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HEADQUARTERS

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

411098

J3-H-434

22 November 1957

SUBJECT: Off-Atoll Project Requirements

TO: Commander
Joint Task Force SEVEN
Washington 25, D. C.
ATTN: Col Thomas S. Jeffrey

1. Inclosed herewith are the off-atoll support requirements for Task Group 7.1 Projects 6.4, 6.6, 6.9 and 34.4 in so far as is presently known to this command. These are the only projects under the cognizance of this Task Group which require off-atoll support.

2. The actions being taken to satisfy these requirements are indicated where known and, in addition, the actions requested of your headquarters and other organizations are stated when considered beyond the purview of this Task Group.

FOR THE COMMANDER:

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E. A. Lucke

1 Incl: Off-Atoll Projects and their Requirements

E. A. LUCKE
J-3
Plans & Operations

EAL/dar

DISTRIBUTION:

- 5 - CJTF SEVEN (Jeffrey)
- 1 - CTG 7.3 (Daspit)
- 1 - CTG 7.3 (Daspit) pass to COUSNS Kwajalein (Dally)
- 1 - CTG 7.4 (Keiffer)
- 1 - CTG 7.4 (Keiffer) pass to Tinker AFB (Pusin)
- 1 - CTG 7.5 (Sanders)
- 1 - CTG 7.1 (Shuster)
- 1 - D/A (Curry)
- 1 - J-1 (Kelly)
- 1 - J-4 (Allen)
- 1 - J-6 (Newman)
- 1 - CTU-3 (Coleman)
- 1 - CTU-3 (Halligan) Prog 6

RG 326 US ATOMIC ENERGY COMMISSION

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- 1 - CTU-4 (McC Campbell)
- 1 - CTU-4 (Jeffrey) Prog 34.4
- 1 - AEC EPG (Wynkoop)
- 1 - H&N Los Angeles (Howell)
- 1 - H&N EPG (Ryan)
- 2 - M&R, LASL
- 2 - J-3 files

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OFF-ATOLL PROJECT REQUIREMENTS

1. SHOT PARTICIPATION:

a. Project 6.4, ELECTROMAGNETIC PULSE MEASUREMENTS, at both KUSAIE and WOTHO, will participate in all shots except those which are shielded or underwater.

b. Project 6.6, RADAR CLOUD SIZE DETERMINATION, at RONGELAP, will participate in all shots except possibly high yield shots at BIKINI (greater than 1 Mt). Participation at KWAJALEIN will involve only the very high yield shots at ENIWETOK and BIKINI.

c. Project 6.9, IONOSPHERIC EFFECTS of HIGH ALTITUDE NUCLEAR DETONATIONS, at both KUSAIE and WAKE, will participate on the TEAK and ORANGE shots and possibly several high yield surface shots.

d. Project 34.4, MICROBAROGRAPH, will participate in all events.

2. PERSONNEL - Number requiring housing and messing, off-atoll

| <u>SITE</u> | <u>6.4</u> | <u>6.6</u> | <u>6.9</u> | <u>34.4</u> | <u>TOTAL</u> |
|-------------|---------------|---------------|---------------|-------------------|---------------|
| KUSAIE | | | | | |
| EM | | | 4 | | 4 |
| CIV | $\frac{3}{3}$ | | $\frac{1}{5}$ | | $\frac{4}{8}$ |
| WOTHO | | | | | |
| OFF | 1 | | | | 1 |
| EM | $\frac{2}{3}$ | | | $\frac{(2)}{(2)}$ | $\frac{2}{3}$ |
| RONGELAP | | | | | |
| EM | | 3 | | (2) | 3 |
| CIV | | $\frac{2}{5}$ | | $\frac{(2)}{(2)}$ | $\frac{2}{5}$ |
| KWAJALEIN | | | | | |
| EM | | 3 | | (2) | 3 |
| CIV | | $\frac{2}{5}$ | | $\frac{(2)}{(2)}$ | $\frac{2}{5}$ |
| WAKE | | | | | |
| EM | | | 4 | | 4 |
| CIV | | | $\frac{1}{5}$ | | $\frac{1}{5}$ |
| UTIRIK | | | | | |
| EM | | | | $\frac{(2)}{(2)}$ | |
| TOTALS | 6 | 10 | 10 | (8) | 26 |

