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HEADQUARTERS
TASK GROUP 7.1
JOINT TASK FORCE 7
Los Alamos, New Mexico

J-16757

7 April 1953

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TO: See Distribution
FROM: Commander, Task Group 7.1
SUBJECT: GENERAL CONCEPT OF OPERATION CASTLE

Classification changed to ~~CONFIDENTIAL~~
by authority of the U.S. ERDA
Per DEAN H. DUNNING
(Person authorizing change in classification and date)
By Lee C. Stephens 6/2/77
(Signature of person making the change and date)

This concept is intended only to furnish a first basis for planning by those groups who require an over-all estimate of the job to be done in order to make judgments of their own jobs.

a. Shot Schedule

Shot	Site	Date	Code Name	Code Ref	Code North	Code East
1	6900' bearing Bikini-1 3/4 Nautical miles from Bokororyuru (Barge)	15 Feb	Bravo	B	120,267	530
2	Bikini. On reef 2500 yds SW Namu	25 Feb	Nectar	N	170,609.90	76,11
3	Bikini-At the intersection of arcs with radii 6900' from Yurochi 3 nautical miles from Aomoen. (Barge)	8 Mar	Union	U	161,850	116,71
4	Bikini-On arc of radius 3 nautical miles from Aomoen and SE of CONFIDENTIAL (Barge)	17 Mar	Yankee	Y	162,758	119,21
5	Bikini-Eninman	24 Mar	Koon	K	100,150	109,8
6	Eniwetok-Eberiru	3 Apr	Echo	E	132,181.63	109,6

Coord. on H&N
Map #9203-AB-
and J-6 Sketch E-1
Part 1 -
North East

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18

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* Yields given are estimated only as of this date. Experimenters must instrument to accept a rather wide range yieldwise on the respective shots.

Positions given are approximate. If exact site locations are required they should be obtained from J-6.

(In submitting requirements in monthly status reports, when appropriate and except as otherwise indicated, dates should be expressed in terms of shot days, such as B/3, Y-2 etc.)

B. Assumptions:

Eniwetok Atoll is the base of operations. The following obtains:

1. All cryogenic work will be done on Eniwetok (Parry).
2. All dewar repair and maintenance work will be done on Eniwetok (Parry).
3. Five of the six devices will be assembled on Eniwetok (Parry and Eberiru).
4. Machine shop, laboratory, photographic, warehouse and stockroom facilities will remain on Eniwetok (Parry and Eniwetok).
5. Much preliminary assembly and testing of experimental equipment will be done on Eniwetok (Parry).
6. Port of entry for aircraft and most shipping will remain on Eniwetok.
7. Radio links with Los Alamos and Oahu will remain on Eniwetok.
8. Temporary working camps will be located on Rojoa (Eniwetok Atoll), and on Eninman and Namu (Bikini). Enyu, Aomoen and Bikini will have small temporary camps to support project personnel necessary at those sites.

C. Firing of the five shots at Bikini Atoll will probably be accomplished from the timing and firing station on Enyu Island (Nan), by a firing party of 6 or less. This station will also serve as the television and photo stations, and for intra-atoll communications. Six radio time signals in addition to the wired signals will be furnished at Eniwetok and Bikini. Certain time signals will be repeated back from Bikini to Parry (Elmer) to allow correlation of operations with the Bikini shots. Firing of the shot at Eniwetok Atoll will be accomplished from the control station on Parry (Elmer).

D. There will be no pre-shot personnel or material evacuation of

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-2-

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Eniwetok Atoll. An emergency capability for post-shot evacuation of Eniwetok will be maintained. Such evacuation will be executed if post-shot radiological conditions indicate it is necessary. All personnel (except the firing party) will be evacuated for some of the shots at Bikini. Only those personnel required for the actual firing or for immediate re-entry or early preparatory activities will be on Enyu or Eninman or aboard ships in the Bikini area; the balance of the personnel and equipment will be phased to Eniwetok. Predictions as to the reestablishing of temporary camps in the Bikini area after the first shot cannot be made at this time; therefore project personnel must be prepared to live aboard ships subsequent to the first shot if necessary. Limited laboratory, shop and office space will be provided aboard Navy Task Group vessels. Temporary (tent) laboratory space may be furnished on Eninman Island (Tare) during the operational period prior to the ~~shot~~ shot, providing this space is essential to the project and that the project cannot use laboratory space at Eniwetok (Parry) or aboard ship. It is hoped that it will not be necessary to evacuate any material beyond the limits of Bikini Atoll for protective purposes, except for the last Bikini shot.

