

134888

DELETED VERSION ONLY

COMMANDER TASK GROUP 7.1
JOINT TASK FORCE SEVEN
OPERATION PLAN
NO. 1-53

OPERATION CASTLE
RG 326 US ATOMIC ENERGY
COMMISSION

Location SNL
Collection CENTRAL RECORDS
Folder O-1 CASTLE

8 December 1953

CLASSIFICATION CANCELLED *
WITH DELETIONS
BY AUTHORITY OF DOE/OC
REVIEWED BY Jo Diaz 11/30/88
DATE
*w/o pages 1, 2, 3, 4 & 6 AND Annexes C, D + E
Bahn 3/8/89

COPIES/DOE
SANDIA RC

2/18/85

INCOMPLETE DOCUMENT REFERENCE SHEET

The archive copy of this document is incomplete.

Pages missing 1-2-3-4-6-14 + C-D-E

Enclosures missing _____

Attachments missing _____

Other _____

Dick Koogle
signature

9-9-88
date

RG 326 US ATOMIC ENERGY
COMMISSION
Location SNL
Collection CENTRAL RECORDS
Folder 0-1 CASTLE

RG 325 US ATOMIC ENERGY
COMMISSION

800

Location SNL
Collection Central Records
Folder 0-1 Castle

Headquarters Task Group 7.1
Joint Task Force SEVEN
Los Alamos, New Mexico
8 December 1953

Operation Plan CTG 7.1 No. 1-53

Chart 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 Organisation (Annex B applies)

Definitions:

BEST AVAILABLE COPY

- FORWARD AREA - That area encompassing the MARSHALL ISLANDS.
- ENIWETOK/BIKINI DANGER AREA - That area encompassing ENIWETOK AND BIKINI ATOLLS and bounded by the meridians $160^{\circ} 35'$ - $166^{\circ} 16'$ east longitude and by the parallels $10^{\circ} 15'$ - $12^{\circ} 45'$ north latitude; an area 150 miles by 350 miles.
- CLOSED AREA - The land areas of ENIWETOK and BIKINI ATOLLS; the water areas of the respective lagoons and the water areas within three miles to the seaward side of the respective land areas.
- H-HOUR - Time of detonation for each shot.
- B-DAY (BRAVO) - Day on which (1st Shot) will be detonated.
- U-DAY (UNION) - Day on which (2d Shot) will be detonated.
- Y-DAY (YANKEE) - Day on which (3rd Shot) will be detonated.
- E-DAY (ECHO) - Day on which (4th Shot) will be detonated.
- N-DAY (NACTAR) - Day on which (5th Shot) will be detonated.
- R-DAY (ROMEO) - Day on which (6th Shot) will be detonated.

DELETED

- 3 -

SNL

CLASSIFICATION CANCELLED*
WITH DELETIONS
BY AUTHORITY OF DOE/OC
J. Diaz 11/30/88
APPROVED BY DATE

*W/O Pages 1, 2, 3, 4 + 6 AND Annexes C, D + 1

- 501
- d.
- 1
- c. Keeps CJTF SEVEN informed on test and technical development affecting the operational plan and military support requirements therefor.
- d. Provides technical assistance during loading, inter-atoll and inter-island movement and placing of the experimental devices.
- e. Completes the installation and calibration of the weapons and devices and all instruments and test apparatus.
- f. Is responsible for the removal of all TG 7.1 personnel and necessary equipment from the shot site danger area (Annex K).
- g. When directed by CJTF SEVEN, evacuates TG 7.1 personnel from Bikini Atoll (Annex K).
- h. Must be prepared, upon directive from CJTF SEVEN, to conduct emergency post-shot evacuation of TG 7.1 personnel from Eniwetok Atoll.
- i. Provides CJTF SEVEN with a statement of preliminary test results.
- j. Provides non-technical film coverage (Annex H).
- k. Conducts the radiological safety program (Annex F).
- l. Recommends safe positioning for aircraft participating in the scientific programs.
- m. Initiates voice-time broadcasts for all elements of the Task Force.
- n. Prepares appropriate technical reports at the conclusion of each shot and the whole operation.