Incl 1

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- Notes: a. Project 34.4 will have installations at RONGELAP, UTIRIK, WOTHO, ENIWETOK, KWAJALEIN, and BIKINI. Personnel to man the first four stations will be provided by the AWS/Rad-Safe organization. (JTF SEVEN CONF Ltr ser J-3/000.93 dated 8 July 1957, subject: "Operation of Microbarograph Stations for Operation HARDTACK" refers). Personnel support for the KWAJALEIN installation will be provided by CO, USNS, KWAJALEIN (JTF SEVEN CONF Ltr ser J-3/000.93 dated 8 July 1957, subject: "Operation of Microbarograph Stations for Operation HARDTACK" and CTG 7.3 CONF Ltr ser O117 dated 22 July 1957, subject: "Operation of Microbarographic Stations on KWAJALEIN for Operation HARDTACK" refer) See para 8 below for Project 34.4 microbarographic training requirements. At BIKINI, installation will be manned by TU-4 personnel.
- b. Project personnel who expect to make use of surface transportation from the EPG to off-atoll sites except WAKE and KWAJALEIN should be in the EPG to depart from FRED as per the tentative shipping schedule shown in para 12 below. WAKE and KWAJALEIN personnel may travel by MSTTS, MATS or commercial air as appropriate to arrive on site in time to prepare for shot participation. The length of time project people will remain on off-atoll sites will depend on shot participation. Rotation of project personnel, during the operation, is not planned.

3. OFF-ATOLL COMMANDERS:

- a. Request that CJTF SEVEN indicate responsibility for designation of commanders of off-atoll sites.
- b. The names and grades of the ranking TG 7.1 project personnel expected to be present at specified sites are now being obtained and will be forwarded to CJTF SEVEN as soon as available.

4. HOUSING AND MESSING:

- a. It is requested that CJTF SEVEN provide or make arrangements for adequate housing and messing facilities for the project personnel at the various off-atoll sites as tabulated in para 2 above.
- b. In connection with WAKE, reference is made to CJTF SEVEN Ltr ser J-4/300.6 dated 15 October 1957 to Mr. J. M. Beardslee. It appears now that only Project 6.9 will have an installation at WAKE. Therefore, billeting for 5 persons is realistic.

5. SITE LOCATION - Authorization to use each of the following sites is requested and, in addition, authorization is needed to employ native labor on KUSAIE and CAA labor on WAKE. CJTF SEVEN is requested to make appropriate arrangements. Information currently available follows:

a. KUSAIE

- (1) Project 6.4 requires an area 100' x 100' and Project 6.9 requires an area 175' x 525' on the NE corner of the main island in the vicinity of Cape HALGAN. The long dimension for the Project 6.9 site must point to WAKE. Mr. Harold

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Zweigbaum of USASEL visited this island during September 1957 and obtained a contract for the site. It is understood that trust agreements were made and are all in order subject to AEC and HICOM approval. TG 7.5 (H&N) has staked out the areas selected.

- (2) Native labor will be required to remove trees along the access route so that instrument trailers may be transported to the site locations. According to Trust Territory representatives, the total cost of labor and payment for trees should not exceed \$1,000. It is requested that these requirements be made firm and authorization is requested to hire natives on a day to day basis with actual payment being made by the projects through Trust Territory representatives.

b. WOTHO:

- (1) Project 6.4 requires a site 100' x 100', relatively clear, with line of sight to BIKINI and ENIWETOK Atolls. Mr. Zweigbaum of USASEL picked the ENEJU site as most favorable for his project. No agreement was obtained from the island chief for the use of the site. Clearing of the site will be accomplished by the project personnel.
- (2) Project 34.4 requires a microbarograph installation on this island which will be established by personnel of TU-4. No special construction, other than for the surveys specified in the referenced letter below, will be required to establish this or other Project 34.4 sites. The physical location of each Project 34.4 installation is not critical but should be reasonably close to the supporting JTF SEVEN installations. TG 7.1 has requested AEC-AIO to make accurate surveys of this and other sites and to emplace monuments. The required monuments must be permanent to allow accurate re-survey if this becomes necessary. (See TG 7.1 Ltr J6-4646 dated 18 October 1957, subject: "Project 34.4 Requirements" and CJTF SEVEN Ltr J4/400.346, dated 6 November 1957, same subject.)

c. RONGELAP:

- (1) Project 6.6 requires a site for an instrumentation trailer, semi-type U-51, with shop and office supplies. A site has been picked close to the beach near the AWS/Rad-Safe station, which, it is understood, is agreeable with the Trust Territory Representatives. This site is in the open and no construction or tree clearance problems are involved.
- (2) Project 34.4 also requires an installation on RONGELAP (See para 5b(2) above.)

