

TERRITORY OF PAPUA AND NEW GUINEA.
VULCANOLOGICAL OBSERVATORY RABAU.

SEISMOLOGICAL BULLETIN. 1957.

The Observatory is on the rim of Blanche Bay caldera, which is composed of beds of pumice dust and ash with occasional interspersed basalt lava flow. The instrument vault (3 metres deep) is concrete lined and the roof forms part of the floor of the Observatory. The seismometers are mounted on a concrete pier set on basalt $1\frac{1}{2}$ metres below the vault floor. The pier is separated from the floor by a gap (8cm) loosely filled with pumice dust.

Latitude - $04^{\circ}11'33''S$. Longitude - $152^{\circ}10'16''$

Height above mean sea level = 183 metres (600 feet)

<u>Instrument</u>	<u>Components</u>	<u>Symbol</u>	<u>Tg.sec.</u>	<u>Tp.sec.</u>
Benioff	Z	Z	0.35	1.26
	NS	N	0.26	1.44
	EW	E	0.29	1.45

Rapindik Station. Supplementary information from seismograms recorded at Rapindik is included in this bulletin.

Latitude - $04^{\circ}13.7'S$. Longitude - $152^{\circ}11.8'E$.

Height above mean sea level - about 3 metres.

Foundation - unconsolidated volcanic ash.

<u>Instrument</u>	<u>Components</u>	<u>Symbol</u>	<u>M(kg)</u>	<u>V</u>	<u>To</u>	<u>Damping</u>
Omori	NS	N	15	11.9	3.6	Air,
	EW	E	15	10.2	3.8	critical

References. Tables - Jeffreys & Bullen, 1940.

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The station is maintained by the Administration of the Territory of Papua and New Guinea for vulcanological and seismological observations.

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SEISMOLOGICAL OBSERVATORY.

JANUARY, 1957

1st	eP i!	Z	01 06	19 20	U.S.C.G.S. 53 $\frac{1}{2}$ ^o N, 159 ^o E. Kamchatka H = 00 56 40 h approx. = 150 kms.
2nd	eP e iPcP i ePP ePPP	Z Z Z Z Z Z	02 28	22 35 49 29 20 31 00 59	U.S.C.G.S. 52 $\frac{1}{2}$ ^o N, 168 ^o W. Aleutian Is. - foreshock H = 02 17 35 Mag. = 6 $\frac{3}{4}$ (Pas)
	iP	Z	03 59	45	U.S.C.G.S. 53 ^o N, 168 ^o W. Aleutian Is. H = 03 48 44 Mag. = 7-7 $\frac{1}{4}$ (Pas)
	iP i	Z E	21 26 27	39 49	Felt: Awelkon Int. 2(MM) 5 ^o 40'S, 147 ^o 50'E.
3rd	eP i	Z Z	00 52	05 12	U.S.C.G.S. 53 ^o N, 168 ^o W. Aleutian Is. H = 00 41 02
	i!P i e ipP e eScP eS esS	Z Z Z Z Z Z Z E	12 56 57 58	45.C. 09 24 39 59 21 00 48 03 26 06 58	U.S.C.G.S. 44 ^o N, 130 ^o E. Manchuria H = 12 48 27 h approx. = 600 kms. Mag. = 7 (Pas)
	iP epP	Z Z	13 51 53	46 39	U.S.C.G.S. 44 ^o N, 130 ^o E. Manchuria - aftershock H = 13 43 29 h approx. = 600 kms.
4th	eP i	Z Z	13 40 41	53 49	U.S.C.G.S. Solomons Is. H = 13 38 00 h approx. = 100 kms.
	e i i!	Z Z E	15 52 53	35 16 30	U.S.C.G.S. Solomon Is. H = 15 51 25
5th	Nil				
6th	i!P	Z	01 44	29.C.	U.S.C.G.S. 26 ^o N, 126 ^o E. Ryukyu Is. H = 01 36 58
	eP i i!	Z Z E	06 55 56	43 47 39	B.C.I.S. Solomon Is. H = 06 54.6m. Felt: Buin Int. 4(MM) 6 ^o 50'S, 155 ^o 45'E.
	iP i!S	Z E	15 45	15.C. 50	

(cont. over)

2.

6th cont.	iP i! iS i!	Z Z E E	15	50 50 51	25 29 55 00	Aftershock of the preceding shock.
7th	iP i iS	Z Z NE	12	08 09	52 16 46	
	iP	Z	16	50	38	U.S.C.G.S. $8\frac{1}{2}^{\circ}\text{N}$, 126°E . Mindanao H = 16 45 02 h approx. = 250 kms.
	iP i	Z Z	18	53 54	15 39	
8th	eP	Z	17	40	25	U.S.C.G.S. $52\frac{1}{2}^{\circ}\text{N}$, 168°W . Aleutian Is. H = 17 29 36
	e	Z	18	29	43	
9th	eP	Z	01	49	02	U.S.C.G.S. 54°N , 169°E . Komandorskie Is. H = 01 38 50
	(iP ((i	Z Z	06	16 18	58 03	<u>Felt:</u> Awelkon Int. 2(MM) $5^{\circ}40'\text{S}$, $147^{\circ}50'\text{E}$. U.S.C.G.S. New Britain region. H = 06 15 37
10th	Nil					
11th	e(P)	Omori	11	59	40	<u>Felt:</u> Warangoi Int. 1-2(?) $4^{\circ}30'\text{S}$, $152^{\circ}20'\text{E}$.
	iP	Z	23	39	18	U.S.C.G.S. 27°N , $127\frac{1}{2}^{\circ}\text{E}$. Ryukyu Is. H = 23 31 50
12th) 13th)	Nil					
14th	i e i i i	Z Z Z E Z	14	26 27 30 31 35	06 39 24 26 28	(U.S.C.G.S. 22°S , 179°W . Fiji Is. region H = 14 20 17)
15th	iP i iP ePP eS	Z Z Z Z Z	01 20 20	00 16 27 28 32	16 52 28 18 10	U.S.C.G.S. $6\frac{1}{2}^{\circ}\text{N}$, 127°E . near Mindanao, H = 20 21 45 h approx. = 100 kms.
16th	Nil					

						3.
17th	iP	Z	00	40	36	
	i	Z			42	
	eP	Z	07	28	40	U.S.C.G.S. $7\frac{1}{2}^{\circ}\text{S}$, $129\frac{1}{2}^{\circ}\text{E}$. Banda Sea H = 07 23 43 h approx. = 100 kms.
	i	Z	10	55	02	
	i	Z			37	
	eP	Z	11	32	40	U.S.C.G.S.
	i	Z			56	Flores Is.
	iPP	E		33	50	H = 11 26 17
	iP	Z	22	33	48	U.S.C.G.S. 33°N , $137\frac{1}{2}^{\circ}\text{E}$.
	i	Z			59	Honshu H = 22 26 10
18th	iP	Z	05	33	37.7	B.C.I.S.
	i!	Z			38.1	New Britain region H = 05 32.8m. <u>Felt:</u> Lindenhafen Int. 3 (MM) $6^{\circ}10'\text{S}$, $150^{\circ}35'\text{E}$. <u>Felt:</u> Popondetta Int. 2 (MM) $8^{\circ}45'\text{S}$, $148^{\circ}15'\text{E}$.
	iP	Z	11	46	07	
19th	iP	Z	05	22	25	U.S.C.G.S. $21\frac{1}{2}^{\circ}\text{S}$, 179°W .
	iPcP	Z		24	52	Fiji Is.
	iScP	Z		27	52	H = 05 16 37 h approx. = 650 kms. Mag. = $6\frac{1}{2}$ (Pas)
	eP	Omori	18	28.8	-	<u>Felt:</u> Biaila Int. 3 (MM) $5^{\circ}20'\text{S}$, $151^{\circ}05'\text{E}$. <u>Felt:</u> Karlai Int. 3 (MM) $5^{\circ}05'\text{S}$, $152^{\circ}00'\text{E}$. <u>Felt:</u> Warangoi Int. 2 (MM) $4^{\circ}30'\text{S}$, $152^{\circ}20'\text{E}$. <u>Felt:</u> Tol Int. 2 (MM) $5^{\circ}00'\text{S}$, $152^{\circ}05'\text{E}$.

No record on Benioff Seismograph for the rest of the month.

OMORI.

24th	eP		01	12	47	U.S.C.G.S. 6°S , 147°E .
	e(S)			13	50	New Guinea H = 01 11 11 h approx. = 100 kms. <u>Felt:</u> Wau Int. 4 (MM) $7^{\circ}20'\text{S}$, $146^{\circ}45'\text{E}$. <u>Felt:</u> Minj Int. 3-4 (MM) $5^{\circ}50'\text{S}$, $144^{\circ}40'\text{E}$. <u>Felt:</u> Lae Int. 3-4 (MM) $6^{\circ}45'\text{S}$, $147^{\circ}00'\text{E}$. <u>Felt:</u> Karkar Int. 3-4 (MM) $4^{\circ}40'\text{S}$, $146^{\circ}00'\text{E}$.
	eP		16	41	(41)	

25th eL 19 14 07 Long Period Waves
 26th e 23 45 26

Tremors felt in the Territory, January, 1957.

