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17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

This report has had the classified information removed and has been republished in unclassified form for public release. This work was performed by Kaman Tempo under contract DNA001-79-C-0455 with the close cooperation of the Classification Management Division of the Defense Nuclear Agency.

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Operation REDWING
Joint Task Force SEVEN

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The Operation Plan covers and outlines the pertinent missions and tasks of Task Group 7.1. It also is intended as a guide to assist personnel in planning and carrying out their individual tasks since it represents a record of agreements arrived at prior to its compilation.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

FOREWORD

This report has had classified material removed in order to make the information available on an unclassified, open publication basis, to any interested parties. This effort to declassify this report has been accomplished specifically to support the Department of Defense Nuclear Test Personnel Review (NTPR) Program. The objective is to facilitate studies of the low levels of radiation received by some individuals during the atmospheric nuclear test program by making as much information as possible available to all interested parties.

The material which has been deleted is all currently classified as Restricted Data or Formerly Restricted Data under the provision of the Atomic Energy Act of 1954, (as amended) or is National Security Information.

This report has been reproduced directly from available copies of the original material. The locations from which material has been deleted is generally obvious by the spacings and "holes" in the text. Thus the context of the material deleted is identified to assist the reader in the determination of whether the deleted information is germane to his study.

It is the belief of the individuals who have participated in preparing this report by deleting the classified material and of the Defense Nuclear Agency that the report accurately portrays the contents of the original and that the deleted material is of little or no significance to studies into the amounts or types of radiation received by any individuals during the atmospheric nuclear test program.

09618

HEADQUARTERS
TASK GROUP 7.1
Joint Task Force SEVEN
APO #437, P. O. Box #1
San Francisco, California

2622JFE

16 May 1956

SUBJECT: Revision No. 6 to Task Group 7.1 Operation Order No. 1-56

TO: Distribution

1. Reference is made to Task Group 7.1 Operation Order No. 1-56, SECRET RD, J3-430, dated 25 January 1956, as amended.

2. Delete Note (2) of paragraph 5c of referenced Operation Order. There is no requirement for PAWNEE to be included in the REDWING schedule of events.

FOR THE ACTING COMMANDER:

for R. S. Gattis
W. T. KERWIN
TG 7.1 J-3
Site - Elmar

HEADQUARTERS
TASK GROUP 7.1
Joint Task Force SEVEN
APO #437, P. O. Box #1
San Francisco, California

08192

1687JFE

27 April 1956

SUBJECT: Revision No. 5 to Task Group 7.1 Operation Order No. 1-56, SECRET RD, J3-430, dated 25 January 1956.

TO: Distribution

1. References:

a. Task Group 7.1 Operation Plan No. 1-56, SECRET RD, J3-430, dated 25 January 1956.

b. Revision No. 2 to TG 7.1 Operation Plan No. 1-56, SECRET RD, J3-489, dated 24 February 1956.

2. Reference 1b, above, is amended as follows:

a. Change Ready Date for CHEROKEE to read 8 May.

b. Change Ready Date for LACROSSE to read 29 April.

c. Change Ready Date for ZUNI to read 15 May.

3. Reference 1a, above is amended as follows:

a. Appendix I to Annex D - "Schedule of Participation in REDWING":

(1) Change the columns under "Participation by Shots" for Bikini Atoll as follows:

(a) FLATHEAD - Add Projects 2.4 and 23.5.

(b) HURON - Add Projects 2.1, 2.2 and 23.5. Delete Project 2.64.

(c) NAVAJO - Add Projects 13.3 and 23.5.

THIS DOCUMENT CONSISTS OF...6..PAGE(S) NO. 2x. OF.194..COPIES, SERIES .A..

(d) Add DAKOTA with participation by the following projects: 2.66, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 6.1, 6.3, 9.1, 9.2, 9.3, 10.1, 10.2, 11.1, 11.2, 13.2, 13.3, 16.3, 18.3, 18.4, 23.5 and 31.1.

(e) APACHE - Add Project 2.62.

(f) Add TEWA with participation by the following projects: 2.62, 2.63, 2.64, 2.65, 2.66, 2.8, 2.9, 2.10, 6.1, 6.3, 9.1, 9.2, 9.3, 10.1, 10.2, 16.3, 21.1, 21.2, 21.3, 22.2, 22.3, 23.1, 23.2, 23.3, 23.5 and 31.1.

(2) Change the columns under "Participation by Shots" for Eniwetok Atoll as follows:

(a) LACROSSE - Add Project 5.7. Delete Project 2.65.

(b) ERIE - Add Projects 1.4, 5.7 and 8.5.

(c) SEMINOLE - Add Project 5.7.

(d) BLACKFOOT - Add Project 5.7. Delete Project 5.3.

(e) INCA - Add Project 5.7.

(f) KICKAPOO - Add Project 5.7. Delete Project 8.5.

(g) MOHAWK - Add Projects 1.3, 1.8, 2.64, 5.7, 5.9 and 19.2.

(3) Add the following new projects:

(a) Project 2.72 - "Evaluation of Standard Navy Dosimeters DT/60/PD and IM-107/PD" - S. C. Rainey - USN - BUSHIPS - FLATHEAD and TEWA.

(b) Project 6.4 - "Determination of Characteristics of Airborne Flush Mounted Antenna and Photo Tubes for Yield Determination at Extended Ground-to-Air Ranges" - A. J. Waters - USAF - ARDC - all Bikini Atoll shots plus LACROSSE.

(c) Project 6.5 - "Analysis of Electromagnetic Pulse Produced by a Nuclear Explosion" - Lt Charles Ong - USA - ESL - all shots.

(4) Change the Project Number 2.7 to Project 2.71.

(5) Add the following new program:

Program No. 35
Title: Radiobiological Survey
Project Officer: Dr. Lauren Donaldson
Sponser: AEC
Agency: Applied Fisheries Laboratory
University of Washington
Participation: Two surveys of Eniwetok Atoll will be made. The first survey will be made about 10 June and the second one after the completion of Operation REDWING.

b. Annex F, Appendix II - Scientific Radio Nets - Page 7, is amended as follows:

(1) AFSAY 806 Net - Delete DEFENSE INFORMATION and add RESTRICTED DATA.

(2) PARRY (Elmer) Island - Delete POGO Office and add ACOS JTF SEVEN.

FOR THE ACTING COMMANDER:

W. T. KERWIN
J-3, TG 7.1
Site - Elmer

WTK/fgr

HEADQUARTERS
TASK GROUP 7.1
Joint Task Force SEVEN
APO #437, P. O. Box #1
San Francisco, California

499JFE

28 March 1956

SUBJECT: Revision No. 4 to Task Group 7.1 Operation Plan No. 1-56, J3-430, dated 25 January 1956

TO: Distribution

1. Reference is made to Task Group 7.1 Operation Plan No. 1-56, SECRET RD, J3-430, dated 25 January 1956.

2. Effective 0001Z, 1 April 1956, Task Group 7.1 Operation Plan No. 1-56 becomes Task Group 7.1 Operation Order No. 1-56 and should be amended accordingly.

FOR THE ACTING COMMANDER:

W. T. KERWIN
J-3 TG 7.1
Site - Elmer

RHG/wha

CHANGE MADE
4/13/56
N.H.

HEADQUARTERS
TASK GROUP 7.1
Joint Task Force SEVEN
P. O. Box 1663
Los Alamos, New Mexico

J3-469

24 February 1956

SUBJECT: Revision No. 2 to Task Group 7.1 Operation Plan No. 1-56, J3-430, dated 25 January 1956

TO: Distribution

1. References:

a. Task Group 7.1 Operation Plan No. 1-56, SECRET RD, J3-430, dated 25 January 1956.

b. Revision No. 1 to TG 7.1 Operation Plan No. 1-56, SECRET RD, J3-466, dated 15 February 1956.

2. The following paragraphs in the references are deleted:

a. Reference 1a above, paragraphs 5a and 5c of Annex C - Concept of Operations.

b. Reference 1b above, paragraph 2.

3. Substitute the following for the deletions:

"5. Shot Schedule:

a. Ready Dates:

(1) The ready dates for Operation REDWING are stated in order to take advantage of every favorable condition. Shots will be fired as rapidly as technical readiness and weather conditions permit. The term "technical readiness" is meant to include analysis of data from earlier shots which will affect plans for subsequent shots, readiness of the devices, construction, instrumentation status, and readiness of major support elements. However, past experience would indicate that the total length of the shot period could be approximately 2 1/2 to 3 1/2 months.

(2) It is emphasized that these ready dates are not necessarily firing dates. For example, there is no intent that we will actually fire both the EUROM on 12 June and DAKOTA on 13 June. Rather, these are dates when we must be ready to fire either one or the other. The selection as to which one will be made in the FPG.

Ready Date	ENIWETOK Group A	ENIWETOK Group B	BIKINI
1 May	-----	LACROSSE (29 April per Rev 5)	CHEROKEE (8 May per Revision
8 May	-----	-----	ZUNI (15 May per Re
23 May	-----	ERIE	-----
28 May	-----	SEMINOLE	-----
1 June	YUMA	-----	-----
2 June	-----	-----	FLATHEAD *See Note (4)
7 June	-----	BLACKFOOT	-----
8 June	INCA	-----	NAVAJO
12 June	-----	-----	HURON
13 June	-----	-----	DAKOTA
14 June	-----	OSAGE	-----
18 June	KICKAPOO	-----	-----
20 June	-----	-----	APACHE
1 July	MOHAWK	-----	-----
7 July	-----	-----	TEWA

b. Description:

Shot Name	Ready Date	Yield	Site
LACROSSE	~~1 May~~ 29 April (Rev 5)	25 - 50 kt	ENIWETOK (Off RUNIT) Ground
CHEROKEE	~~1 May~~ 8 (Rev 5)		BIKINI (NAMU) Air Drop 5000 foot height of burst
ZUNI	~~8 May~~ 15 May (Rev 5	1 - 3 Mt	BIKINI (ENINMAN) Ground
ERIE	23 May		ENIWETOK (RUNIT) 300 foot tover

Shot Name	Date	Model	Yield	Site
[illegible]	29 May			ENIWETOK (BOKON) Ground
TEWA	1 June			ENIWETOK (AOMON) 200 foot tower
FLATHEAD	2 June			BIKINI (YUROCHI) Barge
BLACKFOOT	7 June			ENIWETOK (RUNIT) 200 foot tower
INCA	8 June			ENIWETOK (RUJCRU) 200 foot tower
KATAWO	8 June			BIKINI (YUROCHI) Barge
KURON	12 June			BIKINI (YUROCHI) Barge
DAKOTA	13 June			BIKINI (YUROCHI) Barge.
[illegible]	14 June			ENIWETOK (RUNIT) Air Drop 700 foot height of burst
KICKAPOO	18 June			ENIWETOK (AOMON) 300 foot tower
[illegible]	20 June			BIKINI (YUROCHI) Barge
MOHAWK	1 July			ENIWETOK (BERERIRU) 300 foot tower
TEWA	7 July		6 - 8 Mt	BIKINI (YUROCHI) Barge

c. Notes:

(1) The shot names listed above are unclassified, OFFICIAL USE ONLY, when they are used in context which reveals no more than that they are designations for shots. Any document

listing all of the shot names thus revealing the total number of shots must be classified CONFIDENTIAL. Model names are classified SECRET RESTRICTED DATA.

(2) may be repeated depending upon performance. If so, the shot name for the repeat performance will be PAWNEE, to be detonated at ENIWETOK (ENGEBI) on a 300 foot tower with a yield

(3) The quoted yields are approximate and subject to change. See Appendix IV - Prediction of Effects, to Annex L - Evacuation and Re-entry Plan.

(4) Firing Sequence:

(a) The sequence of firing within Group A at ENIWETOK ..toll is fairly firm.

(b) The sequence of firing within Group B at ENIWETOK Atoll is fairly firm.

(c) The order in which Group A and Group B are intermeshed is not firm.

(d) Particular attention is invited to the BIKINI Atoll shots following ZUNI. These are the earliest dates for these six shots; however, it is highly possible that there will be a substantial rearrangement in the shot sequence. In summary, experimenters must be prepared to accept a radical change in the BIKINI Atoll sequence of firing after ZUNI.

(5) It is possible that either [redacted] may be deleted.

FOR THE ACTING COMMANDER:

W. T. KERWIN
J-3
Plans & Operations

WTK/dnd

[illegible]
of [illegible]
ARM[illegible]RCES SPECIAL W[illegible]S PROJECT
7 [illegible]956

H[illegible] TASK GROUP 7.1
Joint Task Force SEVEN
P. O. Box 1663
Los Alamos, New Mexico

OP PLAN 1.5 . [illegible] 2/15/5[illegible] 0100

J3-466

15 February 1956

SUBJECT: [illegible]ision No. 1 to Task Group 7.1 Operation Plan No. 1-56, J3-430, [illegible]ed 25 January 1956

TO: [illegible]stribution

THIS DOCUMENT CONSISTS OF 5 PAGE(S)
NO. 32 OF 189 COPIES, SERIES A

1. [illegible]erence Task Group 7.1 Operation Plan No. 1-56, SECRET RD, J3-430, dated 25 [illegible]uary 1956.

2. [illegible]agraph 5b of Annex C - Concept of Operation, is revised as follows:

a. Description:

Shot Name	Ready Date	Yield	Site
LACROSSE	1 May	25 - 50 kt	ENIWETOK (Off RUNIT) Ground
CHEROKEE	1 May		BIKINI (NAMU) Air Drop 5000 foot height of burst
ZUNI	15 May		BIKINI (ENINMAN) Ground
ERIE	23 May		ENIWETOK (RUNIT) 300 foot tower
SEMINOLE	28 May		ENIWETOK (BOGON) Ground
YUMA	1 June		ENIWETOK (AOMON) 200 foot tower
FLATHEAD	2 June		BIKINI (YUROCHI) Barge

Shot Name	Ready Date	Yield	Site
BLACKFOOT	7 June		ENIWETOK (RUNIT) 200 foot tower
INCA	8 June		ENIWETOK (RUJORU) 200 foot tower
HURON	12 June		BIKINI (YUROCHI) Barge
OSAGE	14 June		ENIWETOK (RUNIT) Air Drop 700 foot height of burst
KICKAPOO	18 June		ENIWETOK (AOMON) 300 foot tower
NAVAJO	18 June		BIKINI (YUROCHI) Barge
MOHAWK	1 July		ENIWETOK (EBERIRU) 300 foot tower
APACHE	1 July		BIKINI (YUROCHI) Barge
TEWA	7 July	6 - 8 Kt	BIKINI (YUROCHI) Barge

3. Appendix II to Annex 3, Organization and Command Relationships, page B-II-1. The Organization Chart is revised to indicate Ralph Carlisle Smith as Classification and Technical Reports Officer instead of R. H. Ball.

4. Annex A, Distribution, page A-2. Under TG 7.1, Classification, the Distribution List is revised to indicate Ralph Carlisle Smith instead of Russell H. Ball.

5. Appendix I to Annex D, Experimental Projects, page D-I-5. The Participation Chart is revised to include Project 19.2, "Bats", under Program 19. The Project Director is L. Allen; sponsor is LASL; agency is J-15 and the shot participation is ERIE.

FOR THE ACTING COMMANDER:

W. T. KUNIN
J-3
Plans & Operations

EAL/fgr

COMMANDER TASK GROUP 7.1
OPERATION NO. 1-56
ORDER

FOREWORD

1. Operation REDWING is a test series of nuclear and thermonuclear weapons and devices scheduled for the Pacific Proving Ground during the Spring and Summer of 1956.

2. The Operation Plan covers and outlines the pertinent missions and tasks of Task Group 7.1. It also is intended as a guide to assist personnel in planning and carrying out their individual tasks since it represents a record of agreements arrived at prior to its compilation.

3. So as to disseminate the information at a time when it is required by the using agencies, it is necessary that the Operation Plan be published and distributed several months in advance. To do so, however, may result in subsequent changes being made. These changes may result from many sources and conditions but it is not considered that they discount the value and importance of the plan. As these changes occur, the information will be disseminated.

Gaelen L. Felt
GAELEN L. FELT
ACTING COMMANDER

INDEX

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

OPERATION PLAN CTG 7.1 NO. 1-56

References:

a. US Navy Hydrographic Chart No. 5203, North PACIFIC OCEAN, MARSHALL Islands.

b. US Navy Hydrographic Chart No. 6032, North PACIFIC OCEAN, MARSHALL Islands, Northern Part, BIKINI Atoll.

c. US Navy Hydrographic Chart No. 6033, North PACIFIC OCEAN, MARSHALL Islands, ENIWETOK Atoll.

Task Organization: See Appendix II to Annex B - Organization and Command Relationships, for details.

a.	Task Unit 1	(Not designated)
b.	Task Unit 2	G. W. Johnson
c.	Task Unit 3	K. D. Coleman
d.	Task Unit 4	D. B. Shuster
e.	Task Unit 5	H. E. Grier
f.	Task Unit 6	E. L. Jenkins
g.	Task Unit 7	G. L. Jacks
h.	Task Unit 8	L. M. Gardner
i.	Task Unit 9	R. H. Jaeger
j.	Task Unit 10	F. K. Tallmadge
k.	Task Unit 11	F. Fairbrother
l.	Task Unit 12	A. C. Haussmann

1. General Situation:

a. This plan is based on and in accordance with Commander Joint Task Force (CJTF) SEVEN Planning Directive No. 1-55 for Operation REDWING, dated 10 August 1955, and CJTF SEVEN Operation Plan No. 1-56, dated 20 January 1956.

b. The US Atomic Energy Commission (AEC) has scheduled a test series of nuclear and thermonuclear weapons and devices at the Pacific Proving Ground (PPG) during the Spring and Summer of 1956. The present schedule contemplates that sixteen weapons and devices will be detonated. The tentative ready date for the first shot is 1 May 1956 and it is estimated that the total length of the shot period will be approximately two and one-half to three and one-half months. Diagnostic programs as proposed by AEC laboratories and weapons effects programs, initiated and developed by the Armed Forces Special Weapons Project (AFSWP) and approved by the Department of Defense (DOD), will be conducted.

c. By decision of the Joint Chiefs of Staff (JCS) on 8 July 1955, CJTF SEVEN was directed to prepare for and conduct this test series known as Operation REDWING. JTF SEVEN is commanded by Rear Admiral B. Hall Hanlon, US Navy, with the Chief of Naval Operations (CNO) designated as executive agent for the JCS for all matters pertaining to Operation REDWING. By authority of the Chairman, AEC, CJTF SEVEN is designated as the over-all representative of the AEC during the operational shot period and as such has full authority to make on-the-spot decisions in the interest of safety, security and the accomplishment of the JTF mission.

d. JTF SEVEN is organized as follows:

TG 7.1 (Scientific)	Gaelen L. Felt, LASL (Acting)
TG 7.2 (Army)	Col Roger M. Lilly, USA
TG 7.3 (Navy)	RADM Joseph H. Wellings, USN
TG 7.4 (Air Force).	Col John S. Samuel, USAF
TG 7.5 (AEC Base Facilities). . .	James E. Reeves, AEC

e. See Annex B - Organization and Command Relationships for greater detail as to the JTF SEVEN organization and its relationships to TG 7.1.

2. Mission:

a. TG 7.1 will position, arm and detonate the nuclear and thermonuclear weapons and experimental devices designed and fabricated by the

scientific laboratories, make diagnostic measurements of the detonations and conduct weapons effects programs.

b. A summary of tasks to be accomplished by CTG 7.1 in order to implement the above mission is indicated in Annex C - Concept of Operations.

3. Tasks of Subordinate Units:

a. TU-1:

(1) Designs and carries out experiments required for LASL weapons development.

(2) Reviews and approves the construction requirements of the scientific programs under the supervision of TU-1.

(3) Administers the technical phases of the contracts of LASL and certain AEC scientific contractors.

(4) Prepares technical reports of the scientific programs and projects of TU-1.

b. TU-2:

(1) Designs and carries out experiments required for UCRL weapons development.

(2) Reviews and approves the construction requirements of the UCRL scientific program.

(3) Administers the technical phases of the contracts of UCRL and certain AEC scientific contractors.

(4) Prepares technical reports of the UCRL scientific programs and projects.

c. TU-3:

(1) Designs and carries out experiments to determine the military effects of atomic detonations as required by DOD.

(2) Reviews and approves construction and support requirements of the military effects program.

(3) Prepares technical reports of the military effects programs.

(4) Designates a site commander for those installations located on WOTHO.

d. TU-4:

(1) Designs and carries out experiments to determine the effects of atomic detonations as programed by the Sandia Corporation.

(2) Reviews and approves construction and support requirements of the program.

(3) Prepares technical reports of the effects programs.

(4) Designates a site commander for those installations located on UJELANG.

e. TU-5:

(1) Supplies timing signals and voice count-down to meet the principle requirements of the experimental programs.

(2) Supplies the firing pulse to the devices to be tested.

(3) Provides and maintains TG 7.1 short-range commercial radio communications at BIKINI and ENIWETOK Atolls.

(4) Performs such scientific measurements, and photography as provided under existing contractual agreements.

f. TU-6:

(1) Arms and detonates (disarms, if necessary) weapons and devices when directed by CTG 7.1. Arming includes making all final connections, tests, adjustments and calibrations necessary to ensure a successful detonation.

(2) Operates the Firing Control Rooms.

(3) Responsible for the entire firing system relative to completeness and adequacy.

(4) See Annex E - Firing Party Plan, for details of operations.

g. TU-7:

(1) Performs all ground monitoring services associated with scientific missions except those in conjunction with aircraft and airborne collection of scientific data.

(2) Provides laboratory services and technical assistance to all task groups, to include:

(a) Distribution and interpretation of film badges to all

task force personnel and maintenance of legal dosimetry records.

(b) Laboratory services for the radiochemical analysis of water samples.

(c) Monitoring the removal and packaging of radioactive sources and samples, except as indicated in paragraph 3g(1) above.

(3) Provides shot atoll radiological safety surface situation maps after shot times to the task force and task group commanders.

(4) Provides and maintains radiac equipment and protective clothing as necessary for TG 7.1, TG 7.5 and any other specified recovery personnel.

(5) Provides technical personnel to assist task group commanders in the inspection of radiologically contaminated items and the certification of destruction, disposal or unserviceability of such items, as required.

(6) Maintains a radiological safety center (Rad-Safe Center) aboard the USNS AINSWORTH (TAP-181) and on PARRY (Elmer) Island for the control of TG 7.1 radiological safety operations at BIKINI and ENIWETOK Atolls respectively. Rad-Safe check points will be established as required.

(7) Provides personnel and equipment decontamination facilities for radiological safety recovery and survey operations.

(8) Assumes radiological safety responsibilities of TG 7.5 during the operational phase.

(9) Integrates within TG 7.1 key radiological safety personnel made available by CTG 7.5. Such personnel will assist CTG 7.1 during the operational phase and will be assigned duties consistent with their training in radiological safety.

(10) See Annex G - Radiological Safety, for details of operation.

h. TU-8:

(1) Provides photographic support to all LASL and LASL contractor personnel as requested by the individual units and personnel authorized such support.

(2) In coordination with Program 9 of TU-3, accomplishes and processes still photography required by DOD programs and projects.

(3) Disseminates finished prints as requested by the organizations for whom the photography was made.

(4) Requisitions, stores, issues, processes and accounts for photographic materials required, in accordance with Annex F - Photographic Material Control, of TG 7.1 Administrative Plan, dated 25 November 1955.

(5) See Annex H - Untimed Technical and Documentary Photography, for details of operations.

i. TU-9:

(1) Provides photographic support for all UCRL and UCRL contractor personnel as requested by individual units and personnel authorized such support.

(2) Establishes and disseminates procedures for the procurement, storage, issue and processing of photographic materials required in accordance with Annex F - Photographic Material Control, of TG 7.1 Administrative Plan, dated 25 November 1955.

j. TU-10:

(1) Monitors and ascertains status of development and readiness of LASL weapons and devices to meet shipment date to the PPG.

(2) Arranges with J-4 for shipment to the PPG of LASL test devices, appropriate spare parts, and the equipment necessary for the assembly and check-out of such devices.

(3) Assembles, checks-out and installs in final position the LASL devices to be tested. Final check-out will be made in coordination with TU-6.

(4) Responsible for the proper and safe movement of LASL weapons and/or devices within the PPG.

(5) Arranges with J-4 for return to the Continental United States (CONUS) or storage on PARRY (Elmer) Island, subject material which remains after the operation is completed.

(6) Responsible for the radiological safety of all personnel at

the zero area for all LASL boosted devices from the time of installation of the device through the time of actual detonation.

k. TU-11:

(1) Monitors and ascertains status of development and readiness of UCRL "A" weapons and devices to meet shipment date to the PPG.

(2) Arranges with J-4 for shipment to the PPG of UCRL "A" test devices, appropriate spare parts, and the equipment necessary for the assembly and check-out of such devices.

(3) Assembles, checks-out and installs in position at the PPG, the UCRL "A" devices to be tested. Coordinates final check-out with TU-6.

(4) Responsible for the proper and safe movement of UCRL "A" weapons and/or devices within the PPG.

(5) Arranges with J-4 the disposition of subject material remaining after operations.

(6) Responsible for the radiological safety of all personnel at the zero area for all UCRL boosted devices from the time of installation of the device through the time of actual detonation.

l. TU-12:

(1) Monitors and ascertains status of development and readiness of UCRL "B" weapons and devices to meet shipment date to the PPG.

(2) Arranges with J-4 for shipment to the PPG of UCRL "B" test devices, appropriate spare parts, and the equipment necessary for the assembly and check-out of such devices.

(3) Assembles, checks-out and installs in position at the PPG, the UCRL "B" devices to be tested. Coordinates final check-out with TU-6.

(4) Responsible for the proper and safe movement of UCRL "B" weapons and/or devices within the PPG.

(5) Arranges with J-4 the disposition of subject material remaining after operations.

x. Further Tasks of Task Unit Commanders:

(1) Inform staff sections as early and expeditiously as possible any operational requirements which have not been covered or provided for and for which staff sections assistance and support are required.

(2) Provide J-3 with timely and current operational information and data, in order that J-3 may formulate and publish the many and varied operational documents such as Shot Schedules, Operational Letters (Movement of Device, Evacuation, Re-entry and Recovery, etc.) and Operation Reports.

(3) Prepare and submit such information as may be requested under the provisions of this plan. Example is the list of critical materials and test equipment to be evacuated in case of an emergency which is requested under Annex M - Typhoon and Tidal Wave Plan.