3. Mission of Subordinate Units:

a. TU-1: **BEST AVAILABLE COPY**

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

b. TU-2:

- (1) Is responsible for the operation and maintenance of all liquid hydrogen and liquid nitrogen plants in the Forward Area.
- (2) Procures and ships to the Forward Area necessary supplies for the operation of the plants.
- (3) Obtains and installs a liquid nitrogen storage dewar in the Forward Area.
- (4) Modifies the Parry Island liquid hydrogen plant in accordance with LASL contract.
- (5) Installs an additional liquid nitrogen column, together with freon refrigeration unit and aluminum driers.
- (6) Samples and analyzes all hydrogen and LASL deuterium cylinder banks.
- (7) Modifies and installs ortho-para liquid hydrogen converters.
- (8) Procures spare Joule-Thompson Heat Exchanger for emergency use.
- (9) Coordinates with TU-3 in filling the Cambridge Corporation dewars.
- (10) Coordinates with J-4 and J-6 as required in establishing necessary buildings and facilities.
- (11) Coordinates for approval all designs and layouts through LASL.

c. TU-3:**BEST AVAILABLE COPY**

- (1) Operates and maintains five refrigerated transport dewars at the Forward Area during 1953-4. This includes moving dewars and refrigerators throughout the Forward Area as required by the operation schedule as coordinated with TG 7.1.
- (2) In consultation with J-Division, LASL, establishes the facilities required by Cambridge Corporation for the operation at the Forward Area.

- (3) Makes arrangements with J-4 for transportation of the dewars, refrigerators, trailers, special devices and associated equipment to the Forward Area from the coast, and return.
- (4) Transports equipment to and from the West Coast, ZI.
- (5) Collaborates with TU-2 in dewar filling; develops transfer tubing, couplings, and techniques required in dewar testing and operational filling in the Forward Area; and furnishes said testing equipment to accompany filled dewars in transit.
- (6) Delivers filled dewars to designated locations in conformance with schedules set up by TU-4 and TU-14.
- (7) Services, maintains, fills, operates and delivers certain special devices to designated locations in the Forward Area in conjunction with other designated units of CG 7.1 and in conformance with a schedule set up by TU-4.

d. TU-4:

- (1) Arranges with J-4 for shipment to the Forward Area of LASL test device(s), appropriate spare parts, and the equipment necessary for the assembly and check out of such device(s). This does not include equipment furnished by J-Division as part of facilities.
- (2) Assembles, checks out and installs in position at the Forward Area, the LASL device(s) to be tested. Final check-outs will be made in coordination with TU-6.
- (3) Arranges with J-4 for return to the ZI, or storage on Parry Island, whatever material and equipment noted under (1) and (2) above which remains after the operation is completed.

e. TU-6: **BEST AVAILABLE COPY**

- (1) Arms and detonates (or 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 Room.
- (3) Disseminates appropriate information to other agencies on a "Need-to-Know" basis as required for their support of Firing Party operations.

- (4) Keeps CTG 7.1 informed of progress during arming and firing operations.

f. TU-7:

- (1) Supervises monitoring services for TG 7.1 operations in the Forward Area.
- (2) Provides laboratory services ashore and afloat for processing film badges and issuing and recording photo dosimetry data for designated personnel of all Task Groups; for the repair, maintenance, and calibration of TG 7.1 RADIAC equipment (and for the calibration of the RADIAC equipment of other Task Groups as required).
- (3) Provides suitable documentation of fall-out, and situation map data including dissemination of RADEX forecasts and actual RADEX data.
- (4) Furnishes technical services and advice as requested to all units of the Task Force.
- (5) Trains designated personnel in all phases of Rad-Safe surveying, operations, and decontamination.
- (6) Publishes suitable tables of allowable residual radiation levels for equipment, personnel, vehicles, boats, etc.
- (7) Provides personnel and material decontamination facilities in the Forward Area as required.
- (8) Provides suitable protective clothing for TG 7.1 recovery personnel.
- (9) Conducts water sampling operations on Eniwetok, Bikini and other inhabited atolls as dictated by fall-out estimates.
- (10) Supports TG 7.3, TG 7.4 and TG 7.5 by providing certain radiological safety services during test operations.
- (11) Monitors movement of sources and other radioactive materials in the Forward Area from the standpoint of possible interference with project activities as well as from the safety standpoint.