Date	Time G.M.T.	Intensity Mercalli Modified	Locality	Latitude		Longitude	
				South	East	o	'
Jan. 1st	0039	2	Warangoi.	04	30	152	20
	2nd 2130	2	Awelkon	05	40	147	50
	6th 0655	4	Buin	06	50	155	45
	9th 0620	2	Awelkon	05	40	147	50
	0754	3	"	"	"	"	"
	1140	1	"	"	"	"	"
11th	1045	2	Pomio	05	30	151	30
	1137	2	Kandrian	06	15	149	35
	1205	1 - 2(?)	Warangoi	04	30	152	20
16th	0824	2	Kandrian	06	15	149	35
17th	1250	1	Tol	05	00	152	05
18th	0534	3	Lindenhafen	06	10	150	35
	0535	2	Popondetta	08	45	148	15
	c:1130	2	Kandrian	06	15	149	35
	1702	3	Buin	06	50	155	45
19th	1830	3	Karlai	05	05	152	00
	1828	3	Bialla	05	20	151	05
	1830	2	Tol	05	00	152	05
	1821	2	Warangoi	04	30	152	20
24th	0115	4(E-W)	Wau	07	20	146	45
	0112	3 - 4	Karkar	04	40	146	00
	0112	3 - 4(N-S)	Minj	05	50	144	40
	0109	3 - 4	Lae	06	45	147	00
	0115	3	Aiome	05	10	144	45
	0112	3	Saidor	05	35	146	30
	0116	3	Popondetta	08	45	148	15

(cont. over

5.

Date	Time G.M.T.	Intensity Mercalli Modified	Locality	Latitude		Longitude	
				South	East	East	East
				o	'	o	'
24th cont.	0115	3	Madang	05	15	145	50
	0108	3	Awelkon	05	40	147	50
	0112	1	Ihu	07	55	145	25
30th	1335.	-	Nr. Blup Blup Is. (M.V. "Koro")	03	30	144	35



Station	Time G.M.T.	Intensity	Location	Latitude	Longitude
1962-02-15	07:12	3	Wahana	02 12	105 30
1962-02-15	07:43	3	Amikom	02 43	105 30
1962-02-15	07:55	1	Tan	07 55	105 30
1962-02-15	08:30	-	19. 8100 18. 7 18. (18. 7. 1800)	08 30	105 30



TERRITORY OF PAPUA AND NEW GUINEA.

VULCANOLOGICAL OBSERVATORY RABAU.

SEISMOLOGICAL BULLETIN.

FEBRUARY, 1957.

No record on Benioff Seismographs
1st - 9th February (0709 hrs.)

OMORI.

6th	e		04	22	07	
7th	e		16	43	51	
8th	e		03	11	09	
	eP		08	28	55	Felt: Rabaul Int. 2(MM) 4°11'S, 152°10'E.
	e		09	13	55	
9th	iP	Z	08	11	53	U.S.C.G.S. 11½°N, 138½°E. Caroline Is. H = 08 07 15
	i!P	Z	13	36	38½	D. U.S.C.G.S. 34°S, 180°. New Zealand H = 13 29 18 h approx. = 150 kms. Mag. = 6½ (Pas)
	i	E		37	12	
10th	eP	Z	22	38	24	U.S.C.G.S. 10°N, 126°E. Mindanao - foreshock H = 22 32 15 Mag. 6½-6¾ (Pas)
	eP	Z	22	57	01	U.S.C.G.S. 10½°N, 126½°E. Mindanao H = 22 50 52 Mag. = 6¾ (Pas).
	iPP	Z			51	
11th	iP	Z	01	20	47	U.S.C.G.S. 10°N, 126°E. Mindanao - aftershock H = 01 14 44 Mag. = 6½ (Pas)
	e	Z		21	10	
	eP	Z	14	31	46	U.S.C.G.S. 10°N, 126°E. Mindanao - aftershock H = 14 25 38 Mag. 6½ (Pas)
	e			31	55	
12th	iP	Z	23	47	51	
	i	Z			55	
13th	eP	Z	00	35	52	U.S.C.G.S. 10°N, 126½°E. Mindanao - aftershock H = 00 29 48
	iP	Z	12	42	18	U.S.C.G.S. 18°S, 169°E. New Hebrides Is. H = 12 37 14
	iP	Z	20	20	49½	Felt: Tol Int. 1(MM) 5°00'S, 152°05'E. S-P (Omori) = 15 secs.
						Compression from south-east

2.

14th	i!P	Z	06	44	31 $\frac{1}{2}$	<u>Felt</u> : Rabaul Int. 2-3(MM) 4°11'S, 152°10'E. <u>Felt</u> : Kokopo Int. 2(MM) 4°20'S, 152°15'E.
15th	Nil					
16th	iP	Z	02	47	00 D.	B.C.I.S. New Britain H = 02 46 34 <u>Felt</u> : Rabaul Int. 3(MM) 4°11'S, 152°10'E. <u>Felt</u> : Karoola Int. 3(MM) 5°10'S, 154°35'E. <u>Felt</u> : Warangoi Int. 2(MM) 4°30'S, 152°20'E.
17th	eP	Z	16	08	59	U.S.C.G.S. 4 $\frac{1}{2}$ °S, 125 $\frac{1}{2}$ °E. Banda Sea H = 16 04 02
18th	Nil					
19th	i!P	Z	04	59	00	<u>Felt</u> : Pomio Int. 1-2(MM) 5°30'S, 151°30'E.
	eP	Z	16	54	11	
	i	Z			25	
	eP	Z	17	01	00	<u>Felt</u> : Tari Int. 4(MM)
	iP	Z			01 $\frac{1}{2}$	
	i	Z			09 $\frac{1}{2}$	5°50'S, 143°00'E.
	i!	Z			14 $\frac{1}{2}$	<u>Felt</u> : Telefomin
	e	Z			47	5°10'S, 141°35'E.
	i	N			53 $\frac{1}{2}$	
	eP	Z	20	09	19	U.S.C.G.S. 56°N, 164°E.
	e	Z			38	Kamchatka H = 19 58 55
20th	iP	Z	13	09	30	U.S.C.G.S. 53 $\frac{1}{2}$ °N, 160°E.
	e	Z			42	Kamchatka H = 12 59 44 h approx. = 60 kms.
	iP	Z	22	08	01	U.S.C.G.S. 2°N, 97°E.
	i	Z			11 $\frac{1}{2}$	Sumatra H = 21 58 23
21st	iP	Z	19	43	37	U.S.C.G.S. 31°S, 178°W. Kermadec Is. H = 19 36 05
22nd	iP	Z	00	37	53	Wellington 39°.2S, 175°.1E. North Island New Zealand H = 00 30 11

3.

23rd	iP	Z	00	51	20	C.
	i!	NE			41 $\frac{1}{2}$	
	eP	Z	18	59	08	U.S.C.G.S. 12 $^{\circ}$ N, 141 $^{\circ}$ E. Caroline Is. H = 18 54 37
	iP	Z	20	33	54	D. U.S.C.G.S. 24 $^{\circ}$ N, 122 $^{\circ}$ E. Formosa
	i	Z		34	58 $\frac{1}{2}$	H = 20 26 12
	i	Z			03	Mag. 7-7 $\frac{1}{4}$ (Pas)
	i	Z		35	14 $\frac{1}{2}$	
	i	Z		38	22	
	e	E			01	
	e	N			30	
24th	e	N			44	
	eScP	Z		39	38	
	i	Z		40	23	
	e	Z		41	39	
	e	Z	21	06	02	
	e	Z		15	11	
	iP	Z	05	37	39.9	D. <u>Felt</u> : Buin Int. 1 (MM) 6 $^{\circ}$ 50'S, 155 $^{\circ}$ 45'E. S-P (Omori) = 23 secs.
	iP	Z	17	32	12	
	iP	Z	21	55	09	U.S.C.G.S. 2(6) $^{\circ}$ N, 121 $\frac{1}{2}$ $^{\circ}$ E. Formosa - aftershock H = 21 47 26
	25th	iP	Z	13	26	21
i		Z			34	
eScP		Z		33	33	H = 13 21 17
26th	iP	Z	13	57	43 $\frac{1}{2}$	<u>Felt</u> : Awelkon
	i	NE		58	54	Int. 3 (MM) 5 $^{\circ}$ 40'S, 147 $^{\circ}$ 50'E. Compression from west
27th	eP	Z	15	09	08	U.S.C.G.S. 24 $^{\circ}$ N, 121 $\frac{1}{2}$ $^{\circ}$ E. Formosa H = 15 01 22
	eP	Z	16	11	51	U.S.C.G.S. 11 $\frac{1}{2}$ $^{\circ}$ S, 167 $^{\circ}$ E. Santa Cruz Is.
28th	e	Z		12	41	H = 16 07 58
	i	Z	16	59	24	

Tremors felt in the Territory, February, 1957.

Date	Time G.M.T.	Intensity Mercalli Modified	Locality	Latitude		Longitude	
				South	East	o	'
8th	0829	2	Rabaul	04	11	152	10
10th	0001	1	Wau	07	20	146	45
	2142	1	Pomio	05	30	151	30
11th	0938	1	Wau	07	20	146	45
13th	0200	2	Budoia	09	43	150	50
	2021	1	Tol	05	00	152	05
14th	0645	2 - 3	Rabaul	04	11	152	10
		2	Kokopo	04	20	152	15
16th	0247	3	Rabaul	04	11	152	10
		3	Karoola	05	10	151	35
		2	Warangoi	04	30	152	20
		2	Kokopo	04	20	152	15
	0315?						
18th	1345	2	Budoia	09	43	150	50
19th	c:0500	1 - 2	Pomio	05	30	151	30
	1600(?)	3	Popondetta	08	45	148	15
	1701	4	Tari	05	50	143	00
		-	Telefomin	05	10	141	35
21st	0515	2	Kandrian	06	15	149	35
	1526	4	Tari	05	50	143	00
24th	0533	1	Buin	06	50	155	45
	1325	3	Karkar	04	40	146	00
26th	1358	3	Awelkon	05	40	147	50

TERRITORY OF PAPUA AND NEW GUINEA.

VULCANOLOGICAL OBSERVATORY RABAUL.

SEISMOLOGICAL BULLETIN.

MARCH, 1957.