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d. KWAJALEIN:

- (1) Project 6.6 requires a scientific site on this island. A tentative site was picked by Mr. Zweigbaum in company with CDR Lowrie (Naval Station Air Operation Officer) in an area on the SW part of the island on the beach and near the Radio Receiving Station and Runway. No construction support will be required.
- (2) Project 34.4 also requires an installation on KWAJALEIN (See para 5b(2) above. By copy of this letter, CO, USNS, KWAJALEIN is requested to confirm the availability of power, space and operational support required for this station. (CJTF SEVEN Ltr J-4/400.346 dated 6 November 1957, subject: "Project 34.4 Requirements" refers.)

e. WAKE:

Project 6.9 requires a cleared site 175' x 525' oriented so that the long dimension points toward KUSATL. A suitable area was selected by Mr. Zweigbaum in company with Mr. Musson, Island Manager, one-half mile SE of KUKU point on WILKES Island which has a causeway connecting with the main island. Instrumentation trailer (8' x 11'4" x 22'4", WT 12 tons) and antenna masts will be located on WILKES Island. Confirmation of availability of this site is requested via formalized agreements with CAA. It is requested that CJTF SEVEN Ltr J-4/300.6 dated 15 October 1957 to Mr. J. M. Beardslee be amended to reflect the above and to include a requirement for approximately 100 sq. ft. of office space equipped with one desk, chair, safe, and file cabinet on WAKE Island. In addition, telephone communications between the office and the scientific site on WILKES Island and vehicle transportation are required.

f. UTIRIK - Project 34.4 requires an installation on this island. (See para 5b(2) above.)

6. CONSTRUCTION - In addition to site clearing and H&N surveys required for Project 34.4 (both detailed in para 5 above), it appears that the temporary use of some manpower to assist in the erection of a Rhombic antenna 42 ft. in height on WILKES Island will be required by Project 6.9. CJTF SEVEN is requested to obtain this help. Construction for housing and messing the personnel indicated in para 2 above is also required. At the present time, there are no outstanding construction requirements for Projects 6.4, 6.6 and 6.9 at CTG 7.1 level.

7. COMMUNICATIONS:

a. TG 7.1 on ENIWETOK Atoll requires communication service and facilities (including a classified message capability) with all Task Group 7.1 scientific projects located at off-atoll sites.

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b. In addition, Projects 6.6 and 6.9 request authorization to use project transmitters and receivers for the purpose of interchanging technical information between RONGELAP, KWAJALEIN, ENIWETOK, WAKE and KUSAIE (See TG 7.1 CONF Ltr J3-H-290, dated 26 Sept 1957 to CJTF SEVEN, subject: "Classified Messages to Off-Atoll Sites" and TG 7.1 TWX, J3-H-424, dated 20 Nov 1957).

c. By message DTG 172311Z of October 1957, CTG 7.1 has requested TG 7.5 that a field telephone line be installed between CJTF SEVEN Weather Stations at KUSAIE and RONGELAP to Projects 6.6 and 6.9 scientific sites located on those islands.

d. CJTF SEVEN is requested to arrange for the telephone communications on WAKE and WILKES Islands for Project 6.9 as indicated in para 5e above.

e. CJTF SEVEN has requested KL-7 operator training for four (4) civilian personnel assigned to Project 6.9 at WAKE and will furnish two (2) each KL-7 cryptographic equipments. (See CJTF SEVEN CONF Ltr ser J-5/352 dated 16 Oct 1957 to CG, USAPAC.) TU-3 has been requested to furnish names and clearances of the operators who are to be trained, the designated custodian and the dates of their expected arrival at ASAPAC. (See CTG 7.1 CONF Ltr dated 23 Oct 1957, J3-H-354, subject: "Operator Training for KL-7".) However, arrangements are now pending whereby the above personnel can be trained in CONUS prior to their departure to WAKE.

8. TRAINING:

a. The CJTF SEVEN Ltr referred to in Note a to para 2 requested CTG 7.3 and CTG 7.4 to provide two (2) each microbarograph operators to man each station during shot periods as additional duty. TG 7.1 CONF Ltr J3-H-312, dated 9 October 1957 to CTU-4, subject: "Operation of Microbarograph Stations for Operation HARDTACK", discussed operator training and recommended that group training for all operators could be done at ENIWETOK during the latter part of February 1958. Subsequent information indicates that it may be more practical to conduct operator training at each site concurrent with its establishment. Accordingly, by copy of this letter, CTG 7.3 and CTG 7.4 are requested to nominate by name, rate and serial number the individual operators and forward as soon as is practical to CTG 7.1.

b. Training of KL-7 operators was discussed in paragraph 7e above.