BEST AVAILABLE COPY

- 10 -

SNL

g. TU-8:

- (1) Makes all negatives requested by other task units to provide full report coverage for TG 7.1 scientific programs, units, and staff sections in black and white and color, still and motion picture.
- (2) Provides accident and general record coverage.
- (3) Makes technical documentary records in still and appropriate motion pictures of each operation as requested.
- (4) Provides facilities and aid to project officers in their processing of scientific photographic records.
- (5) Stores, issues, processes, and accounts for film in accordance with security and classification instructions.

h. TU-9:

- (1) Prepares scripts for such non-technical motion picture photography as may be authorized by CJTF SEVEN.
- (2) Accomplishes photography in accordance with the approved scripts in coordination with the test activities to be photographed. This coordination is in order to minimize interference with test programs and duplication of photography being accomplished by the Technical Photography Group.
- (3) Stores, issues, processes and accounts for film in accordance with security and classification instructions.
- (4) Conducts necessary mapping photography and prepares mosaics and aerial maps as authorized and required by CTG 7.1.
- (5) Processes certain motion picture film for EOMC as required.
- (6) Provides photographic support of specified scientific projects.

i. TU-12: **BEST AVAILABLE COPY**

- (1) Designs and carries out experiments required for UCRL weapons development.
- (2) Reviews and approves the construction requirements of the UCRL scientific program.

- [REDACTED]
- (3) Administers the technical phases of the contracts of UCRL and certain AEC scientific contractors.
 - (4) Reviews the technical reports of the UCRL scientific programs and projects.

J. TU-13:

- (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) Reviews the reports prepared by the military effects programs.

K. TU-14:

- (1) Arranges with J-4 for shipment to the Forward Area, the UCRL test device(s), appropriate spare parts and the equipment necessary for the assembly and check-out of such device(s).
- (2) Assembles, checks-out, and installs in position at the Forward Area the UCRL device(s) to be tested.
- (3) Arranges with J-4 for return to the ZI, whatever UCRL material and equipment noted under (1) and (2) above which remains after the operation is completed.

L. TU-15: BEST AVAILABLE COPY

- (1) Supplies timing signals to meet the principle requirements of the experimental programs.
- (2) Supplies the firing pulse to the device(s) to be tested.
- (3) Provides and maintains an HF radio and RTTY link between Bikini and Eniwetok.
- (4) Provides and maintains short range commercial radio communication on the Bikini and Eniwetok Atolls.

X. Further missions of Task Unit Commanders:

- (1) By Forward Area conferences assist J-3 in the formulation of a detailed Schedule of Events covering the period from 1200 on shot minus three days through recovery. Critical operations from shot day minus five to four inclusive,



requiring Task Group support, will also be included. Recovery requirements will be specified in detail.

- (2) Insure that personnel and priority cargo are returned to the ZI 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.
- (3) Supply J-1, this headquarters, upon request, with current lists of personnel requiring access to exclusion areas.
- (4) Exercise maximum economy, commensurate with "Getting the Job Done" in the conduct of all operations.
- (5) 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.
- (6) Insure that personnel under their command comply with current health, safety, Rad-Safe, etc., directives issued by this and other headquarters.
- (7) Conduct liaison with all other Task Unit Commanders to the extent necessary to insure adequate intra-Task Unit support and the proper fulfillment of the overall TG 7.1 mission.
- (8) Insure that all personnel under their command have been adequately briefed for emergency operations (Annex L, Typhoon and Tidal Wave Plan and Annex M, Hostile Action Alert Plan apply).

4. Administration: See TG 7.1 Administrative Plan, dated 15 October 1953.

5. Command and Signal Matters:

a. Command Relationships: (Annex B applies) The relation of TG 7.1 to higher headquarters is depicted by Appendix I to Annex B. The AEC policy line between the Santa Fe Operations Office (SFOO) and TG 7.1 represents the position of the Los Alamos Scientific Laboratory (LASL) within the Atomic Weapons program. J-Division of LASL is devoted to testing and includes an overseas test section. The latter constitutes the Los Alamos contingent of TG 7.1.

