and repair of cable faults required the use of 39 boat/days (LCP(L)), 4 craft days (LCU) and 500 man/days. About 22 splices were made while the cable was being installed and about 74 splices were made during the surveillance or operational phase.

[redacted] Because of certain local hydrographic conditions (sandy floor bottom with coral outcroppings) and the use of boats not designed for this type of operation, special maintenance techniques were developed by the Underwater Detection Unit in order to keep the equipment fully operational.

a. Hydrophone and cable location.

A specific hydrophone was located by maneuvering a small boat along a line extending from a range of fixed objects on the beach with the shore control underwater detection station directing the boat via voice radio over the hydrophone of a pair. On being informed by the shore control station that it had crossed over a hydrophone of a pair, the boat would slow to idle speed, put a swimmer over the side equipped with a breathing tube (snorkel) and face mask, and tow him so that he would pass over the cable or hydrophone. The swimmer would then locate

[redacted]

the cable visually and direct the boat to tow him in such a manner along the cable that he reached the desired hydrophone. In this regard a flood tide insured that clear water from seaward would be flowing over the operating area. Under ideal conditions swimmers were able to follow cable planted in over eighty feet of water.

b. Grappling for Hydrophones or Cables

It was not feasible to grapple for a cable by dragging a cable along the bottom because the hydrography of the bottom consisted of coral outcroppings on a hard sandy bottom. Once a cable was located as described in a. above, the swimmer would direct the boat slightly upcurrent from the cable position. The swimmer would then direct the boat crew to lower the grapnel over the side of the boat until the grapnel just cleared the coral growth on the bottom. As the current moved the boat down upon the cable and clear of coral the swimmer would have the boat crew lower the grapnel enough so that it would drag slightly along the bottom and hook the cable. After the cable was hooked by the grapnel, other grapnels would be hooked onto the cable so that more manpower could assist in lifting the cable to the boat. This method of cable grappling was usually effective within two or three attempts.

c. Clearing Cable Fouled on the Bottom

During cable underrunning operations, it was discovered that two conditions caused cable to become fouled on the bottom. Fouled cable would be found to be either imbedded under or around a coral growth or running under another cable.

[redacted]

The latter was by far the more injurious condition, for in freeing the desired cable the crossing cable would usually have enough strain put on it that a kink would form in any slack in the vicinity. When the cable was caught under a small coral projection, a slight strain put on it by the under running would generally snap off the coral obstruction and thus free it. If the cable was fouled under a large coral projection, the boat would under run the cable to as short a stay as possible. The cable would then be cut, and the freed end would be buoyed and put in the water. The portion of the cable held by the boat would be lowered, worked through to the point of the foul, and be hauled up beyond the foul. With the cable clear of the foul, the ends would be spliced together.

In view of the inherent quality of the Mark VI cable of producing damaging kinks when handled it was decided that it would be a saving of labor, money and time to leave this cable in place at the entrances to Eniwetok Lagoon during the IVY-CASTLE interim period for future use. On advice of the Bureau of Ordnance and Chief of Naval Operations this system has been put into a caretaker status. Electronic parts are stored in the Army Signal Corps dehumidified storeroom on Eniwetok Island. Shore cable to the hydrophones have been disconnected and the cable ends have been made secure in the underwater detection stations. All cable ends have been sealed by waterproof tape.

During IVY it was concluded that:

1. No enemy submarine penetrated the lagoon.
2. The Underwater Detection Unit equipment was not damaged by the atomic tests.

3. Personnel of this unit reached a training level where they were able to identify task group ships entering and leaving lagoon.

Recommendations

1. That future underwater surveillance systems be provided with a more rugged type of cable than the Mark VI.

2. That ~~all~~ members of underwater detection units be given the swimming training given to underwater demolition teams.

3. That Underwater Detection Units be furnished "Aqua-Lung" type underwater breathing apparatus to permit swimmers to view the bottom from a position at the end of a deep underwater tow line.

4. That Under Water Detection Units be supplied with two low capacity high pressure air compressors capable of charging Aqua-Lung air bottles up to 1000 lbs per square inch.

[redacted]

[redacted]

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PART 14 - MOBILE BOAT POOL

The tasks for the Naval Boat Pool assigned by the Task Force Commander were as follows:

a. Provide boats for the working of vessels in lagoon.

b. Maintain scheduled boat trips between Parry and Eniwetok Islands and anchored ships nearby.

c. Maintain one AVR on alert status for SAR.

d. Augment the Task Group 132.1 service to the northern islands as necessary to accomplish the Task Force mission.

e. Provide AVRs as necessary to accomplish the Task Force mission

The Navy boat pool consisting of 5 LCUs, 19 LCMs, 4 LCPLs and 2 AVRs proceeded to the forward area as described in part 4 of this report.

During the voyage of the OAK HILL from the United States to Eniwetok, the boat pool personnel completely overhauled the five embarked LCMs. These boats were placed in an operational status immediately on arrival of the OAK HILL in the forward area.

On the arrival of the major portion of the boat pool personnel in the OAK HILL at Eniwetok the most important boat pool problem was the overhaul and repair of all remaining LCMs in order to place them in operating condition.

Experience showed that an average of forty (40) man days were required to accomplish all work necessary to place each boat in an operating condition. These forty (40) man days may be accounted for as follows:

a. Removing preservation from internal parts of engines, checking all mechanical and electrical units, checking shaft alignment, condition

[redacted]

of screws, cutlass bearings, etc., breaking salt water cooling connections, torquing heads and balancing engines under full power in water. —— 22 man days.

b. Manufacture and install canopies and miscellaneous fittings - - — 6 man days.

c. Installation magnesyn compass with associated wiring and units - —4 man days.

d. Installation and check of radios —— 3 man days.

e. Installation of lights with associated wiring —— 3 man days.

f. Mixing electrolyte for batteries, filling batteries, placing same on charge —— 1 man day.

g. Manufacture fitting and installation and pad eyes for fenders and ramp safety chains —— 1 man day.

TOTAL: 40 man days.

In addition to the above maintenance that had to be accomplished, [redacted] three LCMs required the following more extensive repairs:

a. LCM-41 - Starboard engine valve seat insert had disintegrated, cracking the head and wrecking piston of # 3 cylinder. New piston rings and head assembly installed.

b. LCM-39 - Cracked head on both engines, new head assembled and installed.

c. LCM-44 - Both engines frozen. Two new engines were installed to make maximum number of boats available for service as soon as possible.

At the same time that the foregoing initial repair work was going on, extensive training of coxswains and boat crews was provided by the more

[redacted]

[redacted]

experienced members of the boat pool. In this regard Petty Officers in charge of Navy LCUs received valuable instruction from Holmes and Narver boat pool personnel with regard to various beaches and channels in the area. Instructions to all coxswains included those subjects normally taught to boat crews such as Rules of the Road, piloting, making landings and salvage.

In addition boat crews were instructed in navigating to various islands of the lagoon both by day and by night.

As no major casualties occurred to any of the boats of the Navy boat pool during this operation, it is considered that this training was conducted in a capable manner and produced very satisfactory results.