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E. The construction phase must be completed by 1 January 1954. To meet this completion date the following lead times must be met in order of sequence:

- Design - 1 month
- Procurement - 2 months
- Shipping - 2 months
- Construction - 4 months

It is therefore imperative that the submission of the respective project's construction requirements be given the highest priority. As much material as possible will be evacuated to Eniwetok prior to the first shot. Equipment and material required for post shot re-entry will be evacuated by LST's and LCU's.

F. It is expected that the following communications facilities will be available for Task Group 7.1 use:

1. Communication Center, Parry Island (Elmer) with the following facilities:

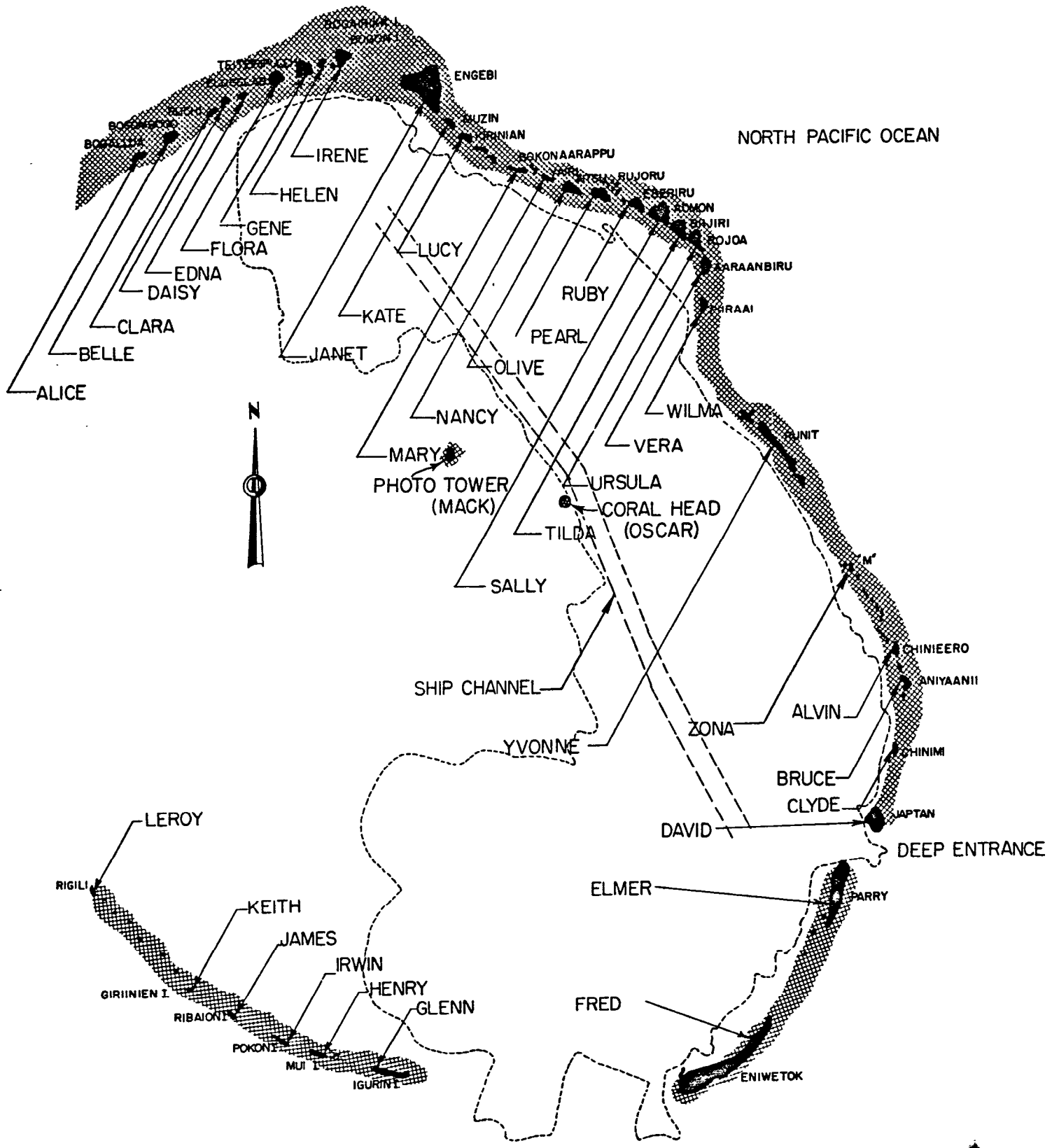
(a) Direct teletype circuits to Bikini, Kwajalein, Honolulu, and Los Alamos.