BEST AVAILABLE COPY



SNL

[REDACTED]

DISTRIBUTION LIST

<u>ORGANIZATION</u>	<u>NAME</u>	<u>NO. OF COPY</u>	<u>COPY NUMBERS</u>
Commander JTF SEVEN	Maj Gen P. W. Clarkson	6	1-6
Deputy for Scientific Matters, JTF SEVEN	Alvin C. Graves (IASL)	1	7
	Herbert York (UCRL)	1	8
Commander TG 7.1	W. E. Ogle (IASL)	1	9
Commander TG 7.2	Col Edward Lahti	1	10
Commander TG 7.3	RADM Henry C. Bruton	3	11-13
Commander TG 7.4	Brig Gen Howall M. Estes, Jr.	3	14-16
Commander TG 7.5	James E. Reeves (SFOO)	6	17-22
Manager SFOO	Carroll L. Tyler	1	23
Directors Office IASL	Norris E. Bradbury	1	24
	Darol K. Froman	1	25
	Henry R. Hoyt	1	26
	Leslie G. Hawkins	1	27
	Frank Diluzio	1	28
Director Office of Security SFOO	James L. McCraw	1	29
DMA of AEC	Brig Gen K. E. Fields	2	30-31
Classification TG 7.1	Ralph Carlisle Smith (IASL)	2	32-33
Technical Reports TG 7.1	David M. Stearns (IASL)	1	34
Deputy for Administration	Duncan Curry, Jr. (IASL)	1	35
J-1	Armand W. Kelly (IASL)	3	36-38
J-3	Phil L. Hooper (IASL)	6	39-44

BEST AVAILABLE COPY

J-4	Robert J. Van Gemert (IASL)	3	45-47
J-6	Robert H. Campbell (IASL)	1	48
TU-1	Rodney L. Aamodt (IASL)	1	49
	Roderick W. Spence (IASL)	1	50
	Harold F. Plank (IASL)	1	51
	C. E. Browne (IASL)	1	52
	Bob E. Watt (IASL)	1	53
	Geelan L. Felt (IASL)	1	54
	Clyde L. Cowan, Jr.	1	55
	W. Biggers	1	56
	Newell H. Smith	1	57
	John S. Malik	1	58
	Francis B. Porzel	1	59
	Herman Hoerlin	1	60
	Harold S. Stewart	1	61
TU-2	Herrick L. Johnston	1	62
TU-3	S. H. Ellison (Canco)	1	63
	B. G. McNabb	1	64
TU-4	Marshall G. Holloway (IASL)	5	65-69
	Roger Westcott (IASL)	1	70
TU-6	J. C. Clark	1	71
TU-7	John D. Servis (IASL)	1	72
TU-8	Loris M. Gardner (IASL)	1	73
TU-9	Lt Col James L. Gaylord (IML)	1	74

BEST AVAILABLE COPY

SNL

TU-12 & TU-14	L-Division, UCRL	15	75-89
TU-13	Col H. K. Gilbert (AFSWP)	33	90-122
TU-15	Herbert E. Grier (EG&G)	2	123-124
J-7	Theodore J. Blechar	1	125
CMR (LASL)	J. Calvin Potts	1	126
Advisory Group	Thomas L. Shipman (LASL)	1	127
	Roy Reider (LASL)	1	128
	Capt R. H. Maynard (AFSWP)	1	129
	Carson Mark (LASL)	1	130
	Earl A. Long (Directors Off LASL)	1	131
AEC Biology & Medicine	John C. Bigher	1	132
AEC Communications SFOO	James A. Sugden	1	133
CG AFSWP Field Command	Attn: Col Paul Preuss	1	134
Report Library LASL		1	135
J-Div Files LASL		10	136-145
Mail & Records LASL		1	146

BEST AVAILABLE COPY

823

Headquarters Task Group 7.1
Joint Task Force SEVEN
Los Alamos, New Mexico
8 December 1953

Annex B to CTG 7.1 Operation Plan No. 1-53

ORGANIZATION AND COMMAND RELATIONSHIPS

The organization and command relationships of this Task Group are depicted on the charts attached as appendices hereto.