(4) Insure that personnel and priority cargo are returned to the CONUS expeditiously, commensurate with progress of the construction, instrumentation, recovery and roll-up operations. J-1 and J-4, this headquarters, will be utilized to arrange return transportation.

(5) Supply J-1, this headquarters, upon request, with current lists of personnel requiring access to Exclusion Areas.

(6) Keep CTG 7.1 informed as to the status of their task units, providing specific details of obstacles to the successful and timely accomplishment of their missions.

(7) Insure that personnel under their command comply with current health, safety, Rad-Safe, etc., directives issued by this and other headquarters.

(8) Conduct liaison with all other task unit commanders to the extent necessary to insure adequate inter-task unit support and the proper fulfillment of the overall TG 7.1 mission.

(9) Insure that all personnel under their command have been adequately briefed for emergency operations (Annex M - Typhoon and Tidal Wave Plan).

4. Administration: See TG 7.1 Administrative Plan, dated 25 November 1955.

5. Command and Signal Matters:

a. CTG 7.1 will come under the operational control of CJTF SEVEN at such time as Headquarters TG 7.1 is opened in the PPG. The headquarters is considered opened on the arrival of CTG 7.1.

b. Command Relationships: See Annex B - Organization and Command Relationships, for chart.

c. Command Posts: Higher and Other Headquarters

(1)

Unit	During BIKINI Atoll Shots	Other Times
CJTF SEVEN	USS ESTES (AGC-12)	PARRY (Elmer) Island
CTG 7.1	USS CURTISS (AV-4)	PARRY (Elmer) Island
CTG 7.2	ENIWETOK (Fred) Island	ENIWETOK (Fred) Island
CTG 7.3	USS ESTES (AGC-12)	USS ESTES (AGC-12)
CTG 7.4	USS ESTES (AGC-12)	ENIWETOK (Fred) Island
CTG 7.5	USNS AINSWORTH (TAP-181)	PARRY (Elmer) Island

(2) The command posts for task units of TG 7.1 normally will be located or can be contacted in Building No. 209, PARRY (Elmer) Island, except during BIKINI Atoll shots, at which time, some will be in the USS CURTISS (AV-4).

d. Communications: See Annex F - Communication Plan. All times are MIKE (GCT minus 12). ALL POST-SHOT MESSAGES WHICH RELEASE DATA, REGARDLESS OF DESTINATION, WILL BE RELEASED PERSONALLY BY CTG 7.1.

FOR THE ACTING COMMANDER:

W. T. Kerwin

W. T. KERWIN
J-3
Plans & Operations

Distribution:

Annex A - Distribution

Annexes:

Annex A - O (See Index on Pages 3-4)

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Annex A to CTG 7.1 Operation Plan No. 1-56

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CG, AFSWC	Brig Gen W. M. Canterbury	2	35-36
TG 7.1			
Classification	Russell H. Ball	1	37
Deputy for UCRL	Gerald W. Johnson	2	38-39
Deputy for DOD	Col L. L. Woodward	1	40
Deputy for Administration	Duncan Curry, Jr.	1	41
J-1	Armand W. Kelly	2	42-43
J-3	Walter T. Kerwin, Jr.	12	44-55
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J-6	Robert H. Campbell	4	57-60
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Headquarters Task Group 7.1
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Annex B to CTG 7.1 Operation Plan No. 1-56

ORGANIZATION AND COMMAND RELATIONSHIPS

The organization of TG 7.1 and its command relationships to JTF SEVEN and other task groups are shown on the charts attached as appendices hereto.

Appendices:

I. Relation of TG 7.1 to Other Headquarters

II. Organization Chart, TG 7.1

Headquarters Task Group 7.1
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Appendix I to Annex B
Organization and Command Relationships
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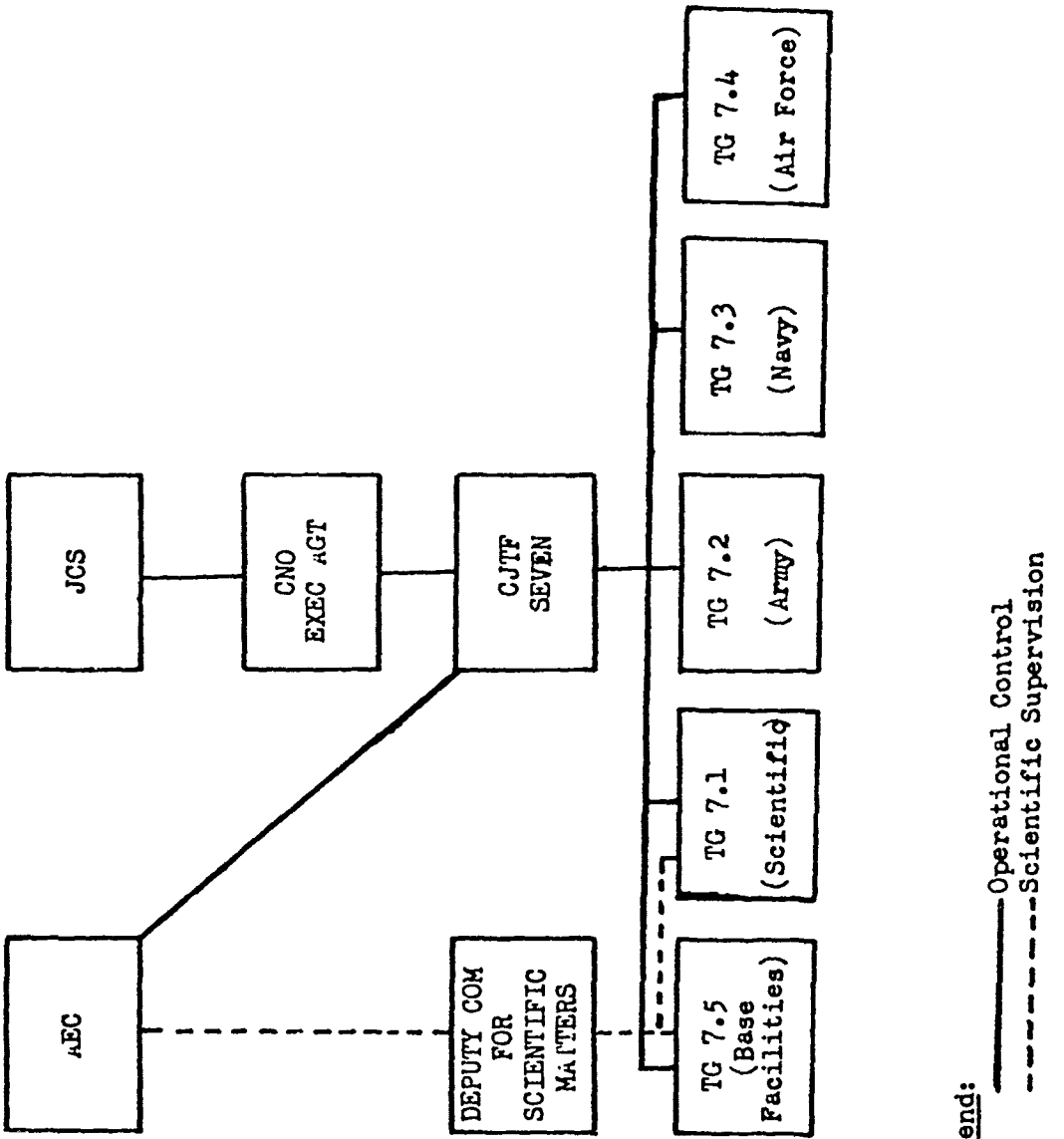
RELATION OF TG 7.1 TO OTHER HEADQUARTERS



Headquarters Task Group 7.1
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Appendix II to Annex B
Organization and Command Relationships
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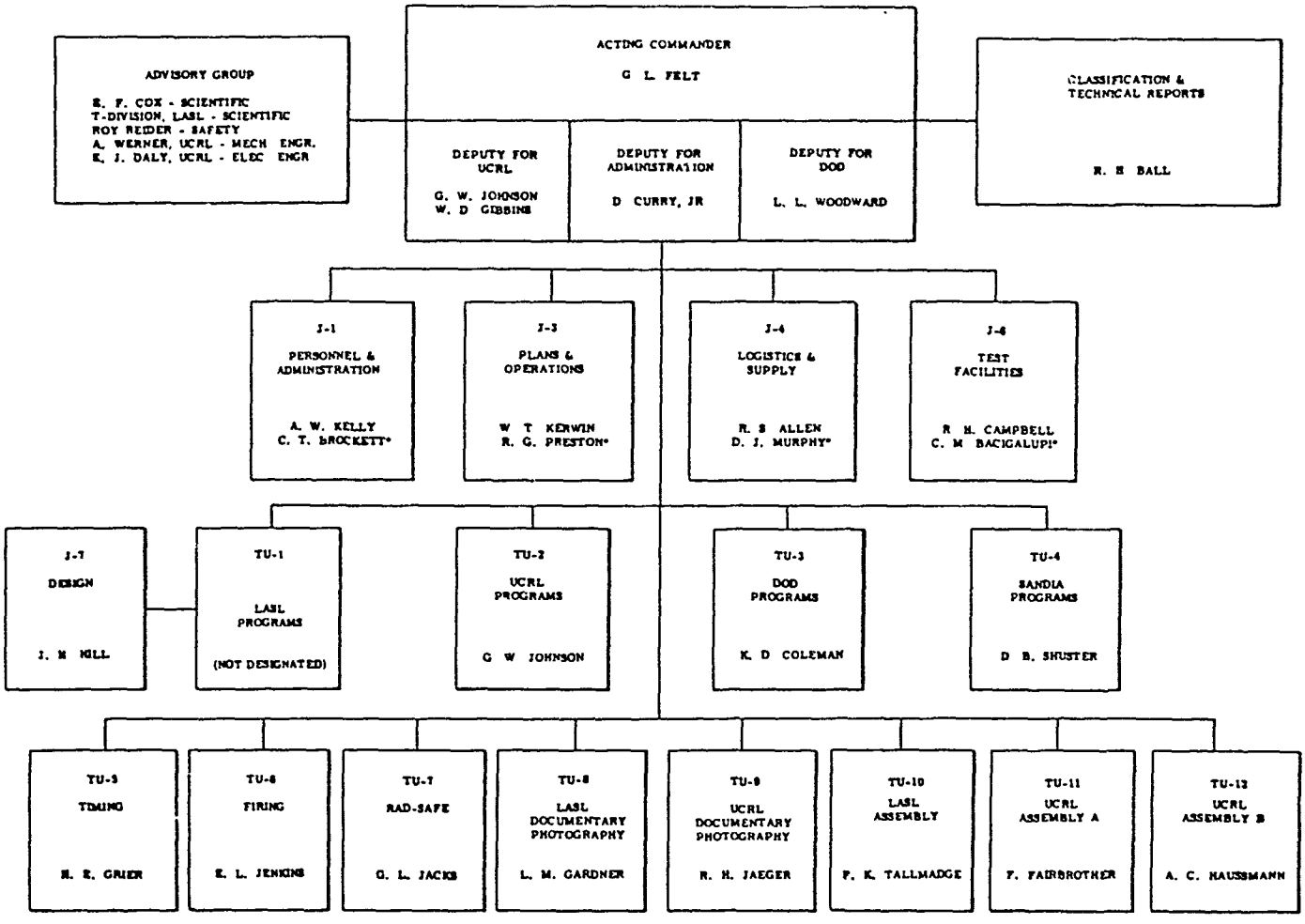
ORGANIZATION CHART, TG 7.1



*Senior UCRL Representative in Staff Section.

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Annex C to CTG 7.1 Operation Plan No. 1-56

CONCEPT OF OPERATIONS

1. General:

a. Tests: Operation REDWING will consist of a series of tests of atomic weapons and devices conducted at the PPG (ENIWETOK and BIKINI Atolls) during the Spring and Summer of 1956. The tentative ready date for the first shot is 1 May 1956, and it is estimated that the test series will be completed approximately 15 August 1956.

b. Scope: This concept covers the salient features of TG 7.1 PPG operations, beginning on or about 15 March 1956 with the movement of the major contingents of the task group to the PPG and ending with the completion of the tests.

2. Mission:

a. Conduct tests of experimental weapons and devices as outlined below.

b. Conduct the technical and measurement programs.

3. Summary of Tasks:

a. Position, arm, and detonate the atomic weapons and components designed and fabricated by the scientific laboratories.

b. Make technical diagnostic measurements of the detonations and report results thereon.

c. In coordination with all agencies, integrate the AEC and DOD measurements programs to achieve maximum economy of funds, personnel and military support.

d. Provide technical assistance during loading, inter-atoll movement, and positioning of the experimental devices and weapons.

e. Be responsible for the removal of all TG 7.1 personnel and necessary equipment from the shot site destruction area.

f. Provide radiological laboratory services, ground monitoring and technical assistance for all elements of the task force.

g. Prepare "quickie" movies of LASL and UCRL weapons if requested by AEC through Hq JTF SEVEN.

h. Provide technical information and assistance to other units as required and necessary.

i. On arrival of AFSWP personnel at the PPG, integrate into TG 7.1 a task unit (TU-3) representing AFSWP which will conduct weapons effects measurements for the DOD.

j. Conduct post-shot damage and radiological contamination surveys and recommend to CJTF SEVEN a re-entry schedule.

k. Provide special communication-electronic facilities and equipment required for the conduct of scientific test programs. In addition, provide voice count down for all elements of the task force. See Annex F - Communicatior Plan.

4. Definitions:

a. Pacific Proving Ground (PPG): Includes the land areas of ENIWETOK and BIKINI Atolls, the areas of the respective lagoons and the water areas within three miles to the seaward side of the respective land areas.

b. Forward Area (FA): Includes the PPG (paragraph 4a, above) and adjoining PACIFIC Areas in which task force personnel are deployed in support of Operation REDWING.

c. Danger Area: Encompasses the PPG and ocean areas bounded as follows: 18° 30' N 158° E - 18° 30' N 172° E - 11° 30' N 172° E - 11° 30' N 166° 16' E - 10° 15' N 166° 16' E - 10° 15' N 158° E extending to 18° 30' N 158° E.

d. Closed Area: Includes the land areas of ENIWETOK and BIKINI Atolls, the areas of the respective lagoons and the water areas within three miles to the seaward side of the respective land areas.

e. Destruction Area: Encompasses the ground and sea areas around the zero point for each shot from which ships and important equipment, not necessary for the diagnostic measurements and effects programs of that shot, shall be removed prior to the detonation.

f. Exclusion Area: A security area containing a security interest which is of such nature that access to this area constitutes, for all practical purposes, access to the security interest contained therein, i.e., a shot site or assembly area.

g. H-Hour: Exact time of detonation of any shot.

h. D-Day: Day of any shot.

i. R-Hour: The time re-entry can commence.

j. C-Day: Day on which the CHEROKEE device will be detonated. Subsequent shot days will be identified in the same manner as C-Day, but utilizing the first letter of the shot code name as shown below in the shot schedule.

5. Shot Schedule:

a. Ready Dates: The earliest ready dates for Operation REDWING are stated in order to take advantage of every favorable condition. Shots will be fired as rapidly as technical readiness and weather conditions permit. The term "technical readiness" is meant to include analysis of data from earlier shots which will affect plans for subsequent shots, readiness of the devices, construction, instrumentation status, and readiness of major support elements. However, past experience would indicate that the total length of the shot period could be approximately 2 1/2 to 3 1/2 months.

Ready Date	ENIWETOK Group A	ENIWETOK Group B	BIKINI
1 May	____	LACROSSE	CHEROKEE
15 May	____	____	ZUNI
23 May	____	ERIE	____
28 May	____	SEMINOLE	____
1 June	YUMA	____	____
2 June	____	____	FLATHEAD
7 June	____	BLACKFOOT	____
8 June	INCA	____	____
12 June	____	____	HURON
14 June	____	OSAGE	____
18 June	KICKAPOO	____	NAVAJO
1 July	MOHAWK	____	APACHE
7 July	____	____	TEWA

b. Description:

Shot Name	Ready Date	Model	Yield	Site
LACROSSE	1 May		25 - 50 kt	ENIWETOK (Off RUNIT) Ground
CHEROKEE	1 May			BIKINI (NAMU) Air Drop 5000 foot height of burst
ZUNI	15 May		1 - 3 Mt	BIKINI (ENINMAN) Ground
ERIE	23 May			ENIWETOK (RUNIT) 300 foot tower
SEMINOLE	28 May			ENIWETOK (BOGON) Ground
YUMA	1 June		Unspecified	ENIWETOK (AOMON) 200 ft tower
FLATHEAD	2 June			BIKINI (YUROCHI) Barge
BLACKFOOT	7 June			ENIWETOK (RUNIT) 200 foot tower
INCA	8 June			ENIWETOK (RUJORU) 200 foot tower
HURON	12 June			BIKINI (YUROCHI) Barge
OSAGE	14 June			ENIWETOK (RUNIT) Air Drop 700 foot height of burst
KICKAPOO	18 June		Unspecified	ENIWETOK (AOMON) 300 foot tower

Shot Name	Ready Date	Model	Yield	Site
NAVAJO	18 June			BIKINI (YUROCHI) Barge
MOHAWK	1 July			ENIWETOK (EBERIRU) 300 foot tower
APACHE	1 July			BIKINI (YUROCHI) Barge
TEWA	7 July		6 - 8 Mt	BIKINI (YUROCHI) Barge

c. Notes:

(1) The shot names listed above are unclassified, OFFICIAL USE ONLY, when they are used in context which reveals no more than that they are designations for shots. Any document listing all of the shot names thus revealing the total number of shots must be classified CONFIDENTIAL. Model names are classified SECRET RESTRICTED DATA.

(2) LACROSSE may be repeated depending upon performance. If so, the shot name for the repeat performance will be PAWNEE, to be detonated at ENIWETOK (ENGEBI) on a 300 foot tower with a yield

(3) The quoted yields are approximate and subject to change. See Appendix IV - Prediction of Effects, to Annex L - Evacuation and Re-entry Plan.

6. Factors Governing Operations:

a. Operation REDWING will require the use of both ENIWETOK and BIKINI Atolls. As a general statement, devices of high yield will be detonated on BIKINI Atoll (See Appendix I for map) and those of lower yields on ENIWETOK Atoll (See Appendix II for map). The zero locations of the scheduled shots are indicated by station number, site and map coordinates in Appendix III - Zero Locations.

b. A capability of firing at either atoll will be maintained. Also, shots may be scheduled at both ENIWETOK and BIKINI Atolls the same day and may be fired within minutes of each other. This two-shot concept will require that task units and staff sections have the capability of operating at both atolls simultaneously. Priority for firing will be given to the BIKINI Atoll shots.

c. Task units and staff sections must have the capability and be prepared to conduct all operations scheduled for BIKINI Atoll from afloat after the first megaton shot.

d. ENIWETOK Atoll will be the primary base of operations regardless of the scope of activities at BIKINI Atoll.

e. Principal laboratory, machine shop, photographic, warehouse and stockroom facilities will be located on PARRY (Elmer) Island. Only limited field facilities will be located at BIKINI Atoll.

f. The principal port of entry for aircraft and for most of the surface shipping will be ENIWETOK Atoll.

g. Teletype and major voice circuits to OAHU and CONUS will be maintained on ENIWETOK (Fred) Island and PARRY (Elmer) Island.

h. Camp site facilities on both atolls particularly in reference to PARRY (Elmer) Island, will be taxed due to population congestion. Shipboard accommodations will also be limited. Therefore, it is mandatory that:

(1) Only those personnel necessary to accomplish the mission should be in the PPG.

(2) Personnel should leave the PPG as soon as their particular task has been completed.

i. Commanders and major elements of JTF SEVEN and TG 7.5 will be based on PARRY (Elmer) Island and TG 7.3 on the USS ESTES (AGC-12).

j. Commanders and major elements of TG 7.2 and 7.4 will be based on ENIWETOK (Fred) Island.

k. CTG 7.1 and major elements of the task units and staff sections will be located normally on PARRY (Elmer) Island, although each staff section will have a working group in the BIKINI Area.

l. For afloat operations at BIKINI Atoll during shot time, CJTF SEVEN and staff will operate from the Command Ship, USS ESTES (AGC-12). CTG 7.1 and staff plus representatives of specific scientific programs and projects will operate from the USS CURTISS (AV-4) and TG 7.5 from the USNS AINSWORTH (TAP-181).

m. Camps in the PPG will be established as follows:

(1) ENIWETOK Atoll - The main base camp will be located on PARRY (Elmer) Island with the temporary camps located on ROJOA (Ursula), ~~RUNIT~~ (Yvonne), ~~and~~ TEITEIRIPUCOHI ~~(Gene)~~ Islands.

(2) BIKINI Atoll - Temporary camps will be located on ENYU (Nan), ENINMAN (Tare) and ROMURIKKU (Fox) Islands.

n. Assembly and test of experimental weapons and devices will be accomplished generally as follows, but in all cases dependent on development and production capabilities and limitations:

(1) LASL weapons except for (BLACKFOOT) and (HURON), will be assembled in the CONUS with only final installation and testing being done in the PPG. In the case of barge shots, such installation and testing would be accomplished on PARRY (Elmer) Island and for ground or tower shots at the zero location.

(2) UCRL weapons except for APACHE and possibly ZUNI will be assembled in the PPG. In the case of barge shots, this will be done on PARRY (Elmer) Island. In the case of ground and tower shots, assembly and dry runs will be done at zero locations.

o. Shipment of Devices:

(1) LASL will be surface shipped aboard the USS CURTISS (AV-4), with the following exceptions. In all probability the (BLACKFOOT) and the (HURON) will be air transported.

(2) UCRL devices will be flown to the PPG so as to arrive 11-19 days prior to a particular shot.

p. Firing of BIKINI Atoll shots (except air drops) will be accomplished from the Timing and Firing Station on ENYU (Nan) Island.

q. Firing of the ENIWETOK Atoll shots (except air drops) will be accomplished from the Timing and Firing Station on PARRY (Elmer) Island.

r. Except for the Firing Party, its attached elements, and personnel specifically authorized by CTG 7.1, no personnel will be permitted within the destruction area of an armed weapon or device.

7. Execution:

a. Pre-Shot Phase:

(1) During the pre-shot period such rehearsals and dry-runs as are considered necessary will be run. A schedule of

time signals will be published to allow the detonation to be simulated.

(2) Data will be collected relative to evacuation and re-entry and recovery in order to allow the timely publication and dissemination of this information.

(3) As much construction equipment material as possible will be evacuated to ENIWETOK Atoll during the pre-shot phase. Some construction equipment and material for post-shot re-entry will be relocated to islands out of the destruction area.

b. Evacuation:

(1) All personnel not essential to the accomplishment of the ENIWETOK Atoll and BIKINI Atoll shot schedule should be returned to the CONUS prior to the first shot. Continual screening must be conducted during shot series to return personnel not needed.

(2) All personnel at BIKINI Atoll will be evacuated for all shots in that atoll, except for the Firing Party on ENYU (Nan) Island. Normally for shots at ENIWETOK Atoll, personnel will be evacuated to PARRY (Elmer) and ENIWETOK (Fred) Islands. However, for low-yield shots and depending upon weather and other conditions, normal work may continue on specified up-atoll islands at ENIWETOK Atoll.

(3) An emergency capability for post-shot evacuation of personnel from both atolls will be maintained. Such an evacuation will not include equipment and will be executed only if required by radiological conditions.

(4) Generally, trailers, vehicles, equipment, etc., will be evacuated to islands out of the destruction area for each shot. However, equipment may be left within the destruction area if required by the scientific project or when authorized by the person responsible for the equipment.

c. Recovery:

(1) The feasibility of conducting recovery operations is dependent upon radiological conditions. Entry into contaminated areas will not be made until proper clearance has been obtained. Entry into and from contaminated areas will be via Rad-Safe check points. For greater detail relative to Rad-Safe see Annex G - Radiological Safety.

(2) The success of several of the experiments and projects is dependent upon the early recovery of records and/or samples. It is expected that every effort will be made to make early recoveries after each shot. Recovery priorities will be established by CTG 7.1 as necessary. For this purpose recovery operations will be divided into two categories:

(a) Priority: Those for which early recovery of samples and/or records is necessary in order to effect the fullest accomplishment of the mission of TG 7.1 and the laboratories.

(b) Routine: Those for which recovery can be accomplished as Rad-Safe and transportation conditions permit.

d. Re-entry:

(1) All task units and staff sections must be prepared to operate afloat based on the contingency that following any BIKINI Atoll shot, Rad-Safe conditions may preclude re-entry to the camps on ENINMAN (Tare), ROMURIKKU (Fox) and/or ENYU (Nan) Islands.

(2) Until such time as ENYU (Nan) Island is deemed safe for 24-hour occupancy, only those personnel who cannot accomplish work from afloat will be permitted to work ashore. In these cases, the personnel will be based afloat for living and messing with their time ashore being limited by Rad-Safe conditions.

(3) Every effort will be made to relocate back on BIKINI Atoll as rapidly as possible contingent on the 24-hour occupancy considerations and the ability of the camps to accommodate the personnel.

(4) For details on re-entry see Annex L - Evacuation and Re-entry Plan.

e. Sample Return:

(1) With the exception of cloud samples, boats and helicopters will be the primary means of recovering radioactive samples. Normally for BIKINI Atoll shots, samples will be flown by C-47 aircraft from ENYU (Nan) Island to ENIWETOK (Fred) Island. However, in the event the airstrip on ENYU (Nan) Island is unserviceable they will be transported to ENIWETOK (Fred) Island by SA-16 aircraft or the USS KNUDSON (APD-101) depending on the urgency. Aircraft samples will go directly

to ENIWETOK (Fred) Island. For ENIWETOK Atoll shots, samples will go directly to PARRY (Elmer) Island or ENIWETOK (Fred) Island as required.

(2) CJTF SEVEN has the overall responsibility for the conduct of the return of radioactive samples to the CONUS. However, a representative of TG 7.1 must be present for loading and departure of each sample return aircraft. Sample return aircraft will depart the PPG, consistent with collection of samples and flying safety, at the following times after each shot:

(a) One aircraft at H/6 to 10 hours.

(b) One aircraft at H/24 to 36 hours.

(c) One aircraft at D/4 to 5 days.

(3) For greater details as to sample recovery within the PPG see Appendix III - Re-entry and Recovery to Annex L - Evacuation and Re-entry Plan. And for details on sample return to CONUS see Annex O - Sample Return.