1st	iP	Z	21	07	38	Dilatation. Deep?
	i!	Z			41	
	iS	-		08	25	
	ei	-			32	
2nd	iP!	Z	08	11	04	U.S.C.G.S. 6°S, 151°E. Nr. coast of New Britain H = 08 10 24 Felt: Rabaul Int. 4(MM) 4°11'S, 152°10'E. Felt: Pomio (?) Int. 3(MM) 5°30'S, 151°30'E. Felt: Ulamona Int. 2(MM) 5°00'S, 151°15'E. Felt: Lindenhafen Int. 1-2(MM) 6°10'S, 150°35'E.
	e(P)	Z	10	56	46	
	i				53	
	e		(11)	04	30	
	e				57	
3rd	eP	Z	00	24	30	B.C.I.S. Solomon Is. H = 00 23.2m.
	i				31½	
	i(S)			25	29½	
	iP	Z	10	45	11½	
	eP	Z	20	50	48½	U.S.C.G.S. 9½°S, 154°E. Nr. E. coast of New Guinea H = 20 49 30 h approx. = 100 kms.
	i				50	
	e			51.6	-	
	i			51	41	
	i				51	
	iS	E			53.7	
	iP	Z	23	59	18½	Felt: Rabaul Int. 1(MM) 4°11'S, 152°10'E. S-P (Omori) = 25 secs.
	Dilatation ? obscured by microseisms					
	i!	Z			19½	
4th	iP!	Z	00	11	53½	Dilatation. Deep.
	iS	NE		12	18	Aftershock
	iP!	Z	00	15	32½	Dilatation. Deep
	iS!	NE			57½	Aftershock
	iP!	Z	17	01	25	Compression. Deep.
	i!	Z			39	Aftershock.
	iS	N			51½	
	iS	E			55½	
5th	e(PKP)	Z	12	44	27	U.S.C.G.S. 33°N, 34½°W. North Atlantic H = 12 24 35 Mag. = 6½-6¾ (Pas)

2.

5th. cont.	eP	Z	19	07	50	U.S.C.G.S. 14°S, 167½°E.
	i	Z			52	New Hebrides Is.
	i	Z		08	20½	H = 19 03 30
	i	Z			23½	
	i	Z			58½	
	e(S)	NE		11	22	
	e	NE		12	54	
	e(PcP)	NE			09	
6th	eP	Z	11	36	02	U.S.C.G.S. 49°N, 155°E.
	e				16	Kurile Is. H = 11 26 44
7th	iP	Z	05	43	45	
	i(S)	NE		44	10	
	e	Z	10	53	(17½) 22.6	U.S.C.G.S. 19°S, 178½°W. Fiji Is. H = 10 47 25 h approx. = 550 kms.
	i					
	e	Z	23	38	19	(Felt: Telefomin Int. 3 (MM) 5°10'S, 141°35'E. Felt: Tari Int. 2 (MM) 5°50'S, 143°00'E.)
8th	ePKP	Z	12	33	13	B.C.I.S. 39°5N, 22°8E.
	ePP	Z		34	54	Thessaly - foreshock
	ePPS	Z		46	17	H = 12 14 14
	ePKP	Z	12	40	09½	B.C.I.S. 39°5N, 22°8E.
	ePP	Z		41	36	Thessaly
	i(PP)	Z			51.5	H = 12 21 14
	ePPS	Z		53	08	Mag. = 6¼ (Pas)
	iPPS	N			13.7	
	eP	Z	16	40	57	U.S.C.G.S. 23°S, 179°E.
	i	Z			58½	Fiji Is.
	i	Z		42	34.7	H = 16 35 11
	e(PP)	N		43	00	h approx. = 600 kms.
	i(PcP)	ZN			30	
	e	N		45	13	
e(S)	N			30		
e(S)	E			32		
e	Z		46	22		
i	Z			23		
9th	eP	Z	14	32	47	U.S.C.G.S. 51°3N, 175°8 W.
	i			33	04	Andreanov Is.
	i(PcP)				18	H = 14 22 27.5
	i				32	Mag. = 7¼-8 (Pas)
	i			34	17	
	i(PP)	Z			56	
	i(PPP)	Z		36	21.8	
	e				23	
	e(ScP)			37	29	
	e(S)	NE		41	(25)	
	e				44	
	e			42	01	
	i				26	
	i			43	33	
	i			44	56	
	e			46	31	
	e			47	35	
e			48	46		
e			50.4			
e(L)			52.1			

(cont. over)

3.

9th cont.	eP	15	02	15	
	e		03	06	
	eP	15	07	44	
	e		08	27	
	e(L)	15.	09.1	-	
	e	15	12	48	
	i	15	13	00	
	e	15	15.5	-	
	i	15	18	04	
	iP!	15	20	52	B.C.I.S.
	i		21	04.5	Compression Andreanov Is. H = 15 10 12
	iP	15	27	44 $\frac{1}{2}$	
					Compression
	e(P)	15	48	59	
	e		50	26	
	iP	15	52	05	U.S.C.G.S. 50 $\frac{1}{2}$ ^o N, 177 ^o W.
	i			09 $\frac{1}{2}$	Andreanov Is.
	i!			13	H = 15 41 50
	i(PcP)			25	
	i(PP)		54	22	
	eP	15	58	38	B.C.I.S.
	i			53 $\frac{1}{2}$	Aleutian Is.
	e	(16)	00.5	-	H = 15 48.2m.
	e(P)	16	16	50	B.C.I.S.
					Fox Is.
					H = 16 06 12
	e	16	21	30	
	e(P)	16	26	45	B.C.I.S.
	e		27	03	Andreanov Is. H = 16 16 26
	e(PPP)	16	35	46	(B.C.I.S. Andreanov Is. H = 16 21.8m.)
	eP	16	42	45	U.S.C.G.S. 51 ^o N, 176 ^o W.
	i			57	H = 16 32 30
	eP	16	55	46	U.S.C.G.S. 51 $\frac{1}{2}$ ^o N, 174 ^o W.
	e		56	09	Andreanov Is.
	e		57.5	-	H = 16 45 26
	eP	17	20	39	U.S.C.G.S. 51 $\frac{1}{2}$ ^o N, 172 $\frac{1}{2}$ ^o W.
					Andreanov Is. H = 17 10 13
	eP	18	08	24	B.C.I.S. 55 $\frac{3}{4}$ ^o N, 156 ^o W.
					Unimak Is. H = 17 57 25
	eP	19	24	22	B.C.I.S. 53 ^o N, 169 ^o W.
	i		25	03	Fox Is. H = 19 13 33
	eP	19	45	27	B.C.I.S. 53 ^o N, 172 $\frac{1}{2}$ ^o W.
					Andreanov Is. H = 19 34 54

(cont. over

		4.			
9th cont.	eP e	19	48 49	10 00	U.S.C.G.S. 51°N, 173°W, Andreanov Is. H = 19 37 31
	eP	20	11	27	U.S.C.G.S. 51½°N, 170½°W, Fox Is. H = 20 00 56
	eP	20	17	46	B.C.I.S. 51½°N, 171°W, Fox Is. H = 20 07 01
	eP	20	32	32	U.S.C.G.S. 52°N, 169½°W, Fox Is. H = 20 22 02
	eP e	20	41 42	43 26	
	eP	20	49	57	U.S.C.G.S. 52½°N, 169½°W, Fox Is. H = 20 39 15 Mag. = 6½-7 (Pas)
e(P) e	21	18.7 19	- 09		
eP e	22	07	11 22	U.S.C.G.S. 53°N, 168°W, Fox Is. H = 21 56 24	
eP	23	10	02	U.S.C.G.S. 51½°N, 171°W, Fox Is. H = 22 59 26	
eP	23	20	(02)	B.C.I.S. Fox Is. H = 23 09 25	
eP	23	31	(32)	B.C.I.S. 52¼°N, 174¾°W, Andreanov Is. H = 23 20 58	
e(P)	23	32	44½		
10th	e(P)	00	17	13½	B.C.I.S. Fox Is. H = 00 06 32
	e(P)	00	21	(47)	B.C.I.S. 52¾°N, 173¾°W, Andreanov Is. H = 00 11 29
	eP	01	27	(31)	B.C.I.S. 53½°N, 177¼°W, Andreanov Is. H = 01 17 00
	eP	01	33	(02)	B.C.I.S. 53°N, 168½°W, Fox Is. H = 01 22 07
	iP	01	53	52.0	B.C.I.S. Andreanov Is. H = 01 43.5m.
	eP	02	33	(00)	B.C.I.S. 53°N, 168½°W, Fox Is. H = 02 22 30

(cont. over)

		5.			
10th cont.	eP	02	46	41	
	eP	03	03	33	J.M.A. 41°06'N, 143°08'E. Hokkaido H = 02 55 07 h approx. = 60 kms.
	e(P) i	03	16 20	38 07	U.S.C.G.S. 52°N, 176°W. Andreanov Is. H = 03 06 02 Mag. = 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ (Pas)
	iP	03	19	38	U.S.C.G.S. 51 $\frac{1}{2}$ °N, 174°W. Andreanov Is. H = 03 08 55
	eP e	03	42 48.6	41	B.C.I.S. Discordant data 2 earthquakes, one near 34°N, 72°E.
	eP e	04	46 47	(46) 42	B.C.I.S. Aleutian Is. Rather discordant data. H = 04 37.2m.
	eP	05	43	52	U.S.C.G.S. 52°N, 174°W. Andreanov Is. H = 05 33 27
	eP	07	33	37	U.S.C.G.S. 52°N, 176°W. Andreanov Is. H = 07 23 18
	eP	07	42	21	U.S.C.G.S. 53°N, 168°W. Fox Is. H = 07 31 36
	eP	11	31	21	U.S.C.G.S. 52°N, 171°W. Fox Is. H = 11 20 45
	eP	11	45	04	B.C.I.S. Aleutian Is. H = 11 36.0m.
	eP e e	12	22 23	40 22 38	U.S.C.G.S. Andreanov Is. H = 12 12 18
	eP i	12	46	37 47	U.S.C.G.S. 51°N, 171°W. Fox Is. H = 12 36 04
	eP e	12	55	45 57	U.S.C.G.S. 51°N, 177°W. Andreanov Is. H = 12 45 31
	eP	13	20	22	U.S.C.G.S. 51 $\frac{1}{2}$ °N, 180°. Andreanov Is. H = 13 10 13
	iP	13	38	43	U.S.C.G.S. 51 $\frac{1}{2}$ °N, 179°W. Andreanov Is. H = 13 28 30
	eP	14	19	40	
	eP	14	55	48	B.C.I.S. Aleutian Is. H = 14 45.9m.