Appendices:

- I. Relation of TG 7.1 to Higher Headquarters
- II. Organization Chart, TG 7.1

BEST AVAILABLE COPY

B - 1

SNL

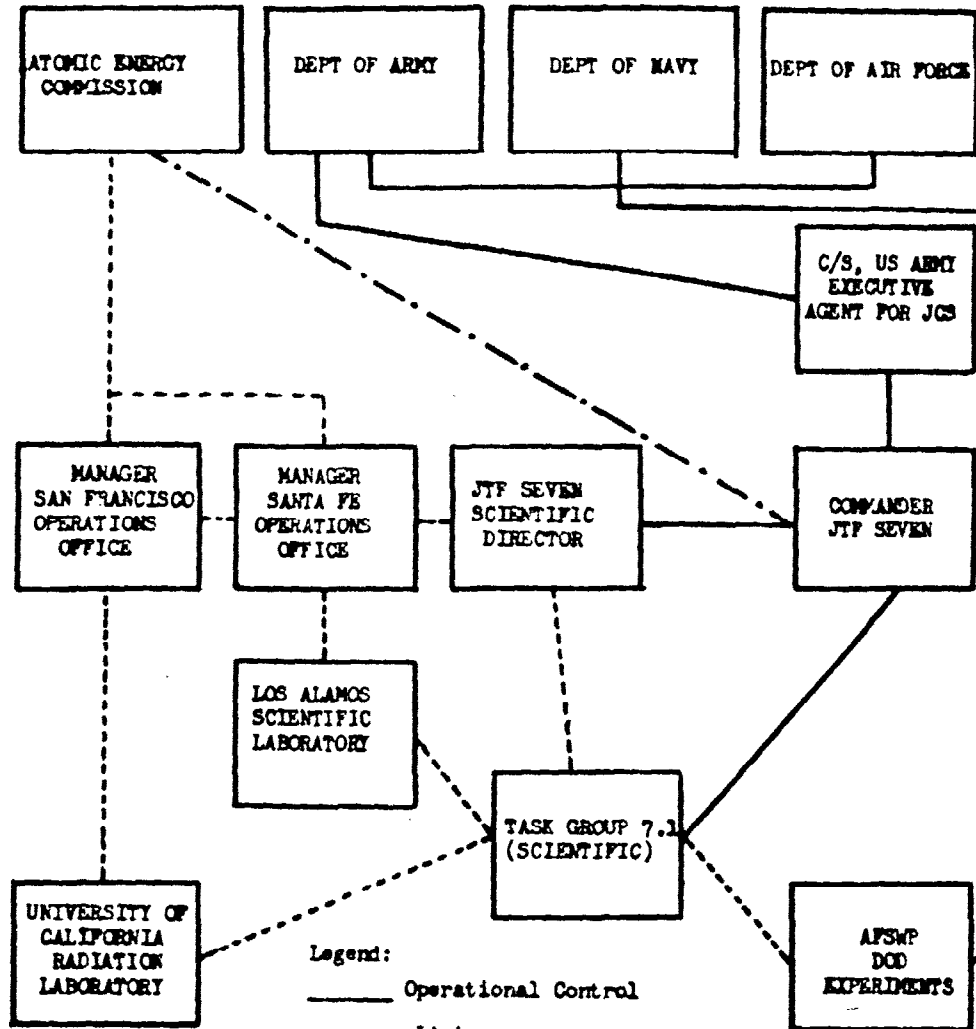
BEST AVAILABLE COPY

824

Appendix I to Annex B
Organization and Command Relationships
CTG 7.1 Operation Plan No. 1-53

Headquarters Task Group 7.1
Joint Task Force SEVEN
Los Alamos, New Mexico
8 December 1953