(b) TWX and voice circuits to Bikini and Kwajalein. AACS Eniwetok and AACS Bikini will probably be linked by an air control voice circuit.

(c) Land line or AN/ARC teletype and telephone circuits to major vessels in the vicinity of Eniwetok and Bikini.

(d) Crypto facilities.

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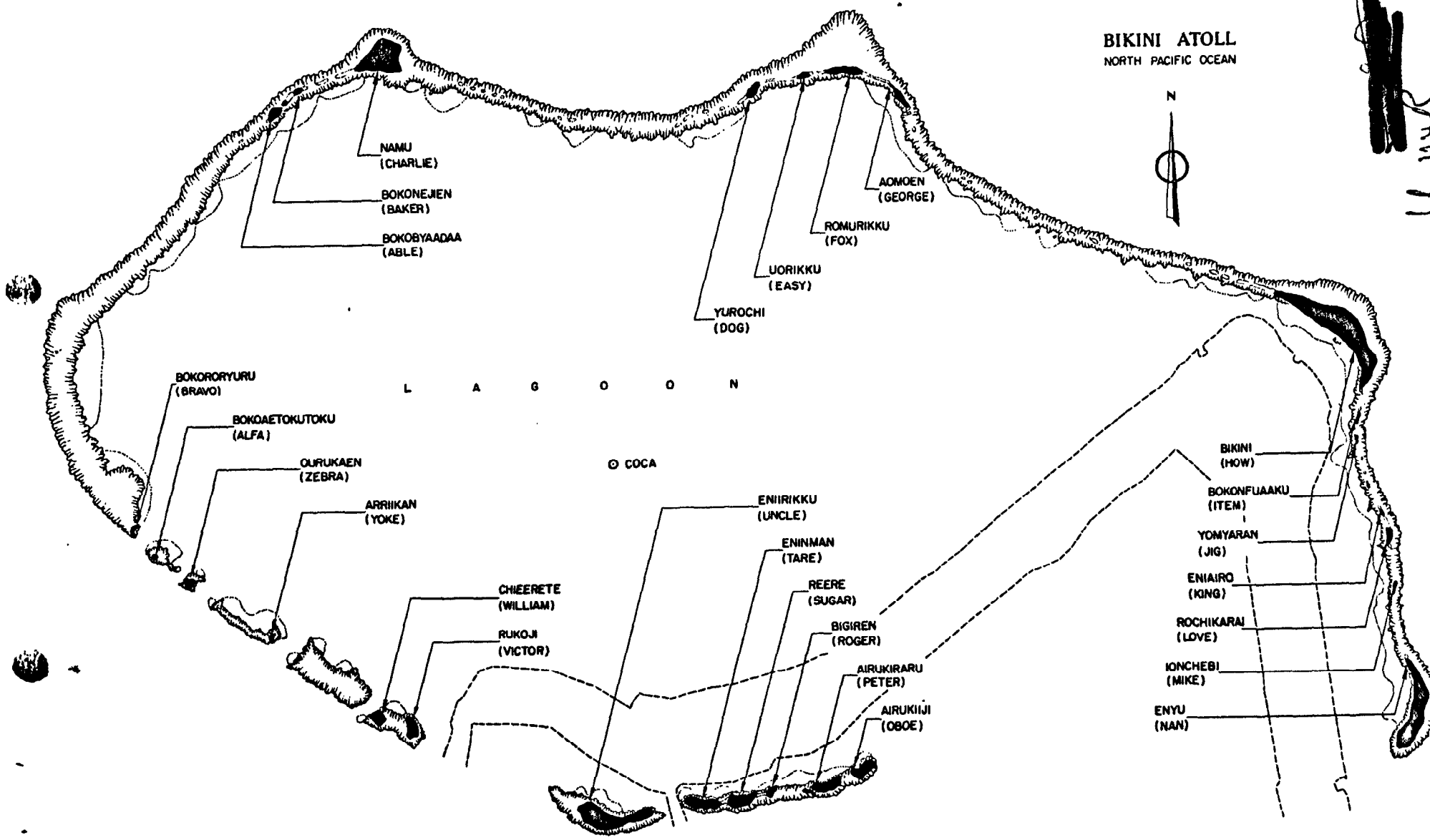
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NORTH PACIFIC OCEAN