6.

10th cont.	eP e(PP) e(S)	15	36 39 45.5	51 05	U.S.C.G.S. 52°N, 173°W. Andreanov Is. H = 15 26 23
	eP e	15 16	59 05	24 57	B.C.I.S. Fox Is. H = 15 48 36
	e(P)	16	41	46	
	eP i	16	48	13 51.2	U.S.C.G.S. 51½°N, 173½°W. Andreanov Is. H = 16 37 45
	eP i	16	50	10 53	B.C.I.S. Andreanov Is. H = 16 39.8m.
	eP	17	56	00	B.C.I.S. Aleutian Is. H = 17 45.8m.
	eP	19	28	(42)	U.S.C.G.S. 51°N, 177°W. Andreanov Is. H = 19 18 30
	eP	19	51	21	U.S.C.G.S. 52°N, 173°W. Andreanov Is. H = 19 40 55
	eP	21	07	(38)	B.C.I.S. 54°N, 167°W. Fox Is. H = 20 57 04
11th	eP	00	18	59	U.S.C.G.S. 52°N, 169°W. Fox Is. H = 00 08 07
	eP i i e	03	22 23 24	55 01 13 40	U.S.C.G.S. 51°N, 177°W. Andreanov Is. H = 03 12 41 Mag. = 6¼-7 (Pas)
	eP	08	48	06½	U.S.C.G.S. 53°N, 168°W. Fox Is. H = 08 37 15
	eP i ePcP e(PP) e ePPP e(S) e	10	09	26 33 55 29 52 49	U.S.C.G.S. 53°N, 164½°W. Fox Is. H = 09 58 42 Mag. = 6¾-7 (Pas)
	e	10	38	24	
	i(P) i IS	11	05	19 29 10	Felt: Aropa Int. 1(MM) 6°25'S, 155°50'E.
	eP i e eS	12	18 19 26.6	48 50 55 -	U.S.C.G.S. 2°N, 97°E. Sumatra H = 12 09 10

(cont. over)

7.

11th cont.	eP	15	05	30	U.S.C.G.S. 51 $\frac{1}{2}$ ^o N, 178 $\frac{1}{2}$ ^o W.
	i			34	Andreanov Is.
	iPcP			48	H = 14 55 19
	i		06	48	Mag. = 6 $\frac{3}{4}$ (Pas)
	ePP		07	32	
	e			55	
	eS		13	50	
	e	15	34	57	
	iP	15	46	05	U.S.C.G.S. 51 ^o N, 179 ^o W.
	i		47	06	Andreanov Is.
					H = 15 35 50
					Mag. = 6 $\frac{1}{2}$ (Pas)
	eP	20	48	49	B.C.I.S.
					Andreanov Is.
					H = 20 38.5m.
12th	iP	01	13	14	U.S.C.G.S. 52 ^o N, 174 $\frac{1}{2}$ ^o W.
					Andreanov Is.
					H = 01 02 33
	eiP	07	39	16	U.S.C.G.S. 51 $\frac{1}{2}$ ^o N, 173 $\frac{1}{2}$ ^o W.
					Andreanov Is.
					H = 07 28 46
	iP	07	49	31	U.S.C.G.S. 52 ^o N, 178 ^o W.
	i			42	Andreanov Is.
	i			55	H = 07 39 17
	e(S)	(08)	58.0	-	Mag. 6 $\frac{1}{4}$ -6 $\frac{1}{2}$ (Pas)
	e		08.6	-	
	eP	08	13	26	U.S.C.G.S. 51 ^o N. 178 ^o W.
					Andreanov Is.
					H = 08 03 11
	e(P)	08	56	(29)	B.C.I.S.
					Andreanov Is.
					H = 08 46.8m.
	e(P)	10	48	(54)	U.S.C.G.S. 51 $\frac{1}{2}$ ^o N, 174 $\frac{1}{2}$ ^o W.
					Andreanov Is.
					H = 10 38 30
	eP	11	55	08	U.S.C.G.S. 51 ^o N, 177 ^o W.
	i			14	Andreanov Is.
	i			22	H = 11 44 50
	iPcP			52	Mag. 7-7 $\frac{1}{4}$ (Pas)
	i			58	
	i		56	28	
	ePP		57	22	
	e		59	34	
	e	(12)	02.6	-	
	ePPS		03	53	
	e(SS)		07	02	
	eP	12	13	16	B.C.I.S. 51 ^o N, 177 ^o W.
					Andreanov Is.
					H = 12 03 01
	e	12	24	28	B.C.I.S.
	e			41	Discordant data.
	e(P)	12	56	58	U.S.C.G.S. 53 ^o N, 168 $\frac{1}{2}$ ^o W.
	i		57	01	Fox Is.
	i			15	H = 12 46 12
	e		59	27	
	eS	(13)	05.8	-	
	e(L)		25.9	-	

(cont. over)

8.

12th cont.	eP	14	42	24	B.C.I.S. 52 $\frac{1}{2}$ ^o N, 178 $\frac{1}{2}$ ^o W. Andreanov Is. H = 14 32 16
	eiP	15	40	27	B.C.I.S. Andreanov Is. H = 15 30.2m.
	eP	15	51	26	B.C.I.S. 52 $\frac{1}{2}$ ^o N, 167 $\frac{1}{2}$ ^o W. Fox Is. H = 15 40 50
	eP	16	36	27	U.S.C.G.S. 14 $\frac{1}{2}$ ^o S, 168 ^o E. New Hebrides Is. H = 16 32 05
	i			32	
	iPP			43	
	ei			57	
	i		37	26	
	eS		39	59	
	eSS		40	26	
	iPcP			55	
	e	17	10.8	-	U.S.C.G.S. 51 $\frac{1}{2}$ ^o N, 175 ^o W. Andreanov Is. H = 17 00 21
	i		11	01	
	iP	17	27	33	U.S.C.G.S. 21 $\frac{1}{2}$ ^o S, 17(9) ^o W. Fiji Is. h approx. = 700kms.
	eiPcP		29	58	
	e(S)		32	06	H = 17 21 47
	iP	18	34	29	U.S.C.G.S. 18 ^o S, 178 $\frac{1}{2}$ ^o W. Fiji Is. H = 18 28 50 h approx. = 650 kms.
	i			36	
	eS		39.0	-	
	i		39	50	
	e(ScS)		43.8	-	
	iP	19	17	17	U.S.C.G.S. 16 ^o S, 176 $\frac{1}{2}$ ^o W. Fiji Is. H = 19 11 16 h approx. = 400 kms.
					Dilatation (to east?)
	i			25	
	e(pP)		18	48	
	ei(PcP)		19	56	
	eS		22	05	
	i(ScP)		23	02	
	e(PcS)			41	
	e(ScS)		27	07	
	eP	20	11	(28)	U.S.C.G.S. 54 ^o N, 165 ^o W. Unimak Is. H = 20 00 30
	i	23	56	05 $\frac{1}{2}$	U.S.C.G.S. 52 ^o N, 174 ^o W. Andreanov Is. H = 23 45 25
13th	iP	02	59	05	U.S.C.G.S. 52 ^o N, 171 $\frac{1}{2}$ ^o W. Andreanov Is. H = 02 48 20
	iP!	04	31	55	Dilatation. Deep.
	iS		32	33 $\frac{1}{2}$	Felt: Linga Linga
	i			44	Int. 2(MM) 5 ^o 35'S, 149 ^o 45'E.
	iP	09	18	42	Wellington. 38 ^o 7S, 175 ^o .6E. New Zealand
	i			48 $\frac{1}{2}$	
	iP		19	40	H = 09 11 30
	i		20	12	h approx. = 270 kms.
	e(PcP)			35	
	eS		24	25	

(cont. over)

		9.			
13th cont.	eP	11	48	(04)	U.S.C.G.S. 51°N, 177°W. Andreanov Is. H = 11 37 49
	eP	12	08	(26)	U.S.C.G.S. 52°N, 173°W. Andreanov Is. H = 11 57 58
	e(P)	15	12	52	B.C.I.S. Aleutian Is. H = 15 03.lm.
	iP	15	52	19½	U.S.C.G.S. 51½°N, 179°W. Andreanov Is. H = 15 42 05 Mag. = 6¾ (Pas)
	i			48	
	iPcP		53	04	
	e		54	53	
	e		55	53	
	eS	(16)	00	34	
	e	16	20	(37)	
	e		21	(36)	
	i			56	
	e		22	34	
	eP	17	54	11	U.S.C.G.S. 51°N, 175°W. Andreanov Is. H = 17 43 40
	e(P)	19	07	(04)	U.S.C.G.S. 52½°N, 168°W. Fox Is. H = 18 56 33
	eP	20	10	30	U.S.C.G.S. 54°N, 166°W. Fox Is. H = 19 59 23
	e			46	
	e	23	20	(50)	
	i			57	
14th	e(P)	10	45	(17)	U.S.C.G.S. Fox Is. H = 10 34 33
	eiP	11	19	25	
	e(P)	12	40	(11)	U.S.C.G.S. 53°N, 166½°W. Fox Is. H = 12 29 32
	iP	12	49	11	
	i(S)			46	Compression
	eiP	14	58	00	U.S.C.G.S. 51½°N, 177°W. Andreanov Is. H = 14 47 45 Mag. = 7½ (Pas)
	i			12	
	i			31½	
	i(PcP)		59	00	
	e(PPP)	(15)	01	58	
	e(S)		06.4	-	
	eP	15	15	21	B.C.I.S. 51½°N, 177°W. Andreanov Is. - aftershock H = 15 05 06
	(i			31	
	(e	15	20	40	
	e	15	27	16	

(cont. over

10.

