

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

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44 APPLIED FISHERIES LABORATORY

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SEATTLE, WASHINGTON

Personnel Bonhar	n Lowman	Weat	her	· · · · · · · · · · · · · · · · · · ·		
Held	Seymour	Water	r conditions			
Radiation level(s) N Operations: Bonham and Lou	See below: all og.~.030 ¹ Processed sampl man at Elmer	l readings with 4 les: HOW Fish	Beckman M serial No 11-2-55	<u>X5 in m. r</u> 5. 65005	eps. per	hr.;
0830 Held and	Seymour with I	Duggar and Spav	in left El	mer in L-2	0 for Free	1;
0915 Took off	in PBM (612)	from Fred for	Rongelap	with Lt. M	allinger	
as pilot. Fly	ing time to Ro	ongelap 2 hours	7 mins; 1	winds at 3	3 knots fi	rom
ENE most of wa	y; landed off	Rongelap Islan	d, put ash	ore in lif	e raft; a	ashore
at 12:05; sur	veyed with Bed	ekman MX5, (1)	the village	e area; (2) the patl	h
to a distance	of 800 yards s	south of villag	e, (3) path	h leading	from lagoo	n
to ocean side	of Island. Re	eturned to PBM	\sim 1400;	took off f	or Labared	1 j;
ashore Labared	1 (11fo mott)	at 11/15 Game				
	J (IIIC Paro)	at 1445. Surv	eyed (1) 18	anding are	a, (2) bea	ach
to mid island	on lagoon side	e, (3) then cro	eyed (1) 1a ss Island (anding are to ocean s	a, (2) bea 1de, (4)	ach
to mid island northern most	on lagoon side tip of Island,	(5) coconut g	eyed (1) 18 ss Island (rove near n	to ocean s north end,	a, (2) bea ide, (4). (6) Rhine	ehart
to mid island northern most "hole" in this	on lagoon side tip of Island, grove, (7) th	(3) then cro (5) coconut g area where A	eyed (1) 18 88 Island (rove near n FL monitore	anding are to ocean s north end, ed 2 weeks	a, (2) bea ide, (4). (6) Rhine ago, (8)	ehart and
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to mid island northern most "hole" in this fi nally the y Returned to PB	on lagoon side tip of Island, grove, (7) th ellow stake on M \sim 1600. La	(3) then cro (5) coconut g area where A Island, unname anded at Fred a	eyed (1) 18 88 Island (rove near r FL monitore ed, just so t 1810. L-	anding are to ocean s north end, ed 2 weeks buth of La -20 met pla	a, (2) bea ide, (4), (6) Rhine ago, (8) baredj. ane and	ehart and
to mid island northern most "hole" in this fi nally the y Returned to PB Canded us at E	on lagoon side tip of Island, grove, (7) th ellow stake on M \sim 1600. La lmer at 1820.	(3) then cro (5) coconut g area where A Island, unname anded at Fred a	eyed (1) 1 ss Island (rove near r FL monitore ed, just so t 1810. L-	anding are to ocean s north end, ed 2 weeks buth of La -20 met pla	a, (2) bea ide, (4), (6) Rhine ago, (8) baredj. ane and	ehart and
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to mid island northern most "hole" in this fi nally the y Returned to PB Canded us at E Meter rea AREA	on lagoon side tip of Island, grove, (7) th ellow stake on M ~ 1600. La lmer at 1820. dings follow	(5) coconut g (5) coconut g a area where A Island, unname anded at Fred a	eyed (1) 1 ss Island (rove near r FL monitore ed, just so t 1810. L- 3 ft. at closed	anding are to ocean s north end, ed 2 weeks buth of La -20 met pla bove ground open	a, (2) bea ide, (4), (6) Rhine ago, (8) baredj. ane and d l"abov closed	ehart and re grou ope
to mid island northern most "hole" in this fi nally the y Returned to PB Canded us at E Meter rea AREA RONGELAP ISLAN	on lagoon side tip of Island, grove, (7) th ellow stake on M ~1600. La lmer at 1820. dings follow	(3) then cro (5) coconut g area where A Island, unname anded at Fred a Front of village	eyed (1) 1 ss Island (rove near r FL monitore ed, just so t 1810. L- 3 ft. at closed	anding are to ocean s north end, ed 2 weeks buth of La -20 met pla ove ground open	a, (2) bea ide, (4), (6) Rhine ago, (8) baredj. ane and d 1" abov closed	ehart and Te grou ope
to mid island northern most "hole" in this fi nally the y Returned to PB Canded us at E Meter rea AREA RONGELAP ISLAN	on lagoon side tip of Island, grove, (7) th ellow stake on M ~ 1600. La lmer at 1820. dings follow D landing in f intertidal a landing in f	(3) then cro (5) coconut g area where A Island, unname anded at Fred a Front of village rea	eyed (1) 1 ss Island (rove near r FL monitore ed, just so t 1810. L- 3 ft. at closed e .04	anding are to ocean s north end, ed 2 weeks buth of La -20 met pla ove ground open	a, (2) bea ide, (4), (6) Rhine ago, (8) baredj. ane and d 1" abov closed .04	ehart and regrou oper .04
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to mid island northern most "hole" in this fi nally the y Returned to PB Canded us at E Meter rea AREA NONGELAP ISLAN	on lagoon side tip of Island, grove, (7) th ellow stake on M ~ 1600. La lmer at 1820. dings follow D landing in f intertidal a landing in f above high t 60 paces from school house	c 1449. Surv (3) then cro (5) coconut g he area where A Island, unname anded at Fred a ront of village rea ront of village ide line m lagoon to cis - hospital are	eyed (1) 1 ss Island (rove near r FL monitore ed, just so t 1810. L- 3 ft. at closed e .04 e .06 stern .08	anding are to ocean s north end, ed 2 weeks buth of La -20 met pla -20 met pla -20 met pla -20 met pla -20 met pla -20 met pla	a, (2) bea ide, (4), (6) Rhine ago, (8) baredj. ane and d 1" abov closed .04 .08 .08 .08 .10	ehart and regrou ope .04 .13 0.4 .25
to mid island northern most "hole" in this fi nally the y Returned to PB Landed us at E Meter rea AREA NONGELAP ISLAN	on lagoon side tip of Island, grove, (7) th ellow stake on M ~ 1600. La lmer at 1820. dings follow D landing in f intertidal a landing in f above high t 60 paces from school house " " par sample All %	c 1449. Surv (3) then cro (5) coconut g he area where A Island, unname anded at Fred a ront of village rea ront of village ide line m lagoon to cis - hospital are paya cluster (s 12)	eyed (1) 1 ss Island (rove near r FL monitore ed, just so t 1810. L- 3 ft. at closed e .04 e .04 e .04 e .04 e .06 stern .08 (a .07 soil .09	anding are to ocean s horth end, ed 2 weeks buth of La -20 met pl .04 .10 0.3 0.3 0.5	a, (2) bea ide, (4), (6) Rhine ago, (8) baredj. ane and d 1" abou closed .04 .08 .08 .08 .10 0.4	ach ehart and re grou oper .04 .13 0.4 .25 1.2