Appendices:

I. Map of BIKINI Atoll

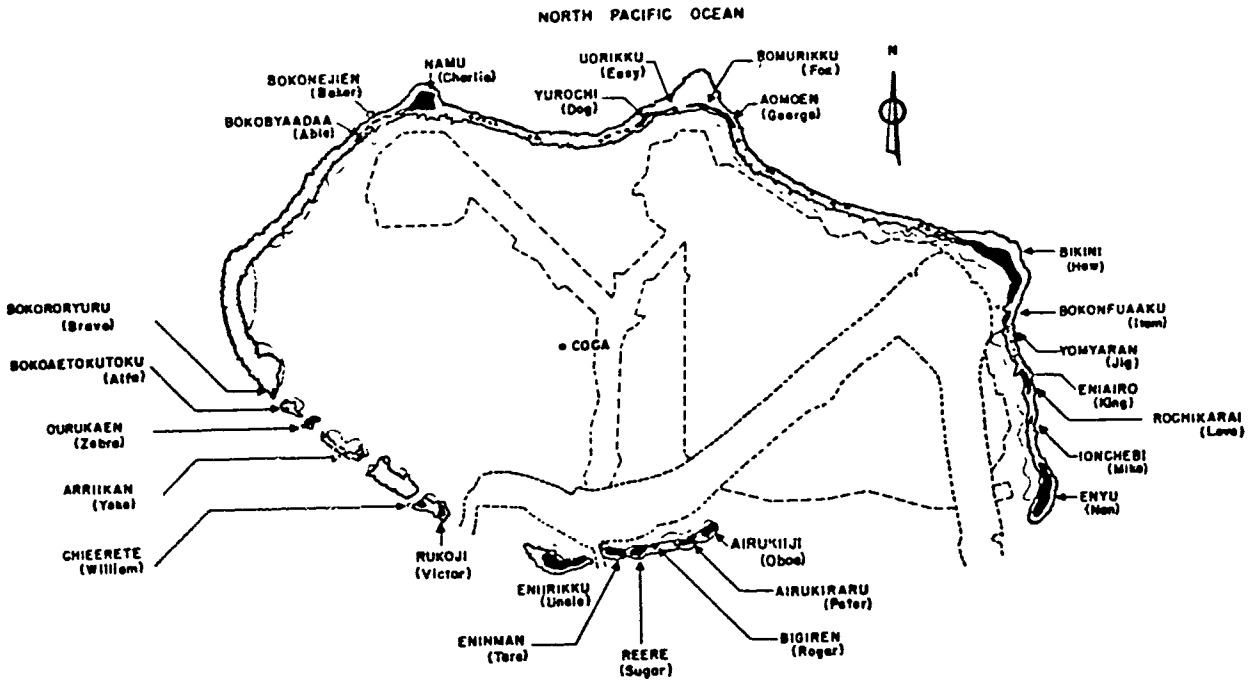
II. Map of ENIWETOK Atoll

III. Zero Locations

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix I to Annex C
Concept of Operations
CTG 7.1 Operation Plan No. 1-56

MAP OF BIKINI ATOLL



Headquarters Task Group 7.1
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25 January 1956

Appendix II to Annex C
Concept of Operations
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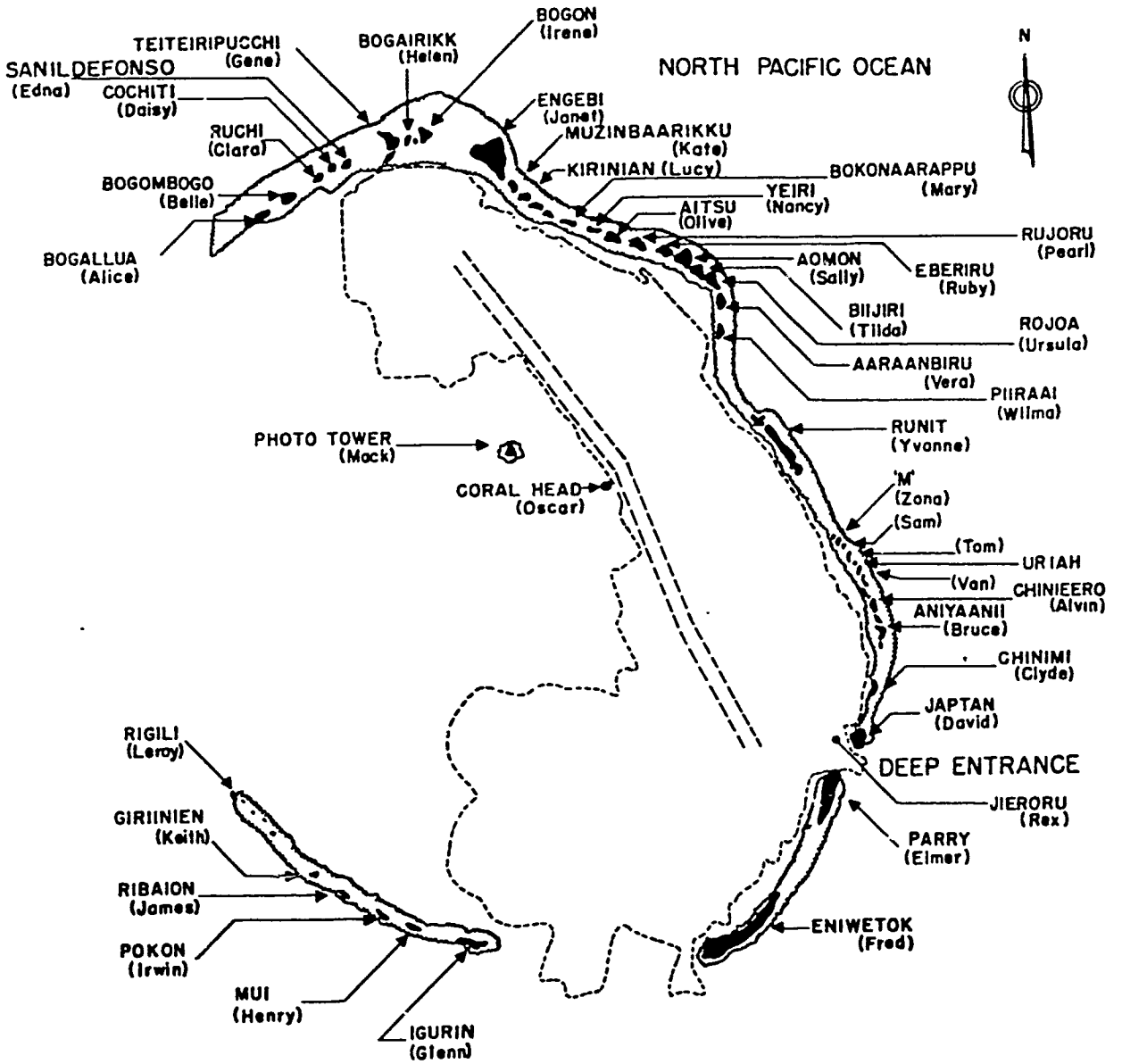
MAP OF ENIWETOK ATOLL



Headquarters Task Group 7.1
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LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix III to Annex C
Concept of Operations
CTG 7.1 Operation Plan No. 1-56

ZERO LOCATIONS

Shot	Station No.	Site	Coordinates
APACHE	Station 12	Off YUROCHI (Dog) Island	N 163,698.64 E 116,772.83
BLACKFOOT	Station 7	RUNIT (Yvonne) Island	N 104,435 E 126,080
CHEROKEE	Station 18	NAMU (Charlie) Island	N 172,172 E 82,082 Altitude 5,000 feet
ERIE	Station 6	RUNIT (Yvonne) Island	N 102,060 E 127,930
FLATHEAD	Station 13	Off YUROCHI (Dog) Island	N 164,098.60 E 116,767.34
HURON	Station 10	Off YUROCHI (Dog) Island	N 164,098.60 E 116,767.34
INCA	Station 4	RUJORU (Pearl) Island	N 133,540 E 105,300
KICKAPOO	Station 1	ACMON (Sally) Island	N 132,294.67 E 114,017.35
LACROSSE	Station 24	Off RUNIT (Yvonne) Island	N 106,885 E 124,515
MOHAWK	Station 3	EBERIRU (Ruby) Island	N 132,165.49 E 109,737.34
NAVAJO	Station 11	Off YUROCHI (Dog) Island	N 161,698.83 E 116,800.27

Shot	Station No.	Site	Coordinates
OSAGE	Station 19	RUNIT (Yvonne) Island	N 102,984.61 E 126,778.27 Altitude 700 feet
SEMINOLE	Station 23	BOGON (Irene) Island	N 149,897.24 E 75,236.60
TEWA	Station 15	Off YUROCHI (Dog) Island	N 161,698.83 E 116,800.27
YUMA	Station 2	AOMON (Sally) Island	N 130,603.68 E 112,154.46
ZUNI	Station 22	ENINMAN (Tare) Island	N 100,154.36 E 110,309.01

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Annex D to CTG 7.1 Operation Plan No. 1-56

EXPERIMENTAL PROJECTS

1. CTG 7.1 will be responsible for the preparation and conduct of the AEC experimental projects. With the assistance of pertinent Armed Forces Agencies, CTG 7.1 will prepare for and conduct the operational phase of experimental tests sponsored and approved by the DOD, and as directed by CJTF SEVEN. He will be responsible for the preparation, classification, publication and distribution (as required by the AEC) of appropriate technical or scientific reports on AEC experimental projects, and for classification of DOD reports.

2. DOD personnel and equipment involved in experimental projects will be under the operational control of CTG 7.1, except that all ships and aircraft directly assigned to test projects in the PPG will come within the operational and logistical control of the owning agency.

3. Any changes to the test program which affect the scope of the test operation will be forwarded to CJTF SEVEN for prior approval.

4. Appendices I and II to this annex show the shot participation and instrumentation by island location. Appendix III shows project location by shot.

Appendices:

I. Project Participation

II. Project Locations by Island - BIKINI and ENIWETOK Atolls - and Off-Atoll

III. Project Locations by Shots

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix I to Annex D
Experimental Projects
CTG 7.1 Operation Plan No. 1-56

PROJECT PARTICIPATION

1. The following chart titled "Schedule of Participation in Operation REDWING" contains the latest information received by this headquarters.

2. The following Project Organization Abbreviations and notes are used:

a. Project Organization Abbreviations:

AEC	- Atomic Energy Commission
AFCRC	- Air Force Cambridge Research Center
AFSAM	- Air Force School of Aviation Medicine
AFSWC	- Air Force Special Weapons Center
AFSWP	- Armed Forces Special Weapons Project
BRL	- Ballistics Research Laboratories
BUAER	- Bureau of Aeronautics, U. S. Navy
BUSHIPS	- Bureau of Ships, U. S. Navy
CFRES	- California Forest and Range Experiment Station, Berkeley, California
CRL	- Chemical and Radiological Laboratories
WETD	- Weapons Effects Tests Division
EG&G	- Edgerton, Germeshausen and Grier, Inc.
ERDL	- Engineer Research and Development Laboratories
ESL	- Evans Signal Laboratory
LASL	- Los Alamos Scientific Laboratory
NOL	- Naval Ordnance Laboratory
NRDL	- Naval Radiological Defense Laboratory
NRL	- Naval Research Laboratory
NYOO	- New York Operations Office
ONR	- Office of Naval Research
SC	- Sandia Corporation
SIO	- Scripps Institution of Oceanography
UCRL	- University of California Radiation Laboratory
USA	- United States Army
USAF	- United States Air Force
USN	- United States Navy
WADC	- Wright Air Development Center

b. Notes: 1 - Photography with rockets.
2 - Participate if rockets available.
3 - Participate using copter to study gamma spectra.

SCHEDULE OF PARTICIPATION IN REDWING

TITLE	PROGRAM DIRECTOR or PROJECT OFFICER	SPONSOR	AGENCY	PARTICIPATION BY SHOTS															
				BIKINI						ENIWETOK									
				CHEROKEE	ZUNI	FLATHEAD	HURON	NAVAJO	APACHE	LACROSSE	ERIE	SEMINOLE	TUMA	BLACKFOOT	INCA	OSAGE	KICKAPOO	MOHAWK
Program 1 - BLAST AND SHOCK MEASUREMENTS	Maj H. T. Bingham																		
1.1 - Basic Blast Measurements	J. J. Messaros	AFSWP	BRL	X	X					X			X		X				
1.2 - Surface Blast Measurements of Static and Dynamic Pressures	A. D. Thornbrough	AFSWP	SC							X									
1.3 - Shock Photography	J. Petes	AFSWP	NOL	X[1]	X[1]					X[1]					X			X	
1.4 - Free Air Pressure Measurements at Altitudes	Lt Col J. A. Fava	AFSWP	AFCRC	X							X								
1.5 - Drag Characteristics of Various Shapes	J. J. Messaros	AFSWP	BRL	X	X					X			X						
1.6 - Drag Loading on Model Targets	J. Petes	AFSWP	NOL							X									
1.8 - Crater Measurements	J. G. Lewis	AFSWP	ERDL		X					X		X						X	
1.9 - Water Wave Studies	W. Van Dorn	ONR	SIO	X	X	X	X	X	X										
1.10 - Measurement of Blast Parameters Over Vegetated and Cleared Areas	A. D. Thornbrough	AFSWP	SC												X				
Program 2 - NUCLEAR RADIATION AND EFFECTS	CDR D. C. Campbell																		
2.1 - Gamma Exposure vs Distance	P. Brown	USA	ESL	X	X	X	X	X	X										
2.2 - Gamma Dose Rate vs Time	P. Brown	USA	ESL	X	X	X	X	X	X										
2.4 - Decontamination and Protection	J. C. Maloney	USA	CRL	X	X	X		X											
2.51 - Neutron Flux Measurements and Shielding Studies	B. Barnett	USA	CRL	X									X	X			X		
2.52 - Neutron Induced Soil Radioactivity	T. C. Looney	SC		X															
2.61 - Rocket Determination of the Activity Distribution within the Stabilized Cloud	R. Soule	AFSWP	NRDL	X	X				X[2]										
2.62 - Fall-Out Studies by Oceanography Methods plus TEWA	F. D. Jennings	ONR	SIO	X	X	X		X	X										
2.63 - Collection and Characterization of Fall-Out with Time plus TEWA	T. Triffet	USN	NRDL	X	X	X		X											
2.64 - Fall-Out Location and Delineation by Aerial Survey plus TEWA	R. Graveson	AEC	NTOO	X	X	X		X[3]	X			X[3]						X	

TITLE	PROGRAM DIRECTOR or PROJECT OFFICER	SPONSOR	AGENCY	PARTICIPATION BY SHOTS															
				BIKINI						ENIWETOK									
				CHEROKEE	ZUNI	FLATHEAD	HURON	NAVAJO	APACHE	LACROSSE	ERIE	SEMINOLE	TUNA	BLACKFOOT	INCA	OSAGE	KICKAPOO	MOHAWK
2.65 - Analysis of Fall-Out and of Base Surge (Plus TEWA)	N. Morgenthau	USA	CRL	X	X	X		X		✱								
2.66 - Early Cloud Penetration (Plus DANCE & TEWA)	Col E. A. Pinson	USAF	AFSWC	X	X	X		X	X									
* 2.71 - Relative Importance of the Various Radiation Sources to the Ship Shielding Problem	H. R. Rinnert	USN	NRDL	X	X	X		X										
2.8 - Ship Countermeasures Methods Studies (Plus TEWA)	R. H. Heiskell	USN	NRDL	X	X	X		X										
2.9 - Standard Recovery Procedure for Tactical Decontamination of Ship (Plus TEWA)	F. S. Vine	USN	BUSHIPS	X	X	X		X										
2.10 - Verification of Washdown Effectiveness for a Shipboard Radiological Countermeasures (Plus TEWA)	M. M. Biggers	USN	BUSHIPS	X	X	X		X										
Program 3 - STRUCTURES AND EQUIPMENT	Maj T. Bingham																	
3.1 - Difference in Effect of Short and Long Duration Blast Loadings on the Response of Structures	Capt R. E. Grubaugh	AFSWP	WADC	X														
3.2 - Clearing of Minefields with Atomic Weapons	Capt F. E. Deeds	USA	ERDL		X													
Program 4 - BIOMEDICAL EFFECTS	Maj C. W. Bankes																	
4.1 - Flash Blindness	Capt D. V. L. Brown	USAF	AFSAM	X	X	X				X	X					X		X
Program 5 - AIRCRAFT STRUCTURES	CDR M. R. Dahl																	
5.1 - In-Flight Participation of a B-47 Aircraft in Operation REDWING (Plus DANCE)	C. W. Luchsinger	USAF	WADC	X	X	X	X	X	X									X
5.2 - In-Flight Participation of a B-52 (Plus DANCE)	1st Lt F.L.Williams	USAF	WADC	X	X	X	X	X	X									X
5.3 - In-Flight Participation of a B-66 (Plus DANCE)	R. W. Bachman	USAF	WADC	X	X	X	X	X	X	X	X	X		✱	X		X	X
5.4 - In-Flight Participation of a B-57 (Plus DANCE)	1st Lt H.M.Wells,Jr.	USAF	WADC	X	X	X	X	X	X	X	X	X		X	X		X	X
5.5 - In-Flight Participation of F-84F (Plus DANCE)	1st Lt R.F. Mitchell	USAF	WADC	X	X	X	X	X	X	X								X
5.6 - In-Flight Participation of an F-101A (Plus DANCE)	Capt M. H. Lewin	USAF	WADC	X	X	X	X	X	X	X	X	X		X	X	X	X	X
5.7 - Thermal Flux and Albedo Measurements from Aircraft (Plus DANCE)	Capt R. L. Kresser	USAF	AFCRC	X	X	X	X	X	X	X	X	X		X	X		X	X
5.8 - Response of AJD-1 Aircraft in Thermonuclear Radiation Field (Plus DANCE)	Lt P. F. Harward	USN	BUAER	X	X	X	X	X	X									
* 2.72 Evaluation of Standard Navy Dosimeters DT-60/PD & IM-101/PD (Plus TEWA)	S.C. RANEY	USN	BUSHIPS						X									

TITLE	PROGRAM DIRECTOR or PROJECT OFFICER	SPONSOR	AGENCY	PARTICIPATION BY SHOTS														
				BIKINI						ENIWETOK								
				CHEROKEE	ZUNI	FLATHEAD	HURON	NAVAJO	APACHE	LACROSSE	ERIE	SEMINOLE	YUMA	BLACKFOOT	INCA	OSAGE	KICKAPOO	MOHAWK
5.9 - Weapon Effects on Missile Structures and Materials	Lt C. J. Cosenza	USAF	WADC								X							X
Program 6 - TESTS OF SERVICE EQUIPMENT AND MATERIALS	Maj C. W. Bankes																	
6.1 - Accurate Location of an Electromagnetic Pulse Source (plus [illegible])	E. A. Lewis	USAF	AFCRC	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6.3 - Effects of Atomic Explosions on the Ionosphere (plus [illegible])	A. K. Harris	USA	ESL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Program 8 - THERMAL RADIATION AND EFFECTS	CDR A. H. Higgs, Maj W. C. Linton																	
8.1 - Basic Thermal Radiation Measurements	W. B. Plum	USN	NRDL	X	X					X								
8.2 - Thermal Damage to Materials	W. L. Fons	AFSWP	CFRES	X														
8.3 - Evaluation of Self-Recording Thermal Indicators	J. J. Mahoney	USA	CRL	X										X				
8.4 - Thermal Response of Aircraft Structural Sandwich Panels	LCDR A. Julian	USN	BUAER	X														
8.5 - Airborne High Resolution Spectral Analysis	R. Zirkind	USN	BUAER	X	X	X	X			X	X						■	
Program 9 - GENERAL SUPPORT	Lt Col J. G. James																	
9.1 - Technical Photography	Lt Col J. G. James		AFSWP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9.2 - Special Meteorological Measurements				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9.3 - Timing Signals (plus [illegible])				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9.4 - Soil Stabilization and Ground Surface Preparations				X														
Program 10 - THERMAL RADIATION AND HYDRODYNAMICS	H. Hoerlin																	
10.1 - Fireball Hydrodynamics (plus [illegible])	J. F. Mullaney	LASL	J-10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10.2 - Time of Arrival (plus [illegible])	J. F. Mullaney	LASL	J-10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Program 11 - RADIOCHEMISTRY	G. Cowan																	
11.1 - Radio Chemical Analysis (plus [illegible])	G. Cowan	LASL	J-11	X	X	X	X	X	X	X	X	X		X	X	X		
11.2 - Sampling (plus [illegible])	H. F. Plank	LASL	J-11	X		X	X	X		X	X	X		X		X		
* 6.4 - Determination of Characteristics of airborne [illegible] mounted Antenna and Photo Tubes for Yield Determination at Extended Ground-to-Air Ranges	A. S. Waters	USAF ARDC	ARDC	X	X	X	X	X	X	X								
6.5 - Analysis of Electromagnetic Pulse Produced by a Nuclear Explosion	Lt Chas [illegible]	USN ESL	ESL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

TITLE	PROGRAM DIRECTOR or PROJECT OFFICER	SPONSOR	AGENCY	PARTICIPATION BY SHOTS															
				BIKINI						ENIWETOK									
				CHEROKEE	ZUNI	FLATHEAD	HURON	NAVAJO	APACHE	LACROSSE	KOA	SEMINOLE	TEWA	BLACKFOOT	INCA	OSAGE	KICKAPOO	MOHAWK	
Program 12 - EXTERNAL NEUTRON MEASUREMENT AND HIGH ENERGY GAMMA MEASUREMENT	R. L. Aamodt																		
12.1 - Threshold Detectors	W. A. Biggers	LASL	J-12							X	X	X		X		X			
12.2 - Phonex	D. Phillips	LASL	J-12								X			X					
Program 13 - FISSION REACTION MEASUREMENTS	J. S. Malik																		
13.1 - Fission Reaction Measurement, Land and Air	H. E. Grier	LASL	E040	X						X	X			X		X			
13.2 - Fission Reaction Measurement, Sea PLUS UNKNOWN	J. S. Malik	LASL	J-13			X	X	X											
13.3 - Transit Time and XR Wireless Measurements PLUS UNKNOWN	D. E. Henry	LASL	SC	X		X	X	X		X	X	X		X					
Program 15 - PHOTO-PHYSICS	O. L. Felt																		
15.1 - E040 Photography (Cloud, Fireball and Bhangmeters)	H. E. Grier	LASL	E040	X		X	X	X		X	X	X		X		X			
15.2 - J-15 Photography (High Speed Photography)	O. L. Felt	LASL	J-15	X		X	X	X		X	X			X					
Program 16 - PHYSICS & ELECTRONICS & REACTION HISTORY	B. E. Watt																		
16.1 - Temperature Measurements	B. E. Watt	LASL	J-16									X							
16.2 [redacted]	B. E. Watt	LASL	J-16									X							
16.3 - Electromagnetic Measurements PLUS UNKNOWN PLUS UNKNOWN	R. E. Partridge	LASL	J-16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Program 18 - THERMAL RADIATION	H. Hoerlin																		
18.1 - Little Inch	H. S. Stewart	LASL	NRL							X									
18.2 - Shoestring	H. Hoerlin	LASL	J-10							X									
18.3 - Spectroscopy PLUS UNKNOWN	H. S. Stewart	LASL	NRL	X			X	X	X										
18.4 - Chord PLUS UNKNOWN	H. Hoerlin	LASL	J-10	X			X	X	X										
Program 19 - NUCLEAR VULNERABILITY	L. Allen																		
19.1 - Nuclear Vulnerability	L. Allen	LASL	J-15								X								
Program 21 - RADIOCHEMISTRY	R. H. Goeckermann																		
21.1 - Radiochemical Analysis PLUS UNKNOWN	R. H. Goeckermann	UCRL				X				X	X			X		X		X	X

+ 19.2 (ASHAUK)

TITLE	PROGRAM DIRECTOR or PROJECT OFFICER	SPONSOR	AGENCY	PARTICIPATION BY SHOTS														
				BIKINI						ENIWETOK								
				CHEROKEE	ZUNI	FLATHEAD	HURON	NAVAJO	APACHE	LACROSSE	ERIE	SEMINOLE	YUMA	BLACKFOOT	INCA	OSAGE	KICKAPOO	MOHAWK
21.2 - Sampling Plus Tritium	R. W. Batzel	UCRL			Y				X				X		X		X	X
21.3 - Short Half-Life Activities (Plus Tritium)	F. F. Momyer	UCRL		X	X	X		X	X	X			X		X	X		X
21.4 - External Neutron Flux Measurements	N. A. Bonner	UCRL																X
Program 22 - HISTORY OF THE REACTION	L. F. Wouters																	
22.1 - Time Intensity Measurements	L. F. Wouters	UCRL			X								X		X		X	X
22.2 - Remote Alpha Measurements Plus Tritium	H. E. Grier	UCRL	EG&G						X									
22.3 - Radio Telemetering Plus Tritium	Earl Ingersoll	UCRL	SC		X				X				X		X		X	X
Program 23 - SCIENTIFIC PHOTOGRAPHY	H. B. Keller																	
23.1 - Ball of Fire & Bhangmeter Plus Tritium	H. E. Grier	UCRL	EG&G		X				X				X		X		X	X
23.2 - Cloud Photography Plus Tritium	H. E. Grier	UCRL	EG&G		X				X				X		X		X	X
23.3 - [illegible]	H. B. Keller	UCRL			X				X									X
23.4 - Time & Pressure Measurements	H. B. Keller	UCRL			X													X
23.5 - Remote Time Measurements Plus Tritium	H. E. Grier	UCRL	EG&G		X	X	X	X	X									
Program 30 - VULNERABILITY																		
30.1 - Fireball Effects	F. E. Thompson	SC											X				X	
30.2 - Vulnerability of Stockpile Weapons	H. E. Hansen	SC								X								
Program 31 - MICROBAROGRAPHY	R. Heppelwhite																	
31.1 - Microbarograph Plus Tritium	W. A. Gustafson	SC		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
31.2 - Release Tone System	B. H. Ray	SC		X												X		
Program 35 - Radiobiological Survey (Two surveys of Eniwetok Atoll will be made. The first survey will be made about 10 June & the second one after the completion of Redwing.)	Dr. Lauren Donaldson	AEC	Applied Fisheries Lab. U. of Wash.															