14th cont.	e	15	32	35	
	e(P)	16	01	15	U.S.C.G.S. 51 $\frac{1}{2}$ ^o N, 177 $\frac{1}{2}$ ^o W. Andreanov Is. H = 15 51 00
	e(P)	16	11	(54)	B.C.I.S. 51 $\frac{1}{4}$ ^o N, 176 $\frac{1}{4}$ ^o W. Andreanov Is. H = 16 01 37
15th	e	02	51	(44)	
	eP	03	02	59	U.S.C.G.S. 53 ^o N, 167 ^o W. Fox Is. Mag. 6 $\frac{3}{4}$ (Pas) H = 02 52 08
	i		03	01	
	e		04	45	
	eP	12	07	52	U.S.C.G.S. 51 ^o N, 173 ^o W. Andreanov Is. H = 11 57 28
	eP	17	25	13	
	i			14 $\frac{1}{2}$	
	i			15 $\frac{1}{2}$	
	i			18	
	e		31	01	
16th	eP	02	44	20	U.S.C.G.S. 52 ^o N, 179 ^o W. Andreanov Is. H = 02 34 12
	i			28	
	i			45	
	e(PP)		46	51	Mag. 6 $\frac{3}{4}$ (Pas)
	i		47	07	
	e(L)	(03)	04.1	-	
	e	03	13	46	
17th	eiP	00	02	37	U.S.C.G.S. 27 ^o N, 127 $\frac{1}{2}$ ^o E. Ryuku Is. H = 23 55 08 (16th March)
	e		15	07	
	eiP	08	03	58	U.S.C.G.S. 51 ^o N, 179 ^o W. Andreanov Is. H = 07 53 51
	i		04	12	
	eP	15	22	26	U.S.C.G.S. 53 ^o N, 167 $\frac{1}{2}$ ^o W. Fox Is. H = 15 11 42
	e			40	
	iP	16	28	02	U.S.C.G.S. 52 $\frac{1}{2}$ ^o N, 166 ^o W. Fox Is. H = 16 17 13
	i(PcP)			30	
	e		30	16	
	e(PP)			30	
e(PPP)		31	10		
	e	16	56	14	
	e			43	
	e	22	55	46	U.S.C.G.S. 54 ^o N, 166 ^o W. Fox Is. H = 22 44 44 Mag. = 6 $\frac{1}{2}$ (Pas)
	Confused by microseisms				
18th	iP	02	36	03	U.S.C.G.S. 52 $\frac{1}{2}$ ^o N, 171 ^o W. Fox Is. H = 02 25 56
	e		38	41	
	iP	05	25	29	
	Compression				
	i		26	30	

(cont. over)

11.

18th cont.	ei(P)	08	46	07	
	i			11 $\frac{1}{2}$	
	i		47	06	
	eP	13	49	46	
	i			51	
	i			57 $\frac{1}{2}$	
	i		50	03 $\frac{1}{2}$	
	i			42	
	i			48	
	e			51	
	i		51	34	
	e(P)	19	36	05	U.S.C.G.S. 20°S, 178°W.
	i			24	Fiji Is.
	i(PcP)		38	52	H = 19 30 16
	e(ScS)		46	00	h = 450 kms.
			Very small amplitude		
	e(P)	20	13	57	U.S.C.G.S. 52°N, 180°
					Andreanov Is.
					H = 20 03 47
	iP!	21	14	52	U.S.C.G.S. 6°S, 152°E.
		Compression from south-south-east			New Britain
					H = 21 14 12
					Felt: Karoola
					Int. 3 (MM)
					5°10'S, 154°35'E.
					Felt: Warangoi
					Int. 2-3 (MM)
					4°30'S, 152°20'E.
					Felt: Rabaul
					Int. 2 (MM)
					4°11'S, 152°10'E.
					Felt: Pomio
					Int. 2 (MM)
					5°30'S, 151°30'E.
19th	iP!	00	21	42 $\frac{1}{2}$	Deeper than normal.
	iS			58 $\frac{1}{2}$	
		Dilatation to north-west			
	iP	00	40	12 $\frac{1}{2}$	
	i			37 $\frac{1}{2}$	
		Compression			
	e(P)	08	23	36	U.S.C.G.S. 52°N, 169°W.
					Fox Is.
					H = 08 12 40
	(i(P)	08	25	10	U.S.C.G.S. 53°N, 168°W.
	(Fox Is.
	(e	08	27	51	H = 08 14 10
	eP	11	39	07	U.S.C.G.S. 51 $\frac{1}{2}$ °N, 176 $\frac{1}{2}$ °W.
	e			39	Andreanov Is.
					H = 11 28 50
	eP	13	01	13	U.S.C.G.S. 51 $\frac{1}{2}$ °N, 175°W.
	e			21	Andreanov Is.
	i			32	H = 12 50 51
	e		03	15	Mag. = 6 $\frac{3}{4}$ (Pas)
	eS		09	44	
	e(ScS)		10	06	
	e		30.5	-	

(cont. over)

12.

19th cont.	e i	17 16	48 54 $\frac{1}{2}$	U.S.C.G.S. 52 $\frac{1}{2}$ ^o N, 171 ^o W. Fox Is. H = 17 04 25
20th	e(P)	11	12 15	U.S.C.G.S. 52 ^o N, 172 ^o W. Andreanov Is. H = 11 01 42
	iP!	11	43 19 $\frac{1}{2}$	Deep
	Dilatation to just south of east.			
	e e	12	58 00 40	
	e	19	01 (37)	B.C.I.S. 51 $\frac{1}{2}$ ^o N, 177 $\frac{1}{2}$ ^o W. Andreanov Is. H = 18 51 15
21st	No record Benioff 0432-0931 hours.			
	eP i i(PP) i iS e e e	16	37 16 18 28 $\frac{1}{2}$ 58 38 50 39 37 40 01 42 49	U.S.C.G.S. 3 ^o S, 144 $\frac{1}{2}$ ^o E. Nr. the N. coast of New Guinea H = 16 35 28
22nd	eP i i i(PcP) i e(PP) e e(S) e e(ScS) i	14	32 03 07 23 34 33 04 34 38 35 34 40 53 41 04 42 08 44 06.6	U.S.C.G.S. 54 ^o N, 166 ^o W. Fox Is. H = 14 21 06 Mag. = 7 $\frac{1}{2}$ (Pas)
	iP e e(PP) e	14	44 07 45 07 46 36 (15) 00 34	U.S.C.G.S. 54 ^o N, 165 $\frac{1}{2}$ ^o W. Fox Is. H = 14 33 13
	eP	17	20 25	U.S.C.G.S. 52 $\frac{1}{2}$ ^o N, 171 ^o W. Fox Is. H = 17 09 51
	e	18	25 04	
23rd	eiP Confused at beginning by small local shock	05	17 16	U.S.C.G.S. 51 ^o S, 131 ^o E. Banda Sea H = 05 12 31 h = 1.00 kms. Mag. = 7 (Pas)
	i! i(PPP) i(S).E. i(ScP)		17 $\frac{1}{2}$ 18 09.0 21 08.0 24 43.6	
	ei e	05	52 02 53 26	
	Small amplitude and confused by microseisms			
	iP	13	01 05 $\frac{1}{2}$	Dilatation

(cont. over)

13.

23rd cont.	eP e	13	50 55	02 42½	U.S.C.G.S. 51°N, 179½°W. Andreanov Is. H = 13 39 53
24th	e(P) eP eP i iPcP	06 11 11	47 16 47 48	45 50 25 35 05½	B.C.I.S. 63°S, 165°E. Antarctic H = 06 37.7m. U.S.C.G.S. 52½°N, 169½°W. Fox Is. H = 11 06 10 U.S.C.G.S. 52½°N, 171½°W. Fox Is. H = 11 36 50
	e(P) e	12	16	10 23	U.S.C.G.S. 37°N, 71°E. Hindu Kush H = 12 05 10 h approx. = 200 kms.
	e(P)	16	42	(41)	U.S.C.G.S. 52½°N, 169½°W. Fox Is. H = 16 32 28
	iP Dilatation. Deep? i i i	19	06 07	42½ 03 25 43	<u>Felt</u> : Wewak Int. 2(MM) 3°35'S, 143°40'E.
25th	eP i(PcP)	00	50	18 51	U.S.C.G.S. 53°N, 167°W. Fox Is. H = 00 39 29
	i(P) i i!	01	38	31 33 57	<u>Felt</u> : Aropa Int. 1(MM) 6°25'S, 155°50'E.
	iP i i	20	30 31	27½ 34½ 23½	Compression. Deep?
26th	iP i(pP)	16	11 12	58 08.5	U.S.C.G.S. 50½°N, 180°. Andreanov Is. H = 16 01 53
	iP iS	17	13	34 59	
	eP	18	27	03	U.S.C.G.S. 51°N, 179½° W. Andreanov Is. H = 18 16 47
27th	eIP i(PcP) Confused by microseisms	07	38 41	37 08	U.S.C.G.S. 22°S, 177°W. Tonga Is. H = 07 31 56 h approx. = 150 kms.
	iP! Dilatation to east-south-east	13	00	50	U.S.C.G.S. 5°S, 153½°E. New Britain H = 13 00 27 h approx. = 100 kms. <u>Felt</u> : Karoola Int. 3(MM) 5°10'S, 154°35'E. <u>Felt</u> : Rabaul Int. 3(MM) 4°11'S, 152°10'E. <u>Felt</u> : Londolovit Int. 3(MM) 3°05'S, 152°40'E.