RELATION OF TG 7.1 TO HIGHER HEADQUARTERS



Legend:
—— Operational Control
- - - - Liaison
- . . . AEC Policy

B - I - 1

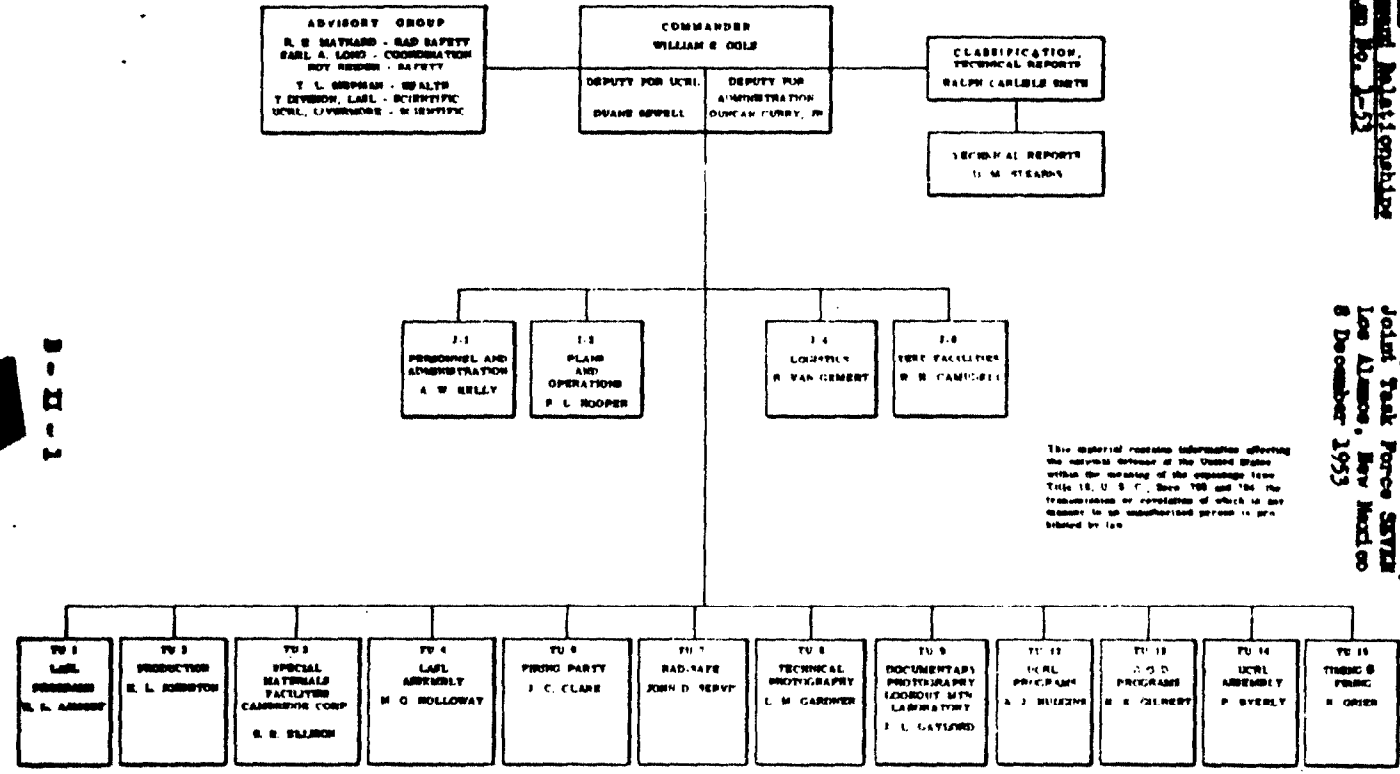
SNL

BEST AVAILABLE COPY

Appendix II to Annex J
Organization and Command Relationship
of 7.1 Organization Plan No. 7.1

Headquarters Task Group 7.1
Joint Task Force STAN
Los Alamos, New Mexico
8 December 1953

ORGANIZATION CHART - TASK GROUP 7.1



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

8-11-1

SNL

Revised October 20 1953
J No. 15851

825

BEST AVAILABLE COPY

852

Headquarters Task Group 7.1
Joint Task Force SEVEN
Los Alamos, New Mexico
8 December 1953