In order to carry out its mission the Navy boat pool maintained the following schedules between various principal points.

a. Eniwetok and Parry Islands. 14 LCM trips per day on weekdays and [redacted] and holidays.

b. Parry and Teiteiripucchi Islands. One LCU was based at Teiteiripucchi and one at Parry each making a round trip daily except Sunday. This LCU Ferry Service with wistle stops, as required, cared for the majority of the load of the routine cargo and personnel ferrying problems of the boat pool. The LCU-666 was called upon to carry one load of construction gear to Bikini being transported to and from Bikini on the OAK HILL.

c. All ships to Eniwetok Island for liberty. 4 omnibus LCM trips on week days and 7 ombibus LCM trips on Saturdays, Sundays and holidays.

d. Destroyers to Eniwetok Island. 3 round trips daily from destroyers in lagoon to Eniwetok Island.

[redacted]

e. Recreation runs for Japtan Island Recreation Area. Boats for recreation parties were provided daily at about 1300 to take recreation parties from ships to Japtan Island. These parties were returned to the various ships at about 1800.

The boat pool was on call on a day and night basis and performed countless services such as provisioning ships, evacuating northern islands etc., for all the Task Groups present. The LCMs and LCPLs averaged the following engine hours during the months indicated.

	August	September	October
LCMs	26.3	88.5	120.1
LCPLs	42.5	100.0	107.0

In order to keep the engines operating an engineering inspection schedule was set up whereby each boat before being secured for the night was inspected by the boat pool duty engineer and electrician. All deficiencies insofar as possible were corrected before the boats were secured for the night. It is believed that this preventive maintenance was an important factor in keeping the boats in an operating condition.

The following summarizes the major repairs effected by the Navy Boat Pool: Screws changed -35; shafts changed -9; cutlass bearings changed -12; S.W. cooling pumps changed -12; heads changed -8; gaskets changed -6 sets; batteries -37 sets, and 9 engines changed. In addition to the foregoing, 2 AVRs received major overhauls from the Navy Boat Pool. One of these AVRs was received in a poor condition from the continental United States while the other AVR had been operating in the forward area for over two years.

The following factors are considered as contributing to the above breakdowns:

[redacted]

a. Screws and shafts - coxswains unfamiliar with difficult beach and landing conditions.

b. Cutlass bearings - engines not secured when screws and shafting were damaged.

c. Saltwater cooling pumps - Most of the engines installed have been in mothballs over a period of years. This has caused deterioration and breakdown of neoprene impellers.

d. Heads - nearly all head casualties occurred at the beginning of heavy workload. Inspection of heads indicates that cracks have existed from operation prior to lay up, probably due to fuel injectors being improperly balanced.

e. Fresh water manifold gaskets - A number of gasket failures occured due to the fact engines had been laid up which resulted in the gaskets being hard and lifeless.

f. Batteries - the excessive amount of battery charging and changing was due to the following:

(1) Generators on engines were of 15 amp capacity.

(2) When all of the following equipment was being operated at one time the load was over 20 amperes:

Radio
Magnesyn compass
Running lights
Spot lights

(3) To keep up with the demand on batteries a TUNGSOL CHARGER was removed from an LVM and operated from OAK HILL power supply to supplement the OAK HILL charging capacity.

Recommendations

1. It is of prime importance that each craft be thoroughly inspected,

[redacted]

overhauled and placed in top operating condition in the U.S.A. prior to being issued to the Navy boat pool.

2. LCMs for an operation of magnitude similar to IVY should be increased from 19 to 24. It is considered that demands on 19 LCMs of the boat pool during IVY were excessive. Twenty four LCMs would have given the boat pool greatly increased flexibility and a slight emergency reserve. Furthermore this would have enabled the boat pool to assign each large ship an LCM on a semi-permanent basis. An operation the magnitude of CASTLE will require an even greater number of small craft that can be determined only after a more extensive study of requirements, when they become available.

3. In addition to manning their own boats, the Navy Boat Pool, for a time, manned two LCMs that were a part of the Holmes and Narver Boat Pool. At this same time, Holmes and Narver had two additional LCMs in a laid up status. It is recommended that work load be equalized between the two boat pools.

4. It is recommended that greater utilization be made of the Navy LCUs, particularly in the early stages of the operation. Insufficient effort was made by boat dispatchers to combine trips into one LCU load, thus freeing more LCMs which were in much greater demand.

5. It is recommended that LCM engines for similar operations be fitted with the smaller injectors (size 60) rather than the larger ones (size 90) which permit development of military power rating. At this power rating the engines are short lived.

6. It is recommended that sufficient LCPLs be provided in the forward area to permit the semi-permanent assignement of at least one to each large ship present.

[redacted]

[redacted]

PART 15 - INTELLIGENCE AND SECURITY

I - PRE-OPERATIONAL PHASE

1. A detailed study was made of the intelligence and security problems confronting the Task Group. An intelligence and security annex was prepared as ANNEX F to CTG 132.3 Operation Plan #1-52 outlining the following security measures; Personnel clearance policy, Responsibility of Individuals in Regard to Classified Matter, Censorship (self-imposed), Security Control Badges, Exclusion Areas, and Termination Procedure.

a. In order to bring about an early indoctrination of Task Group personnel in security regulations, Commanding Officers of all ships and units of the Task Group were directed to ensure that all personnel under their command complied with the security instructions set forth in Task Group Op-Plan. It was further directed that commanding officers hold [redacted] security briefings for all personnel on assignment to the Task Group and on a continuing basis. Such briefings were to fully cover the content, purpose and significance of the following:

(1) The Atomic Energy Act.

(2) The Espionage Act.

(3) U.S. Navy Security Manual for Classified Manual, 1951.

(4) Censorship of Mail (what could not be said in personal letters).

(5) Personal photography.

(6) Reason for scheduled and unannounced musters.

[redacted]

[redacted]

b. Upon arrival at Eniwetok the ships assigned to the Task Group were contacted by the Staff Security Officer and assurances were obtained that officers and men were being briefed on all matters pertaining to security.

2. Due to the early assignment of the major ships and personnel to the Task Group there wasn't too much difficulty experienced in obtaining the necessary personnel clearances. Requests for "Q" clearances as a general rule were submitted promptly and the average time required for the granting of "Q" clearances was about ninety days. Emergency clearances ("Q") were issued in extreme cases.

a. Requests for NAC's were submitted directly to ONI and by the time the Task Group arrived in Eniwetok approximately ninety-five percent of the personnel were either "Q" cleared or cleared for access to secret based on a favorable National Agency Check. The remaining five percent were certified to be good security risks for entry into the Eniwetok Area in accordance with the provisions of CINCPAC Serial 020 of 1 April 1952.

b. All requests for NAC's were not conducted with favorable results. Personnel who were determined not to be good security risks were to be separated from JTF 132. In this connection the Task Group Commander delegated the responsibility for determining the security risks of personnel to their commanding officers. Where there were reasonable grounds to question the security reliability of an individual, commanding officers were directed to request their respective type commanders to transfer the man.