9. VEHICLES - One each truck, 3/4 ton, Weapons Carrier, with A-Frame, winch, and pintle is required at each off-atoll site manned by TG 7.1 personnel for the purpose of moving and erecting equipment and transportation of personnel. It appears that sharing the use of vehicles with other tenants at off-atoll sites is feasible since the requirement is not considered full time.

a. WAKE - Request Ltr HQ JTF SEVEN, J-4/300.6 of 15 Oct 1957 to Mr. J. M. Beardslee be amended to include an additional requirement for vehicle support of Project 6.9. Vehicle to be on a loan basis.

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b. KWAJALEIN - Request CTG 7.3 provide vehicle support of Project 6.6 by authorizing the project's utilization of the existing Naval Station Motor Pool.

c. WOTHO, KUSAIE and RONGELAP - Authorize the projects at these sites joint usage of vehicles provided to AWS/Rad-Safe installations. However, type of vehicle must be Truck, 3/4 ton, w/A-Frame, winch and pintle.

10. POWER REQUIREMENTS:

a. KUSAIE - Projects 6.4 and 6.9 will share a 30 kw diesel generator which will be furnished by TU-3.

b. WOTHO - Project 6.4 will be furnished a 20 kw diesel generator by TU-3. Project 34.4 will be supported by the AWS/Rad-Safe installation.

c. RONGELAP - Project 6.6 will be furnished a 20 kw diesel generator by TU-3. Project 34.4 will be supported by the AWS/Rad-Safe installation.

d. KWAJALEIN:

(1) It is requested that CTG 7.3 arrange with CO, USNS, KWAJALEIN to furnish Project 34.4 with 4 kw 120 volt single phase power. (CJTF SEVEN Ltr J-4/400.346 of 6 Nov 1957, subject: "Project 34.4 Requirements" refers.)

(2) Project 6.6 requires 15 kw 116 volt AC. It is requested that CJTF SEVEN determine if the tenant organization can furnish this power and advise this Task Group as soon as practicable. TU-3 is prepared to furnish a 20 kw diesel generator in the event this requirement cannot be met locally.

e. UTIRIK - Project 34.4 will be supported by the AWS/Rad-Safe installation.

f. WAKE - Project 6.9 will require 15 kw 115v AC. It is requested that CJTF SEVEN determine if this is available and advise TG 7.1 as soon as practicable. If not available, TU-3 will furnish a 20 kw diesel generator. In this event, the POL requirements will be 90 barrels of diesel fuel and 2 barrels of gasoline rather than the 50 gallons of motor gasoline per observation day mentioned in para c of CJTF SEVEN Ltr J-4/300.6 dated 15 Oct 1957. It should be noted that POL will not be supplied from EPG.

11. POL REQUIREMENTS:

a. KUSAIE - Projects 6.4 and 6.9 will require 180 barrels of diesel fuel and 12 barrels of gasoline. This requirement has been submitted by TG 7.1 to TG 7.5 (H&N).

b. WOTHO - Project 6.4 will require 90 barrels of diesel fuel and 2 barrels of gasoline. This requirement has been submitted by TG 7.1 to TG 7.5 (H&N).

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c. RONGELAP - Project 6.6 will require 125 barrels of diesel fuel and 10 barrels of gasoline. This requirement has been submitted by TG 7.1 to TG 7.5 (H&N).

d. KWAJALEIN - If power is not available (See para 10d(2) above, 90 barrels of diesel fuel and 2 barrels of gasoline will be required by Project 6.6 to operate a 20 kw diesel generator (to be furnished by TU-3) and, in addition, an emergency generator. In this event, CJTF SEVEN assistance may be required.

e. WAKE - See 10 f above.

12. SHIPPING of SUPPLIES and EQUIPMENT:

a. All supplies and equipment for all projects are being shipped by the projects to arrive at NSC Oakland, California, by 20 December 1957.

b. For information, the following surface schedule for shipping to and between off-atoll sites has been established and furnished to the projects.