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix II to Annex D
Experimental Projects
CTG 7.1 Operation Plan No. 1-56

PROJECT LOCATIONS BY ISLAND

BIKINI ATOLL

Island	Project
BOKOBYAADAA (Able)	1.1, 1.3, 1.5, 2.1, 2.2, 2.63 2.65, 5.6, 5.8, 15.1
Reef SW of BOKOBYAADAA (Able)	1.3
NAMU (Charlie)	1.1, 2.1, 2.2, 2.51, 2.52, 2.65, 3.1, 9.1, 13.1
NAMU (Charlie) to YUROCHI (Dog) Man-Made Islands	1.1, 1.5, 3.1
NAMU (Charlie) to YUROCHI (Dog) Reefs	1.1
YUROCHI (Dog)	1.1,1.5, 2.1, 2.2, 2.65, 3.1, 8.1, 8.2, 8.3, 9.1, 13.1, 13.2
UORIKKU (Easy)	2.1, 2.2
ROMURIKKU (Fox)	2.1, 2.2, 2.65
AOMOEN (George)	2.1, 2.2, 2.63, 8.1, 8.2, 8.3, 8.4, 15.1, 15.2, 18.3, 18.4
BIKINI (How)	1.9, 2.61, 2.63, 2.65, 5.6, 5.8, 8.1, 8.3, 15.1
ROCHIKARAI (Love)	2.63, 2.65
ENYU (Nan)	1.9, 2.61, 2.63, 2.65, 4.1, 5.6, 5.8, 8.1, 13.3, 15.1, 16.3
AIRUKIIJI (Oboe)	1.1, 1.9, 2.52, 2.63, 2.65, 8.1, 31.1
AIRUKIRARU (Peter)	1.1, 1.5
BIGIREN (Roger)	1.1, 1.5
REERE (Sugar)	1.1, 22.1
ENINMAN (Tare)	1.8, 13.3, 22.1, 23.3, 23.4
ENIIRIKKU (Uncle)	1.1, 1.3, 1.5, 2.63, 2.65, 3.2
RUKOJI (Victor)	2.65
CHIEERETE (William)	1.9, 2.63, 5.6, 5.8, 8.1,15.1
ARRIIKAN (Yoke)	2.63, 2.65
OURUKAEN (Zebra)	2.63
BIKINI Lagoon	1.9, 2.63
BOKORORYURU (Bravo)	2.65
OCEAN (Moored Stations)	2.62, 2.63

ENIWETOK ATOLL

Island	Project
ANIYAANII (Bruce)	16.3
JAPTAN (David)	4.1, 15.1
BOGAIRIKK (Helen)	12.1
BOGON (Irene)	1.8, 12.1, 13.3, 16.1, 16.2
ENGEBI (Janet)	13.1, 15.1, 30.2
RUJORU (Pearl)	1.1, 1.10, 13.3
EBERIRU (Ruby)	13.3, 22.1, 23.4
AOMON (Sally)	1.1, 1.4, 1.5, 2.51, 13.3, 22.1, 30.1
BIIJIRI (Tilda)	2.51, 23.3, 30.1, 30.2
PIIRAAI (Wilma)	8.1, 15.1
RUNIT (Yvonne)	1.1, 1.2, 1.3, 1.5, 1.6, 1.8, 2.51, 5.9, 8.1, 8.3, 12.1, 12.2, 13.1, 13.3, 15.1, 15.2, 18.1, 18.2, 19.1, 30.2
PARRY (Elmer)	1.9, 13.3, 15.1, 30.2
ENIWETOK (Fred)	5.5, 31.1
PHOTO TOWER (Mack)	15.1

OFF-ATOLL

Island	Project
AILINGINAE	1.9
JOHNSTON	1.9
HAWAIIAN Islands	6.1
KUSAIE	6.3
MIDWAY	6.1
PALMYRA	6.1
RONGERIK	2.65, 5.6, 6.3, 31.1
UJELANG	31.1
WAKE	1.9
WOTHO	5.6, 31.1

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix III to Annex D
Experimental Projects
CTG 7.1 Operation Plan No. 1-56

PROJECT LOCATIONS BY SHOTS

Shot	Island	Project
CHEROKEE	BOKOBYAADAA (Able)	1.1, 1.3, 1.5, 2.1, 2.2, 2.63, 2.65, 5.6, 15.2
	Reef SW of BOKOBYAADAA (Able)	1.3
	NAMU (Charlie)	1.1, 2.1, 2.2, 2.51, 2.52, 2.65, 13.1
	NAMU (Charlie) to YUROCHI .. (Dog) Man-Made Islands	1.1, 1.5, 3.1
	NAMU (Charlie) to YUROCHI .. (Dog) Reefs	1.1
	YUROCHI (Dog)	1.1, 1.5, 2.65, 3.1, 8.1, 8.2, 8.3
	ROMURIKKU (Fox)	2.65
	AOMOEN (George)	2.63, 2.65, 8.1, 8.2, 8.3, 8.4, 15.1, 15.2, 18.3, 18.4
	BIKINI (How)	2.61, 2.63, 2.65, 5.6, 8.1, 8.3, 8.4, 15.1
	ROCHIKARAI (Love)	2.63, 2.65
	ENYU (Nan)	1.9, 2.61, 2.63, 2.65, 4.1, 5.6, 13.3, 15.1, 16.3
	AIRUKIIJI (Oboe)	1.9, 2.63, 2.65, 31.1
	ENIIRIKKU (Uncle)	2.63, 2.65
	RUKOJI (Victor)	2.65
	CHIEERETE (William)	1.9, 2.63, 5.6, 15.1
	ARRIIKAN (Yoke)	2.63, 2.65
	OURUKAEN (Zebra)	2.63
	BOKORORYURU (Bravo)	2.65
	BIKINI Lagoon	1.9, 2.63
	OCEAN (Moored Stations)	2.62, 2.63
	PARRY (Elmer)	1.9
	ENIWETOK (Fred)	31.1
HURON	BOKOBYAADAA (Able).....	5.6
	YUROCHI (Dog).....	2.1, 2.2, 13.1
	UORIKKU (Easy)	2.1, 2.2
	ROMURIKKU (Fox)	2.1, 2.2
	AOMOEN (George)	2.1, 2.2, 2.63, 15.1, 15.2, 18.3, 18.4

Shot	Island	Project
HURON ..... (Cont'd)	BIKINI (How)	1.9, 5.6, 5.8, 15.1
	ENYU (Nan)	1.9, 5.6, 5.8, 13.3, 15.1, 16.3
	AIRUKIIJI (Oboe)	1.9, 31.1
	CHIEERETE (William)	1.9, 5.6, 5.8, 15.1
	BIKINI Lagoon	1.9
	PARRY (Elmer)	1.9
	ENIWETOK (Fred)	31.1
ZUNI	BOKOBYAADAA (Able)	2.63, 2.65, 5.6, 5.8
	NAMU (Charlie)	2.65
	YUROCHI (Dog)	2.1, 2.2, 2.65
	UORIKKU (Fasy)	2.1, 2.2
	ROMURIKKU (Fox)	2.1, 2.2, 2.65
	AOMOEN (George)	2.1, 2.2, 2.63, 2.65, 15.1
	BIKINI (How)	1.9, 2.61, 2.63, 2.65, 5.6, 5.8, 15.1
	ROCHIKARAI (Love)	2.63, 2.65
	ENYU (Nan)	1.9, 2.61, 2.63, 2.65, 4.1, 5.6, 5.8, 8.1, 15.1, 16.3, 22.3
	AIRUKIIJI (Oboe)	1.1, 1.9, 2.63, 2.65, 8.1, 31.1
	AIRUKIRARU (Peter)	1.1, 1.5, UCRL
	BIGIREN (Roger)	1.1, 1.5
	REERE (Sugar)	1.1, 22.1
	ENINMAN (Tare)	1.8, 22.1, 22.3, 23.3, 23.4
	ENIIRIKKU (Uncle)	1.1, 1.3, 1.5, 2.63, 2.65
	RUKOJI (Victor)	2.65
	CHIEERETE (William)	1.9, 2.63, 5.6, 5.8, 8.1, 15.1
	ARRIIKAN (Yoke)	2.63, 2.65
	OURUKAEN (Zebra)	2.63
	BOKORORYURU (Bravo)	2.65
	BIKINI Lagoon	1.9, 2.62, 2.63
	OCEAN (Moored Stations)	2.62, 2.63
	PARRY (Elmer)	1.9
	ENIWETOK (Fred)	31.1
FLATHEAD	BOKOBYAADAA (Able)	2.63, 2.65, 5.6, 5.8
	NAMU (Charlie)	2.65
	YUROCHI (Dog)	2.1, 2.2, 2.65, 13.1
	UORIKKU (Easy)	2.1, 2.2
	ROMURIKKU (Fox)	2.1, 2.2, 2.65
	AOMOEN (George)	2.1, 2.2, 2.63, 2.65, 15.1, 15.2, 18.3, 18.4
	BIKINI (How)	1.9, 2.63, 2.65, 5.6, 5.8, 15.1
	ROCHIKARAI (Love)	2.63, 2.65
	ENYU (Nan)	1.9, 2.63, 2.65, 4.1, 5.6, 5.8, 13.3, 15.1, 16.3

Shot	Island	Project
FLATHEAD ..... (Cont'd)	AIRUKIIJI (Oboe)	1.9, 2.63, 2.65, 31.1
	ENIIRIKKU (Uncle)	2.63, 2.65
	RUKOJI (Victor)	2.65
	CHIEERETE (William)	1.9, 2.63, 5.6, 5.8, 15.1
	ARRIIKAN (Yoke)	2.63, 2.65
	OURUKAEN (Zebra)	2.63
	BOKORORYURU (Bravo)	2.65
	BIKINI Lagoon	1.9, 2.63
	OCEAN (Moored Stations)	2.62, 2.63
	PARRY (Elmer)	1.9
	ENIWETOK (Fred)	31.1
NAVAJO	BOKOBYAADAA (Able)	2.63, 2.65, 5.6, 5.8
	NANU (Charlie)	2.65
	YUROCHI (Dog)	2.1, 2.2, 2.65, 13.1
	UORIKKU (Easy)	2.1, 2.2
	ROMURIKKU (Fox)	2.1, 2.2, 2.65
	AOMOEN (George)	2.1, 2.2, 2.63, 2.65, 15.1, 15.2, 18.3, 18.4
	BIKINI (How)	1.9, 2.61, 2.63, 2.65, 5.6, 5.8, 15.1
	ROCHIKARAI (Love)	2.63, 2.65
	ENYU (Nan)	1.9, 2.61, 2.63, 2.65, 5.6, 5.8, 15.1, 16.3
	AIRUKIIJI (Oboe)	1.9, 2.63, 2.65, 31.1
	ENIIRIKKU (Uncle)	2.63, 2.65
	RUKOJI (Victor)	2.65
	CHIEERETE (William)	1.9, 2.63, 5.6, 5.8, 15.1
	ARRIIKAN (Yoke)	2.63, 2.65
	OURUKAEN (Zebra)	2.63
	BOKORORYURU (Bravo)	2.65
	BIKINI Lagoon	1.9, 2.62, 2.63
	OCEAN (Moored Stations)	2.62, 2.63
	PARRY (Elmer)	1.9
	ENIWETOK (Fred)	31.1
APACHE	BOKOBYAADAA (Able)	5.6, 5.8
	YUROCHI (Dog)	22.2
	AOMOEN (George)	15.1, 15.2
	BIKINI (How)	1.9, 5.6, 5.8, 15.1
	ENYU (Nan)	1.9, 5.6, 5.8, 15.1, 16.3, 22.3
	AIRUKIIJI (Oboe)	1.9, 31.1
	CHIEERETE (William)	1.9, 5.6, 5.8, 15.1
	BIKINI Lagoon	1.9
	PARRY (Elmer)	1.9
	ENIWETOK (Fred)	31.1

Shot	Island	Project
BLACKFOOT	AIRUKIIJI (Oboe)	31.1
	BIIJIRI (Tilda)	30.2
	PIIRAAI (Wilma)	15.1
	RUNIT (Yvonne)	2.51, 8.3, 12.1, 12.2, 13.1, 13.3, 15.1, 15.2
	ANIYAANII (Bruce)	16.3
	PARRY (Elmer)	13.3, 15.1
	ENIWETOK (Fred)	5.5, 31.1
	PHOTO TOWER (Mack)	15.1
YUMA	AIRUKIIJI (Oboe)	31.1
	AOMON (Sally)	1.1, 1.5, 2.51, 22.1, 22.3, 30.1
	BIIJIRI (Tilda)	2.51, 30.1
	PIIRAAI (Wilma)	15.1
	ANIYAANII (Bruce)	16.3
	PARRY (Elmer)	15.1, 22.3
	ENIWETOK (Fred)	5.5, 31.1
	PHOTO TOWER (Mack)	15.1
OSAGE	AIRUKIIJI (Oboe)	31.1
	PIIRAAI (Wilma)	15.1
	RUNIT (Yvonne)	13.1, 15.1
	ANIYAANII (Bruce)	16.3
	JAPTAN (David)	4.1
	PARRY (Elmer)	15.1
	ENIWETOK (Fred)	5.5, 31.1
	PHOTO TOWER (Mack)	15.1
KICKAPOO	AIRUKIIJI (Oboe)	31.1
	AOMON (Sally)	1.4, 2.51, 22.1, 22.3, 30.1
	BIIJIRI (Tilda)	2.51, 30.1
	PIIRAAI (Wilma)	15.1
	ANIYAANII (Bruce)	16.3
	PARRY (Elmer)	15.1, 23.3
	ENIWETOK (Fred)	5.5, 31.1
	PHOTO TOWER (Mack)	15.1
LACROSSE	AIRUKIIJI (Oboe)	31.1
	BIIJIRI (Tilda)	30.2
	PIIRAAI (Wilma)	8.1, 15.1
	RUNIT (Yvonne)	1.1, 1.2, 1.3, 1.5, 1.6, 1.8, 8.1, 12.1, 13.1, 13.3, 15.1, 15.2, 18.1, 18.2, 30.2
	ANIYAANII (Bruce)	16.3
	JAPTAN (David)	4.1
	PARRY (Elmer)	13.3, 15.1, 30.2, 31.1

Shot	Island	Project
LACROSSE ..... (Cont'd)	ENIWETOK (Fred)	5.5, 31.1
	PHOTO TOWER (Mack)	15.1
MOHAWK	AIRUKIIJI (Oboe)	31.1
	EBERIRU (Ruby)	13.3, 22.3, 23.3, 23.4
	AOMON (Sally)	22.1
	BIIJIRI (Tilda)	UCRL
	PIIRAAI (Wilma)	15.1
	ANIYAANII (Bruce)	16.3
	JAPTAN (David)	4.1
	PARRY (Elmer)	15.1, 22.3, 31.1
	ENIWETOK (Fred)	5.5, 31.1
	PHOTO TOWER (Mack)	15.1
ERIE	AIRUKIIJI (Oboe)	31.1
	PIIRAAI (Wilma)	15.1
	RUNIT (Yvonne)	5.9, 12.1, 12.2, 13.1, 13.3, 15.1, 15.2, 19.1
	ANIYAANII (Bruce)	16.3
	JAPTAN (David)	4.1
	PARRY (Elmer)	13.3, 15.1
	ENIWETOK (Fred)	5.5, 31.1
	PHOTO TOWER (Mack)	15.1
SEMINOLE	AIRUKIIJI (Oboe)	31.1
	BOGAIRIKK (Helen)	12.1
	BOGON (Irene)	1.8, 12.1, 13.3, 16.1, 16.2
	ENGEBI (Janet)	15.1
	PIIRAAI (Wilma)	15.1
	ANIYAANII (Bruce)	16.3
	PARRY (Elmer)	13.3, 15.1
	ENIWETOK (Fred)	5.5, 31.1
	PHOTO TOWER (Mack)	15.1
INCA	ENGEBI (Janet)	15.1
	RUJORU (Pearl)	1.1, 1.10, 22.3
	AOMON (Sally)	22.1
	PIIRAAI (Wilma)	15.1
	ANIYAANII (Bruce)	16.3
	PARRY (Elmer)	15.1, 22.3
	ENIWETOK (Fred)	5.5, 31.1
	PHOTO TOWER (Mack)	15.1

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Annex E to CTG 7.1 Operation Plan No. 1-56

FIRING PARTY PLAN

1. Organization:

a. The arming and firing of the REDWING weapons and devices will be the responsibility of CTU-6. Since it will be necessary to maintain a firing capability at both atolls, a Firing Party will be organized for each shot and will consist of two teams - an Arming Team and a Firing Team. CTU-6 or his designated representative will act as Firing Party Commander.

b. The Arming Team will consist of the Firing Party Commander, a representative of TU-5 and a representative of the responsible weapon assembly task unit. When gas boosting is part of the weapon or device, an additional representative of the assembly task unit will be included. Other individuals if authorized by CTG 7.1 will also accompany the Arming Party.

c. The Firing Team will consist of the Firing Party Commander, an additional member of TU-6, two representatives of TU-5, and a representative of the responsible weapon assembly task unit. From the time that the Control Room is secured prior to arming until the time of detonation, personnel will not be allowed access without the specific authorization of CTG 7.1, the Firing Party Commander or the official representative of the Firing Party Commander.

2. Mission:

a. Firing Party: The Firing Party is responsible for the firing system and the arming and firing of the REDWING weapons and devices.

b. Arming Team: The Arming Team has the mission of arming the REDWING weapons and devices which includes all final checks, adjustments and connections to assure successful detonation at H-Hour.

c. Firing Team: The Firing Team has the mission of operating the Control Room at the Control Point and detonating the weapon or device at the proper time.

3. General Information:

a. The responsible weapon assembly task unit and J-6 will each have a representative in the Exclusion Area of the zero site from the completion

of the assembly until the arrival of the Arming Team on D-1. These representatives will be responsible for the cab, barge, or ground emplacement and the weapon or device until this responsibility is transferred to the Firing Party Commander.

b. The security of the shot site will cease to be the responsibility of CTG 7.2 upon the release of the MP Security Detail by the Firing Party Commander.

c. All personnel, except the Arming Team and others specifically authorized by the Firing Party Commander will be evacuated from the zero site at the time the Arming Party begins the arming operation. The Firing Party Commander is responsible for the final evacuation of the zero site.

d. Final authorization will be requested and obtained from CTG 7.1 prior to the arming or firing of any weapon or device.

e. Communications will be maintained between CTG 7.1 and the Firing Party Commander for receiving command decisions pertaining to arming and firing.

f. The detailed responsibilities and scheme of operation of the Firing Party will be published by CTU-6 in the PPG.

g. Firing of BIKINI Atoll shots (except air drops) will be accomplished from the Timing and Firing Station on ENYU (Nan) Island.

h. Firing of the ENIWETOK Atoll shots (except air drops) will be accomplished from the Timing and Firing Station on PARRY (Elmer) Island.

4. Disarming:

a. The capability of forming a Disarming Team will be maintained for each shot. The Disarming Team will consist of the Firing Party Commander and others as necessary to accomplish its mission. The use of this party may be required as the result of a postponement or a misfire.

b. In the case of a postponement, the Disarming Team will proceed to disarm the weapon or device when ordered by CTG 7.1.

c. In case of a misfire, the Firing Team will record all significant arm and fire information leading to isolation of the trouble and submit its findings and any recommendations to CTG 7.1. Following analysis of all information and findings on task force and group level, CTG 7.1 will direct action to be taken by the Disarming Team. CTG 7.1 will be kept informed of the progress and status of the disarming.

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Annex F to CTG 7.1 Operation Plan No. 1-56

COMMUNICATION PLAN

1. General:

a. Purpose: The purpose of this plan is to set forth communication operational facilities and instructions for TG 7.1 personnel for Operation REDWING.

b. Basis for Plan: This plan is based upon requirements submitted by the various task units and projects of TG 7.1, CJTF SEVEN Operation Plan No. 1-56, CJTF SEVEN Communication Operation Instruction 20-1, and various JANAP publications.

c. Effective Period: This plan is effective now for planning purposes and for TG 7.1 personnel in the PPG during Operation REDWING.

d. Times of Origin: 24-hour clock time followed by MIKE (Local ENIWETOK Atoll 180th Meridian time) designator eliminating the use of a.m. and p.m. should be used on all local communication circuits in the PPG where message date-time-group (DTG) is used. When originating messages to be sent outside the area, Greenwich Civil Time (GCT) (World or Zebra) time will be used.

2. Mission: The communication mission of CTG 7.1 is to:

a. Procure, install, operate and maintain special electronic and communication equipment required by the Scientific Task Group.

b. Initiate voice-time broadcast for all elements of the task force.

c. Coordinate with responsible agencies the processing of TG 7.1 messages.

3. Installation, Issue and Maintenance of Ashore Radio Sets, Telephones and Landlines:

a. General: CTG 7.5 is responsible for installation, issue and maintenance of military-type radio equipment, for the telephone and buoy cable systems on ENIWETOK Atoll (less ENIWETOK (Fred) Island) and for the telephone and buoy cable system on BIKINI Atoll. CTG 7.1, through Edgerton, Germeshausen and Grier, Inc. (EG&G), is responsible for installation, issue

and maintenance of commercial-type radio equipment. CTG 7.2 furnishes, on custody to CTG 7.5, military radio sets and components, as authorized by CJTF SEVEN, necessary to meet military radio requirements of TG 7.1.

b. Issue of Radio Sets: TG 7.5 Radio Shop, PARRY (Elmer) Island, is authorized to issue on custody to designated TG 7.1 personnel, military radio sets and EG&G is authorized to issue on custody to designated TG 7.1 personnel, commercial radio sets.

c. Return of Radio Sets: TG 7.1 personnel signing for radio sets are responsible for return of all components in good condition. The TG 7.1 using agency will investigate and prepare a letter of explanation in the event of loss or serious damage to equipment which will necessitate formal survey proceedings. Subject letters will be addressed to CTG 7.1 with copies to Holmes and Narver, Inc. (H&N) or EG&G as appropriate. Equipment shall be expeditiously returned when no longer required in connection with Operation REDWING.

d. Operation and Care of Radio Sets: Instructions for the operation and care of sets will be issued concurrently with the sets. H&N and EG&G radio technicians will brief personnel on operation of equipment at the time of issue.

e. Maintenance of Radio Sets Reports of trouble on installed military radio sets should be directed by the using agency to the TG 7.5 Radio Shop, PARRY (Elmer) Island, telephone 73 or ENYU (Nan) Island, telephone 28, and reports of trouble on installed commercial radio sets should be directed by the using agency to the EG&G Radio Shop, PARRY (Elmer) Island or ENYU (Nan) Island. Defective portable radio equipment should be exchanged at the respective radio shops. In an emergency, or in cases where circuit trouble is not corrected satisfactorily, notify the TG 7.1 Communications Officer.

f. Telephone and Landlines: CTG 7.5 has been requested to install telephones and landlines to meet atoll requirements which have been submitted by TG 7.1 personnel and approved by CTG 7.1. Task unit commanders will notify TG 7.1 (J-6 Office) if submitted requirements have not been installed as requested. In event of telephone trouble, using agency will notify the nearest switchboard operator, and if corrective action has not been taken within 24 hours, the agency will notify TG 7.1 (J-6 Office).

g. Installation of New Communication Facilities: Requests for new communication facilities should be submitted directly to the TG 7.1 Communications Officer, who will process requirements and submit to the appropriate agency for implementation.

4. Task Group 7.1 Communications Facilities Afloat:

a. CTG 7.5 will operate and maintain communications centers serving TG 7.1 aboard the USNS AINSWORTH (TAP-181) and USS CURTISS (AV-4) and will operate and maintain inter-atoll (PARRY (Elmer) - BIKINI Atoll) radiotelephone and radioteletype facilities. In addition, CTG 7.5 will provide and maintain certain military-type radio equipment (VRC-18, Walkie-Talkies, etc.) required by TG 7.1 project personnel.

b. EG&G will install and maintain commercial mobile radio equipment for CTG 7.1.

c. CTG 7.3, as directed by CJTF SEVEN, is responsible for the installation, maintenance and operation of other communication facilities afloat.

d. All messages originated by TG 7.1 personnel for release to addressees outside the immediate ENIWETOK - BIKINI Area must be processed in accordance with paragraph 7 of this annex.

e. CTG 7.1 will designate a communications representative for each vessel on which TG 7.1 personnel will be embarked. These representatives will perform the following functions:

(1) Liaison with the ship's Communications Officer or TG 7.5 Communications Center on communication matters affecting TG 7.1.

(2) Processing and releasing into the ship's communication channel or TG 7.5 Communications Center official outgoing TG 7.1 messages originated by TG 7.1 personnel embarked.

(3) Insuring that all official TG 7.1 messages are processed through the TG 7.1 Administrative Office on the ship and a file copy maintained, and that this file is delivered to TG 7.1 Mail and Records Office after debarkation.

(4) Insuring that a proper watch is maintained on all TG 7.1 voice circuits terminating in the ship and that traffic is expeditiously and accurately handled and recorded.

f. There will be a Control Center in the USS ESTES (AGC-12) which will provide ship-to-ship and ship-to-air communications for the fallout program of TG 7.1.

5. Outline of Communication Facilities Available and Security Classification of Facilities:

a. General: Because of limited cable facilities, wide dispersion of operations, and the number of aircraft and ships involved, radio will be the

primary means of communication. A limited number of submarine cable circuits interconnect islands of ENIWETOK Atoll and islands of BIKINI Atoll. Maximum use should be made of those facilities to meet communication needs within each atoll because of the communication security afforded by wire facilities. THE USE OF UNCLASSIFIED HIGH FREQUENCY VOICE RADIO CIRCUITS WILL BE KEPT TO A MINIMUM AND CLOSELY CONTROLLED. Radio-teletypewriter facilities will be used in lieu of voice radio whenever possible.

b. Major Radio Facilities:

(1) All landbased military operated low, medium and high frequency fixed radio transmitting equipment will be located in the joint transmitter station, Building No. 4, on ENIWETOK (Fred) Island. The station will be jointly operated by TG 7.2 and TG 7.4.

(2) A joint receiver station housing all point-to-point military fixed station receiving equipment will be located on JAPTAN (David) Island. It will be jointly operated by TG 7.2 and TG 7.4 communications personnel.

(3) TG 7.5 will operate and maintain fixed radio transmitting equipment in Station No. 81, PARRY (Elmer) Island, and in Station No. 70, ENYU (Nan) Island, providing inter-atoll radioteletype and radiotelephone service.

(4) All task force organizations within the PPG will be served by the ENIWETOK (Fred) Island Relay-Crypto Center which will be jointly operated and maintained by TG 7.2 and TG 7.4 communications personnel.