[redacted]

3. In Operation "Greenhouse" several security violations involving unauthorized photography were discovered. To preclude a recurrence of similar happenings in this operation a very careful procedure for the control and accountability of Task Group photographic equipment and supplies was established by CTG 132.3 letter serial 2 dated 4 September 1952. This letter clearly defined Scientific, Documentary, and official photography. Commanding officers of units of Task Group 132.3 were charged directly with the responsibility of control and accountability over all official and personal photographic equipment and supplies within their respective commands. To accomplish this control each commanding officer was directed to impound all personal photographic equipment and supplies within his command prior to arrival of his unit in the Eniwetok Danger Area. This material was not to be released until the unit cleared the Eniwetok Danger Area. Detailed instructions designed to accomp- [redacted] all photographic equipment and supplies within each command were set out in the same letter.

4. Various types of identification badges were required for access to Exclusion and Operational Areas. Security badges were not required for access to the recreational islands of Eniwetok, Japtan, and Aaraanburu. Access to operational areas on Eniwetok Atoll, Kwajalein Atoll and areas on ships of TG 132.3 which were designated as "Operational" or "Exclusion" was limited to wearers of "IVY" security identification badges. Personnel requiring access to "Exclusion" areas were required to have specific secondary identification.

[redacted]

[redacted]

a. CTG 132.1 was responsible for the procurement, assembly and issue of all identification badges for use in the Eniwetok Area. Pursuant to JTF 132 letter of instruction captioned "Preparation of Security Badge Request Forms" this command requested "IVY" security identification badges for a number of "Q" cleared persons, all of whom it was determined would have need for access to operational areas. When the badges were received it was noted that the security officer, CTG 132.1 had downgraded the original badge request forms with the result that certain key personnel on the staff of the Commander Task Group 132.3 were to be excluded from certain operational areas which, as a matter of necessity, they would require access. This situation was brought to the attention of Headquarters JTF 132 and CTG 132.1 and corrective action was taken immediately.

5. Contrary to previous operations little or no difficulty was experienced by persons of the Task Group seeking legitimate travel throughout the Eniwetok Danger Area. Travel control was clearly definitive as to permit unrestricted access to the previously mentioned recreational islands. Access to Parry Island could be granted on the basis of a Top Secret Military clearance held by individuals. Access to Parry Island Compound could be granted to the holders of Top Secret clearances. Prior to Mike shot there was no objections to flights over that island providing persons were cleared through Secret and that there was operational necessity for the flight. After Mike shot "Q" clearances were required to fly over Shot Island. As far as can be determined no one with official functions was precluded from participation in any conference or otherwise impeded in his movements because of security requirements.

[redacted]

[redacted]

6. Of the 532 "Q" clearances requested by CTG 132.3, 451 had been granted by 1 November 1952 and 38 were cancelled.

7. Requests for National Agency Checks initiated by the following commands, some of which were not in Task Group but were in the area during critical times, were in the following stages of completion by 1 November 1952:

SHIP OR UNIT	COMPLETED	PENDING	TOTAL
	COMPLETED	PENDING	TOTAL
USS ELDER (AN-20)	49	2	51
USS OAK HILL (LSD-7)	261	6	267
USS RADFORD (DDE-446)	348	6	354
MARINE CORPS RECRUIT DEPOT	185	1	186
LSU SQUADRON ONE	40	0	40
LCU SQUADRON ONE	30	0	30
PATROL SQUADRON 2	397	3	400
HELICOPTER ANTI-SUBMARINE SQUADRON 2	17	0	17
FLEET AIR SERVICE SQUADRON 110	19	1	20
USS SHARPS (SKL-10)	94	1	95
COMPOSITE SQUADRON 3 (VC-3)	36	4	40
NAVY #128, (REC.STA.PEARL)	38	0	38
USS GRAINGER (AK-184)	67	3	70
USS SUSSEX (AK-213)	59	1	60
USS AREQUIPA (AF-31)	87	13	100
USS AGAWAM (AOG-6)	130	0	130
USS CURTISS (AV-4)	619	11	630
USS CARPENTER (DDE-825)	291	49	340
USS ELKHORN (AOG-7)	120	8	128
USS O'BANNON (DDE-450)	265	67	332
USS MOCTOBI (ATF-105)	76	1	77
USS TOLOVANA (AO-64)	308	7	315
USS RENDOVA (CVE-114)	1022	18	1040
USS ESTES (AGC-12)	545	5	550
USS NAMAKAGON (AOG-53)	152	0	152
COMCORTDESRON ONE	15	0	15
USS LST 836	116	3	119
USS LIPAN (ATF-85)	86	1	87
USS FARIBAULT (AKA-179)	79	3	82
USS GENESEE (AOG-8)	99	1	100
USS HITCHITI (ATF-103)	10	51	61
USS FLETCHER (DDE-445)	286	15	301
USS ARIKARA (ATF-98)	84	0	84
USS YUMA (ATF-94)	106	9	115

[redacted]

SHIP OR UNIT	COMPLETED	PENDING	TOTAL
CTG 132.2, APO, P.M. S.F. These are attached to an Army Organization	80	0	80
USS LST 611 (Rec'd 10-28-52)	00	108	108
USS LEO (TAKA-60) (Rec'd 10-29-52)	00	92	92
	6216	490	6706

8. The first of what proved to be a number of security violations was discovered on 2 November 1952 when a message containing Secret Security Information was transmitted in plain language from the USNS DAVID C. SHANKS (T-AP 180) reporting the approximate time of the detonation of Mike shot. The message was addressed from CTG 132.1 to several addressees in the U.S. and Japan, and because it was transmitted from a ship under the operational control of CTG 132.3 a Court of Inquiry was convened by this command for the purpose of inquiring into the circumstances concerning the reported breach of security. The fact that the message in question was originated by an Air Force Captain who was temporarily embarked in the USNS SHANKS, and because the ship's radio officers who handled and transmitted the message were Civil Service personnel not formally cleared to handle classified matter, certain interesting angles would of necessity have to be considered by the Court of Inquiry. SecNav approval was obtained to name Air Force personnel as Interested Parties to the Inquiry.

9. At approximately M + 8 days this command was startled and expressed grave concern over a series of letters, apparently from members of the Task Group, which appeared in the press all over the country. These letters were purported to be eye witness accounts of an H-Bomb detonation,

[redacted]

[redacted]

and, if correctly represented in press releases, constitued breaches of security. CTG 132.3 ordered that investigations be made at once into the circumstances surrounding the letter writing. Investigations were conducted with the following general results:

a. That authorship of the letters in question was admitted by the alleged writers without exception.

b. That each letter writer admitted that he had been briefed on several occasions concerning what could and what could not be written in personal letters.

c. That each writer stated that he knew it was forbidden and improper to write concerning the results of the tests.

d. That the majority of the letter writers denied that their letters contained the words "HYDROGEN" or "ATOMIC".

[redacted] That several of the letter writers clained that much of what they wrote was the product of both what they saw and their imagination.

f. That each writer believed that his letter had been "dressed-up" considerably by the editors of the newspapers.

g. That it was generally felt by all concerned that recent newspaper accounts of the Hydrogen Bomb and articles appearing in the Saturday Evening Post and various other periodicals throughout the country seemed to contain identical information contained in their personal letters to their families. As a result, and despite their instructions to the contrary, they did not believe that they were acting in violation of realistic security.

