

August 7, 1959

NMBB b

Mr. D. H. Nucker
High Commissioner, Trust
Territory of the Pacific Islands
P. O. Box 542
Agana, Guam

Dear Mr. Nucker:

The following is a brief description of the objectives and proposed activities of the University of Washington biological survey team at Rongelap Atoll during September, 1959.

Any modifications or additions which you or your representatives might suggest would be appreciated. We would also appreciate it if you would forward one of the enclosed copies to Mr. Niel Morris if you see fit to do so.

The objectives of the September, 1959 biological survey of Rongelap Atoll are:

1. Monitoring of the biota and environment for radioactive contamination to provide information essential to the estimation of potential hazards.
2. A study of the ecology of the area with the emphasis on the biological cycling of stable and radioactive elements.
3. Observation of the biota for the purpose of recording atypical organisms which may be present.

The areas to be studied are the emergent land and adjoining reefs, the lagoon waters and the lagoon bottom.

The land and reef studies will be essentially a continuation of previous surveys at Rongelap, Eniaetok and Kabelle Islands with the addition of less detailed collections and observations at Gejen, Naen, Gogon, Mellu, Burok and Arbar Islands.

The lagoon studies will include approximately fifty stations distributed throughout the lagoon. Plankton samples and bottom

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cores will be taken at each station. Midwater trawling and trolling will be done between stations.

A more detailed listing of the schedule and operations is attached. The total projected time at Rongelap Atoll is twenty-four days. The time spent on Rongelap Island is split into three periods to allow the necessary time span between the setting up of test plots and reactivation of lysimeters and the collection of samples from them.

The proposed schedule will almost certainly be altered to some extent due to weather conditions, difficulties with sampling, or other unforeseen factors. However, the total time spent at Rongelap Atoll will not be increased.

The LSM ALOTO stationed at Eniwetok will provide the transportation and support facilities needed for the survey. This vessel carries a crew of about twenty men.

The scientific party will consist of eleven men from the University of Washington, one man from the University of Hawaii and a Radiation Safety Officer from Eniwetok. From six to ten men will be working ashore at any one time.

All living and laboratory facilities will be confined aboard ship.

It will be necessary to use a jeep or weapons carrier on Rongelap Island. A DUKW will be used for beaching and ashore at other islands. No heavy equipment such as tractors will be used ashore.

It is hoped that Mr. Neil Morriss or some other trust territory representative will be present, and if any negotiation with the Rongelapese is necessary, that this be handled through such representative or in his presence.

It would be desirable to have the assistance of three Rongelapese during the time spent at Rongelap Island and at least one man for one day at Eniwetok Island. Payment would be in cash at the rate of thirty cents per hour as has been done in the past.

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Dr. Kelshaw Bonham and four other members of the team will arrive at Eniwetok Atoll on or about 20 August. The remainder of the team will arrive at Eniwetok on or about 29 August. The ALOTO is scheduled to depart from Eniwetok on September 1.

Air support at Rongelap has been requested for 9, 16 and 23 September. However, there has been no confirmation that such flights will be available.

Sincerely,

Edward E. Held
Research Associate Professor

EEH:srb
Enclosures (2)
CC. Dr. Wallen

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PROPOSED SCHEDULE, RONGELAP ATOLL 1959

| | | |
|-------|-------|-----------------|
| Sept. | 2-7 | Rongelap Island |
| " | 8-9 | Eniaetok Island |
| " | 10-13 | Kabelle Island* |
| " | 14 | Gejen Island |
| " | 15 | Naen Island |
| " | 16 | Kabelle Island |
| " | 17-19 | Rongelap " |
| " | 20 | Gogan " |
| " | 21 | Mellu " |
| " | 22 | Burok " |
| " | 23 | Arbar " |
| " | 24 | Rongelap " |
| " | 25 | Kabelle " |

*Note: It is planned to leave two men ashore at Kabelle Island on September 14 and 15.

RONGELAP ISLAND

Collections:

1. Plant parts, soils and ground water from twelve previously established locations.
(Indicated as "soil pits" on attached map).
2. Reef fish to be collected by blasting.
3. Algae from the lagoon and seaward reef.
Clams, sea cucumbers and corals.
Coconut and hermit crabs.
4. Food items to include pandanus fruit, coconut, arrowroot, and Jekro (prices paid during the last trip were: copra six cents per pound; Jekro seventy-five cents per quart; Pandanus seventy-five cents per fruit). If possible prepared meals will also be obtained for radioassay.
5. Rats

Test Plots:

Eight plots, about 6' x 6' each, will be set up to test the effects of fertilization with nitrogen, phosphorus, potassium, and iron on the uptake of radionuclides present in Rongelap soil by seedlings. The tests will be terminated when the field party leaves Rongelap.

Lysimeters:

Leachates will be collected from previously established lysimeters. The lysimeters will be dismantled when the field party leaves Rongelap.

Weather Instruments:

The recording rain gauge and wind direction indicator which were previously installed will be dismantled. The United States Weather Bureau type shelter will be left in place if permissible.

Growth Rate Measurements:

Previously placed range poles in the vicinity of the site of the AEC weather station installation at the southeast end of the island will be left in place if permissible.

Trees previously marked with expandable bands for the measurement of increases in diameter will be left as they are.

Soil Pits:

Previously established soil pits and well points within them will be left as they are if permissible.

Transect Stakes:

Stakes previously placed along transects will be left as they are if permissible.

Gamma Dose Rate Measurement:

Gamma dose rate measurements will be made with survey meters and probably also by the placement of film badges in the village area.

ENIAETOK ISLAND

Collections:

As for Rongelap Island.

Soil Pits:

Previously established pits and well points will be resampled and left as they are.

Gamma Dose Rates:

5002205 To be determined by survey meter only.

KABELLE ISLAND

Collections:

As for Rongelap Island with the exceptions of Jekro and rats.

Test Plots:

A test plot will be established at pit 4 and pit 6.

Lysimeters:

Leachates will be collected from previously established lysimeters. The lysimeters will be dismantled when the field party leaves Rongelap.

Weather Instruments:

Portable rain gauges will be removed when the field party leaves Rongelap.

Growth Rate Measurements:

Previously placed range poles and tree bands will be left in place.

Soil Pits:

Previously established soil pits and well points within them will be left as they are.

Transect Stakes:

New stakes will be placed in conjunction with the completion of vegetation and soil maps.

Gamma Dose Rates:

As at Rongelap Island.

GEJEN, NAEN, GOGON, MELLU, BUROK, and ARBAR ISLANDS

Collections:

1. Plant parts
2. Soils
3. Reef Fish
4. Algae
5. Clams
6. Sea Cucumbers
7. Coconut and/or hermit crabs

Gamma Dose Rates:

To be determined by survey meter only.