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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 closed	ground open	1" above closed	open
Heading south) Village center - concre	te			
along path	" "concrete "gr	grass .07 avel .07	0.3	0.09	
near lagoon	+ 100 paces gras	8	! !	0.15	0,9
side of) n n gravi	el· .11	0.6	0.10	0.4
island	+ 75 "				
General		8 ,05 el	.25	.06 .07	0.35
direction	+ 70 paces, inside h	ut 0.4	3.0	-	
N <u>-S</u>		.			
	j panuanus ma	oof		1.0 	7.0
	<pre> " " outside of !</pre>	nut			
	+ 200 " pandanus grove	0,4	3.5	0.5	8.0
) + 350 " mostly grass	0.4	3.0	0,6	
Path from	50 paces from junction with N-S path - well - mass	lth	· · · · · · · · · · · · · · · · · · ·		
lagoon to	+ 100 paces, open grass	0.3	2.0	0,06	. 0,3
ocean side	+ 100 " <u>Sida</u> bushes	0.3	3.0	0.9	5.0
starting	(+ 110 " open grass	0.4	3.0	1.2	7.0
from	+ 100 " grass and sand und	ler	_		
lagoon	+ 100 " under Guettarda,	0.4	3.0	0.7	6.0
side	dead leaves	0.15	1.5	0.4	1.0
General	+ 55 ocean side - above high tide line -				
direction	leaves sand	0.12	1.0 [,]	0.3	3.0
E - W	ocean side- intertida	al.			
5002645	parement and peach	• •	0.03	0.03	0.03
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APPLIED FISHERIES LABORATORY