(a) Joint Relay Center: Tributary stations serviced by the Joint Relay Center includes TG 7.5 on PARRY (Elmer) Island, who guards for TG 7.1. In addition, the Task Force Command Ship and other ships, as required, will be serviced by this relay center.

(b) Joint Crypto Center: The Crypto Center, ENIWETOK (Fred) Island, will be crypto guard for all tributary stations except for intra-TG 7.3 traffic and TG 7.1 - TG 7.5 traffic filed between PARRY (Elmer) Island and CONUS.

c. Radioteletype Circuits:

(1) PARRY (Elmer) Island - LOS ALAMOS, NEW MEXICO: Full dx (1) This circuit is approved for transmission of teletype traffic up to and including TOP SECRET RESTRICTED DATA. Operated ON-LINE, using SIGTOT with synchronous mixer equipment TT-160/FG.

(2) PARRY (Elmer) Island - ENYU (Nan) Island: Full dx (1)
This circuit is approved for transmission of teletype traffic up to and including TOP SECRET RESTRICTED DATA. Operated ON-LINE, using SIGTOT with synchronous mixer equipment TT-160/FG.

(3) PARRY (Elmer) Island - USS CURTISS (AV-4): Full dx (1)
This circuit is approved for transmission of teletype traffic up to and including TOP SECRET RESTRICTED DATA. Operated ON-LINE, using SIGTOT with synchronous mixer equipment TT-160/FG.

(4) ENIWETOK (Fred) Island - OAHU (JHP): Full dx (1)
This circuit is approved for transmission of teletype traffic up to and including SECRET. This does NOT include RESTRICTED DATA. Operated ON-LINE using SIGTOT with synchronous mixer equipment TT-160/FG.

(5) ENIWETOK (Fred) Island - OAHU (UHP): Full dx (1)
This circuit is approved for transmission of teletype traffic up to and including SECRET. This does NOT include RESTRICTED DATA. Operated ON-LINE, using SIGTOT with synchronous mixer equipment TT-160/FG.

(6) ENIWETOK (Fred) Island - KWAJALEIN: Full dx (1)
This circuit is approved for transmission of teletype traffic up to and including SECRET. This does NOT include RESTRICTED DATA. Operated ON-LINE, using SIGTOT with synchronous mixer equipment TT-160/FG.

(7) ENIWETOK (Fred) Island - USS ESTES (AGC-12): Full dx (1)
This circuit is approved for transmission of teletype traffic up to and including SECRET. This does NOT include RESTRICTED DATA. Operated ON-LINE, using SIGTOT with synchronous mixer equipment TT-160/FG.

(8) ENIWETOK (Fred) Island - USS BADOENG STRAIT (CVE-116): Full dx (1)
This circuit is approved for transmission of teletype traffic up to and including SECRET. This does NOT include RESTRICTED DATA. Operated OFF-LINE.

d. Radiotelephone Circuits:

(1) ENIWETOK (Fred) Island - HAWAII - CONUS: Available to authorized users in accordance with provisions of COI 10-12 for UNCLASSIFIED conversations only.

(2) PARRY (Elmer) Island - ENYU (Nan) Island: This will be an UNCLASSIFIED, full duplex, authorized user circuit terminating on the PARRY (Elmer) Island and ENYU (Nan) Island switchboards.

(3) ENIWETOK (Fred) Island - Command Ship, USS ESTES (AGC-12): This will be an UNCLASSIFIED, full duplex, command channel. Circuit will terminate on the PARRY (Elmer) Island switchboard at ENIWETOK Atoll and on ship's switchboard. Shipboard radio equipment will be operated by ship's personnel while the landbased radio equipment will be operated by Army task group communications personnel. Only authorized personnel will use this circuit.

(4) PARRY (Elmer) Island - USS CURTISS (AV-4): This circuit, employing AFSAY 806 voice security equipment, is cleared for conversations classified up to and including SECRET RESTRICTED DATA. The circuit is limited to users authorized by CTG 7.1 and CTG 7.5. Radio equipment for both ends of the circuit will be operated and maintained by TG 7.5. AFSAY 806 equipment will be operated and maintained by military personnel obtained by Hq JTF SEVEN.

(5) Ship-Shore and Ship-Ship Telephone Communications: Telephone buoy cables at ENIWETOK Atoll will normally be employed to provide ship-shore telephone service for ships anchored in the lagoon and equipped to use this facility. Telephone channels derived from shipboard AN/TRC-Carrier equipment operating with similar shore-based equipment on PARRY (Elmer) Island will be used in the event of cable failure and when ships are operating within VHF range outside the lagoon. Only one buoy cable facility will be available at BIKINI Atoll and AN/TRC-Carrier derived telephone channels will be the only other means of ship-shore telephone communications. Telephone communications between major ships (USS ESTES (AGC-12), USS BADOENG STRAIT (CVE-116), USS CURTISS (AV-4) and USNS AINSWORTH (TAP-181)) will also be provided by use of AN/TRC-Carrier equipment.

e. Radio Voice Circuits:

(1) Radio voice circuits, with voice security equipment cleared for conversations classified up to and including SECRET RESTRICTED DATA, will be available as follows:

(a) USS ESTES (AGC-12) - USS CURTISS (AV-4).

(b) USS CURTISS (AV-4) - Station No. 70, ENYU (Nan) Island.

(c) USS CURTISS (AV-4) - USNS AINSWORTH (TAP-181).

The UHF radio equipment, ciphony equipment and ciphony maintenance personnel will be provided by Hq JTF SEVEN.

f. Radio CW Circuits: CJTF SEVEN will provide communication service to off-atoll locations as follows: RONGERIK, KUSAIE, WOTHO and UJELANG. Communications addressed to WAKE Island, CANTON Island and GUAM Island will be routed to the TG 7.1 Message Center who will provide further routing.

6. Message Preparation:

a. Drafting Text: The provisions of ACP 121 will be followed in the preparation of all messages. Only authorized abbreviations as listed in JANAP 169 will be used. These publications are available in TG 7.1 Message Center, PARRY (Elmer) and ENYU (Nan) Islands. Messages should be sent only where other means of communication will not suffice. The text should contain minimum wordage consistent with clear and concise delivery of information.

b. Classification: The originator will be responsible for classifying the respective messages. The originator will consult the TG 7.1 Classification Officer if there is any doubt as to the proper classification.

c. Message Precedence: The assignment of precedence to a message is the responsibility of the originator and is determined by the subject matter of the text and time factor involved. The precedence assigned a message by the originator does not indicate the action to be taken by the addressee or the precedence designation of a reply. Such instructions, if necessary, will be included in the text or in other special orders. In general, a deferred message will be delivered within 24 hours, a routine message within 12 or less hours, and a priority or above, within several hours. Messages, priority and above, received after normal working hours generally necessitate special provisions for decryption and delivery to action addressee. Refer to table in paragraph 9, below, when originating messages to CONUS addressees.

7. Message Release (TG 7.1 Personnel):

a. Between Operations:

(1) All messages leaving the PPG between operations until such time as the specially designated personnel of TG 7.1 for classification and content review have arrived in the PPG, will be submitted to the AEC Resident Engineer on PARRY (Elmer) Island for approval and release. If it is found that this procedure creates a backlog of messages during the build-up phase, CTG 7.1 will designate sufficient TG 7.1 personnel by name to alleviate this condition.

(2) An Acting CTG 7.1, PPG, will be designated for the period on or about 15 January 1956 until such time as relieved by CTG 7.1. For this period, all messages leaving the PPG must be examined for classification, content and involvement of other task units or agencies and released by the Acting CTG 7.1.

b. During Operations:

(1) All messages leaving the PPG during operations will be processed through Hq TG 7.1 on PARRY (Elmer) Island. These messages must be examined for classification, content and involvement of other task units or agencies and released by one of the following designated persons:

See Annex #3 6 March 1956

Alvin C. Graves	Kenneth D. Coleman
William E. Ogle	R. J. Van Gemert
Gaelen L. Felt	C. Thomas Brockett
Lester L. Woodward	Armand W. Kelly
Harry S. Allen	Walter D. Gibbins
Arthur J. Hudgins	D. T. Griffin
Duncan Curry, Jr.	John W. Lipp
Gerald W. Johnson	

(2) If there is any doubt as to proper classification, the TG 7.1 Classification Officer should be consulted.

(3) In order that task unit commanders and heads of staff sections may properly control all outgoing TWX's of their units, and to assure the reviewers listed above that dispatches have been cleared by responsible personnel in the originating group, each organization will be required to submit to CTG 7.1, Attention J-1 Section, lists of one or more of their individuals who will be authorized to clear messages originating in their units.

c. ENIWETOK-BIKINI Atoll Messages Between and During Operations: For messages between ENIWETOK and BIKINI Atolls, anyone in TG 7.1 may act as releasing authority as long as the message does not leave the PPG. The senior J-1 or J-3 representative will be authorized to establish message precedence if required by heavy traffic.

d. Post-Shot Messages Which Release Data: ALL POST-SHOT MESSAGES WHICH RELEASE DATA, REGARDLESS OF THEIR DESTINATION, WILL BE RELEASED PERSONALLY BY CTG 7.1.

8. Message Filing and Delivery: The TG 7.1 Message Center, located in

Room 8, Building No. 209, PARRY (Elmer) Island, ENIWETOK Atoll; Building No. 15, ENYU (Nan) Island, BIKINI Atoll; and J-1 Office, USS CURTISS (AV-4), will receive outgoing messages for delivery and be responsible for delivery of incoming messages. Messages should be released by appropriate releasing authority prior to filing with TG 7.1 Message Center. A station file of all messages sent and received through the TG 7.1 Message Center shall be maintained by that center.

9. Time Conversion Chart:

ZONE "M" -12 ENIWETOK NEW ZEALAND FIJI WAKE KWAJALEIN		ZONE "W" +10 HAWAII	ZONE "U" +8 LOS ANGELES SAN FRANCISCO (PST)	ZONE "T" +7 LOS ALAMOS (MST)	ZONE "R" +5 WASHINGTON (EST)	ZONE "Z" GREENWICH (ZEBRA)
0001#		0201	0401	0501	0701	1201
0100#		0300	0500	0600	0800	1300
0200#		0400	0600	0700	0900	1400
0300#		0500	0700	0800	1000	1500
0400#		0600	0800	0900	1100	1600
0500#		0700	0900	1000	1200	1700
0600#		0800	1000	1100	1300	1800
0700#		0900	1100	1200	1400	1900
0800#		1000	1200	1300	1500	2000
0900#		1100	1300	1400	1600	2100
1000#		1200	1400	1500	1700	2200
1100#		1300	1500	1600	1800	2300
1200#		1400	1600	1700	1900	2359
1201		1401*	1601*	1701*	1901*	0001
1300		1500*	1700*	1800*	2000*	0100
1400		1600*	1800*	1900*	2100*	0200
1500		1700*	1900*	2000*	2200*	0300
1600		1800*	2000*	2100*	2300*	0400
1700		1900*	2100*	2200*	2359	0500
1800		2000*	2200*	2300*	0100	0600
1900		2100*	2300*	2359	0200	0700
2000		2200*	2359	0100	0300	0800
2100		2300*	0100	0200	0400	0900
2200		2359	0200	0300	0500	1000
2300		0100	0300	0400	0600	1100
2359		0200	0400	0500	0700	1200

International Date Line

NOTES: # - Indicates Day After Zebra Time.
* - Indicates Day Before Zebra Time.

For zones having Daylight Saving Time, add one hour to numbers shown on above chart.

10. Physical Security: Holders of classified messages and other materials of a classified nature are responsible for proper handling, safekeeping and destruction, when necessary or desirable, of such material.

11. Voice Calls: Where only one voice call is assigned to a radio net, the station controlling the net should assign station numbers to each station on the net, with the controlling station being assigned the number one. The voice call could then consist of the net call with the station number following.

12. Special Voice Codes: Special voice codes to transmit classified information over TG 7.1 voice circuits will not be used unless such codes are approved by CTG 7.1 and CJTF SEVEN.

13. Voice Procedure: Standard radiotelephone procedure, as prescribed by JANAP 125, should be used. The TG 7.1 Communications Officer will issue copies of JANAP 125 upon request.

14. Phonetic Alphabet: When necessary to identify any letter over the telephone or radio net, the following standard phonetic alphabet may be used:

Letter	Spoken	Letter	Spoken	Letter	Spoken
A	Able	J	Jig	S	Sugar
B	Baker	K	King	T	Tare
C	Charlie	L	Love	U	Uncle
D	Dog	M	Mike	V	Victor
E	Easy	N	Nan	W	William
F	Fox	O	Oboe	X	X-ray
G	George	P	Peter	Y	Yoke
H	How	Q	Queen	Z	Zebra
I	Item	R	Roger		

15. Radio Interference:

a. TG 7.1 personnel operating circuits with serious interference notify TG 7.1 Communications Officer.

b. Responsible personnel must insure radio sets are operating on, or very close to, assigned frequencies.

c. Normal sources of radio interference are: Other transmitters, ignition systems in motor vehicles, power units, air compressors, refrigeration plants, motor boats, aircraft, other spark generating devices and atmospherics. Shielding, bonding, suppressors and capacitors must be properly installed on spark generating devices.

16. Telephone Procedure:

a. CTG 7.5 will consolidate and issue Atoll Telephone Directories, which have been prepared by the task groups. A copy will be distributed to all TG 7.1 telephone users and spare copies maintained in the J-3 Office, TG 7.1, on PARRY (Elmer) Island.

b. When a voice radio circuit is used as a part of the telephone system, the operator will, in each instance, advise the calling party: "This is a radio circuit - watch your security".

c. The telephone operators will give prompt attention to urgent calls, as defined in the Atoll Telephone Directories, using "break-in" procedure on calls in progress, if necessary, to complete the desired connection. Only CTG 7.1 may exercise executive right of way.

17. Personal Message Service:

a. Personal Emergency (Class "E") and Expeditionary Force Messages (CANNED) which meet requirements will be accepted for delivery by the Communications Division (J-5) of JTF SEVEN on PARRY (Elmer) Island and ENYU (Nan) Island. These messages will be filed prepaid and transmitted over military circuit to HONOLULU for commercial refile.

b. Afloat, Personal Emergency type messages must be released by the Commanding Officer of the ship or his authorized representative. Consult Communications Watch Officer of vessel in which embarked.

c. The only acceptable subjects for transmission under Personal Emergency (Class "E") privilege are:

(1) Matter of life and death, and serious illness.

(2) Matters of personal arrangements not of a recurrent nature.

(3) Occasional greetings on important personal anniversaries.

18. Guard Mail or Armed Messenger Mail: The Task Force Guard Mail Center will be located in the Hq JTF SEVEN Building, PARRY (Elmer) Island. TG 7.1 Guard Mail Center will be located in the Mail and Records Office, Room 8, Building No. 209, PARRY (Elmer) Island and J-1 Office, Building No. 15, ENYU (Nan) Island. This office will effect delivery of incoming guard mail through the

appropriate PARRY (ELmer) Island and ENYU (Nan) Island offices of the addressees and receive outgoing guard mail from these offices. TG 7.1 personnel embarked in ships may use the ship's unit, or office, and name of addressee. Where appropriate, the island locations should be indicated. Offices having special guard mail problems consult with the J-1 Office, TG 7.1, PARRY (Elmer) Island, which will issue detailed guard mail instructions as necessary.

19. Communications During Shot Times: All circuits and radio frequencies to be used during shot times will be active during rehearsal times in order that interference sources can be located and corrective action taken. Particular attention will be directed to monitoring vital frequencies such as telemetering and certain voice circuit frequencies. Personnel operating circuits or controlling devices employing frequencies will submit immediate report to CTG 7.1 on detecting a harmful level of interference.

20. Timing Signals:

a. Local Voice Time Broadcast: Voice broadcast notification of shot times will be initiated from the Firing Control Point on ENYU (Nan) Island and PARRY (Elmer) Island. This broadcast will be transmitted on 154.57 and 245.00 MC's. Present plans are to broadcast time signals at the following times: Minus three hours, minus two hours, minus one hour, minus 45 minutes, minus 30 minutes, minus 20 minutes, minus 15 minutes, minus 10 minutes, minus five minutes, minus four minutes, minus three minutes, minus two minutes, minus one minute, minus 45 seconds, minus 30 seconds, minus 15 seconds, minus 10 seconds, and each second thereafter to shot time.

b. Long Range Time Signals: All off-site projects desiring long range time signals will use World Time. Announcement of shot time, shot delays and new firing times will be distributed to interested projects.

21. Message Delivery Within CONUS: Activities within the CONUS participating in Operation REDWING, anticipating high precedence messages originating in the PPG for delivery after close of normal office hours, should furnish the TG 7.1 Communications Officer with the working hours of the communication facility serving the activity and the names and telephone numbers of several persons who may be contacted to activate the facility for receipt of after-hour traffic.

22. Guiding Principles:

a. Classified matters will not be discussed over non-approved voice radio circuits. No radio circuit or telephone circuit having a radio link, except those employing AFSAY 806 or AFSAY 808 equipment, is approved for transmission of classified information in the clear.

b. Landline telephone, teletype, and submarine cable circuits connecting the islands of ENIWETOK Atoll and the islands of BIKINI Atoll are approved for the transmission of classified traffic up to and including CONFIDENTIAL DEFENSE INFORMATION.

c. Code names will NOT be assigned to individuals. The use of personal names on voice radio circuits is authorized.

d. TG 7.5 will provide communication and crypto services for TG 7.1 with the following exceptions:

(1) Special communications - electronics equipment required for conduct of scientific test programs.

(2) Voice time broadcast.

e. Personal message service will be available to all personnel in the ENIWETOK-BIKINI Area.

f. Radioteletype facilities will be used in lieu of voice radio whenever practicable for communication security reasons.

g. The old phonetic alphabet (Able, Baker, Charlie, etc.) will be used during Operation REDWING.

h. COI's issued by JTF SEVEN and TG 7.1 will supplement instructions contained herein.

i. No cover or deception plan is to be employed except for the deception offered by rehearsals.

j. If communication dry runs indicate intolerable interference, it may be necessary to request radio silence at shot time. It is not anticipated that radio silence will be imposed at any other time.

Appendices:

I. JTF SEVEN Teletype Network

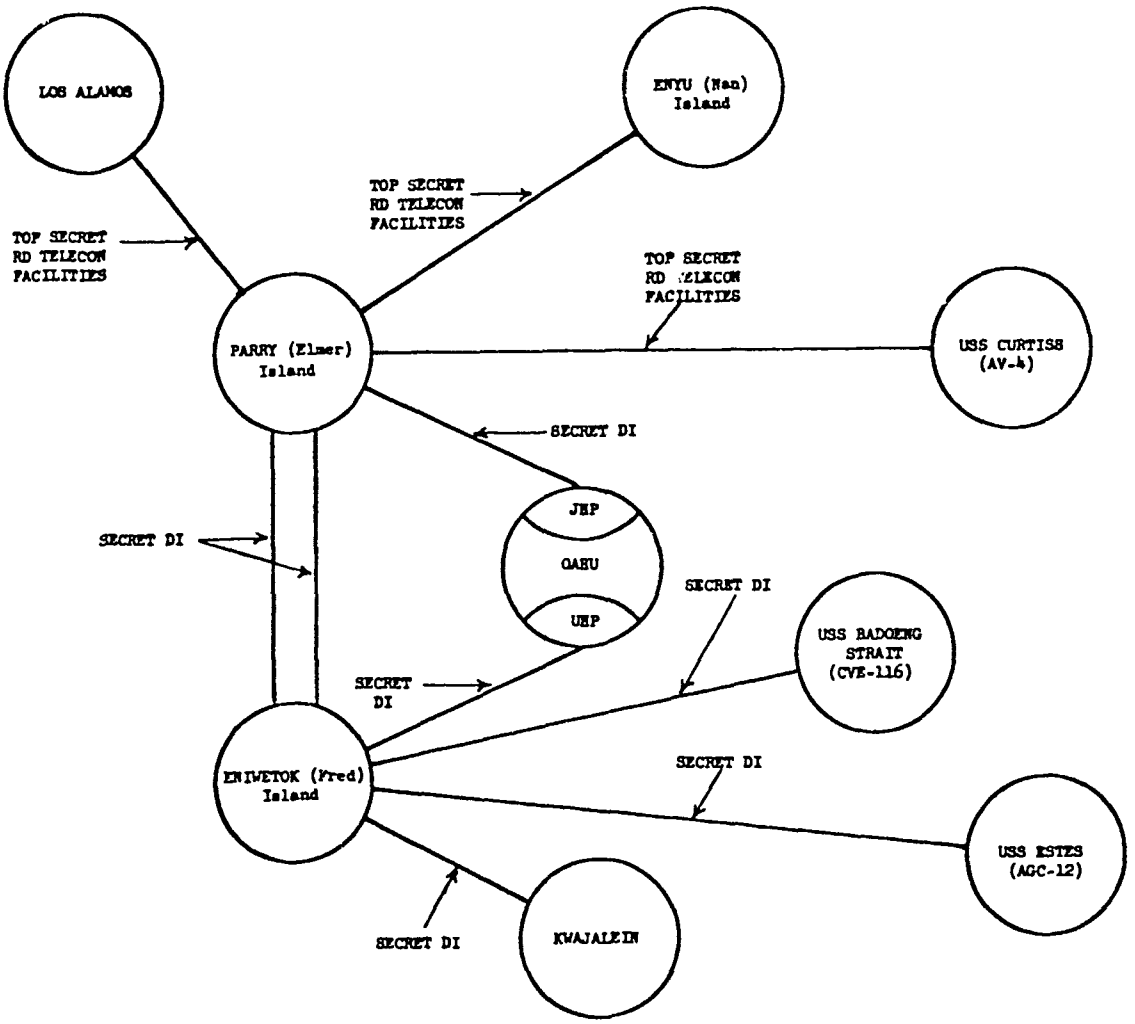
II. Scientific Radio Nets

III. Radio Call Signs

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix I to Annex F
Communication Plan
CTG 7.1 Operation Plan No. 1-56

JTF SEVEN TELETYPE NETWORK



Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix II to Annex F
Communication Plan
CTG 7.1 Operation Plan No. 1-56

SCIENTIFIC RADIO NETS

POGO NET

Voice Call: BEACHCOMBER - Frequency: 152.87 MC

PARRY (Elmer) Island:
- CTG 7.1 Office
- POGO Office
- J-3 Office
- J-4 Office
- J-6 Office
- J-10 Office
- J-12 Office
- J-15 Office
- Program 18 Office
- EG&G Office
- TU-10 Office
- EG&G Photo Tower
- EG&G Control Station No. 71
- CTU-6 Office
- CTU-8 Office

ENIWETOK (Fred) Island:
- Project 11.2 Office
- Inter-Island Airstrip

TEITEIRUCCHI (Gene) Island:
- J-6 Office

RUNIT (Yvonne) Island:
- J-6 Office
- J-15 Mirror Shed
- J-15 Station
- J-15 Trailer
- Program 18 Receiving Station
- J-7 Trailer
- J-7 Pumping Station
- Project 18.1 & 18.2 Office

BOGON (Irene) Island:
- J-16 Station
- J-16 Trailer
- J-16 Trailer (200 yards from GZ)

JAPTAN (David) Island:
- J-16 Trailer

Miscellaneous Locations -
ENIWETOK Atoll:
- W-Division Trailer
- Zero Points

Afloat:
- USS CURTISS (AV-4)
  - CTG 7.1 Office
  - J-3 Office
  - Timing & Firing
  - J-6 Office
- USS ESTES (AGC-12)
- USS BADOENG STRAIT (CVE-116)
  - Forward Ready Room
- USNS AINSWORTH (TAP-181)
  - J-1 Office
- Helicopter Barge
- LCU (Houseboats)
  - J-10 Trailer
  - J-13 Trailer
  - J-15 Trailer

POGO NET

ENYU (Nan) Island:
- CTG 7.1 Office
- EG&G Station No. 70
- J-1 Office
- J-3 Office
- J-4 Office
- J-6 Office
- Airstrip
- J-16 Trailer
- CTU-8 Office
- Program 18 Office

ROMURIKKU (Fox) Island:
- TU-1 Office
- J-6 Office

YUROCHI (Dog) Island:
- Project 13.2 Station

AOMOEN (George) Island:
- J-10 Station
- J-15 Station

Zero Points, BIKINI Atoll

Handi-Talkies - 5

Pack Sets - 5

OPERATIONS NET

Voice Call: KLEENEX - Frequency: 153.89 MC

PARRY (Elmer) Island:
- EG&G Photo Tower
- EG&G Control Station No. 71
- J-3 Office
- Rad-Safe Office
- Airstrip
- J-1 Office (Building No. 222)

TEITEIRIPUCCHI (Gene) Island:
- J-1 Office
- J-3 Office
- J-4 Office
- J-6 Office

ROJOA (Ursula) Island:
- J-1 Office
- J-3 Office
- J-4 Office
- J-6 Office

ENGEBI (Janet) Island:
- Tent at Helicopter Pad

RUNIT (Yvonne) Island:
- J-1 Office
- J-3 Office
- J-4 Office
- J-6 Office

Miscellaneous:
- 4 Barrel type for helicopter operation

Afloat:
- USS CURTISS (AV-4)
  - Timing & Firing
  - J-1 Office
  - J-3 Office
  - J-4 Office
  - J-6 Office
- USS BADOENG STRAIT (CVE-116)
  - Forward Ready Room
- USNS AINSWORTH (TAP-181)
  - J-1 Office
  - Rad-Safe Office
- Rad-Safe Barge

ENYU (Nan) Island:
- J-1 Office
- J-3 Office
- J-6 Office
- EG&G Station No. 70
- Airstrip

OPERATIONS NET

ENINMAN (Tare) Island:
- J-1 Office
- J-3 Office
- J-4 Office
- J-6 Office

ROMURIKKU (Fox) Island:
- J-1 Office
- J-3 Office
- J-4 Office
- J-6 Office

NAMU (Charlie) Island:
- Tent at Helicopter Pad

UCRL NET

Voice Call: MAGAZINE - Frequency: 160.11 MC

PARRY (Elmer) Island:
- Deputy UCRL Office
- J-3 Office
- J-6 Office

ROJOA (Ursula) Island:
- Zero MOHAWK
- Station No. 2201
- Station No. 2301
- J-1 Office
- J-3 Office
- J-4 Office
- J-6 Office

ENINMAN (Tare) Island:
- Zero Site
- Station No. 2300
- Station No. 2200
- J-1 Office
- J-3 Office
- J-4 Office
- J-6 Office