[redacted]

[redacted]

h. That no official recommendations have been made by the Task Group Commander thus far concerning the disciplinary action in the case of authors of these letters.

10. On 27 October 1952 JTF 132 published a letter, AG file number 380, Subject: "Discussion of JTF 132 Activities Outside the Task Force", for distribution to all JTF 132 Headquarters personnel.

a. On 28 October 1952 a copy of this letter was sent to Task Group Commanders with the request that it be reproduced for distribution to each member of the Task Group prior to "his departure from the Eniwetok Area".

b. On 30 October 1952 Headquarters JTF 132 letter dated 27 Oct, AG file number 380 was received by this command where it was quickly reproduced and distributed to all ships and units of the Task Group on printed cards in the following form:

"1. An official announcement will probably be made by the time of your return to the U.S. concerning the tests at Eniwetok. You are not authorized to make any amplifying statements concerning these tests.
2. The following is a guide to assist you in your statements to ALL people.
A. Authorized statements:
1. Your assignment to JTF 132, which conducted tests at Eniwetok.
2. You method of transportation, your itinerary to and from Eniwetok.
3. That you witnessed an Atomic test.
4. How long you were away.
5. Names of friends in the Task Force.
6. Unofficial activities.
7. Climatic conditions.

B. Unauthorized statements:
1. Code name of operation
2. Preparations for tests.

[redacted]

[redacted]

3. Number or types of test.
4. Physical characteristics and data of tests.
5. Date or time of tests.
6. Equipment used in tests, either mobile or stationary.
7. Your movements within the atoll.

3. Compliance with this guide is an absolute necessity for the SECURITY OF YOUR COUNTRY depends on it.

C. W. WILKINS
RADM, USN
CTG 132.3

RESTRICTED
SECURITY INFORMATION"

c. Some confusion resulted when CJTF 132 dispatch DTG 030921Z Nov temporarily rescinded JTF 132 letter dated 27 October 1952 thereby necessitating the cancellation of CTG 132.3 NOTICE 5510 and prompting the recall of the aforedescribed Security Information Cards.

d. In the meantime CJTF 132 dispatch DTG 301040Z/OCT directed that the following statement be signed by all individuals leaving the [redacted] while the operation was still in progress:

"I hereby certify that I will disclose no information whatever to any unauthorized person particularly as to the nature and time, or success or failure of tests conducted or to be conducted by JTF 132 until such time as a release is made by the Atomic Energy Commission or Department of Defense separately or jointly. Thereafter I will disclose information only on such basis as may be authorized by the AEC or DOD on a need to know basis".

e. Task Group 132.3 Instruction 5510.3 dated 2 November 1952 quoted the above statement and further prescribed the procedure to be followed by all personnel departing JTF 132 Operational Area.

f. CJTF 132 dispatch 060455Z/NOV cancelled the requirement for security statements called for by the 301040Z/OCT message, further necessitating the cancellation, in part, of CTG 132.3 letter of

[redacted]

[redacted]

Instruction (5510.3).

g. By CJTF 132 dispatch 102324Z/NOV the security statement originally required in the 30 October message was reinstituted. CTG 132.3 message, DTG 102324Z/NOV similarly reinstituted the provisions of Task Group Instruction 5510.3 of 2 November 1952 requiring security statements from all persons departing the Eniwetok Area.

11. On 8 November 1952 JTF 132 recognized the need for further indoctrination of Task Force personnel in security matters. JTF 132 letter AG file number 380 dated 8 November 1952, Subject: "Security Indoctrination for King", directed that "no information whatsoever of a classified nature will be communicated to any unauthorized person". In this letter it was pointed out that certain items such as (a) the approximate time of the tests, (b) number of shots in the operation, (c) characteristics of the tes, (d) number of ships and aircraft and other equipment in the operation, and (e) detailed organization and composition of JTF 132 were still classified and could not be transmitted to any unauthorized person. This letter was reproduced and distributed to all ships and units of the Task Group.

III - ROLL-UP

12. In addition to the statements enumerated in the paragraphs above all personnel of the Task Group were given termination lectures, warning them of their continuing obligation of secrecy regarding the operation, not to confirm or deny news releases unless released by the Department of Defense or the Atomic Energy Commission, not to tell the number of shots, time or dates nor the effects of the tests, nor mention struc-

[redacted]

[redacted]

tures seen. All "Q" clearances of personnel not continuing in the Atomic Energy Programs are being cancelled.

a. Instructions were issued to all ships and units of the Task Group to omit from the logs for the month of November 1952 any information pertaining to Atomic tests, M-Day, Shot Time, or H-Hour.

IV - CONCLUSIONS

13. There were no positive indications which would lead one to believe that any attempts were made by unfriendly submarines or aircraft to gain intelligence of this operation.

14. There was no evidence of attempted sabatage, espionage or personnel penetration by unfriendly agents.

15. Provost regulations restricting movement of personnel were strictly enforced, but unreasonably severe.

[redacted] consciousness of certain personnel was dangerously lowered by (1) public disclosure of the fundamental objective of the operation by a member of the congress and (2) by amazingly accurate speculation and predictions by feature writers which appeared in the nations press, concerning the operation. Under the circumstances, to expect security to be observed in personal correspondence without censorship is not realistic.

V - RECOMMENDATIONS FOR FUTURE OPERATIONS

17. It is recommended that "Q" clearance requirements be re-examined in the light of current AEC-DOD regulations with a view toward reducing their number significantly.

18. It is recommended that areas requiring special badge identi-

[redacted]

[redacted]

fication for entry be limited to the compounds within which and sites at which highly classified intelligence is exposed. In this connection it is further recommended that any badge holder to such areas be honored to vouch for any visitor accompanying him upon the statement that the visitor is known to him and known to have official reason for access to the area. By way of contrast, a case occuring during IVY is cited during which a task group commander, properly badged and recognized as such by the MP at Parry Air strip, was not honored to identify his own operations officer and vouch for his clearance to leave the island upon which he had entered with a temporary badge.

19. It is recommended that the Task Force policy concerning security matters be re-examined and that a more realistic and practical statement be signed by every member of the Task Force. This statement should be brief[redacted] following format and should be executed after initial indoctrination in the operation and publicized immediately before and after each shot of the operation.

"I acknowledge that I have been advised and that I clearly understand that only the following information concerning operation_____ is unclassified and that all other information concerning this operation is classified and will remain classified until released to the public by the Department of Defense or the Atomic Energy Commission:

a. Existence of Joint Task Force_____.

b. Names of Commander, Deputies and Key Staff personnel of Joint Task Force _____.

[redacted]

[redacted]

c. Existence of Army, Navy, Air Force and Scientific Task Groups and the commander of each.

d. Conduct of a new series of tests at the ENIWETOK Proving Grounds by Joint Task Force_____.

e. Specific designation of the Task Group to which attached and the fact that it is located at ENIWETOK.

