

## OPERATIONS PLAN

FOR LLL - U OF H PROGRAM AT ENEWETAK ATOLL

JANUARY 3, 1978 THROUGH FEBRUARY 15, 1978

I. BACKGROUND

Lawrence Livermore Laboratory (LLL) and the University of Hawaii have DOE sponsored programs involving the sampling, measurement, and cycling characteristics of radionuclides in soil, water and biota. These investigations are aimed at producing results which will better enable the United States Government to fulfill its commitments to rehabilitate Marshall Island Atolls for the safe use by the former residents.

II. PURPOSE

To continue ongoing groundwater and core sampling; to perform chemical and radiochemical water analysis and to analyze lagoon circulation. The results will contribute greatly to providing the basis for information which will enable returning inhabitants to live in optimum safety.

III. DESCRIPTION OF MISSION

## A. LLL

1. Take groundwater samples on Enjebi, Enewetak and Japtan.
2. Run an air sampler on Enjebi for two weeks, and
3. Take reef samples.

## B. U of H, Team #1

1. Drill test wells on Enjebi and obtain core samples of water table rock.
2. Perform hydrologic tests and measurements on above wells.
3. Sample in conjunction with LLL, old and new wells for chemical and radiochemical analysis; and
4. Sample selected wells on Enewetak and Medren.

## C. U of H, Team #2

1. Measure lagoon circulation using drogues.
2. Insure operational status of lagoon and ocean tide gauge measurements.
3. Measure cross-reef currents.
4. Insure salinity and evaporation measuring is underway.

IV. RESPONSIBILITIES

The Party Chief for LLL is Dr. Kai Wong. Dr. Robert Buddemeier is Party Chief of U of H Team #1 and Dr. Edward Stroup is Party Chief of U of H Team #2 until January 24 at which time Dr. Steve Smith will assume that role. Each element Chief will submit a mission report to PASO with a copy to Mr. Roger Ray, AM/E&S/NV.

V. SCHEDULE

Personnel arrivals and departures.

| <u>Name</u>            | <u>Hono</u> |             | <u>Enewetak</u> |             | <u>Dep. Hono</u> |
|------------------------|-------------|-------------|-----------------|-------------|------------------|
|                        | <u>Arr.</u> | <u>Dep.</u> | <u>Arr.</u>     | <u>Dep.</u> |                  |
| <u>LLL</u>             |             |             |                 |             |                  |
| Kai Wong               | 1/30        | 1/31        | 1/31            | 2/15        | arranged by LLL  |
| Rod Eagle              | 1/30        | 1/31        | 1/31            | 2/15        | arranged by LLL  |
| Gale Holladay          | 1/30        | 1/31        | 1/31            | 2/15        | arranged by LLL  |
| James Brunk            | 1/30        | 1/31        | 1/31            | 2/15        | arranged by LLL  |
| Ken Marsh (Alt)        | 1/30        | 1/31        | 1/31            | 2/15        | arranged by LLL  |
| <u>U of H, Team #1</u> |             |             |                 |             |                  |
| Robert Buddemeier      |             |             | 1/17            | 2/8         |                  |
| Dorothy Buddemeier     |             |             | 1/17            | 2/1         |                  |
| Susan Petty            |             |             | 1/17            | 2/1         |                  |
| Stephen Wheatcraft     |             |             | 1/17            | 2/1         |                  |
| William Souza          |             |             | 1/17            | 2/1         |                  |
| Stephen Goff           |             |             | 1/17            | 2/15        |                  |
| Bronte Tilbrook        |             |             | 1/24            | 2/15        |                  |
| William McConachie     |             |             | 2/7             | 2/15        |                  |
| <u>U of H, Team #2</u> |             |             |                 |             |                  |
| Edward Stroup          |             |             | 1/3             | 1/25        |                  |
| John Coleman           |             |             | 1/3             | 1/25        |                  |
| Marlin Atkinson        |             |             | 1/3             | 2/8         |                  |
| Mark DeCostra          |             |             | 1/10            | 2/1         |                  |
| Stephen Smith          |             |             | 1/17            | 2/8         |                  |
| Randi Redalje          |             |             | 1/24            | 2/8         |                  |
| Sandra Weil            |             |             | 1/24            | 2/8         |                  |

VI. LOGISTICAL SUPPORT REQUIREMENTS

## A. By PASO- H&amp;N/PTD

- Hotel reservations for LLL personnel nights of January 30 and February 15 for LLL personnel at Airport Holiday Inn, as well as one GSA vehicle for pickup at hotel January 30 and MAC Terminal February 15.
- Travel orders and MAC reservations for 4 LLL persons to and from Enewetak.
- Entry requests into Enewetak.

