Boss 410748

November 16, 1955

Dr. Charles L. Dunham, Director
Division of Biology and Medicine
United States Atomic Energy Commission
Washington, D. C.

Dear Dr. Dunham:

As requested by Dr. Boss in our telephone conversation of November 2, we are forwarding to you for your immediate use copies of the radiation readings as compiled at Rongelap Atoll on November 7, 1955.

Our field party returned home Saturday evening November 12. They accomplished all the various phases of their mission, and all commented on the wonderful support received from the Resident Engineer and his staff, Holmes and Narver, and the Task Group support facilities at Eniwetok and Kwajalein.

We very much appreciate the part of the Division of Biology and Medicine in organizing these support facilities for us.

We are all busy with analyses for the summary report of the 1,486 samples of soil, plants and animals collected by our staff during October and November. We are still hoping to have the report in your hands by December 15.

Sincerely yours,

Lauren R. Donaldson
Director

LRD:mc
Encl.
cc: Dr. W. R. Boss
Mr. Kenneth Englund

File folder = nm B2

5002643

FLY LOG

UNIVERSITY OF WASHINGTON
APPLIED FISHERIES LABORATORY
SEATTLE, WASHINGTON

Locality ELMER- RONGELAP I. - LABAREDJ I. Date Nov. 7, 1955

Personnel Bonham Lowman Weather

Held Seymour Water conditions

Radiation level(s) See below: all readings with Beckman MX5 in m. reps. per hr.; bg. ~.03 - .04 serial No. 65005

Operations: Processed samples: HOW Fish 11-2-55

Bonham and Lowman at Elmer

0830 Held and Seymour with Duggar and Spavin left Elmer in L-20 for Fred; 0915 Took off in PBM (612) from Fred for Rongelap with Lt. Mallinger as pilot. Flying time to Rongelap 2 hours 7 mins; winds at 33 knots from ENE most of way; landed off Rongelap Island, put ashore in life raft; ashore at 12:05; surveyed with Beckman MX5, (1) the village area; (2) the path to a distance of 800 yards south of village, (3) path leading from lagoon to ocean side of Island. Returned to PBM ~ 1400; took off for Labaredj; ashore Labaredj (life raft) at 1445. Surveyed (1) landing area, (2) beach to mid island on lagoon side, (3) then cross Island to ocean side, (4) northern most tip of Island, (5) coconut grove near north end, (6) Rhinehart "hole" in this grove, (7) the area where AFL monitored 2 weeks ago, (8) and fi nally the yellow stake on Island, unnamed, just south of Labaredj. Returned to PBM ~1600. Landed at Fred at 1810. L-20 met plane and landed us at Elmer at 1820.

Meter readings follow

AREA		3 ft. above ground closed	open	1" above groun closed	open
RONGELAP ISLAND	landing in front of village intertidal area	.04	.04	.04	.04
" "	landing in front of village above high tide line	.06	.10	.08	.13
" "	60 paces from lagoon to cistern	.08	0.3	.08	0.4
" "	school house - hospital area	.07	0.3	.10	.25
" "	" " papaya cluster (soil sample A11 & 12)	.09	0.5	0.4	1.2
" "	well behind schoolhouse, grassy area (soil sample A9 & 10)	.14	0.8	0.10	0.6

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LY LOG

UNIVERSITY OF WASHINGTON
APPLIED FISHERIES LABORATORY
SEATTLE, WASHINGTON

Locality -

Date Nov. 7 con't (Mon.)

Personnel

Weather

Water conditions

Radiation level(s)

Operations: Rongelap Island Survey Meter Readings continued

	AREA	3' above ground closed	3' above ground open	1" above ground closed	1" above ground open
Heading south along path near lagoon side of island General direction N - S	Village center - concrete posts grass	.07	0.3		
	" concrete " gravel	.07	0.15	0.09	0.4
	" + 100 paces grass			0.15	0.9
	" " gravel	.11	0.6	0.10	0.4
	+ 75 " at church grass	.06	.25	.06	0.35
	" " " gravel			.07	0.4
	+ 70 paces, inside hut	0.4	3.0		
	" " " " pandanus mat			1.0	7.0
	" " inside hut roof			0.5	4.0
	" " outside of hut roof			1.2	8.0
	+ 200 " pandanus grove	0.4	3.5	0.5	2.0
	+ 350 " mostly grass	0.4	3.0	0.6	5.0
Path from lagoon to ocean side starting from lagoon side General direction E - W	50 paces from junction with N-S path - well - grass	0.09	0.4	0.06	0.3
	+ 100 paces, open grass	0.3	2.0	0.5	3.5
	+ 100 " Sida bushes	0.3	3.0	0.9	5.0
	+ 110 " open grass	0.4	3.0	1.2	7.0
	+ 100 " grass and sand under coconut	0.4	3.0	0.7	6.0
	+ 100 " under Guettarda, dead leaves	0.15	1.5	0.4	1.0
	+ 55 " ocean side - above high tide line - leaves sand	0.12	1.0	0.3	3.0
	ocean side- intertidal area sand and beach pa[illegible]	[illegible]	0.03	0.03	0.03