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SUMMARY OF MILITARY SUPPORT ITEMS

1. Aircraft Components:

- 10 L-13 Intra-atoll lift at Eniwetok using landing strips.
- 7 H-19A Intra-atoll airlift for instrumentation of islands at Eniwetok
- 3 H-13 (Helicopters) which lack liaison type aircraft landing strips. Post radiological surveys and collection of test data
- 4 C-47 Inter-atoll airlift between Eniwetok Island (Fred) and Eninnan Ialsnd (Tare) for cargo and personnel ~~_____~~ *Deleted*
- 4 TEM Inter-atoll airlift between Eniwetok Island (Fred) and CVE underway in vicinity of Bikini for cargo and personnel during Bikini operational period. Sample ferrying from Bikini. Further lift by helicopter or boat from CVE.
- 2 PEM-5A Inter-atoll airlift between Eniwetok Island (Fred) and Bikini.
- 4 PEM Resupply of weather islands; fall-out instrumentation of weather island. Operate from Kwajalein Atoll.
- 15 F-84G Cloud Sampling.
- 2 B-36 Cloud sampling control aircraft; high altitude sampler.
- 2 B-57 High altitude cloud sampling for four shots.
- 1 B-36 Blast and thermal measurements.
- 1 B-47 Blast and thermal measurements.
- 10 WB-29 Weather reconnaissance; AFOAT-1 cloud sampling.
- 2 SA-16 Search and rescue at Eniwetok.
- 3 C-54 Documentary photography.

Incl 3

2. Surface components:

- 1 AGC Command and control facilities and for remote control firing.
(USS Estes and telemetering. (Has helicopter platform)
AGC-12)
 - 1 AV Transportation and assembly of devices.
(USS Curtiss
AV-4)
 - 1 LSD Transportation of shot barges from Parry (Elmer), to Bikini;
Mother ship for boat pool.
 - 1 LST Logistical support of weather islands; boat pool base at
Bikini when required; occasional lift between Eniwetok and
Bikini.
 - 1 LST Regular lift between Eniwetok and Bikini.
 - 3 ATF (sea- Scientific projects and towing missions.
going tugs)
 - 1 CVE (with Base for ~~XXXXXXXXXX~~ helicopter operations; radioactive
6 HRS heli- sample ferrying missions, inter-atoll airlift.
copters and
4 TBM)
 - 1 AN Net tender for mooring shot barges and installing allied
instrumentation. (CJTF intends to request 1 AN)
 - 2 AVR Air sea rescue craft at Eniwetok and Bikini. Evacuation of
firing party.
 - 1 YOT (To be used as helicopter landing platform at Bikini.
(barge)
- Security and other units as required.

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