4. Frozen cargo transfer and storage MAC flight to Hono February 15.

B. Enewetak Base Support

1. Billets

LLL 4 people nights of January 31 and February 14

| U of H         | January    | February |
|----------------|------------|----------|
| R. Buddemeier  | 17         | 7        |
| *D. Buddemeier | 17 and 31  |          |
| *S. Petty      | 17 and 31  |          |
| S. Wheatcraft  | 17 and 31  |          |
| W. Souza       | 17 and 31  |          |
| S. Goff        | 17         | 14       |
| B. Tilbrook    | 24         | 14       |
| W. McConachie  |            | 7 and 14 |
| E. Stroup      | 3 thru 24  |          |
| J. Coleman     | 3 thru 24  |          |
| M. Atkinson    | 3 thru     | 7        |
| M. DeCostra    | 10 thru 31 |          |
| S. Smith       | 17 thru    | 7        |
| *R. Redalje    | 24 thru    | 7        |
| *S. Weil       | 24 thru    | 7        |

\*denotes female

Messrs. Stroup, Coleman, Atkinson and DeCostra will stay in Enjebi trailer January 11 through January 17th and some may stay at Enjebi the following week.

2. Enjebi Base

- a. Food, full water truck, fuel, linens, large tent and cots if available.
- b. Generator, operational.
- c. 1 mule and 4 x 4, operational.
- d. 15 5-gal. drums gasoline for vehicles and 3 55-gal. drums 80 octane gas for air samplers (can substitute mogas if necessary), 1 case motor oil, 5 gal. hydraulic fluid.
- e. 1 operational whaler (to be shipped from Kwajalein).
- f. 3 radios (1 base and 2 handie talkies).

- g. Dump truck and 4 x 4 operational on Enewetak to load equipment for transport to Enjebi on January 18.
  - h. 12 12-volt batteries (6 loaned from H&N Enewetak and 6 shipped from Honolulu).
3. LCU or LCM transportation from Enewetak to Enjebi (1 trip) for vehicles, equipment and personnel January 18 and return (1 trip) on January 31. LCM (1 trip) to Enjebi February 1 and return February 14.
  4. Whaler or other boat support (occasional for resupply).
  5. Rad-safe - Request JTG-RCC permission for Party Chief to carry out rad safe monitoring on Enjebi in same manner performed by LLL Garden Program personnel.
  6. Other - It is highly desirable that there be no blasting or burning during the period of this mission.
  7. DOE/DNA Representative Kwajalein
    - a. Ship Whaler and engine to H&N/Enewetak c/o Clayton Mitsui for arrival prior to January 10th.
    - b. Ship air compressor off LCU to Enewetak (same as above).
    - c. Ship inflatable boat and small motor as above.

#### VII. FUNDING

LLL efforts are funded through a Request for Services (SANL) No. 609 issued by the University of California Lawrence Livermore Laboratory under USDOE Prime Contract No. W-7405-48.

U of H Team #1 efforts are funded under DOE Contract EY-76-C-08-0703 while U of H Team #2 has its efforts funded under DOE Contract EY-77-S-08-1529. (Because of the overlapping of 3 separately funded entities, H&N/Enewetak must insure that charges incurred are properly identified as to user so the proper program is assessed.)

Some of the readily identifiable charges are:

- LLL -
- a. S&Q on Enewetak and food charges for Enjebi.
  - b. 3 55-drum 80 octane gas (or mogas substitute)

U of H,  
Team #1- a. Motor oil, hydraulic fluid.

U of H,  
Team #2- a. Whaler, compressor and battery shipment from Honolulu.

Other items such as water, diesel fuel, transportation, etc. should be pro-rated equitably.