SEATTLE, WASHINGTON

Personnel				Weather.					
				Water con	nditions				
Radiation lev	vel(s)			-	·····				
Operations:	Rongelap Isl AREA	and Surv	ey Meter	• Reading	<u>3' ab</u>	ntin ove	ued ground	<u>1" ab</u>	ove gro
	· · · ·			Cl	loseđ		open	close	ed op
	school house	, inside	· · · · · ·	0.	.09	(0.7	0.05	0.4
	school house	table						0.2	1.2
	hospital, in	side	· - · · · · · · · · · · · · · · · · · ·	ю.	11	(0.9	0.12	0,9
	hospital mat	tress						0.06	0-5
values	rechecked be	cause the	ey were	less at	l" the	an at	; 31		
values	rechecked be	cause the	ey were	less at	1" the	an at	; 31		
values	rechecked be	cause the	ey were	less at	1" the	an at	; 31	· · · · · · · · · · · · · · · · · · ·	
values	rechecked be	cause the	ey were	less at	1" th	an at	; 31	· · · · · · · · · · · · · · · · · · ·	
values	rechecked be	cause the	ey were	less at	l" the	an at	; 31	· · · · · · · · · · · · · · · · · · ·	
values	rechecked be	cause the	ey were	less at	1" the	an at	; 3!		
values	rechecked be	cause the	ey were	less at	1" the	an at	; 31		
values	rechecked be	cause the	ey were	less at	1" th	an at	: 31		
values	rechecked be	cause the	ey were	less at	1" th	an at	; 31		
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values	rechecked be	cause the	ey were	less at	1" th	an at	; 31		
values	rechecked be	cause the	ey were	less at	1" th	an at	; 31		

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Locality	Date Nov. 7, 1955 (Mon.) Con't.	-
Personnel	Weather	-
	Water conditions	_
TADADEDT SUDVEY METTER R	LADTNGS	-
Radiation level(s)	3 ft. above ground 1" above	-
AREA	Closed open closed op	ja Den
boat landing, south end, inter sand	idal 0.04 0.06 0.06 0.1	 .0
" " " above h tide, pavement	.gh 0.7 5.0 1.3 8.0)
00 paces N of boat landing, lagoon side dead leaves	4.0 off sc	ale
""" " lagoon side gravel	1.1 8.0 3.0 15.0	2_
+ 175 paces " " gravel	0.6 4.0 1.4 7.0	<u>) </u>
pm lagoon hi tide line, 40 paces East, under pandanus trees plus 35 paces E, gravel open area	2.5 16.0 5.0 off so 0.9 6.0 3.0 17.0	ale
" 45 " " under <u>Messerschmidia</u>	1.0 5.0 1.5 11.0	
" 50 " " open sand	0.9 8.0 3.0 off s	cale
"50 " " high tide line, ocean sand & gravel "40 " " intertidal ocean side	side 0.6 3.0 0.8 4.0 sand 0.09 0.4 0.14 0.6	
" 10 " " " beach pavement	0.03 0.07 0.04 0.15	5
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 tre	e dead fronds 1.0 5.0 0.8 4.0 neath " 2.0 11.0	
" " " " among arrowroot j	lants 1.1 8.0 3.0 12.0	
" " bottom of Rhinehart about	hole" 12" 0.5 3.5	

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DAILY LOG

SEATTLE, WASHINGTON

Personnel	Weather	·····		
	Water conditions			
Radiation level(s) LABAREDJ SURVEY METER	EADINGS			
Operations:	3 ft. ab closed	ove ground open	l'ab close	ove grou dopen
part of Island, under tree, dead le site of soil sample A 7 & 8	ves, at 0.9	6.0	1.5	12.0
part of Island 10 paces west, open, of soil sample A 5 & 6	site 0.8	6.0	3.5	18_+
amed island just south of Labaredj t yellow stake, open beach, above h ideline, sand & gravel	100 yds) zh 0.9	6.0	1.1	6.0
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Applied Fisheries Laboratory SEATTLE, WASHINGTON

SEATTLE, WASHINGTON

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		H	eight	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	l	0.1
			open	2	0.04	4	0.31	1	0.4
island	3	feet	closed	21	0.2	14	1.0		
proper above			open	21	1.3	14	6.4		
high tide	1	inch	closed	30	0.4	21	2.1	11	2.5
line			open	30	2.1	21	12.	11	9.3

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