I acknowledge also that I clearly understand that to divulge classified information by any means whatsoever to persons not authorized to receive it is forbidden by law and punishable by imprisonment up to ten years and fines up to $10,000 or both.

(Date) _____ (Signature) _____

(Witness) _____ (Rank/Rate and Service No.) _____

(Rate/Rank) _____

20. It is recommended that badge checks, Access Lists and the holding of scheduled and unscheduled musters be continued in future operation.

21. Applications for clearances should, where possible, be made at least six months prior to an operation and personnel should not normally be transferred during the operation.

22. It is recommended that censorship be applied to all mail from the operating area from the time of each shot until its announcement by the AEC.

23. It is recommended that announcements be made by the AEC shortly after each shot.

[redacted]

[redacted]

PART 16 - COMMUNICATIONS

4. MISSION

Pursuant CJTF 132 OpPlan No. 2-52 the Communication mission of CTG 132.3 was established as follows:

1. Preparation of the communication and electronic plan for TG 132.3.

2. Provision of internal TG 132.3 communications, including a communications center aboard the CVE to be established as a tributary of the Headquarters, JTF 132 communications center on PARRY ISLAND for the purpose of providing teletype and telephone communications between CTG 132.3 and CJTF 132 during land based operations.

3. Installation, operation and maintenance of all shipboard communication facilities required by all elements of the Task Force. CTG 132.3 personnel will assist in operation and maintenance of communications center aboard the AGC.

4. Provision of communications between CTG 132.3 and the Navy Department, with naval operating forces not directly concerned with Operation IVY, and with naval shore establishments.

5. Provision of communications to effect control against possible undesirable surface and underwater activity within the area.

6. Establishment of guard mail and officer messenger mail service between units afloat and the Task Group flagship, and between Headquarters, JTF 132 on PARRY ISLAND (and/or aboard the AGC) and the Task Group Flagship.

7. Provision of communications as necessary to enable CTG 132.3 to perform the duties of Senior Officer Present Afloat (SOPA), ENIWETOK.

[redacted]

[redacted]

8. Provision and necessary maintenance of electronic equipment and supplies to meet the communications requirements of the Navy Task Group.

9. Guarding the international distress frequency (500 kc.), relieving TG 132.2 of this responsibility while CTG 132.3 is in the forward area.

More specifically, however, the mission of CTG 132.3 can be pointed up as being responsible for the installation, operation and maintenance of all required shipboard electronics equipment as requested or required by the various elements of the Task Force.

B. COMMUNICATION PLANNING FOR OPERATION IVY

[redacted] however, the Navy component of the Task Force was not organized until April 1952, and did not actually start to function as a Task Group until the following month. Communication-wise this proved to be very unfortunate, as a considerable portion of the planning had been completed prior formation of the Navy Task Group.

The Staff Communication Officer of CTG 132.3 reported for duty in April, but being unfamiliar with a joint operation of this magnitude, it took a considerable period of indoctrination before any meaning could be attached to the communication plan as outlined by the J-5 division of JTF 132.

Hence, from being placed in the position of arriving late and entering into the communication planning picture after much had been done, it is nevertheless deemed necessary to advance a few suggestions relating to Task Group coordination, which it is felt would increase the efficiency of any future operations of this type.

[redacted]

[redacted]

More specifically, the coordination items referred to are those relating to assignment of frequencies, voice and CW call signs, and the procurement of crystals. None of these problems had been solved to the satisfaction of any of the task groups upon their arrival in the forward area, and each required considerable last-minute juggling on the part of J-5 of JTF 132, and the various communication officers of the task groups concerned, to rectify the discrepancies. It is felt that the majority of these problems could have been coordinated in Washington prior to movement to the forward area, if a conference had been called of all key communication personnel connected with the various task groups.

Headquarters, JTF 132 requested each task group separately to submit frequency requirements, which in turn had to be resubmitted to various agencies for approval prior final assignment. CTG 132.3 frequency requirements were submitted during early May, but the final approved list did not return from CJTF 132 until August, just prior the Task Groups' departure to the forward area, and it was impossible to complete a stenciled frequency chart at this late date for distribution to the various units of the task group prior departure from the Washington area. The end result was that the first draft of the Navy Frequency Plan was not completed and ready for distribution until after the task group staff arrived on the West Coast. Upon arrival in the forward area, it was found that changes were to be made to the various frequency plans of the different elements of the Task Force, which resulted in a second frequency plan being published. This in turn had to be changed necessitating the compilation of a third and final frequency plan.

[redacted]

[redacted]

This final plan proved to be operational in all respects, but it is felt that this could have been accomplished sooner if firm plans could have been made and adhered to, instead of allowing task groups to make last minute changes.

The crystal requirements proved to be a considerable headache, and the major difficulty arose in trying to fulfill the crystal requirements of CTG 132.4 who requested numerous crystals which are not normally found in Navy supply. Because the Air Force and the Navy have different crystal allowance lists, it is recommended that in the future, crystal requirements which the Navy must furnish for any of the different task force elements be compiled using the BUSHIPS authorized crystal allowance list as a basis. Any crystal requirements not found on this list should be kept to a minimum, and the requirement submitted in sufficient time to allow for special grinding.

The final assignment of Voice Calls to the various units tended to be somewhat confusing from a Navy standpoint. Each Task Group was requested to submit call sign requirements, which they did, but the resulting lists were not coordinated sufficiently for clarity. The result was that several ships had as many as three call signs assigned for use during the operation. It is suggested for a future operation that Navy ships utilize their usual JANAP 119 Navy voice call signs rather than special voice calls as were assigned. Using this as a basis, the final call sign list could quickly be compiled.

[redacted]

[redacted]

C. PERSONNEL PROBLEMS

Due to the complexity of the communication requirements of Headquarters JTF 132, it is strongly recommended that CJTF 132 send a liaison officer who is familiar in all respects with communication and electronic requirements of CJTF 132 to the Headquarters flagship approximately thirty days prior departure for the forward area in order to coordinate those requirements with the ship. It is felt that if this is done, a smoother transition from ashore to afloat communications would be the result.

It was found that several ships within the Task Group were not up to full personnel strength in communication ratings, which caused watch-and-watch situations during the periods of peak activity of the operation. [redacted] It is therefore recommended that where such personnel deficiencies exist, the type commander be notified, and that he be requested to bring those ships up to allowance prior to the operation. This is recognizing the fact that electronic and communication ratings are extremely critical, and that an active and vigorous training program should be instituted.

The enlisted personnel requirements of this staff were determined to be four signalmen, six radiomen, and six telemen, all qualified in their speciality. This request for personnel was submitted to BUPERS, and was approved as part of the Flag Allowance. COMSERVPAC was directed to fill the allowance, and have the men report directly to the Task Group Flagship, the USS RENDOVA (CVE-114), for reasons of integration with the ship's component, and for training. It was found that a number of the

[redacted]

communication personnel assigned to the Flag Allowance were not qualified in their speciality, and it is understandable due to the shortage of communication ratings. An intensive program was instituted under the direction of the Communication Officer of the USS RENDOVA, and this improved the situation considerably. It is therefore recommended that a similar procedure be followed in future operations, and that the personnel be directed to report to the flagship sufficiently in advance of departure for the forward area so that a training program can be instituted.