(cont. over

		14.			
27th cont.	iP	13	29	15½	Dilatation. Deep.
	i		30	09	
	i			20	
	iP	15	26	31½	Distant tremor.
	iP!	15	29	51	<u>Felt:</u> Rabaul
	Dilatation to east-south-east				Int. 2(MM)
					4°11'S, 152°10'E.
					<u>Felt:</u> Kokopo
					Int. 2(MM)
					4°20'S, 152°15'E.
	e	20	25	57	
28th	iP	08	03	00	<u>Felt:</u> Rabaul
	Dilatation to east-north-east				Int. 2(MM)
					4°11'S, 152°10'E.
	iP	09	56	19	Wellington. 34°07'S, 180°.
	i			21½	Kermadec Is.
	i			28½	H = 09 49 13
					h approx. = 300 kms.
	iP	18	06	02	
29th	eP	05	21	21	U.S.C.G.S. 53½°N, 167°W.
	i			36	Fox Is.
	i			39	H = 05 10 28
	iPcP			55½	
	iPP		23	53½	
	e(P)	05	43	52	U.S.C.G.S. 4°N, 127°E.
	i			53	Talau Is.
	i(PPP)		44	46	H = 05 37 (50)
	e		46	03	
	e(ScP)		50	55	
	iPKP	18	50	31	B.C.I.S. 57¼°S, 28¾°W.
	i			36	Sandwich Is.
					H = 18 31 36
30th	iP	03	31	25½	Deep?
	i			29	
	i			43½	
	eP	09	27	25	U.S.C.G.S. 53°N, 175°W.
					Andreanov Is.
					H = 09 17 00
31st	iP	10	18	42	U.S.C.G.S. 51½°N, 178°W.
	i		20	02	Andreanov Is.
					H = 10 08 28
	iP	10	42	36	Compression
	iP	13	12	49	Compression. Deep?
	i		13	00	
	iP	17	43	39	
	e		44	44	

15.

Tremors felt in the Territory, March, 1957.

Date	Time G.M.T.	Intensity Mercalli Modified	Locality	Latitude	Longitude
Mar. 2nd	0811	4	Rabaul	04 11	152 10
	0810	2	Ulamona	05 00	151 15
	0812	1 - 2	Lindenhafen	06 10	150 35
	(??)	3	Pomio	05 30	151 30
3rd	(2304)	1	Pomio	05 30	151 30
	2359	1	Rabaul	04 11	152 10
6th	1500	2	Lumi	03 30	142 05
7th	0115	2	Lumi	03 30	142 05
	2330	3	Telefomin	05 10	141 35
	c:2330	2	Tari	05 50	143 00
11th	1100	1	Aropa	06 25	155 50
13th	0436	2	Linga Linga	05 35	149 45
15th	1125	2	Bogia	04 15	144 55
18th	2115	3	Karoola	05 10	154 35
	2115	2	Rabaul	04 11	152 10
	2115	2 - 3	Warangoi	04 30	152 20
	2113	2	Pomio	05 30	151 30
	?	(1 - 2)	Waterfall Bay	05 30	151 40
23rd	1915	2	Tari	05 50	143 00
24th	1730	3	Angoram	04 05	144 05
	1830	3	A iome	05 10	144 45
	1907	2	Wewak	03 35	143 40
25th	0140	1	Aropa	06 25	155 50
	1905	2 - 3	Wabag	05 30	143 40
27th	1301	3	Karoola	05 10	154 35
	1301	3	Rabaul	04 11	152 10
	(1300)	3	Londolovit	03 05	152 40
	c:1300	2 - 3	Warangoi	04 30	152 20
	c:1300	2	Tol. Pln.	05 00	152 05
	1529	2	Rabaul	04 11	152 10
	1529	2	Kokopo	04 20	152 15
	(1805?)	1	Londolovit	03 05	152 40
28th	0803	2	Rabaul	04 11	152 10
30th	1915	2	Esa'ala	09 45	150 50

ROYAL OBSERVATORY
EDINBURGH

Time	Station	Amplitude	Phase	Remarks
11 00	Edinburgh	1.0	W	
11 05	Edinburgh	1.2	W	
11 10	Edinburgh	1.5	W	
11 15	Edinburgh	1.8	W	
11 20	Edinburgh	2.0	W	
11 25	Edinburgh	2.2	W	
11 30	Edinburgh	2.5	W	
11 35	Edinburgh	2.8	W	
11 40	Edinburgh	3.0	W	
11 45	Edinburgh	3.2	W	
11 50	Edinburgh	3.5	W	
11 55	Edinburgh	3.8	W	
12 00	Edinburgh	4.0	W	
12 05	Edinburgh	4.2	W	
12 10	Edinburgh	4.5	W	
12 15	Edinburgh	4.8	W	
12 20	Edinburgh	5.0	W	
12 25	Edinburgh	5.2	W	
12 30	Edinburgh	5.5	W	
12 35	Edinburgh	5.8	W	
12 40	Edinburgh	6.0	W	
12 45	Edinburgh	6.2	W	
12 50	Edinburgh	6.5	W	
12 55	Edinburgh	6.8	W	
13 00	Edinburgh	7.0	W	
13 05	Edinburgh	7.2	W	
13 10	Edinburgh	7.5	W	
13 15	Edinburgh	7.8	W	
13 20	Edinburgh	8.0	W	
13 25	Edinburgh	8.2	W	
13 30	Edinburgh	8.5	W	
13 35	Edinburgh	8.8	W	
13 40	Edinburgh	9.0	W	
13 45	Edinburgh	9.2	W	
13 50	Edinburgh	9.5	W	
13 55	Edinburgh	9.8	W	
14 00	Edinburgh	10.0	W	



TERRITORY OF PAPUA AND NEW GUINEA.

VULCANOLOGICAL OBSERVATORY RABAU.

SEISMOLOGICAL BULLETIN.

APRIL, 1957.

1st	eP	Z	07	59	48	U.S.C.G.S. $4\frac{1}{2}^{\circ}\text{N}$, 129°E . Molucca Strait. H = 07 54 20 h approx. = 100 kms.
	i				49	
	i		(08)	00	16	
	i(PP)				34	
	i(PPP)				46	
	iS	E		04	08	
	iP	Z	11	45	51	U.S.C.G.S. 51°N , 173°W . Andreanov Is. H = 11 35 30 Mag. 6.1 (Uppsala)
	i	E		46	06	
	e(P)	Z	16	05	08	
	e	Z	20	17	37	
	i				$39\frac{1}{2}$	
	e				51	
	e			19	39	
2nd	eiP	Z	02	46	20	(B.C.I.S. Probably New Hebrides Is. - insufficient data.)
	e	Z		51	38	
	eiP	Z	20	27	20	U.S.C.G.S. $51\frac{1}{2}^{\circ}\text{N}$, 173°W . Andreanov Is. H = 20 16 57 Mag. = 6.3 (Uppsala)
	eP	Z	21	37	38	U.S.C.G.S. and B.C.I.S. 51°N , 173°W . Andreanov Is. H = 21 27 54 Mag. = 6.3 (Uppsala)
	i				44	
	e				38	
	e				39	
	eP	Z	21	53	37	B.C.I.S. South Pacific Insufficient data
	e				54	
	i				$34\frac{1}{2}$	
3rd	e	Z	18	50	36	
	ei	NE			39	
	e				55	
4th	eP	Z	00	24	(56)	(U.S.C.G.S. 58°N , $155\frac{1}{2}^{\circ}\text{W}$. Alaska H = 00 13 08 Mag. = 6.0 (Uppsala)
	iP!	Z	10	41	35	Felt: Warangoi Int. 2-3 (MM) $4^{\circ}30'\text{S}$, $152^{\circ}20'\text{E}$.
i				43		
e				44		
Dilatation to south-east						
	ePKP	Z	11	19	20	B.C.I.S. near 35°S , 68°W . Argentina. H = 11 00.7 m.
	i				30	
	e				20	
	e				18	
	eiP	Z	14	54	06	U.S.C.G.S. $52\frac{1}{2}^{\circ}\text{N}$, $170\frac{1}{2}^{\circ}\text{W}$. Fox Is. H = 14 43 49
	i				55	

(cont. over

2.