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UNIVERSITY OF WASHINGTON
APPLIED FISHERIES LABORATORY
SEATTLE, WASHINGTON

DAILY LOG

Locality

Date Nov. 7 Con't. (Mon.)

Personnel

Weather

Water conditions

Radiation level(s)

Operations: Rongelap Island Survey Meter Readings continued

AREA	3' above ground		1" above ground	
	Closed	open	closed	open
school house, inside	0.09	0.7	0.05	0.4
school house table			0.2	1.2
hospital, inside	0.11	0.9	0.12	0.9
hospital mattress			0.06	0.5

values rechecked because they were less at 1" than at 3'

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SEATTLE, WASHINGTON

LY LOG

Locality

Date Nov. 7, 1955 (Mon.) Con't.

Personnel

Weather

Water conditions

Radiation level(s) LABAREDJ SURVEY METER READINGS

Operations:

AREA	3 ft. above ground Closed	open	1" above ground closed	open
boat landing, south end, intertidal sand	0.04	0.06	0.06	0.10
" " " " above high tide, pavement	0.7	5.0	1.3	8.0
00 paces N of boat landing, lagoon side dead leaves			4.0	off scale
" " " " " " lagoon side gravel	1.1	8.0	3.0	15.0
+ 175 paces " " gravel	0.6	4.0	1.4	7.0
om lagoon hi tide line, 40 paces East, under pandanus trees	2.5	16.0	5.0	off scale
plus 35 paces E, gravel open area	0.9	6.0	3.0	17.0
" 45 " " under Messerschmidia	1.0	5.0	1.5	11.0
" 50 " " open sand	0.9	8.0	3.0	off scale
" 50 " " high tide line, ocean side sand & gravel	0.6	3.0	0.8	4.0
" 40 " " intertidal ocean side sand	0.09	0.4	0.14	0.6
" 10 " " " " " beach pavement	0.03	0.07	0.04	0.15
thern tip of Island - intertidal area	0.05	0.15	0.07	0.4
" " " above high tide	0.6	4.0	0.8	6.0
onut grove near N end under coconut tree dead fronds	1.0	5.0	0.8	4.0
" " " " " " " " beneath "			2.0	11.0
" " " " " among arrowroot plants	1.1	8.0	3.0	12.0
" " " " bottom of Rhinehart "hole" about 12"			0.5	3.5

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DAILY LOG

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Water conditions

Radiation level(s) LABAREDJ SURVEY METER READINGS

Operations:

AREA	3 ft. above ground closed	3 ft. above ground open	1" above ground closed	1" above ground open
SW part of Island, under tree, dead leaves, at site of soil sample A 7 & 8	0.9	6.0	1.5	12.0
SW part of Island 10 paces west, open, site of soil sample A 5 & 6	0.8	6.0	3.5	18 +
Unnamed island just south of Labaredj (100 yds) at yellow stake, open beach, above high tideline, sand & gravel	0.9	6.0	1.1	6.0

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Radiation level(s)

Operations:

The average survey meter reading values are summarized below but these values have several limitations and the results should be interpreted in the light of these limitations. Just exactly what the average value means is open to question. The principal limitation is the variability of readings in one small area. The variability is due to the ground cover being surveyed, i.e., grass, sand, gravel, dead leaves, under trees, open, etc. The meters were provided by Rad-Safe and were calibrated and checked before and after use. This error was determined to be less than 10%.

Average Values of Survey Meter Readings in Milli REP'S per Hour at Rongelap, Labaredj and Kabelle Islands on October 21 and November 7, 1955

Area	Height		n	Rongelap	n	Labaredj	n	Kabelle
beach	3 feet	closed	2	0.04	4	0.05		
		open	2	0.04	4	0.17		
	1 inch	closed	2	0.04	4	0.08	1	0.1
		open	2	0.04	4	0.31	1	0.4
island proper above high tide line	3 feet	closed	21	0.2	14	1.0		
		open	21	1.3	14	6.4		
	1 inch	closed	30	0.4	21	2.1	11	2.5
		open	30	2.1	21	12.	11	9.3

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