It is further recommended that in an operation of this type where MSTS ships manned with civilian crews are to be used, and the volume of communication traffic is very heavy, that communication teams be assigned who are entirely familiar with all aspects of Navy and joint communication procedure and operation. During the past operation communications with the MSTS [redacted] extremely slow. There was also a serious breach of security which resulted in the possible compromise of a strip cipher key list, and it is felt that these incidents can be traced to the inexperience of the communication personnel on board those ships.

It is strongly recommended that at least one crypto repairman be assigned to the Task Group. During the past operation, the services of a crypto repairman were needed on several different occasions, and it was found inconvenient to make arrangements for the services of the only CRF man available, who was attached to CTG 132.2. Any AGC type ship which is considered a minor crypto repair facility is entitled to one crypto repairman, and a check should be made to see that this allowance is filled. However, during IVY, the USS ESTES did not have such personnel available.

[redacted]

[redacted]

D. FLOW OF TRAFFIC

On the whole, the flow of traffic between Navy units and shore establishments during the peak periods of IVY was good, however, some aspects of passing traffic from Headquarters, JTF 132 to CTG 132.3 can be and should be improved. On several occasions, it was noted that PRIORITY and OPERATIONAL IMMEDIATE traffic took as much as two to three hours to cover the distance from PARRY ISLAND to the Task Group Flagship at its anchorage in the Eniwetok Lagoon. This can be attributed in part to the fact that landline cable circuits were overloaded, and that Headquarters had no direct line to this command and had to pass traffic through CTG 132.2.

Therefore, it is strongly recommended that during the ashore period of the Headquarters group that a beach visual signal tower be established, and/or that headquarters man the Task Group CW common so that there will be a quick and accurate means of passing traffic between headquarters and this command. Ideally, this situation could be remedied by the simple expedient of having adjacent communication centers, where the flow of traffic would be almost instantaneous.

It should be pointed out that a continuous check on circuit discipline and circuit procedure is necessary to keep communication lines open for essential traffic. On the whole, the circuit discipline could be considered adequate during the past operation except for a few occasions where remedial action was necessary.

E. EQUIPMENT PERFORMANCE

All Navy shipboard electronics equipment operated in a very satisfactory manner with the exception of the Mark X IFF, and that can be attributed to

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[redacted]

unfamiliarity of the equipment, as it is new gear and was especially installed for IVY. The few other equipment failures that occurred can be attributed as operational in nature, and were quickly repaired.

The landline telephone service was excellent while it was operating, but had a tendency to short out, with various explanations being given as to the cause or causes for the failure. However, regardless of the cause, and as long as the major ships are so dependent upon the telephone cable system, it is recommended that the cables be installed and checked in advance of the arrival of ships to the forward area to make sure that they are fully operative. During the past operation, upon the arrival of the USS MENDOVA, CTG 132.3 Flagship, the telephone cable to her buoy was not installed and this was not remedied until one week after her arrival.

[redacted]/TRC-3 proved to be very important, and was a very essential piece of equipment as a backup to the landline telephone cable system, and also as a vital link in furnishing telephone communications during the afloat stage of the Task Force. The only serious drawback encountered with the AN/TRC-3 equipment is that it is a radio circuit, and matters classified in nature, could not be discussed as was the case on the landline telephone system.

The SCR 508 portable radio, which operates in the 20-27 mcs range, also proved to be of great value to the Task Group. This set is easily installed, and was used with success by the Task Group Boat Pool and other units of the Task Group. Due to the reliability and adaptability of this equipment, it is recommended that provisions be made to equip all ships of the Task Group with this radio equipment, and this will be pointed out more

[redacted]

[redacted]

fully in another section of this report.

F. CIRCUIT REQUIREMENTS

On the whole, the frequency plan evolved as Appendix 1 to Annex Item of CTG 132.3 OpPlan 1-52 is considered adequate with very few changes, providing no additional requirements are necessary or required by CJTF 132 for any future operation of this type. This frequency plan was evolved from a list of frequency requirements promulgated by CJTF 132 Hqs in their OpPlan 2-52, and which was modified to fit the Navy Task Group needs after certain duplicatory circuits were eliminated. Therefore, with the following exceptions, and providing no further requirements are imposed, the frequency plan is considered adequate and workable:

(a) A direct telephone line or radio circuit from the patrol [redacted] director ship (CVE) and the control tower on ENIWETOK ISLAND. This is considered necessary to pass up-to-date information on the movement of aircraft, which will tend to eliminate a good number of bogey alerts which were numerous during the past operation.

(b) Provisions should be made for a direct line to SAR headquarters, which during the past operation was located in KWAJALEIN. This direct line should be in addition to the CTG 132.3-KWAJALEIN circuit indicated in the OpPlan, as that circuit was used primarily to pass Navy ship-shore traffic, and proved very valuable. The need for a circuit of this type was apparent when considerable delay was encountered in trying to reach the SAR headquarters during two SAR alerts.

G. COMMUNICATION TRAINING

A vigorous program of training was conducted on board the flagship (USS RENDOVA) prior the staff's arrival on the West Coast, as all

[redacted]

[redacted]

communication personnel were ordered direct to the flagship for training and indoctrination about six weeks prior the ship's departure from the West Coast enroute to the forward area.

During the passage from San Francisco to the forward area, visual signalling drills were held daily, but since the Task Unit was traveling in a condition of radio silence, it was not possible to hold radio drills.

Upon arrival in the forward area, the communication personnel began standing a watch-in-three, and this arrangement left very little time available for radio or visual drill, other than those who were given drill instructions to become proficient in their ratings.

Upon the return trip to CONUS, visual, radio, and flag hoist drills were held as practicable.

[redacted]

H. INSTALLATION OF ADDITIONAL EQUIPMENT

It is recommended that each ship be given a minimum of one SCR 508 with rectifier in addition to their regular electronics allowance, as this would give every ship two common frequencies which could be used as either tactical manuevering circuits or for the time and warning signals. Much last minute improvising had to be accomplished during the past operation to cover all ships on the above two types of circuits. The SCR 508's can be shipped to the forward area with the boat pool, and can be easily installed by the ship's force in a matter of a few hours.

It is further recommended that the USS CURTISS (AV-4) be given, in addition to her present electronics allowance, an AN/ARC-1 to supplement her present VHF requirements. This request is deemed reasonable due to the tremendous importance attached to the use of VHF frequencies in an operation of this type.

[redacted]

[redacted]

I. EQUIPMENT INSTALLATION

The majority of shipboard requests for installation of electronics equipment came from either CJTF 132 or CTG 132.4. These requests were received in ample time, and where modifications were necessary to ships attached to Task Group 132.3, they were approved by CNO, and the necessary availabilities for the ships concerned were arranged. All installations requested were completed prior the departure of ships from the United States. It was noted, however, that some equipment which was requested was not used sufficiently to warrant the cost involved and the modifications necessary aboard ship. The two specific items which come to mind are the Multiplex Teletype equipment installed on board the USS ESTES, and the Sigtot equipment installed on board the USS ESTES, USS RENDOVA, and the USS CURTISS. The Multiplex Teletype equipment was installed at the request of CTG 132.4 who expressed the opinion that without this equipment, their mission in the operation would be seriously impaired. The end result, however, was that the equipment was never used, and was installed at great cost to the Task Force. In the case of the Sigtot equipment, which was requested by Headquarters, CJTF 132, the equipment was used to send but two messages. This type of equipment, although from a crypto standpoint very secure, is of use to only two holders, the originator and one addressee, and the majority of messages transmitted during IVY were to more than one addressee.