4th. cont.	eP	Z	16	19	26	
	i				34	
	i				46	
	i				58	
	e			21	02	
	e	Z	19	23	00	
	e				05	
	e				12	
	e		24	21		
5th	eP	Z	03	00	10	U.S.C.G.S. 52°N, 172½°W.
	i				26	Fox Is. H = 02 49 39
	i			01	17	Mag. = 6½ (Pas.)
	eiP	Z	06	21	16	Felt: Buin Int. 3(MM) 6°50'S, 155°45'E.
e(P)	Z	07	36	58	(B.C.I.S. near 51½°N, 177°W Andreev Is. H = 07 16.6m)	
Confused by microseisms.						
	e(P)	Z	07	37	24	U.S.C.G.S. 26½°S, 177°W.
	e(PP)			39	07	Kermadec Is. region
	i(S)			43	28	H = 07 30 22 H = 100 kms. Mag. = 6¼ (Pas.)
	e	Z	14	26	25	
	e				31	
	i				37	
	e(P)	Z	15	22	30	((U.S.C.G.S. 45°N, 148°E. Kurile Is. H = 15 04 09.))
	e				56	
6th	e(S)	Z	15	42	13	(B.C.I.S. Tonga Is. Region H = 15 30.7m)
	eP	Z	16	52	07	
7th	iP	Z	00	33	04	B.C.I.S. Near the E. coast of New Guinea. H = 00 31 30
	i				25	
	ei			34	52	
	eP	Z	10	17	36	U.S.C.G.S. 1°S, 137½°E.
	e(PP)				51	Near the N. coast of New Guinea.
	i				53	
	i(PPP)				57	H = 10 14 08
	i		18	31		Mag. = 6-6¼ (Pas.)
	e(SSS)		20	57		
	e		21	02		
	i(PcP)		22	42		
	e		25	05		
	e		26.1	-		
	e		47.1	-		
	eiP	Z	21	18	12	
	i			19	57	
	e			20	44	
8th	eiP	Z	02	36	53	
	i			37	02	
	i				40	
	iP!	Z	03	55	46	Compression from north-west
	i(P)	Z	06	09	02	
	e				52	

(cont. over

3.

8th.	iPKP	Z	20	37	12	U.S.C.G.S. $8\frac{1}{2}^{\circ}$ N, 83° W.
cont.	e				40	Panama/Costa Rica
						H = 20 18 09
						Mag. = $6\frac{1}{2}$ (Pas).
9th	eP	Z	00	31	11	U.S.C.G.S. $30\frac{1}{2}^{\circ}$ N, $138\frac{1}{2}^{\circ}$ E.
						Honshu.
	i				$11\frac{1}{2}$	H = 00 24 39
	i				41	h approx. = 450 kms.
	i(PPP)			34	14	Mag. = $6\frac{3}{4}$ (Pas)
	e			35	34	
	e(S)			36	19	
	eP	Z	02	22	53	U.S.C.G.S. $22\frac{1}{2}^{\circ}$ N, $144\frac{1}{2}^{\circ}$ E.
	i				$54\frac{1}{2}$	Mariana Is.
	i			23	17	H = 02 17 06
	i(PP)				59	Mag. = 5.7 (Rome).
	ei(P)	Z	10	41	59	(U.S.C.G.S. $30\frac{1}{2}^{\circ}$ N, 138° E.
						Honshu. H = 10 35 34
						H approx. = 500 kms.)
	eP	Z	11	12	21	U.S.C.G.S. $51\frac{1}{2}^{\circ}$ N, $178\frac{1}{2}^{\circ}$ W.
	e				31	Andreanov Is.
	e				56	H = 11 02 09
	e			13	17	Mag. = 6.0 (Uppsala)
	e(P)	Z	17	50	27	U.S.C.G.S. $51\frac{1}{2}^{\circ}$ N, $179\frac{1}{2}^{\circ}$ W.
						Andreanov Is. H = 17 40 13.
	eP	Z	20	34	37	U.S.C.G.S. $52\frac{1}{2}^{\circ}$ N, 169° W.
	e				55	Fox Is. H = 20 23 56
	e			35	38	Mag. = 5.65 (Rome).
	i(P)	Z	22	15	46	Felt: Ambunti. Int.3(MM)
	i			16	09	$4^{\circ}15'S$, $142^{\circ}50'E$.
						Confused by microseisms.
10th	eP	Z	09	19	31	U.S.C.G.S. 51° N, 177° W.
	i			20	06	Andreanov Is.
	e(PP)			21	46	H = 09 09 18
	e(S)			27	45	mag. = 6.2 (Uppsala)
	eP	Z	11	41	32	U.S.C.G.S. 56° N, 154° W.
	i				58	Kodiak Is. region
	e			43	44	H = 11 29 58
	e			44	04	Mag. = 7 (Pas)
	e(PP)				26	
	e			45	44	
	e				54	
	iP	Z	13	30	37	U.S.C.G.S. $51\frac{1}{2}^{\circ}$ N, $176\frac{1}{2}^{\circ}$ W.
	e				55	Andreanov Is. H = 13 20 14
	eP	Z	13	50	45	U.S.C.G.S. 15° S, 173° W.
	e			51	01	Samoa Is.
	e				42	H = 13 43 43
	e				57	
	i			55	09	
	i				13	
	e				44	
	e			56	08	
	e				13	
	eP	Z	17	02	54	
	i			03	09	

4.

11th	eP e	Z	10	39 40	32 03	B.C.I.S. Insufficient data. Probably New Hebrides Is.
	iP! Compression from north- north-west.	Z	14	20	41	B.C.I.S. 5°S, 154°E. Solomon Is. region H = 14 20.3m. h = 100 kms.
	e e			26 27	19 49	
	e(P)	Z	16	22	52	U.S.C.G.S. 52 ¹ / ₂ N, 169 ¹ / ₂ W. Fox Is. H = 16 12 08
	e(P)	Z	17	51	19	U.S.C.G.S. and B.C.I.S. 52°N, 168 ¹ / ₂ W. Fox Is. H = 17 40 37 Mag. = 5 ¹ / ₄ (Moscow).
12th	Nil					
13th	iP	Z	02	22	49	Felt: Warangoi. Int. 1-2(MM) 4°30'S, 152°20'E.
	eP i i(PP) i i eS	Z	06	36	01 02 53 16 30 45	U.S.C.G.S. 6 ¹ / ₂ N, 126 ¹ / ₂ E. Mindanao H = 06 30 08 Mag. = 6.0 (Uppsala) ? Deep
	eP i i i i i(PPP) e	Z	10	16	37 39 ¹ / ₂ 47 13 39 42 ¹ / ₂ 45 18 32	U.S.C.G.S. 5°N, 126 ¹ / ₂ E. Mindanao H = 10 10 48 Mag. = 6.0 (Uppsala) B.C.I.S. 5 ¹ / ₄ N, 126 ¹ / ₄ OE. H = 10 10 55 h = 100 kms.
	eP i!	Z	10	59	25 26	Felt: Malalia. Int. 6(MM) 5°30'S, 150°30'E.
	iP!	Z	11	36	07	Felt: Malalia. Int. 1(MM) 5°30'S, 150°30'E.
	iP! Compression from south-east	Z	12	20	06	Felt: Londolovit. Int. 2(MM) 3°05'S, 152°40'E.
	ePKP e e(PKS) e	Z	15	58 59	46 17 04 55	U.S.C.G.S. 19°S, 69 ¹ / ₂ W. North of Chile H = 15 39 43 h approx. = 150 kms.
	e(P)	Z	16	26	16	J.M.A. 42°3N, 141°3E. Hokkaido. H = 16 18 11 h approx. = 120 kms.
	iP! i i i	Z	19	32	51 55 19 53	Felt: Malalia. Int. 4(MM) 5°30'S, 150°30'E.
14th	eP i e e(PP) e	Z	07	23	26 30 55 13 39	U.S.C.G.S. and B.C.I.S. 31°N, 84 ¹ / ₂ OE. S. Tibet. H = 07 11 50 Mag. = 6 ¹ / ₄ (Pas.)

(cont. over)

14th. cont. eP Z 09 25 13 B.C.I.S. (near $5\frac{1}{2}^{\circ}\text{S}$, 150°E .)
 New Guinea region.
 H = 09 23 44
 Felt: Popondetta. Int.3(MM)
 $8^{\circ}45'\text{S}$, $148^{\circ}15'\text{E}$.
 Lae. Int. 3(MM)
 $6^{\circ}45'\text{S}$, $147^{\circ}00'\text{E}$.
 Awelkon. Int.2(MM)
 $5^{\circ}40'\text{S}$, $147^{\circ}50'\text{E}$.
 Lindenhafen. Int.1(MM)
 $6^{\circ}10'\text{S}$, $150^{\circ}35'\text{E}$.
 Wau. Int.1(MM)
 $7^{\circ}20'\text{S}$, $146^{\circ}45'\text{E}$.
 Koaru. Int.?
 $8^{\circ}05'\text{S}$, $146^{\circ}00'\text{E}$.

iP! Z 12 33 50 U.S.C.G.S. $4\frac{1}{2}^{\circ}\text{S}$, 150°E .
 Dilatation to west-north-west
 New Britain.
 H = 12 32 39
 (Shock reported felt:
 Londolovit Int.1(MM)
 $3^{\circ}05'\text{S}$, $152^{\circ}40'\text{E}$.)

e(P) Z 16 48 23 B.C.I.S. 31°N , $84\frac{1}{2}^{\circ}\text{E}$.
 S. Tibet. Aftershock.
 H = 16 36 48

eP Z 19 24 56 U.S.C.G.S. $15\frac{1}{2}^{\circ}\text{S}$, 173°W .
 i 59
 i 42
 i(PP) 25 42
 i 26 24
 i 42
 i(PPP) 49
 ei(PcS) 31 13
 e 20
 e(ScS) 35 17
 e 57 -

iP Z 21 09 05 U.S.C.G.S. $50\frac{1}{2}^{\circ}\text{N}$, 179°W .
 i 38
 e(PcP) 10 16
 H = 20 59 00

15th iP! Z 04 33 18 B.C.I.S. near 6°S , 153°E .
 i 36 13
 i $31\frac{1}{2}$
 i $48\frac{1}{2}$
 i 37 02
 New Britain region.
 H = 04 32.8m.
 Felt: Buin. Int.1(MM)
 $6^{\circ}50'\text{S}$, $155^{\circ}45'\text{E}$.

eiP Z 04 49 03 Felt: Buin. Int.1(MM)
 Compression. $6^{\circ}50'\text{S}$, $155^{\circ}45'\text{E}$.