Annex F to CTG 7.1 Operation Plan No. 1-53

RADIOLOGICAL SAFETY

1. Command Responsibilities:

a. Radiological safety is a command responsibility of all Project Leaders, Program Directors, and Task Unit Commanders.

b. CTG 7.1:

- (1) Specifies measures necessary to insure the radiological safety of Task Group personnel.
- (2) Establishes a radiological safety unit (TU-7) within TG 7.1 to accomplish the services of radiological safety specified in Annex N to CJTF SEVEN Operation Plan No. 3-53.
- (3) Provides radiological safety facilities at Eniwetok and Bikini Atolls during the on-site operational phases.

c. TU-7 provides for:

- (1) Radiological protection of TG 7.1 and TG 7.5 personnel.
- (2) Maintenance of Task Group operational efficiency in the presence of radiological hazards.
- (3) Technical assistance to Task Force and Task Group Commanders, Program Directors, and Project Leaders on matters pertaining to radiation.

2. Task Unit Functions: TU-7, the major technical radiological safety unit, performs the following radiological safety services at Eniwetok and Bikini Atolls:

a. Supervision of all ground monitoring services associated with scientific missions.

b. Laboratory services and technical assistance to all Task Groups to include:

COPIED/10/51
SEARCHED

F - 1

SNL

BEST AVAILABLE COPY

- (1) Procurement and distribution of film badges and specified supplementary items of personnel radiological safety equipment.
 - (2) Development of film and interpretation of film readings.
 - (3) Maintenance and distribution of radiation exposure records.
 - (4) Establishment of instrument repair storage facilities. (Calibration sources and limited supplies of RADIAC replacement parts will be maintained at Eniwetok Atoll.)
 - (5) Monitoring of food, water, and soil samples.
 - (6) Laboratory analysis of fall-out particulates as a means of evaluating internal health hazards in the living areas.
 - (7) Provision of appropriate instructions for the removal, packaging, and shipment of radioactive sources and samples.
 - (8) Provision of qualified personnel to inspect radiologically contaminated items and certify destruction, disposal, and unserviceability of such items as required.
- c. Provision of personnel and equipment and protective clothing for TG's 7.1, 7.5 and Hq JTF SEVEN.
- d. Procurement of radiological safety equipment and protective clothing for TG's 7.1, 7.5 and Hq JTF SEVEN.
- e. Procurement and distribution of 4.027 density goggles to specified personnel of the Task Force.
- f. Provision of radiological safety surface situation maps to CJTF SEVEN, Scientific Director, and Task Group Commanders.
- g. Integration of the TG 7.5 Rad-Safe Organization during the overseas phase of operation. Personnel will assist CTU-7 in operations commensurate with functions of the TG 7.5 Rad-Safe Organization during the interim periods.
- h. Assist CTG 7.3 to the extent of providing equipment, personnel, and supervision for rough operational decontamination of aircraft ashore at Bikini Atoll.

Appendix:

I. Radiological Safety Regulations

BEST AVAILABLE COPY

Headquarters Task Group 7.1
Joint Task Force SEVEN
Los Alamos, New Mexico
8 December 1953

Appendix I to Annex F
Radiological Safety, CTG 7.1 Operation Plan No. 1-53

RADIOLOGICAL SAFETY REGULATIONS

1. The Maximum Permissible Exposure (MPE) for personnel involved in this operation is 3.9 roentgens, gamma only, unless reduced because of previous or anticipated future exposure. All exposure to external gamma radiation will be regarded as total body irradiation.
2. Laboratory work involving the handling of radioactive materials will be guided by current directives of the Atomic Energy Commission.
3. 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.
4. 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 responsibility of both the leader and the members of the recovery party to adhere to the limits established in these regulations.
5. Proposed use and time of arrival of radioactive sources at Pacific Proving Ground will be reported to the Control Officer of the Rad-Safe Unit.
6. No radioactive material will be removed from the test site except as authorized in experimental program plans. Unauthorized entry into radioactive areas is prohibited.

F - I - 1

SNL