It is recommended that in future operations of this type, groups of the Task Force screen their requests for shipboard electronics installations, and request only those absolutely necessary to successfully carry out their mission.

[redacted]

[redacted]

J. CLASSIFICATION, PRECEDENCE, AND ABBREVIATIONS

During Operation IVY, many messages were handled which indicated a failure on the part of the originator to follow joint instructions concerning assignment of classification. The natural tendency for overclassification was apparent continuously, and may be explained to a certain extent as evidence of the drafters' desires to maintain the security of the operation. However, the net effect derived by this malpractice is well known as the higher classifications lose their significance when overused. One of the most frequent types of overclassification occurred in replies, or other brief references to other classified messages. Instead of classifying each message and each reference to a message according to its own merits, too many originators apparently considered the classification of [redacted] subsequent messages to have been inflexibly determined as that of the original message concerning the subject matter. Specifically, adherence to the recent change (USF 70B) to the rules regarding unclassified references to classified messages was not uniform.

On the other hand, there were instances of underclassification, but they were, of course, fewer in number than the opposite error. Without citing specific examples, it may be said that some rough drafts, marked as unclassified but implicitly being classified restricted security information, were received in the communications center with instructions to be transmitted visually. If these instructions were followed exactly, a dangerous situation might conceivably arise, not in the visual transmission, but in a subsequent radio relay. This would be prevented by the drafters' following the correct procedure of classifying the messages and letting the

[redacted]

communication personnel determine whether or not plain language transmission is desirable.

A closely related detraction from communication efficiency during IVY was the excessive use of high precedence. This again is a common tendency, and so all personnel responsible for any phase of communications must be cautioned on the subject. Overuse of the higher precedences must be reduced to a bare minimum, otherwise they become worthless. Due to the nature of this operation, with its continuous air patrol, critical time schedules and other unique aspects, actual emergencies have a relatively high probability of arising at any time. Their rapid solution depends on communications, and communications personnel have only the precedence to indicate the relative order of handling and delivery of messages. Therefore, it behooves all concerned to carefully consider the assignment of precedence to each message, and, when in doubt, to use the lower of two possibilities. In the Task Group most messages are delivered directly on one of the intrinsic circuits; i.e., no relays are required, thus the use of high precedence is oftentimes meaningless. A message assigned a lower precedence would be delivered to all addressees just as rapidly, and would let the higher precedence designations actually indicate more urgent traffic. This undesirable practice can be eliminated if originators are familiar with, and communications personnel adhere to, the prescribed standards of handling as stated in Article 1571, USF 70B.

Assignment of dual precedence to multiple address messages is another excellent means of improving efficiency of communications. Although CJTF 132 Communication Operating Instructions specify that dual precedence should not be used for classified traffic, it is recommended that this be changed so

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as to pertain only to codress messages. JANAP 121A and USF 7CB both permit dual precedence for multiple address messages.

In order to reduce the twin hazards of overclassification and too high precedence, it is recommoned that all commands invite the attention of all officers who will draft or release, and all personnel who will handle messages to Chapter V of JANAP 121A and Section 170 of USF 7CB, both entitled "Message Preparation." Only by conscious, educated effort can the goal of proper classification and precedence assignment be achieved.

Another undesirable practice, which was the responsibility of communications personnel rather than drafters, was the use of improper abbreviations. This was especially true in encrypted traffic where ambiguity between unauthorized abbreviations and garbles definitely reduced the rapidity and endangered the reliability of communications. The sole purpose of abbreviations is to increase rapidity, but this goal is certainly not reached when repetitions are required to rectify the doubt caused by incorrect abbreviations. The only abbreviations authorized for joint use are those listed in JANAP 132 and those listed in procedure JANAP's. Navy commands may also use DNC-25, but only for intra-service messages. During IVY, Air Force and Army crypto personnel consistently used abbreviations in joint messages not to be found in those publications. It is recommended that stricter attention be paid to using only authorized abbreviations during any future operations.

K. CRYPTOGRAPHIC

CTG 132.3 holds a class five cryptographic allowance as determined by CNO. The difference between this and the flagship class four allowance was drawn both for convenience and security purposes, as the necessary stowage space was not available on board the flagship to handle a full class five

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[redacted]

allowance for the flag in addition to the ship's class four allowance.

In reviewing the classified traffic, it was found that cryptographic channels most generally used were 103 and 143. Very little traffic was received or sent in class five channels.

As the flagship had only two ECM machines, backlogs of both incoming and outgoing messages were accumulated during peak periods of the operation due to inadequate coding facilities. It is therefore recommended that at least three ECM machines and additional coding baskets be available to facilitate classified message handling.

Considerable difficulty was encountered in sending classified messages of general interest to various units of the Task Group as there were a variety of cryptographic allowances held. Guard mail and visual means were used where practicable, but in many cases, due to the employment of the ships, classified messages had to be encrypted in more than one system to effect delivery. This slowed communications considerably, and placed an additional burden on the coding board and other communication personnel. It is therefore recommended insofar as practicable that all Navy ships assigned to similar operations of this type be given a temporary class three crypto allowance for the duration of the operation. This recommendation would seem justified in the light of the non-combatant nature of the operation.

L. INTERFERENCE

No pronounced nor deliberate interference was experienced by ships of the Navy Task Group, other than normal atmospheric conditions which interferred with reception during certain periods of the day.

No unusual transmitting or receiving phenomena was recorded by ships of the Task Group following either Mike or King Shot.

[redacted]

[redacted]

M. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

1. That it is essential for the Navy Task Group to be formed in ample time to take part in all phases of planning in any future operation of this type.

2. That communication planning not be done on an individual task group basis, but that planning be coordinated through a series of conferences at Task Force Headquarters with all of the different Task Groups communication personnel concerned present.

3. That sufficiently advanced planning be completed by all task groups of the Task Force prior departure to the forward area, with only minimum changes being allowed thereafter.

4. That a CJTF 132 liaison officer who is familiar in all respects [redacted] electronics and communication requirements of CJTF 132 be sent to the Headquarters flagship at least 30 days prior departure of that ship from the United States.

5. That it is essential all ships of the Task Group have a full allowance of all communication ratings.

6. That additional communication personnel fully familiar with Navy and joint communication procedure be assigned to civilian-manned MSTS ships which may participate in any future operations of this type.

7. That at least one cryptographic repairman be assigned to the Navy Task Group.

8. That a signal tower be established on PARRY ISLAND.

9. That the landline telephone cable system be installed and fully operative prior the arrival of ships to the forward area.

