

Boss

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

FIELD 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
 finally 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

3 ft. above ground 1" above ground
 closed open closed open

AREA		3 ft. above ground closed	3 ft. above ground open	1" above ground closed	1" above ground 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

cont. following page

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
Heading south) along path)	Village center - concrete			
	"	"	posts grass	.07 0.3
	"	"	gravel	.07 0.15
near lagoon)	" + 100 paces grass			
side of)	" " gravel			
island)	+ 75 " "			
General)	at church grass			
direction)	" " " gravel			
N - S)	+ 70 paces, inside hut			
	"	"	"	"
	"	"	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
	+ 350	"	mostly grass	0.4 3.0
Path from)	50 paces from junction with			
lagoon to)	N-S path - well - grass			
ocean side)	+ 100 paces, open grass			
starting)	+ 100 " <u>Sida</u> bushes			
from)	+ 110 " open grass			
lagoon)	+ 100 " grass and sand under			
side)	+ 100 " coconut			
General)	+ 100 " under <u>Guettarda</u> ,			
direction)	+ 55 " ocean side - above			
E - W)	high tide line -			
			leaves sand	0.12 1.0
			ocean side - intertidal	0.3 3.0
			area sand and beach	
			pavement	0.03 0.03

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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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LABAREDJ SURVEY METER READINGS

Radiation level(s)	AREA	3 ft. above ground		1" above ground	
		Closed	open	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
100 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
from 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 <u>Messerschmidia</u>		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
northern tip of Island - intertidal area		0.05	0.15	0.07	0.4
" " " " " " " " above high tide		0.6	4.0	0.8	6.0
coconut 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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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		1" above ground	
	closed	open	closed	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	18.4
<hr/>				
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

Locality..... Date Nov. 7, 1955 (Mon.) Con't.
 Personnel..... Weather.....
 Water conditions.....

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 high tide line	closed	30	0.4	21	2.1	11	2.5
	open	30	2.1	21	12.	11	9.3