REVISED TENTATIVE SHIP SCHEDULE

WEATHER and RAD-SAFE STATIONS

| | | | |
|----------------------------|-------------------|------|---------------|
| LST 664 | Lv ENIWETOK | 2000 | 9 March 1958 |
| | Ar RONGELAP | 0700 | 11 March 1958 |
| | Lv RONGELAP | 1800 | 12 March 1958 |
| | Ar UTIRIK | 0700 | 14 March 1958 |
| | Lv UTIRIK | 1800 | 15 March 1958 |
| | Ar WOTHO | 0700 | 17 March 1958 |
| | Lv WOTHO | 1800 | 18 March 1958 |
| | Ar ENIWETOK | 0700 | 20 March 1958 |
| LSM 444 | Lv ENIWETOK | 1900 | 19 March 1958 |
| | Ar UJELANG | 0700 | 20 March 1958 |
| | Lv UJELANG | 1800 | 21 March 1958 |
| | Ar ENIWETOK | 0700 | 22 March 1958 |
| USS MONTICELLO (LSD-35) | Lv ENIWETOK | 0800 | 14 March 1958 |
| | Ar KUSAIE | 0700 | 15 March 1958 |
| | Lv KUSAIE | 1800 | 16 March 1958 |
| | Ar KAPINGAMARANGI | 0700 | 18 March 1958 |
| | Lv KAPINGAMARANGI | 1800 | 19 March 1958 |
| | Ar ENIWETOK | 1800 | 21 March 1958 |
| USS COMSTOCK (LSD-19) | Lv ENIWETOK | 0700 | 20 March 1958 |
| | Ar NAURU | 0700 | 22 March 1958 |
| | Lv NAURU | 1800 | 23 March 1958 |
| | Ar TARAWA | 0700 | 25 March 1958 |
| | Lv TARAWA | 1800 | 26 March 1958 |
| | Ar ENIWETOK | 0700 | 29 March 1958 |

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|----------|------------------|-----------------|
| PONAPE | 25 Oct to 9 Nov | Const. Complete |
| TRUK | 9 Nov to 22 Nov | Under Const. |
| WOTHO | 22 Nov to 20 Dec | |
| RONGELAP | 20 Dec to 7 Jan | |
| TARAWA | 7 Jan to 25 Jan | |
| NAURU | 25 Jan to 23 Feb | |

USS ALAMO (LSD-33) or USS COMSTOCK (LSD-19)

| | | |
|----------------|------------------|-----------------|
| UTIRIK | 14 Oct to 6 Nov | Const. Complete |
| UJELANG | 10 Nov to 27 Nov | Under Const. |
| KAPINGAMARANGI | 27 Nov to 17 Dec | |
| KUSAIE | 17 Dec to 6 Jan | |

c. Heavy cargo for movement to KWAJALEIN and WAKE will be shipped by surface vessel directly (not via EPG) to those sites from CONUS (NSC, Oakland.).

d. For planning purpose, this Task Group understands regular air schedules to off-atoll sites will commence approximately 15 March 1958. For information, the SA-16 cargo hatch dimensions are 2'8"x4' and the weight of packages should not exceed that which one man can handle if the package is to be transferred from the plane to small boat.

e. For information, the following is a tentative list of material to be shipped to the various off-atoll sites by each project:

KUSAIE

| <u>Project 6.4</u> | <u>Project 6.6</u> | <u>Project 6.9</u> | <u>Project 34.4</u> |
|---|--------------------|---|---------------------|
| 3 ea. S-44B Shelters (1 ton ea.) 1 ea. emergency power unit (3 tons) 8 tons general cargo | | 1 ea. trailer van type M-119 w/supplies and equip. (12 tons) 1 ea. trailer, w/power unit 15 kw (emergency power), (3 tons) 4 ea. antenna masts (tele- scoping) 50 ft. Unassembled. | |

WOTHO

| | | |
|---|--|--|
| 3 ea. S-44B Shelters (1 ton ea.) 1 ea. emergency power unit (3 tons) 8 tons general cargo | | 1 crate 8'x8'x5' wt. 1000#, 1 cable reel 3' dia., 3' long |
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Project 6.4

Project 6.6

Project 6.9

Project 34.4

RONGELAP

2 ea. trailer semi-type V-51 containing instrumentation equip., shop and office supplies ea. weighing approx. 8 tons 31'8-1/2" long, 96"W, 131" high. 1 ea. trailer mounted power unit (emergency power) (3 tons) 165.5"L, 83"W, 98"High. 1 ea. antenna pedestal and mast (2 tons)

same as WOTHO

KWAJALEIN

2 ea. trailer semi-type V-51 with instrumentation and equip., shop and office supplies, 8 tons ea. 31'8-1/2" L, 96"W, 131"High. 1 ea. trailer mounted power unit (emergency power) (3 tons) 165.5"L, 83"W, 98"High. 1 ea. antenna pedestal and mast, 2 tons

same as WOTHO

WAKE

1 ea. trailer van M-119 w/equip and supplies (12 tons) (8'x11'4"x22'4")
1 ea. trailer w/ power unit 15 kw (emergency power), (3 tons)
4 ea. antenna masts (telescoping) 50 ft. Unassembled

UTIRIK

same as WOTHO

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