[redacted]

[redacted]

10. That at least one SCR 508 portable radio set be placed aboard each ship participating in the operation.

11. That all Navy ships assigned to future operations of this type be given at least a temporary class three crypto allowance.

12. That at least three ECM machines are available for use on the Task Group flagship.

13. That an intensive and vigorous training program for all communication personnel be instituted prior departure for the forward area.

14. That an educative program be instituted to fully acquaint officer personnel with the mechanics of message classification and procedence.

15. That a continuous check on radio circuit discipline and [redacted] be maintained.

16. That crystal requirements be kept within the scope of the standard Navy allowance lists to the extent practicable.

17. That Navy ships use their regularly assigned JANAP 119 voice calls in similar operations of this type.

18. That a Combat Information Net be designated to include all patrol aircraft, the Combat Information Center of all ships, and the landing field control tower.

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[redacted]

PART 17 - MEDICAL

In general, the health of personnel of Task Group 132.3 was very good. Two (2) accidental deaths occurred; one from drowning, the other following multiple injuries incurred when an LCM ran over an individual swimming in the lagoon. The very large part of the medical and surgical care and treatment of naval personnel was accomplished by the medical departments of the ships of the task group. The Army Hospital on Eniwetok treated those naval personnel who required emergency treatment while ashore or who were referred to them for treatment. The latter group consisted mainly of a few surgical cases, and three (3) cases of mumps requiring isolation. Nine (9) patients were evacuated to Tripler General Hospital, Oahu.

The problems of atomic medicine were discussed with each of the ship's medical departments, and were incorporated in the atomic defense exercises which each ship carried out. Those individuals considered most likely to receive radiation exposure, received radiological physical examinations. No one received as much as three roentgens of ionizing radiation, which was the maximum permissable dose for Operation IVY. No medical follow-up studies or examinations were necessary.

RECOMMENDATIONS FOR FUTURE OPERATIONS

1. Those naval personnel who require more adequate care and treatment than the particular ship can provide, and who, following interval treatment, will very likely be evacuated from the operational area, should be transferred to the Army Hospital initially rather than to another ship, as the latter would involve unnecessary handling of the patient.

[redacted]

[redacted]

2. Inasmuch as the Naval Dispensary on Kwajalein cannot offer any more in the way of diagnosis and treatment than the Army Hospital on Eniwetok, all personnel requiring medical evacuation should be sent to Tripler General Hospital, Oahu.

3. To insure adequate time for conducting radiological physical examinations and to disseminate general information regarding radiological hazards, the sections of the Radiological Safety Annexes dealing with same should be down-graded in classification and given a wider distribution than the Operation Plan itself.

[redacted]

[redacted]

[redacted]

18 - RECREATION

A Task Group to carry out its mission most effectively must be kept in a high state of morale. During peaceful advanced base operations, with no promise of combat nor impetus of competition, adequate recreation facilities become of considerable importance to the maintenance of interest and well being of personnel.

At Eniwetok Atoll such facilities as exist have a limited capacity not much beyond the needs of the permanent garrison force.

Inhabited areas north of Eniwetok Island are restricted to the holders of "Q" clearances, and the facilities of Eniwetok Island are utilized by the garrison force to the extent that a limit of 400 men per day is placed upon the liberty party which may be landed there. For Task Group 132.3 this figure was at times less than ten percent of the personnel strength present.

Recognizing in advance that this situation would exist, CTG 132.3 sought and obtained permission of the Task Force Commander to establish temporary recreation facilities on two uninhabited islands of the atoll. One of these was Aaraanbiru near the northern end of the lagoon which might be used by the CURTISS and her accompanying DDE in the northern anchorage; the other was Japtan Island just north of Deep Entrance and convenient to ships in the southern anchorages.

Little was done toward development of Aaraanbiru, but it offered a good location for swimming, shell hunting, picnics and beach sports.

Japtan, on the other hand, offered a challange to the imaginative. It is story book South Pacific island with an abondoned coconut grove,

[redacted]

lush tropical undergrowth, surf pounding its windward reef and a clean sandy beach on its lagoon side. It is served by an excellent boat pier and has a telephone connection with the southern islands.

To exploit the possibilities of Japtan Island a Task Group Recreation Council was appointed with CAPT J.S. HOLTWICK, Jr. of the ESTES as Senior Member, and a grant of $2,000 was obtained from the Rupers Recreation Fund. Lumber for the erection of a temporary pavillion was purchased and two 675 cu. ft. advanced base reefers and ice cream freezers were obtained on a loan basis through ComServPac. A public address system, record player and a stock of records were also obtained on a loan basis.

With a borrowed truck and bulldozer, and with working parties from the OAK HILL, one of the first vessels of the Task Group to arrive, work was well underway toward clearing away unwanted underbrush, opening trails, disposing of vast quantities of rubbish and grading a clear area for athletic fields by the time the larger ships of the Task Group arrived.

Then soft ball diamonds, volley ball courts, horse shoe pits and a miniature golf course were laid out, and shuffle board courts were painted on some abandoned concrete shelter decks.

Holmes & Narver Inc., AEC contractors in the area, agreed to leave standing one screened shelter and one dilapidated quonset hut on the island; so it was not necessary to build the intended pavillion. The lumber was used instead to build a shelter for the reefers and ice cream machines which were set up and to fabricate picnic tables.

A small permanent detail was ordered ashore to care for the equipment and supervise policing of the area. An instruction was issued to

[redacted]

establish minimal regulations for the use of the facilities, and on 27 September 1952 the island was opened for recreation.

Beer and soft drinks and fruit juices were stocked from stores brought forward in Task Group ships, and these were sold at a slight profit to defray costs of athletic equipment purchased for common use.

Impromptu ball games were arranged, and all facilities of the island were utilized to capacity to the obvious enjoyment of recreation parties. It can be said without question that the men enjoyed their relaxation on Japtan more than any other recreation while in the forward area.

Unfortunately, this bright picture is dulled by the occurance of a freak but tragic accident in which two men engaged in underwater fishing off Japtan beach were run over and seriously injured, one fatally, by an LCM approaching the island. The Investigation in this case found no blame attached to the boat crew.

It was unfortunate, also, that it was deemed necessary to evacuate all equipment from the island prior to MIKE shot because of a predicted probability that the northern end of the island would be inundated as a result of this first test. Such was not the case, as it turned out; but, with the reefers dismanteled and prepared for shipment, and with athletic gear inventoried and packaged for storage, it would not have been worth the effort to restore and again rollup facilities for the brief usage they would have before termination of Operation IVY.

[redacted]

In the roll up period all borrowed equipment was returned to ComServPac. The athletic gear purchased with recreation funds was packed and left for storage with the Special Services Officer, TG 132.2, Eniwetok. Of the $2000.00 obtained for Task Group use, only $924.22 was expended, the remainder being added to the Pacific Fleet Recreation Fund from which aid might therefore be sought in a similar enterprise for the forthcoming operation.

Profits generated are being proportioned among the Recreation Funds of contributing ships.

It is strongly recommended that prosecution of a similar program be [redacted] at an early date in the planning phase.

[redacted]