

Survey Meter Readings at Rongelap Atoll

Feb. - Mar. 1958

<u>Rongelap Island</u>		Values expressed in millireps per hour*			
<u>Area</u>	<u>Shield:</u>	<u>3' above ground</u>		<u>1" above ground</u>	
		<u>closed</u>	<u>open</u>	<u>closed</u>	<u>open</u>
<u>Southwest edge of village near road</u>					
Under <u>Morinda</u> , over dead leaves		.02	.2	.1	.6
Open area over sedge		.03	.18	.04	.2
Under coconut trees 6' from road		.02	.2	.09	.6
Open area over grass		.03	.15	.04	.2
Under <u>Pandanus</u> over dead leaves		.03	.16	.08	.6
<u>Southwest edge of village, seaward side</u>					
Above high tide line		.03	.15	.04	.4
At high tide line		.01	.15	.015	.08
Intertidal zone		.01	.18	.01	.10
<u>3.1 miles west of Magistrate's house</u>					
In coconut grove 25' south of road		.05	.35	.07	.7
In coconut grove 100' south of road		.04	.35	.08	.6
<u>West end of island about 0.1 miles east of road end</u>					
15' south of road over open area		.03	.3	.08	.7
10' north of road over <u>Scaevola</u>		.03	.2	.05	.2
60' north of road over sand and <u>Wedalia</u> vines		.03	.25	.08	.5

* With a Beckman MX-5

Rongelap Island (continued)

<u>Area</u>	Shield:	<u>3' above ground</u>		<u>1" above ground</u>	
		<u>closed</u>	<u>open</u>	<u>closed</u>	<u>open</u>
<u>North edge of village</u>					
Under coconut trees		.03	.15	.08	.6
Open area, grass		.03	.2	.08	.7
Area of soil profile #1		.03	.2	.07	.7
Under <u>Pandanus</u>		.04	.2	.08	.6
Under <u>Messerschmidia</u>		.03	.15	.07	.6
	Average	.029	.21	.064	.48

Kabelle Island

	<u>Area</u>				
1	Center of Island under <u>Pisonia</u>	.1	.6	.4	1.0-1.5
2	Under <u>Pisonia</u>	.1	.6	.15	.7
3	Under <u>Pisonia</u> , over guano on <u>Boerhavia</u>				1.1

Proceeding from lagoon shore toward seaward shore across center of island

4	Just above high tide line	.1	.5	.2	1
5	About 40 yds. from shore, open area	.3	1.4	.7	3
6	About 100 yds. from shore, <u>Pisonia</u> and coconut trees	.2	.8	.4	1.5
7	About 100 yds. from shore, mound under coconut trees	.3	1.1	.5	2
8	About 200 yds. from shore, under <u>Pisonia</u>	.13	.8	.8	1.0

Kabelle Island (continued)

Area	Shield	3' above ground		1" above ground	
		closed	open	closed	open
About 200 yds. from shore, sandy area		.1	.8	.35	1.3
About 175 yds. from shore, under <u>Pisonia & Scaevola</u> over sand		.25	.6	.3	1.2
About 400 yds. from shore, <u>Scaevola</u> thicket, over dead leaves		.13	.6	.2	1.0
About 400 yds. from shore, <u>Scaevola</u> thicket, over sand cover with black lichen or algal growth		.13	.8	.4	1.4
<u>Proceeding from seaward shore toward lagoon shore across center of island</u>					
High tide line, over sand		.03	.4	.04	.4
10 yds. from shore in <u>Scaevola</u> thicket, over leaves		.07	.5	.08	.6
same area with leaves brushed away				.2	1.0
adjacent leaves, within arm's reach				.08	.7
same area as above with leaves brushed away				.2	.9
30 yds. from shore under <u>Messerschmidia</u>		.09	.6	.11	.7
same area with leaves brushed away, over humus				.3	1.3
same area with leaves and humus brushed away				.4	1.4
same area over sand 1.3 " below soil surface				.05	.35
	Average	.14	.72	.29	1.1

Kabelle Island (continued)

Note: Attempts were made to measure radiation from various portions of plants, bird nests, etc., but it was found that differences in readings with relation to distance above ground masked any other differences that might exist:

Readings with shield open:

1" above ground	2.0
2' " "	.8
3' " "	.6
4' " "	.4
7' " "	.25

Enia etok Island

<u>Area</u>	<u>3' above ground</u>		<u>1" above ground</u>	
	<u>closed</u>	<u>open</u>	<u>closed</u>	<u>open</u>
Readings taken across center of island at widest portion from lagoon shore to seaward shore.				
1 Near first house under coconut trees	1	.6	.3	1.0
2 Pile of humus and ashes	.08	.5	.2	.9
3 Under <u>Pandanus</u> over dead leaves	.06	.6	.3	1.4
4 Under coconut trees	.07	.6	.2	1.1
5 Coconut grove about 1/3 way across island	.07	.6	.2	1.1
6 Pile of coconut husks	.08	.17*	.08*	.25*
7 Open area with interspersed patches of grass and dried black lichen or algal growth	15	.8	.3	1.2

* These values were double checked and found to be correct.

Eni aetok Island (continued)

<u>Area</u>	<u>3' above ground</u>		<u>1" above ground</u>	
	<u>closed</u>	<u>open</u>	<u>closed</u>	<u>open</u>
8 Open area just above high tide line, over sand	.05	.5	.1	.8
9 Open area just above high tide line, over algae	.05	.5	.15	1.1
10 At high tide line	.015	.15	.02	.25
11 Intertidal zone, beach pavement	.01	.11	.02	.04
Average	.067	.47	.17	.83