Afloat:
- USS CURTISS (AV-4)
  - J-1 Office
  - J-3 Office
  - J-4 Office
  - J-6 Office
- USS BADOENG STRAIT (CVE-116)
  - Forward Ready Room
- USNS AINSWORTH (TAP-181)
  - J-1 Office

YUROCHI (Dog)-ROMURIKKU (Fox) Chain:
- Shot Barge
- Photo Bunker

ENYU (Nan) Island:
- J-3 Office
- J-6 Office

RAD-SAFE NET

Voice Call: WATCH DOG - Frequency: 155.73 MC

Rad-Safe Offices
- PARRY (Elmer) Island
- ENYU (Nan) Island
- ENINMAN (Tare) Island
- AOMOEN (George) Island

Rad-Safe Check Point, ENIWETOK (Fred) Island

- USS CURTISS (AV-4)
- USS BADOENG STRAIT (CVE-116)
- USS ESTES (AGC-12)
- USNS AINSWORTH (TAP-181)
- Rad-Safe Barge

J-4 NET

Voice Call: BALLOT - Frequency: 161.61 MC

USS CURTISS (AV-4)
USNS AINSWORTH (TAP-181)
Trailer, ROMURIKKU (Fox) Island
Office, ENYU (Nan) Island

EG&G NET

Voice Call: SCARLET - Frequency: 158.51 MC

PARRY (Elmer) Island:
- CTG 7.1 Office
- EG&G Photo Tower
- EG&G Station No. 71

RUNIT (Yvonne) Island:
- EG&G Distribution Station
- EG&G Photo Station
- EG&G Alpha Station

ROJOA (Ursula) Island:
- EG&G Distribution Station

BIIJIRI (Tilda) Island:
- EG&G Timing Station

ENGEBI (Janet) Island:
- EG&G Distribution Station
- EG&G Photo Tower

AIRUKIIJI (Oboe) Island:
- EG&G Distribution Station

BIKINI (How) Island:
- EG&G Distribution Station
- EG&G Photo Station

NAMU (Charlie) Island:
- EG&G Distribution Station
- EG&G Alpha Station

BOGON (Irene) Island:
- EG&G Distribution Station

MACK Photo Tower

Afloat:
- USS CURTISS (AV-4)
- CTG 7.1 Office
- Timing & Firing

ENYU (Nan) Island:
- EG&G Control Station No. 70
- CTG 7.1 Office

YUROCHI (Dog) Island:
- EG&G Distribution Station
- Project 13.2 Station

CHIEERETE (William) Island:
- EG&G Timing Station
- EG&G Photo Station

AOMOEN (George) Island:
- EG&G Distribution Station
- EG&G Photo Station

DOD NET NO. 1

Voice Call: KEYHOLE - Frequency: 38.7 MC

PARRY (Elmer) Island:
TU-3 Office
TU-3 (Jeep)*
J-3 Office
J-6 Office

Rocket Station on Man-Made Island 3000 Yards NW of RUNIT (Yvonne) Island:
Project 1.3 Station*

USS CURTISS (AV-4):
J-3 Office
TU-3 Office

USNS AINSWORTH (TAP-181):
TU-3 Office

ENYU (Nan) Island:
J-3 Office
J-6 Office
TU-3 Office
TU-3 Office

Rocket Station Off BOKOBYAADAA (Able) Island:
Project 1.3 Station*

NAMU (Charlie) Island:
Project 2.65 Station

UORIKKU (Easy) Island:
Project 2.1 Station

ROCHIKARAI (Love) Island:
Project 2.63 Station
Project 2.65 Station

AIRUKIIJI (Oboe) Island:
Project 1.1 Station
Project 1.5 Station

AIRUKIRARU (Peter) Island:
Project 1.1 Station
Project 1.5 Station

BIGIREN (Roger) Island:
Project 1.1 Station
Project 1.5 Station

ENIIRIKKU (Uncle) Island:
Project 1.1 Station
Project 2.63 Station

RUKOJI (Victor) Island:
Project 2.65 Station*

ARRIIKAN (Yoke) Island:*
Project 2.63 Station
Project 2.65 Station

OURUKAEN (Zebra) Island:*
Project 2.62 Station
Project 2.63 Station

BOKORORYURU (Bravo) Island:
Project 2.65 Station*

Three Man-Made Islands:
Project 3.1 Station
Project 3.1 Station
Project 3.1 Station

*PRC-10 Portable equipment will be kept in task unit or project office when not in use.

DOD NET NO. 2

Voice Call: INHALE - Frequency: 39.3 MC

USS BADOENG STRAIT (CVE-116):
Raydist Master Station

BOKOBYAADAA (Able) Island:
Relay Station

BIKINI (How) Island:
Relay Station

ENYU (Nan) Island:
Relay Station

CHIERETE (William) Island:
Relay Station

DOD NET NO. 3

Voice Call: MOONBEAM - Frequency: 45.0 MC

This net will be used for calibration purposes at both BIKINI and ENIWETOK Atolls by work parties where operations in DOD Net No. 1 is not required. AN/PRC-10 will be used primarily. In the event of overloading of other nets, this is considered also a spare.

DOD NET NO. 4

Voice Call: SASSY - Frequency: 53.6 MC

PARRY (Elmer) Island:
Operations Office
Pier Operations
Project 2.63 Office*

ENYU (Nan) Island:
Project 2.63 Office
Project 1.9 Office
Project 2.63 Office*

Afloat:
USS GEORGE EASTMAN (YAG-39)
Program 2 Office
USS GRANVILLE S. HALL (YAG-40)
Program 2 Office
USS CROOK COUNTY (LST-611)
Program 2 Office
M/V HORIZON
Program 2 Office
USS SIOUX (ATF-75)
Program 2 Office
USS ESTES (AGC-12)
Control Center
LCM-37
Program 2 Office
YFNB-13
Program 2 Office
YFNB-29
Program 2 Office
LCU
Program 2 Office
SIO 38' Picket Boat
Program 2 Office
YC-1420
Program 2 Office*
USS MCGINTY (DE-365)
Program 2 Office
USS SILVERSTEIN (DE-534)
Program 2 Office

* PRC-10 portable equipment will be kept in project or program office when not in use.

SPECIAL NETS

AFSAY 806 NET:
(This net cleared for SECRET ~~DEFENSE INFORMATION~~ RESTRICTED DATA utilizing AFSAY 806 equipment)

PARRY (Elmer) Island:
CTG 7.1 Office
D/A TG 7.1 Office
~~POCO Office~~ (Rev J)
J-3 Office
CTU-3 Office
CTG 7.5 Office
ACCS STP Server (Rev J)

USS CURTISS (AV-4):
CTG 7.1 Office
J-1 Office
J-3 Office
CTU-3 Office

ENYU (Nan) Island:
CTG 7.1 Office
J-3 Office
CTG 7.5 Office

AFSAY 808 NET:
(This net cleared for SECRET RESTRICTED DATA utilizing AFSAY 808 equipment)

USS ESTES (AGC-12):
(In space assigned by CJTF SEVEN)

USS CURTISS (AV-4):
J-3 Office

USNS AINSWORTH (TAP-181):
Radar Equipment Room (04 Deck)

Station No. 70, ENYU (Nan) Island:
Firing Party

SPECIAL NET NO. 1 - LASL - Voice Call: SOURPUSS - Frequency: 152.99 MC
SPECIAL NET NO. 2 - UCRL - Voice Call: GANGWAY - Frequency: 153.35 MC
SPECIAL NET NO. 3 - UCRL - Voice Call: DESSERT - Frequency: 154.37 MC
SPECIAL NET NO. 4 - LASL - Voice Call: HALFWIT - Frequency: 154.71 MC
SPECIAL NET NO. 5 - UCRL - Voice Call: FRINGE - Frequency: 160.20 MC

(Special Nets No. 1 - 5 are Motorola handi-talkies and pack sets utilized for such special communications as mirror alignment, etc.)

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix III to Annex F
Communication Plan
CTG 7.1 Operation Plan No. 1-56

RADIO CALL SIGNS

The following radio call signs are assigned for use by TG 7.1 during Operation REDWING:

Voice Call	Net	CW Call
ASTOUND	Spare	
BEACHCOMBER	POGO	
SCARLET	EG&G	
KLEENEX	OPERATIONS	
MAGAZINE	UCRL	
BALLOT	J-4	
WATCHDOG	RAD-SAFE	
SOURPUSS	Special Net No. 1	
GANGWAY	Special Net No. 2	
DESSERT	Special Net No. 3	
HALFWIT	Special Net No. 4	
FRINGE	Special Net No. 5	
VETERAN	Sandia Corporation	
BARRYMORE	Voice Count Down	
KEYHOLE	DOD Net No. 1	
INHALE	DOD Net No. 2	
MOONBEAM	DOD Net No. 3	
SASSY	DOD Net No. 4	
MAIL CALL	Project 8.1 Net	
LIGHTHOUSE	Project 6.1	
LIGHTHOUSE ONE	Long Range Fixed PACIFIC	YG9
LIGHTHOUSE TWO	Short Range Fixed PACIFIC	49Y
LIGHTHOUSE THREE	Short Range Fixed CONUS	HE4
NIGHTGOWN	Project 1.9	1T4
ARISTOCRAT	Project 2.65	F49
POT ROAST	Project 5.6	7CD
COUNTERPOINT	Project 6.3	UG3
PARCHESI	Project 31.1	2MK
MUDBANK	Program II Control Center	ØKA
NARRATIVE	Spare	
ENJOY	Spare	
QUANTITY	Spare	
ABOLISH	Spare	
MANHUNT	Spare	

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Annex G to CTG 7.1 Operation Plan No. 1-56

RADIOLOGICAL SAFETY

1. General: Radiological safety (Rad-Safe) is a command responsibility of all task group and task unit commanders, program directors and project officers. Upon commencement of the operational phase, CTG 7.1, in coordination with other task group commanders, will implement Rad-Safe regulations in accordance with JTF SEVEN Operation Plan No. 1-56 and pertinent AEC regulations.

2. TG 7.1 Rad-Safe Organization:

a. The purpose of the Rad-Safe organization is to provide:

(1) Protection of personnel and equipment.

(2) Effective training of personnel.

(3) Evaluation of the effectiveness of Rad-Safe training and equipment.

b. CTU-7 will administer Rad-Safe regulations in the ENIWETOK and BIKINI Atolls.

c. Personnel of TG 7.5 Rad-Safe will be integrated into TU-7 for the operational phase.

3. TU-7 Radiological Services: TU-7 will provide the following equipment and services:

a. Rad-Safe surface situation maps to CJTF SEVEN, Scientific Director and task group commanders.

b. Laboratory services and technical assistance to all task groups to include:

(1) Distribution and interpretation of film badges to all task force personnel and maintenance of legal dosimetry records.

(2) Monitoring of food, water and soil samples for evaluating health hazards.

(3) Provision of qualified personnel to inspect items contaminated by radioactive material and to certify destruction, disposal and unserviceability of such items as required.

c. Procurement and maintenance of Rad-Safe equipment and protective clothing for TG 7.1, 7.5 and Hq JTF SEVEN.

4. TU-7 Rad-Safe Operations:

a. Entry into contaminated areas will be controlled to assure the radiological safety of task group personnel.

b. Film Badges: There will be two types of film badges which, depending on the conditions, may be issued to personnel of TG 7.1:

(1) A permanent-type badge which will be issued for continuous wear by the holder. This badge will be issued at the time the security badge is issued to the individual.

(2) A mission-type badge which will be issued prior to a person entering a "hot" area. It will be worn only for that mission and will be collected on return from the hot area. Cumulative dosage figures will be based on the mission badge readings.

c. Rad-Safe Center:

(1) The Rad-Safe Center will maintain radiological situation data on lagoon waters and islands of the shot atoll, based on air and ground survey information, supplemented by monitor reports. This information will be the basis of periodic situation reports or maps and briefing information furnished to the task force and task group commanders.

(2) The Rad-Safe Center will provide information for the planning of TG 7.1 Rad-Safe operations and for the disposition of all working parties within the contaminated area. It will establish Rad-Safe check points. It will maintain an operations table giving details for all groups who plan to enter contaminated areas each day, including name of monitor, destination, general type of mission (program or project number) and time of departure and return.

(3) The Rad-Safe Center will have cognizance over working schedules of the radiochemical laboratory, photo dosimetry developing facilities, contaminated laundry, personnel decontamination facilities, radiac repair, etc., of TG 7.1.

Personnel decontamination facilities afloat will be coordinated with existing ship's facilities.

(4) Physical Locations of Rad-Safe Center:

(a) For BIKINI Atoll Shots: The Rad-Safe Center will operate from the USNS AINSWORTH (TAP-181).

(b) For ENIWETOK Atoll Shots: The Rad-Safe Center will operate all of its facilities from the Rad-Safe Building (No. 57) on PARRY (Elmer) Island.

d. Rad-Safe Check Points: Check points will be established for the purpose of issuing mission badges, protective clothing and radiac instruments, checking amount of contamination and for personnel decontamination. Entry to and exit from contaminated areas will be via Rad-Safe Check Points only.

(1) Afloat: Rad-Safe check points will be established aboard the USS BADOENG STRAIT (CVE-116), USS ESTES (AGC-12), USS CURTISS (AV-4) and on the Rad-Safe Barge moored alongside the USNS AINSWORTH (TAP-181).

(2) BIKINI Atoll: The main Rad-Safe check point facilities will be located on ENYU (Nan) Island and will be so located so as to serve personnel entering and leaving both from the boat landing pier and the airstrip. Other check points on BIKINI Atoll will be established as required.

(3) ENIWETOK Atoll: The main Rad-Safe check point facilities will be located in the Rad-Safe Building on PARRY (Elmer) Island in the vicinity of the airstrip. Other check points on ENIWETOK Atoll will be established as required.

5. Further instructions concerning Rad-Safe procedures will be issued in the PPG.

Appendix:

I. Radiological Safety Regulations

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix I to Annex G
Radiological Safety
CTG 7.1 Operation Plan No. 1-56

RADIOLOGICAL SAFETY REGULATIONS

1. Laboratory work involving the handling of radioactive materials will be guided by current directives of the AEC.

2. All atoll land and lagoon areas in the vicinity of the detonations will be considered contaminated after the blast until cleared for operations by CJTF SEVEN. Entry to and from contaminated areas will be via Rad-Safe check points.

3. Rad-Safe monitors assigned to individuals or groups working in contaminated areas or with contaminated equipment during recovery operations will act in an advisory capacity to keep the recovery party leader informed of radiation intensities at all times. The recovery leader is expected to accept this advice and act accordingly. It is the reponsibility of both the leader and the members of the recovery party to adhere to the limits established in these regulations.

4. Proposed use and time of arrival of radioactive sources at PPG will be reported to the Control Officer of the Rad-Safe Unit.

5. The maximum permissible exposures (MPE's) as stated herein are applicable to a field experimental test of nuclear devices in peacetime wherein numbers of personnel engaged in these tests have been previously exposed or will be continuously exposed to potential radiation hazards. It may become necessary from a study of personnel records to reduce the MPE for certain individuals who have recently been over-exposed to radiation. Further, the MPE's are subject to revision by the task force commander in individually designated cases when circumstances indicate the need and justification therefor.

6. Due to the special nature of field tests, it is considered that a policy of strict adherence to the radiological standards prescribed for routine work is not realistic. The regulations set forth herein have been designed as a reasonable and safe compromise considering conservation of personnel exposures, the international import of the test and the cost aspects of operational delays chargeable to excessive radiological precautions. In all cases, other than emergencies or tactical situations, the ultimate criteria

will be limited by the MPE's for personnel. Special instances may arise such as in the case of an air-sea rescue within the RADEX or in the case of tactical situations in which operations will be carried out without regard to the MPE's prescribed herein. For such emergency or tactical operations, the criteria prescribed below for tactical situations will be used as a guide. Wherever possible, however, film badges will be carried and Rad-Safe monitors will accompany such operations to determine the extent of the actual radiation hazard experienced in order that appropriate medical action may be initiated.

7. Task force radiation dosage control will start on first shot ready date minus 15 days and terminate upon departure of individuals from the PPG, or on the last shot plus 15 days, whichever occurs first. All personnel will be considered to have arrived at the PPG by first shot ready date minus 15 days. Prior and subsequent to this period, radiation dosage control will be as prescribed by CTG 7.5.

8. Radiation Dosage:

a. The MPE for personnel involved in this operation is 3.9 roentgens (gamma only) per 13-week period. This exposure may be acquired without limitation on rate of exposure - an individual exposure record should not indicate a total exposure greater than 3.9 roentgens for any given 13-week period.

b. A special MPE of 20 roentgens (gamma only) is authorized for the operational period as defined by paragraph 7, above, for crew members of air sampling aircraft.

c. Authorization for individual exposures in excess of the established MPE will be granted only by CJTF SEVEN, and only in specific cases for which operational requirements provide justification.

d. All exposure to external gamma radiation will be regarded as total body irradiation.

9. Those individuals exposed to ionizing radiation in excess of the value computed by paragraph 8a, above, will be informed that appropriate remarks will be included in their medical records. Military personnel in this category will be advised that they should not be exposed to further radiation until sufficient time has elapsed in order to bring their average radiation dose down to 0.3 roentgens per week. Civilian personnel in this category will be informed that limitations on further radiation exposure will be as determined by the laboratory or agency having administrative jurisdiction over such personnel.

10. Transportation of radioactive material to and from the PPG shall be in accordance with AEC regulations for escorted shipment of such material. The assignment of couriers and Rad-Safe monitors will be the subject of

separate instructions. No radioactive material shall be removed from the test site except as authorized in experimental projects.

11. All samples of radioactive material which are couriered in aircraft will be packaged and loaded so as to reduce radiation to a minimum. Prior to departure of such aircraft, the Sample Return Director, JTF SEVEN will have a survey made of the aircraft cargo to determine if adequate precautions have been taken. The following criteria will determine space and packaging requirements:

a. Prior exposure of aircraft crew, courier and passengers.

b. Anticipated future exposure on trip, considering length of trip, compartmental loading requirements and capability to isolate personnel from radioactive material.

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Annex H to CTG 7.1 Operation Plan No. 1-56

UNTIMED TECHNICAL AND DOCUMENTARY PHOTOGRAPHY

1. General:

a. Untimed technical and documentary photography will include both ground and aerial photography and will utilize still and motion picture equipment with both color and black and white film. This photography will be distinct from the timed and/or scientific photography accomplished in conjunction with selected scientific projects in that untimed and documentary photography will not utilize timing signals. More generally, such photography will not be referenced time-wise to a shot zero time.

b. Untimed technical and documentary photography for TG 7.1 units may be accomplished by contract or by the following photographic units:

(1) LASL programs (TU-1) will be supported by CTU-8.

(2) UCRL programs (TU-2) will be supported by CTU-9.

(3) DOD programs (TU-3) will be supported by Program 9 and CTU-8 as per agreement whereby CTU-8 will be augmented by Program 9 personnel as required to accomplish and process DOD still photography.

(4) Sandia Corporation programs (TU-4) will be supported by TU-4 Photographic Unit.

c. The provisions of Annex F, Photographic Material Control, to TG 7.1 Administrative Plan, dated 25 November 1955, will apply and be adhered to by all elements of TG 7.1 which have photographic materials in their custody.

d. Temporary refrigerated storage space for photographic materials arriving in the PPG can be made available by CTU-8 in Building No. 210, PARRY (Elmer) Island. Organizations desiring to utilize this storage facility should make the necessary arrangements with CTU-8 prior to shipping photographic material to the PPG.

2. Operational Procedures:

a. It will be the responsibility of CTU-2, CTU-3, and CTU-4 to establish the operational procedures which they desire to be followed by their programs and projects when requesting photographic support.

b. All LASL task units, programs and projects and LASL contractors are requested to comply with the operational procedures established in Appendix I to this Annex when requesting photographic support from CTU-8. Appendix I may be used by CTU-2, CTU-3, and CTU-4 as a guide in the preparation of their operational procedures.

3. Classification: Photographic materials will be classified in accordance with the provisions of paragraph 4 of Annex F to TG 7.1 Administrative Plan, dated 25 November 1955.

4. Control of Photographic Materials: The possession, use and control of photographic materials in the PPG will be in accordance with the provisions of paragraph 2 of Annex F to TG 7.1 Administrative Plan, dated 25 November 1955.

5. Disposition of Photographic Materials: Photographic materials no longer required by an organization will be disposed of in accordance with the provisions of paragraph 5 of Annex F to TG 7.1 Administrative Plan, dated 25 November 1955.

6. Disposition of Negatives: Procedure for final disposition of negatives will be outlined in an operational directive to be issued by CTG 7.1 at a later date.

Appendix:

I. CTU-8 Photographic Support

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix I to Annex H
Untimed Technical and Documentary Photography
CTG 7.1 Operation Plan No. 1-56

CTU-8 PHOTOGRAPHIC SUPPORT

1. General:

a. CTU-8 will provide photographic support to all LASL and LASL contractor personnel as requested by the individual units authorized such support.

b. CTU-8, in coordination with Program 9 of TU-3, will accomplish and process the still photography required by DOD programs and projects. Program 9 will provide augmentation personnel to CTU-8 as required to accomplish this additional photographic work.

c. The classification of photography accomplished by TU-8 will be the responsibility of the task unit, program or project for whom the photography is made.

d. Exposed photographic materials will be handled and processed by TU-8 in accordance with the classification given the material by the unit for whom the photography is made.

e. TU-8 will disseminate finished prints as requested by the organization for whom the photography was made, contingent on provisions of paragraph 2a, below.

2. Operational Procedures:

a. CTU-8 will maintain a list of the personnel of the task units, programs and projects who will be authorized to request photographic support, receive finished prints, and sign out photographic materials from CTU-8.

b. CTU-8, in coordination with Program 9, will develop the procedures to be used by DOD programs and projects when requesting photographic support from CTU-8. These procedures should include a listing of the DOD personnel who will be authorized to request photographic service, receive finished prints, etc.

c. CTU-8 will prepare and supply the task units, programs and projects for whom photographic support is provided with the required Job Order Blank, Caption Sheets, etc., to be used in requesting TU-8 support.

d. The task units, programs and projects authorized photographic support from TU-8 will submit their request directly to CTU-8. The request will include the following information:

(1) Task unit, program or project number of agency submitting request.

(2) Name of person authorizing request.

(3) Location and time at which photography is to be accomplished.

(4) Classification and type of photography to be accomplished.

(5) Other pertinent information as applicable.

e. A Photography Job Order will be prepared in duplicate by TU-8 on receipt of each properly authorized request. One copy of the job order will accompany the photographic team to the job site and serve as an instruction sheet; the duplicate copy will be given to the requesting agency.

f. While accomplishing the requested photography, the photographic team will prepare a caption sheet for each negative. A copy of the caption sheet will be furnished the requester for his use in identifying and ordering prints.

g. When practicable, CTU-8 desires that the requester or his representative accompany the photographic team to insure that detailed and specific instructions are carried out. In the event the job site is within a contaminated area, CTU-8 will require that the photographic team be accompanied by the requester or his representative in order that the work can be accomplished without unnecessary exposure of the photographic team personnel.

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Annex I to CTG 7.1 Operation Plan No. 1-56

INTER-ATOLL TRANSPORTATION

1. General:

a. Airlift: Airlift between ENIWETOK and BIKINI Atolls will be provided by CTG 7.4 using C-54 and C-47 aircraft operating between the airstrips on ENIWETOK (Fred) Island and ENYU (Nan) Island. There will be approximately four scheduled flights per day in each direction as traffic dictates. These flights will carry personnel and priority freight. Should the ENYU (Nan) Island Airstrip become unserviceable because of contamination or other causes SA-16 aircraft can be flown between ENIWETOK (Fred) Island and the BIKINI Lagoon. These aircraft carry small loads and are difficult to board in the BIKINI Lagoon.

b. Surface Lift: Surface lift between ENIWETOK and BIKINI Atolls will be provided by CTG 7.3 using LST, APD, and other ships operating between the anchorages near PARRY (Elmer) Island and ENYU (Nan) Island. There will be approximately two trips per week in each direction by LST and additional trips by APD and other ships as traffic dictates. These trips will carry both personnel and freight. Should the ENYU (Nan) Airstrip become unserviceable the APD will be used to make trips between the two atolls making three or four trips per week as required.

2. Description of Facilities:

a. Airlift:

Aircraft	Passengers Only	Cargo Only	Flight Time
C-54	45	20,000 pounds	1 hour
C-47	25	6,500 pounds	1 hour 30 minutes
SA-16	6	small	1 hour 30 minutes

b. Surface Lift:

Ship	Passengers	Cargo	Passage Time
LST	6-100	2300 tons	18 hours
APD	6-100	300 tons	12 hours

3. Obtaining Transportation:

a. Airlift:

(1) Personnel requiring transportation should submit their requirements to J-3 at least one day prior to the desired airlift.

(2) Priority cargo requirements should be submitted to J-4 as early as possible to permit loading.

(3) Requests for space submitted on short notice will be handled according to the availability of space and/or according to the priority needs of the passenger or cargo.

b. Surface Lift:

(1) Personnel requiring transportation should submit their requirements to J-3 at least one day prior to the departure of the ship.

(2) Cargo requirements should be submitted to J-4 as early as possible to permit loading.

(3) Requests for space submitted on short notice will be handled according to the priority needs of the passenger or cargo.

4. Special movements such as those involving weapons or for evacuation and re-entry are the subject of operational letters covering the specific movement. See Annex N - Shot Plans.

5. Summary of Tasks:

a. J-1 (Headquarters Commandant):

(1) Receives passenger lists from J-3 prior to the scheduled flight or surface lift.

(2) Notifies J-3 of incoming MATS passengers requiring further lift to BIKINI Atoll.

(3) Furnishes passenger pick-up and delivery between airstrips and TG 7.1 headquarters.

(4) Maintains personnel accountability from aircraft and ship passenger lists.

(5) Keeps passengers informed of flight and sailing schedules.

b. J-3:

(1) In coordination with J-4, has the responsibility and authority for scheduling (controlling and establishing priorities when necessary) the movement of task group personnel by inter-atoll surface and airlift.

(2) Submit airlift requirements to CTG 7.4 and surface lift requirements to CTG 7.3 the day prior to the required lift.

(3) When conflict over priorities arises, submits jointly with J-4 the total requirements to CTG 7.1 or his designated representative for arbitration.

(4) By means of evacuation and re-entry schedules of events prepared in coordination with J-1 and J-4 controls inter-atoll transportation during evacuation and re-entry periods.

(5) Recommends schedules to CJTF SEVEN for regular and special air and surface lift.

c. J-4:

(1) In coordination with J-3 has the responsibility and authority for scheduling (controlling and establishing priorities when necessary) for the movement of task group cargo by inter-atoll surface and airlift.

(2) When conflict over priorities arises, submits jointly with J-3 the total requirements to CTG 7.1 or his designated representative for arbitration.

(3) Arranges for movement of all unaccompanied cargo to and from shipping points. Prepares and delivers cargo manifests as required.

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Annex J to CTG 7.1 Operation Plan No. 1-56

INTER-ISLAND TRANSPORTATION

1. General:

a. ENIWETOK Atoll:

(1) Aircraft: Scheduled aircraft flights using L-20 aircraft will be provided by CTG 7.4 between the camps on PARRY (Elmer) Island, ENIWETOK (Fred) Island, RUNIT (Yvonne) Island, ROJOA (Ursula) Island; L-20 aircraft will also serve ENGEBI (Janet) Island. The camp on TEITEIRIPUCCHI (Gene) Island will be served by H-19 helicopter shuttle. Special flights to other islands will be provided by H-19 helicopters as required. There will be scheduled flights in each direction as traffic dictates. These flights will carry personnel and priority freight.

(2) Boats: Scheduled boat trips will be provided by CTG 7.5 between the camps on PARRY (Elmer) Island, ENIWETOK (Fred) Island, RUNIT (Yvonne) Island, ROJOA (Ursula) Island, and TEITEIRIPUCCHI (Gene) Island using LCU (T boat), LCM (M boat) and water taxis. Special trips to other islands using the LCU and LCM (with DUKW, if required) will be provided when necessary. There will be approximately two trips per day in each direction as traffic dictates. These trips will carry personnel, freight and vehicles.

(3) Vehicles: Vehicles are provided to projects on a semi-permanent basis when necessary to accomplish project work. Short-time vehicle needs can be fulfilled by the J-3 Motor Vehicle Officer upon request. Bus service will be available at each camp.

b. BIKINI Atoll:

(1) Aircraft: Scheduled aircraft flights will be provided by CTG 7.4 and CTG 7.3 between the camps on ENYU (Nan) Island, ROMURIKKU (Fox) Island, and ENINMAN (Tare) Island using H-19 helicopters. Special flights to other islands will be provided when required. There will be scheduled flights as traffic dictates. These flights will carry personnel and high priority freight.

(2) Boats: Scheduled boat trips will be provided by CTG 7.5 and CTG 7.3 between the camps on ENYU (Nan) Island, ROMURIKKU (Fox) Island, and ENINMAN (Tare) Island using LCU (T boats) and LCM (M boats). Special trips to other islands (with DUKW, if required) will be provided when necessary. There will be approximately two trips per day in each direction as traffic dictates. These trips will carry personnel, freight and vehicles.

(3) Vehicles: Vehicles are provided to projects on a semi-permanent basis when necessary to accomplish project work. Short-time vehicle needs can be fulfilled by the J-3 Motor Vehicle Officer upon request. Bus service will be available at each camp.

2. Description of Facilities:

a. Aircraft:

Aircraft	Personnel Only	Freight Only	Speed
L-20	5	1000 pounds	120 knots
H-19	6	1000 pounds	60 knots

b. Boats:

Boat	Personnel	Freight	Speed
LCU (T boat)	10-50	150 tons	7 knots
LCM (M boat)	10-50	15 tons	9 knots
Water Taxi	30	small	15 knots
DUKW	10-20	$2\frac{1}{2}$ tons	4 knots

c. Vehicles:

Trucks, $\frac{1}{4}$-ton (Jeep)

Trucks, 3/4-ton (Cargo Carriers)

Trucks, $2\frac{1}{2}$-ton (Cargo)

3. Obtaining Transportation:

a. Airlift:

(1) Personnel requiring air transportation should submit their requirements to J-3 as far in advance as possible. Notification should include itinerary, passengers and load, if appropriate.

(2) Priority cargo requirements should be submitted to J-4 as early as possible.

(3) Requests for space submitted on short notice will be handled according to the availability of space and/or according to the priority needs of the passenger or cargo.

b. Boat Transportation:

(1) Personnel requiring boat transportation and going by scheduled boat need not request space unless taking a vehicle in which case the H&N Boat Dispatcher at the point of origin should be notified to insure space.

(2) Personnel requiring special boat trips at other than the scheduled times or to unscheduled destinations should submit their requirements to J-3 as far in advance as possible to permit scheduling of the trip. Notification should include itinerary, passengers, cargo, vehicles, whether DUKW required, etc.

(3) Cargo requirements should be submitted to J-4 as early as possible to permit arrangements for loading.

(4) Requests for space submitted on short notice will be handled according to the availability of boats and/or according to the priority needs of the passenger or cargo.

c. Vehicles:

(1) Semi-permanent assignment of vehicles to projects has already been made.

(2) Personnel requiring short-time use of vehicles should contact the J-3 Motor Vehicle Officer or his local representative at the H&N Camp Motor Pools. Vehicles will be assigned on an as-available basis.

4. Special movements such as those involving weapons or for evacuation and re-entry are the subject of operational letters covering the specific movement. See Annex N - Shot Plans.

5. Summary of Tasks:

a. J-3:

(1) Recommends to CTG 7.3, 7.4 and 7.5 such schedules as will insure maximum utilization of aircraft, boats and vehicles.

(2) Determines TG 7.1 requirements for aircraft and boats and submits these requirements to the controlling authority.

(3) In coordination with J-4, makes arrangements for transportation of weapons and special materials.

b. J-4: Make arrangements for the movement of all freight by boat, vehicle, or air.

Appendix:

I. Aircraft and Boat Travel Times - ENIWETOK and BIKINI Atolls

AIRCRAFT AND BOAT TRAVEL TIMES - ENIWETOK ATOLL

FROM PARRY (Elmer) Island	TO ENIWETOK (Fred) Island	TO RUNIT (Yvonne) Island	TO ROJOA (Ursula) Island	TO ENGEBI (Janet) Island	TO TEITEIRIPUCCHI (Gene) Island
L-20	4 min	8 min	10 min	15 min	-
H-19	5 min	10 min	15 min	20 min	25 min
Water Taxi	19 min	50 min	1 hr 20 min	1 hr 40 min	2 hr
LCM (M Boat)	25 min	1hr	1 hr 30 min	2 hr	2 hr 30 min
LCU (T Boat)	30 min	1hr 20 min	2 hr	3 hr	3 hr 20 min

AIRCRAFT AND BOAT TRAVEL TIMES - BIKINI ATOLL

FROM ENYU (Nan) Island	TO ENINMAN (Tare) Island	TO BIKINI (How) Island	TO AOMOEN (George) Island	TO NAMU (Charlie) Island	TO ARRIIKAN (Yoke) Island
H-19	10 min	7 min	15 min	20 min	20 min
LCM (M Boat)	1 hr 18 min	44 min	1 hr 27 min	2 hr 9 min	2 hr 2 min
LCU (T Boat)	1 hr 34 min	53 min	1 hr 44 min	2 hr 34 min	2 hr 26 min

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Annex K to CTG 7.1 Operations Plan 1-56

OFF-ATOLL REQUIREMENTS

1. Projects having off-atoll sites are located as follows:

a. Project 1.9.....AILINGINAE Atoll.....Wave Recorder Station
WAKE Island.....Wave Recorder Station
JOHNSTON Island.....Wave Recorder Station

b. Project 2.65.....RONGERIK Atoll.....Fallout Collector

c. Project 5.6.....WOTHO Atoll.....Raydist Station (Transmitting and Receiving)
RONGERIK Atoll.....Raydist Station (Reference)

d. Project 6.1,.....HAWAIIAN Islands.....Electromagnetic Station
MIDWAY Island.....Electromagnetic Station
PALMYRA Island.....Electromagnetic Station

e. Project 6.3.....RONGERIK Atoll.....Ionosphere Recorder
KUSAIE Island.....Ionosphere Recorder

f. Project 31.1.....RONGERIK Atoll.....Microbarograph Station
WOTHO Atoll.....Microbarograph Station
UJELANG Atoll.....Microbarograph Station

2. Support:

a. Re-supply:

(1) Projects 1.9 and 6.1 will obtain supplies and support from local sources with the exception of the Project 6.1 station on PALMYRA Island which will be supplied through efforts of the USAF.

(2) Projects 2.65, 5.6, 6.3 and 31.1 will be supplied by special flights using SA-16 aircraft which will operate from ENIWETOK (Fred) Island.

b. Communications:

(1) Projects 1.9 and 6.1 will receive basic communications through channels set up by CJTF SEVEN.

(2) Projects 2.65, 5.6, 6.3 and 31.1 will receive basic communications through facilities established by CJTF SEVEN at the islands concerned.

c. Camp Facilities:

(1) Projects 1.9 and 6.1 will obtain facilities from local sources except for the Project 6.1 station at PALMYRA Island. A special camp will be established at this location.

(2) Projects 2.65, 5.6, 6.3 and 31.1 will be furnished these facilities by CJTF SEVEN.

d. Transportation of Personnel:

(1) Projects 1.9 and 6.1 will arrange for transportation to their stations directly through commercial and military sources.

(2) Projects 2.65, 5.6, 6.3 and 31.1 will arrange for transportation to their stations through J-3 of TG 7.1. Travel will be on SA-16 re-supply flights.

3. Establishment and Roll-up:

a. The Project 1.9 and 6.1 stations are being established through direct negotiations between the projects and the local activities at the sites. Roll-up will be by the same method.

b. The Project 2.65, 5.6, 6.3 and 31.1 stations are being established through arrangements made by CJTF SEVEN for special trips by ship from ENIWETOK Atoll and will be rolled-up in the same manner.

Appendix:

I. Recapitulation of Personnel

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix I to Annex K
Off-Atoll Requirements
CTG 7.1 Operation Plan No. 1-56

RECAPITULATION OF PERSONNEL

	Project						
Island	1.9	2.65	5.6	6.1	6.3	31.1	Total
AILINGINAE	0	-	-	-	-	-	0
WAKE	1	-	-	-	-	-	1
JOHNSTON	1	-	-	-	-	-	1
RONGERIK	-	0	2	-	3	2	7
WOTHO	-	-	4	-	-	2	6
MIDWAY	-	-	-	4	-	-	4
HAWAIIAN ISLANDS	-	-	-	20	-	-	20
PALMYRA	-	-	-	5	-	-	5
KUSAIE	-	-	-	-	3	-	3
UJELANG	-	-	-	-	-	2	2
Total	2	0	6	29	6	6	49

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Annex L to CTG 7.1 Operation Plan No. 1-56

EVACUATION AND RE-ENTRY PLAN

1. General: This annex together with its appendices will serve as a general guide for evacuation and re-entry planning. Prior to each shot, a detailed evacuation plan and a detailed re-entry and recovery plan will be issued for that event. The detailed plans are issued in the PPG after consultation between staff sections of TG 7.1, project leaders and other commands involved. These detailed plans (schedules of events) will provide guidance to all participating personnel for their movements at the time of evacuation and in the re-entry and recovery phase. Limited evacuation, on which detailed plans will also be issued, will be required when certain weapon systems are to be dry-run. Examples are the UCRL's devices to be tested on ENIWETOK Atoll which will require that personnel not needed for the dry-run or under protective cover be temporarily evacuated.

2. Tasks of CTG 7.1: CTG 7.1, in coordination with other task group commanders, arranges for:

a. The evacuation of TG 7.1 personnel from BIKINI Atoll for shots held there.

b. Relocation of TG 7.1 personnel from the northern islands of ENIWETOK Atoll when required for shots held there.

c. Protection or evacuation of task group equipment as required at shot time.

d. Emergency evacuation of TG 7.1 personnel from ENIWETOK Atoll if required by post-shot radiological situation.

e. Recovery of scientific data.

f. Re-entry as feasible to continue preparations for subsequent shots.

3. Tasks of Staff Sections and Subordinate Units:

a. J-1 Section:

(1) Maintains master locator file of all TG 7.1 personnel.

(2) Musters all personnel during the evacuation for each shot and reports the results to CTG 7.1 and CJTF SEVEN.

(3) Assigns a troop quartermaster to each evacuation vessel.

(4) Assigns space aboard ships for administration and berthing.

(5) Coordinates the evacuation of classified documents, assisted by the J-4 Section.

b. J-3 Section:

(1) Prepares detailed evacuation and re-entry plans (schedule of events) for each shot and supervises the execution of these plans.

(2) Is responsible for supporting the evacuation, the recovery of data and re-entry of personnel and material.

(3) In coordination with J-1, is responsible for planning and executing emergency evacuation of personnel.

c. J-4 Section: In coordination with J-3 and with other activities concerned, the J-4 section is responsible for the movement of material to safe locations for each shot and for the relocation of material required for re-entry and preparation for subsequent shots.

d. CTU-7: CTU-7 controls the movements of all personnel into contaminated areas during recovery of data and during re-entry operations so long as the radiological situation requires.

e. Other Task Unit Commanders:

(1) Submit to J-3 the operational requirements of their personnel for final preparation for shots and the phasing out of personnel and material during evacuation.

(2) Submit to J-3 the operational requirements of their personnel for the recovery of data and for re-entry in preparation for subsequent shots.

(3) Provide for the muster of their personnel and for reporting to the J-1 Section during evacuation for each shot.

(4) Arrange with J-4 for the movement of material to safe locations and for evacuation as scheduled by J-3.

(5) Take proper measures for the evacuation and safeguarding of classified materials and documents.

(6) Be responsible for the safe sto. ge of instruments in trailers and for the trailers themselves during shot times.

(7) Be responsible for the marking of material which is evacuated utilizing information from J-4 directives.

(8) Conduct recovery of data in accordance with the J-3 schedule of events and using the Rad-Safe advice of CTU-7.

Appendices:

I. Evacuation of Personnel

II. Evacuation of Material

III. Re-entry and Recovery

IV. Prediction of Effects

(3) Evacuation of all personnel except for the Firing Party on ENYU (Nan) Island should be completed by 1700 hours on D-1.

3. ENIWETOK Atoll Operations:

a. Normally, all personnel will be evacuated from the northern islands to PARRY (Elmer) Island prior to each shot at that atoll.

b. Operational Evacuation:

(1) General evacuation of all personnel except as indicated below should be completed by 1200 hours on D-1.

(2) Only specifically designated and approved personnel such as those required for final instrumentation and services will be allowed to remain subsequent to 1200 hours on D-1. These persons will be indicated by name in the evacuation letter which will include the method and time of evacuation.

(3) Evacuation of all personnel should be completed by 1700 hours on D-1.

c. Emergency Post-Shot Evacuation:

(1) An emergency evacuation capability for all personnel will be maintained in the event radioactive contamination so dictates. Such an evacuation is for personnel safety only and will not include material or personal belongings other than toilet articles.

(2) An emergency evacuation will utilize ships and aircraft available in the area. Designation of ships to which personnel are to proceed is made in the field.

Headquarters Task Group 7.1
Joint Task Force SEVEN
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25 January 1956

Appendix II to Annex L
Evacuation and Re-entry Plan
CTG 7.1 Operation Plan No. 1-56

EVACUATION OF MATERIAL

1. Material and equipment in BIKINI Atoll not required for shot phase or for post-shot operations should be evacuated to ENIWETOK Atoll for return to the CONUS by first available transportation. Time and labor limitations make it imperative that material to be evacuated from BIKINI Atoll to ENIWETOK Atoll be released for shipment as early as possible.

2. Material and equipment in ENIWETOK Atoll not required for shot phase or for post-shot operations should be released for shipment to the CONUS as early as possible.

3. Material and equipment required for re-entry and in preparations for subsequent shots will be moved to islands out of the destruction area and will be protected from shot effects and from weather.

4. Classified correspondence and material will be evacuated by the joint efforts of J-1 and J-4.

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Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix III to Annex L
Evacuation and Re-entry Plan
CTG 7.1 Operation Plan No. 1-56

RE-ENTRY AND RECOVERY

1. General:

a. The following general information applies to all shots. Detailed plans for each shot (schedule of events) will be published prior to the shot and will provide specific guidance for the movements of personnel and material.

b. The feasibility of conducting re-entry and recovery operations is dependent upon the radiological situation which exists after each shot.

c. The success of several experiments is dependent upon the early recovery of samples or records and every effort will be made to accomplish these recoveries. CTG 7.1 will determine the priority of each recovery and will authorize its execution when Rad-Safe conditions permit.

d. At ENIWETOK Atoll, it is anticipated that all re-entry and recovery operations will be conducted from PARRY (Elmer) Island. Certain camps in the northern islands may be re-activated following shots and may be occupied for preparation for subsequent shots.

e. At BIKINI Atoll, it is anticipated that re-entry and recovery operations will be conducted from afloat. Certain camps may be re-activated and may be occupied for preparation for subsequent shots.

2. Recovery:

a. Early recovery operations at BIKINI Atoll will use helicopters operating from the USS BADOENG STRAIT (CVE-116) and boats originating from the USNS AINSWORTH (TAP-181). Recovery personnel will be processed through the Rad-Safe Check Point at the ship and will be briefed by the J-3 representative there. Upon return to the point of origin, the personnel will be processed through the Rad-Safe Check Point and recovered samples will be transported to the projects' laboratory facilities.

b. Routine recovery operations at BIKINI Atoll will use helicopters or boats as appropriate operating from these same bases. Should island facilities at ENYU (Nan) Island be available for use, these later recoveries may originate from and terminate at the island.

c. Samples being returned to ENIWETOK Atoll for processing or to meet sample return aircraft bound for the CONUS will be flown by C-47 aircraft from the ENYU (Nan) Island Airstrip if that strip is serviceable. When the ENYU (Nan) Island Airstrip is unusable, the samples will be either flown by SA-16 aircraft from the BIKINI Lagoon or transported by ship (APD) depending upon the urgency of return and the nature of the samples.

d. Recovery operations at ENIWETOK Atoll will use helicopters operating from the PARRY (Elmer) Island Airstrip and boats operating from the PARRY (Elmer) Island Marine Ramp. Recovery personnel will be processed through the Rad-Safe Check Point on PARRY (Elmer) Island and be briefed by J-3. Returning parties will process through Rad-Safe and the samples will be transported to the projects' laboratory facilities or to ENIWETOK (Fred) Island to meet sample return aircraft bound for the CONUS.

3. Re-entry:

a. At BIKINI Atoll, personnel will continue to live and mess aboard ships until such time as the camps are declared safe for 24-hour occupancy. During this period, personnel who are engaged in preparations for subsequent shots will be permitted to work ashore for safe periods of time depending upon the radiological situation.

b. At ENIWETOK Atoll personnel will continue to base at PARRY (Elmer) Island until such time as the camps in the northern islands are declared safe for 24-hour occupancy.

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Appendix IV to Annex L
Evacuation and Re-entry Plan
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PREDICTION OF EFFECTS

1. Prediction of the effects of the various weapons and devices to be detonated is not indicated in this plan. This is due to the fact that many of the weapons have not yet been fabricated and therefore a prediction might be unreliable.

2. During the course of the operation, predictions of effects for a specific shot, if required, will be published as far in advance as possible so as to permit necessary planning.

Headquarters Task Group 7.1
Joint Task Force SEVEN
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Annex M to CTG 7.1 Operation Plan No. 1-56

TYPHOON AND TIDAL WAVE PLAN

1. General:

a. The purpose of this plan is to provide an emergency organization and set forth instructions for staff sections and task units of the task group in the event of typhoon and/or tidal wave conditions whereby preservation of life and property is maximized and an early and rapid restoration of essential services is obtained.

b. Tidal Waves:

(1) Seismic sea waves, popularly called "tidal waves", are trains of long-period gravity waves in the ocean which may be caused by a large displacement of the sea bottom. Tidal waves usually are associated with earthquakes in the floor of the ocean or with submarine volcanic eruptions. Fortunately, tidal waves do not accompany the great majority of submarine earthquakes. Also as there are no records of destructive tidal waves in the MARSHALL Islands, and it appears, therefore, that the probability of a destructive tidal wave occurring at ENIWETOK or BIKINI Atoll during the operation is extremely remote.

(2) Recent studies on the probability of destructive tidal waves in the MARSHALL Islands have revealed an apparent immunity of coral atolls to tidal wave destruction.

c. Typhoon:

(1) Records show that typhoons rarely originate in or move over the MARSHALL Islands, having done so only once during the current century. However, thunder squalls and relatively high winds are fairly common. The easterly trade winds are strengthened to force 7 (moderate gale - 40 MPH) with considerable frequency, but winds of force 9 (strong gale - 56 MPH) or higher appear to be experienced rarely. The majority of typhoons of the western NORTH PACIFIC originate to the eastward of the PHILIPPINES, but their tracks apparently begin west of the MARSHALL Islands between 125° and 150° east longitude.

(2) The following conditions of typhoon readiness have been established:

(a) Condition III: Typhoon winds, or winds of 50 knots or more, are anticipated within 48 to 24 hours.

(b) Condition II: Typhoon winds, or winds of 50 knots or more, are anticipated within 24 to 12 hours.

(c) Condition I: Typhoon winds, or winds of 50 knots or more, are anticipated within 12 hours.

(3) All elements of TG 7.1 stationed in areas other than on ENIWETOK and BIKINI Atolls will be guided by local procedures in event of a tropical storm.

(a) TG 7.1 personnel located on weather stations (KUSAIE and RONGERIK) will report to and carry out the instructions of the local TG 7.4 weather station commander.

(b) TG 7.1 personnel on other islands (WOTHO and UJELANG) are the responsibility of JTF SEVEN for evacuation and will receive appropriate and timely instructions from that headquarters.

2. Procedures and Instructions Under Tidal Wave Conditions:

a. In the deep waters of the PACIFIC Oceans, velocity of tidal waves is approximately 500 miles per hour. Therefore, as it is almost certain that advance warning of a tidal wave arrival will be short, no definite rules or procedures can be established for an emergency plan.

b. In the event of a tidal wave warning, all personnel will take immediately such personal protective measures as are possible and are dictated by the situation. The two principle casualty producing effects of tidal waves are the collapse of structure caused by the undermining of foundations and drowning.

c. Following the passage of the tidal wave and after the water has receded, all personnel will report to their supervisors by the most expedient means, followed by a personnel status report to J-1 section by all task units and staff sections.

3. Procedures and Instructions Under Typhoon Conditions:

a. Assumptions:

(1) Evacuation of all personnel on ENIWETOK Atoll by vessel and/or aircraft is not operationally desirable and that some elements of the task group will be required to remain on the atoll during the full course of the typhoon.

(2) Evacuation of personnel from BIKINI Atoll will be accomplished to the extent practicable using available vessels. The same conditions as are listed under paragraph 3a(3), below, will govern the extent of the evacuation at BIKINI Atoll.

(3) Designated key scientific personnel and specified critical items at ENIWETOK and BIKINI Atolls will be evacuated in accordance with the following conditions at the time it is determined that a typhoon will pass through the areas of ENIWETOK or BIKINI Atolls:

(a) Vessels and/or aircraft are immediately available for evacuation purposes.

(b) There is sufficient time to conduct evacuation without jeopardizing the safety of the evacuation vessels or aircraft.

b. Mission: Upon establishment by CJTF SEVEN of a condition of typhoon readiness, CTG 7.1 will:

(1) Put into effect the provisions of Annex M - Typhoon and Tidal Wave Plan, CJTF SEVEN Operations Plan No. 1-56, dated 20 January 1956.

(2) Designate key scientific personnel and items of equipment to be evacuated as a matter of priority.

(3) On order of CJTF SEVEN to evacuate, supervise the evacuation of designated personnel and equipment.

(4) Prepare to secure and protect all personnel, equipment, classified material and facilities for which CTG 7.1 is responsible. Particular attention will be given to the security of information and material classified as RESTRICTED DATA and TOP SECRET.

(5) Periodically report status of operations within TG 7.1 to CJTF SEVEN.

c. Pre-Typhoon Preparations by Subordinate Units and Staff Sections:

(1) J-1 Section (Headquarters Commandant)(Hq Comdt):

(a) Responsible for the coordination of over-all planning with reference to the evacuation and safeguarding of TG 7.1 personnel and equipment.

(b) In coordination with the Adjutant General, take precautions for the safeguarding of all TG 7.1 classified documents with special emphasis on RESTRICTED DATA and TOP SECRET.

(c) In coordination with task units and other staff sections, maintain a current list of key personnel.

(d) Organize and instruct damage control, rescue, and first-aid parties made up of TG 7.1 personnel.

(e) Issue to task units and staff sections those typhoon instructions considered necessary for the preparation of planning.

(f) Coordinate planning with appropriate person of JTF SEVEN, other task group and TG 7.1 elements as necessary.

(2) J-4 Section: Make provisions to insure such items as:

(a) List of critical equipment has been submitted. See paragraph 3c(4)(c), below.

(b) Emergency supplies of rations, water and medical items.

(c) Emergency lighting facilities to include stores of candles, kerosene, "hurricane" lamps, etc.

(3) J-6 Section:

(a) Ascertain that all buildings under control of TG 7.1 have been inspected by TG 7.5 and "TYPHOON SHELTER" signs have been posted on all structures considered safe under typhoon conditions.

(b) Insure the provision of emergency generators (gasoline or diesel)(engine driven) for essential power.

(c) Insure that TG 7.5 has planned for the strengthening or dismantling of all TG 7.1 buildings and facilities and those structures which are likely to disintegrate under typhoon conditions.

(4) Other Task Units and Staff Sections:

(a) Formulate plans, coordinated with the Hq Comdt, for the protection and relocation of own personnel and equipment in accordance with the over-all plan.

(b) Be prepared to execute all or part of pertinent plans on order of CTG 7.1.

(c) Prepare and submit to J-4, this headquarters, a list of material, test equipment, etc., to be considered for selection as critical material of that task unit for the purpose of an emergency. As used herein, the term critical material refers to all material, selected by task unit commanders and approved by CTG 7.1, the evacuation of which, is appropriate to the best interest of the scientific effort of the United States. J-4, this headquarters, will maintain a current list of such material, to include locations, approximate weight, size, priority, and identification.

d. Execution by Subordinate Units and Staff Sections:

(1) Upon establishment of Condition III execute following readiness task:

(a) On order, execute muster of all personnel.

(b) Periodic report every four hours to CTG 7.1 (Hq Comdt) for the purpose of determining state of readiness and further instructions and information.

(c) Secure and protect all equipment, files, classified material, etc.

(2) Upon establishment of Condition II:

(a) Suspend all routine activities and divert maximum effort toward typhoon preparations and emergency measures.

(b) Continue Condition III activities.

(3) Upon establishment of Condition I:

(a) Take every means to provide for safety of personnel and equipment.

(b) In coordination with TG 7.5 personnel cut off power to all buildings, except those requiring lights during the emergency. Extinguish all unnecessary fires.

(c) Comply with instructions as to evacuation of personnel and equipment.

(d) Dispatch personnel to emergency duty stations such as damage control, rescue, first-aid, etc. All unassigned personnel must be held inside designated shelters.

e. Post-Typhoon Tasks:

(1) Execute personnel muster and report to CTG 7.1 (Hq Comdt).

(2) Ascertain damage to equipment and facilities and report to CTG 7.1 (Hq Comdt).

(3) Initiate action to return facilities, such as communications, to normal as rapidly as possible.

(4) Protect property and rehabilitate buildings and facilities.

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Joint Task Force SEVEN
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25 January 1956

Annex N to CTG 7.1 Operation Plan No. 1-56

SHOT PLANS

1. Details of operations and instructions relative to each test device detonated and covering areas of activity such as evacuation, re-entry and recovery, etc., can not be included in this plan. This is due to the fact that these details, through necessity, cannot be firm at this time as they are to a large extent dependent on the situation during the shot period. Also to do so would require many and constant changes and amendments to the operation plan.

2. Therefore, for each shot it is intended to issue a detailed plan of operations. These instructions will be separate and in addition to the basic operation plan, and will be known as operational letters. These letters will be identified by the code name of the shot and will be numbered consecutively according to their dates of issue. Their period of coverage will depend, of course, upon the circumstances surrounding each individual shot but as a guide will normally cover the period from shot minus three days to shot plus one day.

3. The areas of activity which normally will be included in these operational letters are listed below. In the event it is determined that a particular area is not required it will be omitted or, if necessary, another added. Examples of the use and coverage of these letters are shown for the INCA and CHEROKEE shots:

a. INCA:

(1) Operational Letter INCA-1 - Movement of Device.

(2) Operational Letter INCA-2 - Schedule of Time Signals.

(3) Operational Letter INCA-3 - Rehearsals.

(4) Operational Letter INCA-4 - Evacuation.

(5) Operational Letter INCA-5 - Re-entry and Recovery.

b. CHEROKEE: As this is an air drop no "Movement of Device" letter is required.

(1) Operational Letter CHEROKEE-1 - Schedule of Time Signals.

(2) Operational Letter CHEROKEE-2 - Rehearsal.

(3) Operational Letter CHEROKEE-3 - Evacuation.

(4) Operational Letter CHEROKEE-4 - Re-entry and Recovery.

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Joint Task Force SEVEN
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25 January 1956

Annex O to CTG 7.1 Operation Plan No. 1-56

SAMPLE RETURN

1. General:

a. The overall responsibility for the return of radioactive samples to the CONUS is that of CJTF SEVEN. CTG 7.1 and CTG 7.4 will have the responsibilities as designated by CJTF SEVEN to coordinate the return of samples. A representative of each responsible task group will be present for the loading and departure of each sample return aircraft to assist JTF SEVEN representative as required.

b. Based on requirements and consistent with collection of samples and flying safety, sample return aircraft will normally depart the PPG at the following times after each event:

(1) One aircraft at H + 6 to 10 hours.

(2) One aircraft at H + 24 to 36 hours.

(3) One aircraft at H + 4 to 5 days.

c. Samples from more than one event may be consolidated and airlifted on one sample return aircraft providing:

(1) Time interval between shots permits sample consolidation.

(2) Cubage and weight of the samples to be airlifted do not exceed capacity of one return aircraft.

(3) Scheduled departure times for the aircraft approximately coincide without causing an unacceptable delay to some samples.

d. Flight planning, based on the requirements of TG 7.1, will be the responsibility of MATS.

2. Responsibilities:

a. JTF SEVEN will:

(1) Procure airlift required to support sample return program.

(2) Establish detailed procedures to effectively conduct the sample return program.

(3) Designate a representative as Sample Return Director who will coordinate the over-all sample return program.

(4) Designate and brief a Sample Return Project Officer for each flight.

(5) Prepare and dispatch pre-departure messages to JTF SEVEN LNO's.

b. CTG 7.4 will:

(1) Insure that top priority is given to the sample return aircraft for departure after loading is completed.

(2) Designate a representative who will be present while each sample return aircraft is being loaded to assist as required with TG 7.4 equipment and personnel in the movement of samples and loading of the aircraft.

(3) Be responsible for the recovery, packaging, marking and delivery of cloud samples to the TG 7.1 representative at the Sample Compound on ENIWETOK (Fred) Island.

(4) In coordination with JTF SEVEN Sample Return Director, brief aircraft commanders on their responsibilities.

c. CTG 7.1 will:

(1) Provide for the recovery, packaging, classifying, marking and delivery of samples to the sample return aircraft.

(2) Designate the type and amount of samples to be placed aboard each aircraft, consistent with safety.

(3) Check, prior to take-off, to insure all scientific cargo, equipment and personnel that are necessary for completion of the respective scientific mission are aboard.

(4) Through JTF SEVEN Sample Return Director, provide MATS with the desired itinerary for each flight, based on the samples to be placed aboard.

(5) Provide Rad-Safe monitors at Sample Compound and at the sample return aircraft during loading operations.

(6) Notify JTF SEVEN Sample Return Director when the sample return aircraft is ready for departure as far as samples aboard are concerned.

(7) Notify certain CONUS scientific installations as to what samples are aboard for them, and expected time of arrival of flyaway aircraft at the airfield concerned.

(8) Make recommendations on sample return procedures to CJTF SEVEN as required to insure an effective sample return program.

3. Operational Procedures:

a. The sample return responsibilities given CTG 7.1 will be coordinated by J-4 of this headquarters. J-3 will be available for assistance if necessary.

b. Scientific project monitors will accompany their samples to the destination when practicable; otherwise, project monitors will meet the sample return aircraft at the destination nearest the interested laboratory.

c. The responsibility for transportation of samples from CONUS airfield to the appropriate laboratory remains with the recipient of the samples.

d. The TG 7.1 Project Officers having samples will:

(1) Make the recovery of their samples.

(2) Package, classify and mark samples for shipment and deliver samples to the Sample Compound at ENIWETOK (Fred) Island.

(3) Have a representative present when sample return aircraft is loaded, for coordination and safety and to assist as necessary.

(4) Insure that personnel and equipment are available at the appropriate CONUS destination to take custody of the samples.

(5) Insure that the project escort or monitor on board the aircraft with his samples and the Sample Return Project Officer have the name and telephone number of the personnel to call in the event sample return aircraft is not met at the destination.

(6) Inform J-3 at BIKINI or ENIWETOK Atoll as early as practicable of all requirements for assistance in the recovery or the transportation of samples to the Sample Compound at ENIWETOK (Fred) Island.

(7) Provide J-3 at BIKINI or ENIWETOK Atoll with the following information at least 36 hours prior to departure of the sample return aircraft on which the project will have samples:

(a) Number of sample containers and size, weight, and cube of each container.

(b) Expected radiation level of containers.

(c) Destination and responsible project.

(d) Name and telephone number of personnel who are to meet aircraft at CONUS destination and receive samples.

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Annex P to CTG 7.1 Operation Plan No. 1-56

WEATHER SERVICES

1. General:

a. The Task Force Weather Central will be established on PARRY (Elmer) Island, ENIWETOK Atoll, during early 1956. This Weather Central will be under both operational and administrative control of CJTF SEVEN through the Task Force Weather Officer.

b. The Task Force Weather Officer is a member of CJTF SEVEN's staff and will accompany CJTF SEVEN aboard the USS ESTES (AGC-12) when operations shift to BIKINI Atoll, taking what personnel he requires. However, Weather Central will continue to operate from PARRY (Elmer) Island throughout operations afloat or ashore.

2. Facilities: The Task Force Weather Central will be aided by the following in implementing its weather mission:

a. Under its operational control will be:

(1) Four outlying weather stations at KUSAIE, TARAWA, RONGERIK and KAPINGAMARANGI. These will be established for and operated during the test period only.

(2) The forecasting and observing station on ENIWETOK (Fred) Island.

(3) The weather reconnaissance unit (WB-50) located on ENIWETOK (Fred) Island.

(4) The TG 7.3 aerological units afloat.

b. By agreement, it will have the help of:

(1) The TG 7.3 safety patrol aircraft.

(2) The forecasting and observing station at Naval Air Station, KWAJALEIN.

(3) Weather Bureau stations at WAKE, MAJURO and PONAPE, who will

take four upper air soundings daily as a matter of routine during the on-site test period.

c. Routine intercept of PACIFIC Ocean weather broadcast network stations will be made.

3. Tasks (Relevant to TG 7.1 Operations):

a. JTF SEVEN Weather Central will:

(1) Collect, plot, analyze and display weather information covering the PACIFIC Ocean Area, with emphasis on the CENTRAL PACIFIC and MARSHALL Islands. Issue the following forecasts on a routine basis:

(a) Daily:

1. Local terminal forecasts for ENIWETOK and BIKINI Atolls of surface winds, amount of clouds, precipitation and sea swells and waves every 12 hours for 24 hours with a further outlook of 24 more hours. These forecasts will be revised when necessary. Widest possible dissemination will be made.

2. Local area forecasts once per day to Naval vessels (aircraft carrier, tender) of the expected weather.

3. 24-hour local winds aloft forecast and outlooks to be made two times daily for all levels up to 70,000 feet.

(2) Prepare material for use by the Task Force Weather Officer and the Fallout Prediction Unit (FOPU) in the operational briefings (See paragraph 4, below).

(3) Issue such additional special forecasts and advisories as are required from time to time by various projects (as complete a schedule as possible for such requirements will be submitted in advance by TG 7.1).

(4) Collect and disseminate such observations as are required on the spot by various projects. As complete a listing of these observational requirements with an appropriate distribution list will be provided by TG 7.1.

(a) The following observations should suffice for all needs.

(It is anticipated that identical complete weather summaries will be prepared and distributed to interested parties who will then extract the items of particular interest to them):

1. Standard three-hourly surface observations (including the state of the sea) for periods from H-72 to H+24.

2. Upper wind runs at three-hourly intervals during the same periods (or, if they are lesser ones, the periods required by the FOPU).

3. Upper air pressure, temperature and humidity soundings:

   a. At six-hourly intervals from H-72 to H+24 by standard radiosonde.

   b. At (or near) H-Hour, a sounding at 200-foot intervals from 0 - 1000 feet by wiresonde, if possible.

4. For certain shots, the height of the haze layer (observed by reconnaissance or aircraft engaged in other primary tasks).

(b) Copies of all upper air soundings (winds, pressure, temperature, humidity) will be made available as soon as feasible to Project 2.63.

(c) Collect data suitable for the preparation of a final meteorological report.

(5) Give warning of any violent weather (e.g., hurricanes).

b. ENIWETOK (Fred) Island Weather Station: Provide a minimum of four upper air observations daily and have the capability of increasing upper air observations to eight daily during certain periods.

c. Weather Reconnaissance Unit:

(1) Fly weather missions daily of approximately 12 hours duration commencing on first shot minus 30 days. Note that with APN 82 equipment available, night weather flights, at twelve-hour intervals, will be profitable.

(2) Fly two pairs of two weather missions daily of approximately twelve hours duration commencing each D-4.

(3) Beginning first shot minus 30 days assume typhoon reconnaissance responsibility in area.

(4) Fly post-shot radiological safety survey missions as directed.

d. Weather Stations: The outlying weather stations will make a minimum of four surface and upper air observations daily in accordance with current procedures and will have the capability of increasing the upper air observations to eight daily prior to each shot.

4. Briefings: For each shot, JTF SEVEN plans to conduct several weather briefings covering both pre-shot and post-shot periods. The pre-shot briefings are primarily for the benefit of the FOPU. Normally these pre-shot briefings are as follows:

a. Planning Briefing: D-1 at approximately 1000 hours.

b. Main Briefing: D-1 at approximately 2200 hours.

c. Pre-Shot Briefing: D-Day at approximately H-3.

5. Tide and Sunrise and Sunset Charts: Tide and Sunrise and Sunset Charts will be issued in the PPG.

Appendices:

I. Climatology of the ENIWETOK - BIKINI Area

II. Wave, Wind and Current Conditions at BIKINI Atoll

III. Wind, Weather and Current Conditions at ENIWETOK Atoll

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix I to Annex P
Weather Services
CTG 7.1 Operation Plan No. 1-56

CLIMATOLOGY OF THE ENIWETOK - BIKINI AREA

1. General: The following information for planning purposes is based on weather records collected during World War II and during postwar activities at the PPG, for the months covered generally by Operation REDWING.

2. Trade and Westerly Winds: During January to May, the "dry" or "trade" season in the MARSHALL Islands, northeasterly winds blow with great persistence in the lower levels with a shift to the south (S) in June or July. Overlaying the northeasterly or trade winds, the winds tend to become westerly. Both the trade winds, and the higher predominantly westerly winds, are subject to frequent cyclonic circulations or disturbances in the form of eddies, vortices, or minor perturbations. Many of the variations of the weather over the MARSHALL's are attributed to these disturbances. In the lower levels, the eddies are most intense along the equatorward edge of the trade circulation (0^{o} to 10^{o} north (N) in the northern hemisphere). These low level eddies are rapidly damped to the N and rarely pass directly over the Northern MARSHALL's. However, their formation, movement and decay contribute to significant day-to-day changes in the ENIWETOK - BIKINI Area weather.

3. Weather Fronts: Rather conclusive evidence exists that significant horizontal density discontinuities do not exist in the MARSHALL's. The areas formerly designated "Intertropical or Equatorial Fronts" are in reality the paths of the low level eddies and vortices. The pattern of circulation about these disturbances produces areas and lines conductive to vertical motion It is along these lines, and in the areas where vertical motions are predominantly upward, that middle and high cloudiness becomes extensive, precipitation general and thunderstorms develop. The weather associated with these lines appears similar to the weather accompanying the true fronts of higher latitudes. However, these lines do not form or move as true fronts do, and are not subject to the same forecasting techniques as true fronts. Squalls begin to increase in June and occur most often in June and July.

4. Precipitation and Visibility: Small, widely scattered showers falling from the prevalent "trade" cumulus clouds are nearly always within sight of ENIWETOK and BIKINI Atolls. In the years 1950 through 1953 inclusive, ceilings have never been observed at 500 feet or less. Visibilities have been observed

below three miles on an average of one day in 20. Visibility in the area is generally over 12 miles. Precipitation, including rain showers and thunderstorms, is the exclusive cause of the low visibilities. The duration of the showers (and the low visibilities) is generally 30 minutes or less.

5. Wind Velocity: At the surface, the persistent trade winds blow from the east-northeast (ENE) to northeast (NE) at 10 to 20 knots. Although such persistence in direction and speed is not found aloft, above 25,000 to 30,000 feet westerly winds are observed about 65% of the time. The frequency of occurrence of the westerlies above 25,000 feet increases as the season progresses. The height at which the westerlies first appear has a wide range. At ENIWETOK Atoll, 80% of the time, wind speeds at any level up to 50,000 feet may be expected to be 30 knots or less; however, in the area to the east (E) of ENIWETOK Atoll, the frequency of strong west (W) winds increases considerably.

6. Tropopause: The tropopause is most frequently found between 54,000 and 60,000 feet above the MARSHALL's. The temperature at the tropopause in this area is -75° to -80° Centigrade with warmer temperatures above and below the tropopause. Temperatures near -65° Centigrade should be expected at 45,000 feet.

7. Typhoon: The months of January through May experience a minimum of typhooon activity in the Southwest PACIFIC Area. Usually about two typhoons occur during this four-month period. During July, August and September, the greatest number of typhoons might be expected. The chance is remote, however, that ENIWETOK Atoll will be directly affected. Appropriate advisories and warnings will be issued to all units when these destructive storms might affect task force activities.

Headquarters Task Group 7.1
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25 January 1956

Appendix II to Annex P
Weather Services
CTG 7.1 Operation Plan No. 1-56

WAVE, WIND AND CURRENT CONDITIONS AT BIKINI ATOLL

1. Survey: Between 3 and 15 April 1953 a survey was made at BIKINI Atoll to determine wave and wind conditions, the relationship between wind and waves, and in addition, current observations.

2. Wind and Waves: The lagoon is almost completely protected from the predominant ocean swell on the windward side (ENE). A secondary swell from E to east-southeast (ESE) enters ENYU (Nan) Channel and dominates the wave conditions throughout the lagoon in spite of the fact that winds blow continuously from ENE with a velocity of 4 to 20 knots. The mean wind is 13.5 knots. Although the winds change the height of the waves, relative to the wind velocity and fetch, the waves maintain their characteristic pattern radiating from ENYU (Nan) Channel with little directional influence from the wind. The secondary swell influence inside the lagoon may be expected to reach a maximum during July and August and be at a minimum during January and February. The average periods observed in the lagoon ranged from 4.0 to 5.9 seconds. The swell that enters the lagoon does not have the "long" period normally attributed to swell (any wave not being generated by local winds). This is the case when wave direction is markedly different from the wind direction.

3. Boating Conditions: Although the lagoon is almost completely protected from the ocean swells, it is, nevertheless, very rough in comparison to ENIWETOK Atoll. Open boats are required to proceed at slower speeds than normal in order to reduce water and spray. Delicate equipment being transported by boats should be covered, and rain clothing is recommended for personnel utilizing open boats for transportation.

4. Currents: Currents have been measured in the passes from CHEERETE (William) Pass to BOKORORYURU (Bravo) Pass. All the passes were similar in total current velocities. During low tidal ranges (0-3 feet), the current velocities ranged from 1.5 knots during ebb to 0.5 knots during flood setting southwest (SW). During high tidal ranges (3-6 feet), the current would flood with velocities reaching 1.0 knot setting NE. Maximum ebb is expected to reach about 3.0 knots setting SW.

Headquarters Task Group 7.1
Joint Task Force SEVEN
LOS ALAMOS, NEW MEXICO
25 January 1956

Appendix III to Annex P
Weather Services
CTG 7.1 Operation Plan No. 1-56

WIND, WEATHER AND CURRENT CONDITIONS AT ENIWETOK ATOLL

1. Wind and Weather:

a. Westerly winds are rare throughout the year. In general, from October to March, northeasterly winds are strong but they gradually change to the eastward. From March to June easterly winds blow and finally shift to S in June or July. Squalls begin to increase in June and occur most often in June and July. During this period the sea is often very smooth and the temperature reaches its highest point.

b. Rainfall at ENIWETOK Atoll is lighter than in the Southern MARSHALL's. Reports indicate an annual average of 60 inches. From December through April droughts are not uncommon.

c. Visibility in the area is over 12 miles except when reduced by showers.

2. Lagoon and Anchorages:

a. ENIWETOK Atoll consists of some thirty small islands on the atoll reef, mostly on the eastern side. There are three entrances leading into the lagoon.

(1) Wide Passage (South Channel) at the southern end of the atoll, is five miles wide but shoal reefs are scattered throughout it.

(2) Deep Entrance (East Channel) six miles NE of Wide Channel, is narrower but has a depth of about 11 fathoms.

(3) The third entrance, eight miles NW of Wide Passage, is narrow and shoal.

b. Deep Entrance (East Channel) the main entrance to ENIWETOK Lagoon, lies between JAPTAN (David) and PARRY (Elmer) Islands. It is about 1400 yards wide between the reefs on either side, has charted depths of nine to over 20 fathoms over most of its width.

c. Wide Channel (South Channel) on the southern side of the atoll between ENIWETOK (Fred) and IGURIN (Glenn) Islands, is about five miles wide. The Western Channel, near the middle of the pass, has been wire-dragged to a depth of 25 feet over a width of about $1\frac{1}{2}$ miles. The Western Channel of Wide Passage is the one used by vessels.

d. The entire eastern part of the lagoon is used as an anchorage. Except in isolated spots, where dangerous shoals are buoyed, the anchorage has been wire-dragged to 45 feet.

3. Tides: At ENIWETOK Atoll the mean range of tide is 2.8 feet, and the spring range 3.9 feet. The mean high-water interval is 3 hours 10 minutes, and the mean low-water interval 9 hours 17 minutes.

4. Currents:

a. Outside the lagoon the current is reported to be generally westerly, following the contour of the encircling reef, with velocities of one-half to two knots.

b. In Deep Entrance a maximum flood current of two knots, setting westward, occurs two hours after low tide. A maximum ebb of $1\frac{1}{4}$ knots, setting southeastward, occurs 50 minutes after high tide. Slack water occurs 40 minutes before low tide, and 20 minutes after high tide.

c. In Wide Passage a maximum flood current of one knot, setting westward, occurs 1 hour 10 minutes after high tide. A maximum ebb of 0.7 knot, setting 210°, occurs 2 hours 27 minutes before low tide. Slack water occurs 2 hours 48 minutes after high tide, and 1 hour 28 minutes before low tide.

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Annex Q to CTG 7.1 Operation Plan No. 1-56

SUMMARY OF MAJOR SUPPORT ITEMS

1. General:

a. The lists of major support items shown in the attached appendices are limited to those major items which are directly concerned and connected with Operation REDWING and have been secured primarily for the operation. Items involved in the operation such as the flyaway aircraft of MATS have not been included though their essentiality to the operation is acknowledged.

b. The arrival dates of the support items in the PPG as indicated in the lists are the most accurate known at this time.

Appendices:

I. Ship and Boat

II. Aircraft

Headquarters Task Group 7.1
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Appendix I to Annex Q
Summary of Major Support Items
CTG 7.1 Operation Plan No. 1-56

SHIP AND BOAT

TYPE	ARRIVAL PPG	MISSION
USS ESTES (AGC-12)	1 April 1956	CP afloat for CJTF SEVEN, CTG 7.3, CTG 7.4, CIC and AOC, and Program 2 Fallout Plot.
USS CURTISS (AV-4)	10 April 1956	CP afloat for CTG 7.1.
USS BADOENG STRAIT (CVE-116)	15 March 1956	Base of HMR 363 Helicopter Squadron while afloat. Maintenance base. Raydist ship.
USNS AINSWORTH (TAP-181)	25 April 1956	CP TG 7.5. Housing personnel while afloat.
USS CATAMOUNT (LSD-17)	25 January 1956	Boat Pool base, transportation device barges. Project 1.4 telemetering receivers.
USS KNUDSON (APD-101)	10 April 1956	Inter-atoll transportation and Project 2.61 telemetering receivers.
USS BERNALILLO COUNTY (LST-306)	Now in PPG	Weather Station support.
USS CROOK COUNTY (LST-611)	1 April 1956	Fallout program.
USS (LST-618)	Now in PPG	Inter-atoll transportation.
USS (LST-664)	Now in PPG (Relieved 31 March 1956)	Off-atoll supports.
USS McGINITY (DE-365)	10 April 1956	Fallout program.
USS SILVERSTEIN (DE-534)	10 April 1956	Fallout program.

TYPE	ARRIVAL PPG	MISSION
USS SIOUX (ATF-75)	15 March 1956	Fallout program.
USS CHICKASAW (ATF-83)	20 April 1956	Barge movement.
USS LIPAN (ATF-85)	1 April 1956	Barge movement.
USS ABNAKI (ATF-96)	20 April 1956	Barge movement.
USS GEORGE EASTMAN (YAG-39)	1 April 1956	Fallout program.
USS GRANVILLE S. HALL (YAG-40)	1 April 1956	Fallout program.
1 YC-1420	10 April 1956	Sample recovery barge.
1 YCV	20 April 1956	Helicopter barge.
YFNB-13	15 March 1956	Fallout program.
YFNB-29	15 March 1956	Fallout program.
19 LCU (H&N)	Now in PPG	Boat Pool (including five as houseboats).
5 LCU (Navy)	Now in PPG	Boat Pool.
29 LCM (H&N)	Now in PPG	Boat Pool.
19 LCM (Navy)	Now in PPG	Boat Pool.
24 DUKW (H&N)	Now in PPG	Boat Pool.
2 LCPR	1 February 1956	Boat Pool.
1 LCPL	1 February 1956	Boat Pool.
1 YFN-994	1 February 1956	Boat Pool.
1 YOGN-53	1 April 1956	Boat Pool.

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Appendix II to Annex Q
Summary of Major Support Items
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AIRCRAFT

TYPE	ARRIVAL PPG	MISSION
4 C-47 (AF)	Now in PPG	Inter-atoll transportation (4 daily round trips between atolls).
8 L-20 (AF)	6 now in PPG 2 on 15 March 1956	Intra-ENIWETOK Atoll air.
15 H-19 (Navy)	8 on 3 February 1956 7 on 15 March 1956	Inter-island transportation.
10 H-19B (AF)	Now in PPG	Inter-island transportation.
3 C-54 (AF)	15 March 1956	Inter-atoll transportation. Communication relay. Documentary photography.
1 R5D (Navy)	1 January 1956	JTF SEVEN Staff Support.
4 SA16 (AF)	1 March 1956	SAR.
3 SA16 (AF)	1 March 1956	Off-atoll resupply.
10 WB-50 (AF)	1 March 1956	Weather reconnaissance.
1 C-97 (AF)	15 March 1956	Ionosphere studies.
3 P2V (Navy)	15 April 1956	Fallout program.
1 P2V (Navy)	1 April 1956	Thermal studies.
6 B-57B (AF)	1 April 1956	Cloud Sampling.
10 F-84G (AF)	15 March 1956	Cloud Sampling.

TYPE	ARRIVAL PPG	MISSION
2 B-52 (AF)	1 April 1956	Drop aircraft - CHEROKEE.
3 RB-50 (AF)	1 April 1956	Early cloud photography.
3 B-47 (AF)	1 April 1956	IBDA.
1 B-36 (AF)	1 April 1956 for CHEROKEE and again in June 1956 for OSAGE.	Cannister drop - CHEROKEE, and drop aircraft - OSAGE.
5 B-57B	1 April 1956	Early cloud penetration.
1 A3D (Navy)	15 March 1956	Effects aircraft.
1 B-52 (AF)	1 April 1956	Effects aircraft.
1 B-47 (AF)	1 April 1956	Effects aircraft.
1 B-57B (AF)	1 April 1956	Effects aircraft.
1 B-66 (AF)	15 March 1956	Effects aircraft.
2 F-84F (AF)	15 March 1956	Effects aircraft.
1 F-101A (AF)	15 March 1956	Effects aircraft.