eiP Z 04 56 56
 i 57 47

eP Z 10 48 46 U.S.C.G.S. $51\frac{1}{2}^{\circ}\text{N}$, 179°W .
 i 49 11
 H = 10 38 37
 Mag. = $5\frac{3}{4}$ (Moscow)

iP Z 15 48 08
 i 19.5
 i 49 23

e(P) Z 18 22 (42) B.C.I.S. $51\frac{3}{4}^{\circ}\text{N}$, $178\frac{1}{2}^{\circ}\text{W}$.
 Andreanov Is. H = 18 12 31

iP! Z 19 22 24 Felt: Lindenhafen. Int.2(MM)
 Dilatation $6^{\circ}10'\text{S}$, $150^{\circ}35'\text{E}$.
 i 31
 i 38
 i 23 01

					6.	
15th.	eP	Z	21	43	51	U.S.C.G.S. 52 $\frac{1}{2}$ ^o N, 167 ^o W.
cont.	i				52	Fox Is. H = 21 33 05
	i			44	08	Mag. = 6-4 (Uppsala)
16th	eP	Z	04	11	29	U.S.C.G.S. 4 $\frac{1}{2}$ ^o S, 107 $\frac{1}{2}$ ^o E.
	i				31	Java Sea.
	i			12	34	H = 04 04 04
	i			13	17	h approx. = 600 kms.
	i(S)			17	00	Mag. = 7 $\frac{1}{2}$ (Pas)
	e	Z	04	42	18	
	Confused by microseisms.					
	i(P)	Z	13	08	19 $\frac{1}{2}$	
	e				21	
	e(P)	Z	17	34	(52)	(B.C.I.S. Tonga Is. H = 17 27.8m.)
	ePKP	Z	18	36	26	U.S.C.G.S.
	e				29	South of Bolivia.
	e(PP)			39	03	H = 18 17 05
	e				38	
	i				41 $\frac{1}{2}$	
	e(SKS)			43	38	
	e(SKKKS)			46	24	
17th	eP	Z	08	14	36	U.S.C.G.S. 20 ^o S, 176 ^o W.
	i				37	Tonga Is.
	i			15	08	H = 08 07 58
	i(PcP)			17	07	h approx. = 200 kms.
	e(S)			19	47	
	e(ScP)			20	36	
	e			21	00	
	e(ScS)			24	24	
	iP	Z	09	32	45	
	i				53 $\frac{1}{2}$	
	e			33	23	
	e(P)	Z	09	38	41	U.S.C.G.S. 52 $\frac{1}{2}$ ^o N, 171 ^o W. Fox Is. H = 09 27 54.
	eP	Z	13	35	42	U.S.C.G.S. 52 $\frac{1}{2}$ ^o N, 169 ^o W.
	e			36	12	Fox Is. H = 13 24 58
	i(PPP)			37	38	Mag. = 5 $\frac{1}{2}$ (Moscow).
18th	eP	Z	07	10	24	U.S.C.G.S. 52 ^o N, 176 $\frac{1}{2}$ ^o W.
	Confused by microseisms. A ndreanov Is.					
						H = 07 00 03
19th	iP!	Z	06	17	19	(B.C.I.S. Discordant data)
	Compression. Deep.			18	13	Fairly small, near shock.
	i					
	iP	Z	08	40	48	U.S.C.G.S. 6 $\frac{1}{2}$ ^o S, 155 $\frac{1}{2}$ ^o E.
	i(PP)				51 $\frac{1}{2}$	Solomon Is.
	i(S)			41	46	H = 08 39 37
	i			46	17	Felt: Buin. Int. 4(MM)
	i				57	6 ^o 50'S, 155 ^o 45'E.
	eP	Z	15	55	33	U.S.C.G.S. 51 $\frac{1}{2}$ ^o N, 168 $\frac{1}{2}$ ^o W.
	i				34	Fox Is. H = 15 44 53
	e			56	09	Mag. = 6-7 (Uppsala)

(cont. over)

7.

19th.	iP	Z	22	30	17	U.S.C.G.S. 52°N, 166½°W.	
cont.	i				30½	Fox Is. H = 22 19 26	
	i(PcP)				49	Mag. 7-7½ (Pas)	
	i			31	12		
	e			32	39		
	i(PP)				41½		
	e(M)		58		55		
20th	ei	Z	00	11	59	U.S.C.G.S.	
	Superimposed shock.						Solomon Is.
	i			12	54	H = 00 09 10	
	i			15	04		
	i				53		
	eP	Z	07	00	11	U.S.C.G.S. 54½°S, 131½°W.	
	e			03	14	S. Pacific. H = 06 48 04	
	(iP!	Z	12	31	58	U.S.C.G.S. 6°S, 147½°E.	
	(Dilatation to east-						New Guinea, H = 12 30 37
	(north-east.						B.C.I.S. 6½°S, 147¾°E.
	(i			38	06	H = 12 30 40. Mag. 6.6(Uppsala)	
							Felt: Kilenge. Int. 4-5(MM)
							5°30'S, 148°20'E.
							Awelkon. Int. 4(MM)
							5°40'S, 147°50'E.
	iP	Z	13	25	33	Felt: Awelkon. Int. 2(MM)	
	i			26	43	5°40'S, 147°50'E.	
	i			27	21½	Mendi. Int. 1(MM)	
							6°10'S, 143°40'E.
	eP	Z	16	53	40	Felt: Awelkon. Int. 1(MM)	
	i				41	5°40'S, 147°50'E.	
	i				45		
	i			54	50		
	i(P)	Z	17	09	28½		
	e	Z	17	27	00		
	eP	Z	21	46	03	B.C.I.S. Tonga Is. region	
							H = 21 39.4m.
21st	eP	Z	00	21	04		
	i				05½		
	i!				06		
	iP!	Z	02	00	42	Dilatation to south-east.	
	iP	Z	02	42	41	Dilatation - deep.	
	e	Z	02	51	44		
	e				53		
	ePKP	Z	21	31	35	U.S.C.G.S. 7°N, 72°W.	
	i				48	Colombia/Venezuela.	
	ePKS			35	10	H = 21 12 26	
							Mag. = 6½-6¾ (Pas).
22nd	iP	Z	10	53	58		
	i			54	18		
	eP	Z	12	56	21		
	i				42		
	e			57	26		

(cont. over

8.

22nd cont.	ePKP Z i	14	02	22 37	U.S.C.G.S. 7°N, 72°W. Colombia/Venezuela. Aftershock. H = 13 43 14
	e Z e e	14	25	19 25 42	
	ePKP Z eSKS	15 (16)	56 00	43 45	U.S.C.G.S. 7°N, 72°W. Colombia/Venezuela. Aftershock. H = 15 37 20.
	e Z	16	59	23	
	eP Z Confused by microseisms.	23	07	01	B.C.I.S. Solomon Is. H = 23 05 38
23rd	eiP Z i i e e	<u>03</u>	05	02 37 56 26 32	(Correction ^{of} /02 05 02)
	ePKP Z	22	17	51	U.S.C.G.S. 27°S, 68°W. A rgentine/Chile. H = 21 58 35.
24th	eP Z i	09	09	57 03	
	iP Z	10	55	50	(B.C.I.S. S. Pacific Insufficient data).
	iP Z i	12	56	10 17	(Shock reported felt: Lae Int.3(MM) 6°45'S, 147°00'E.)
	eP Z i	13	06	17 22	B.C.I.S. Insufficient data.
	ePKP Z i i!(PP) e e e(PPS)	19	28 29 30 31 39 42	57 46 22 54 (24) 54	B.C.I.S. 36°3N, 29°1E. E. of Rhodes. Foreshock. H = 19 10 16 Mag. = 6 $\frac{3}{4}$ -7 (Pas)
25th	ePKP Z i ePP e(SKKKS) eSS e(SSP)	02	44 45 52 02	26 46 51 53 13 41	B.C.I.S. 36°5N, 28°9E. E. of Rhodes. H = 02 25 36 Mag. = 7-7 $\frac{1}{4}$ (Pas)
	e(P,PKP)Z e e	02	54 57 58	41 59 43	
	eiP Z	07	20	21	U.S.C.G.S. 45°N, 100°E. Outer Mongolia. H = 07 09 20.
	iP Z i i!(PP) i! i(PPP) i e e	10	20 21 21 21 22 25	35 49 51.7 55.5 01 20 15 23	U.S.C.G.S. 4 $\frac{1}{2}$ °S, 134°E. Coast of New Guinea. H = 10 16 18 Mag. = 5 (Moscow)

(cont. over)

9.

25th. cont.	eP	Z	11	11	43	U.S.C.G.S. 1 $\frac{1}{2}$ ⁰ N, 126 ⁰ E.
	i				45	
	e(PcP)				15	Molucca Strait H = 11 06 02 Mag. = 5 $\frac{1}{4}$ (Moscow)
	eP	Z	11	42	31	
	ePKP	Z	13	38	14 $\frac{1}{2}$	(B.C.I.S. 29 ⁰ S, 69 ⁰ W. Argentine. H = 13 18 10)
	eP	Z	14	20	02	U.S.C.G.S. 60 $\frac{1}{2}$ ⁰ N, 145 ⁰ W. Alaska. H = 14 07 58
	eP	Z	17	55	32	U.S.C.G.S. 51 $\frac{1}{2}$ ⁰ N, 180 ⁰ . Andreanov Is. H = 17 45 14 Mag. = 5 (Moscow).
26th	ePKP	Z	06	53	44	B.C.I.S. 36 ⁰ 3N, 29 ⁰ 1E. E. of Rhodes. Aftershock. H = 06 33 43 Mag. = 6 $\frac{1}{4}$ -6 $\frac{1}{2}$ (Athens).
	eP	Z	15	17	06	U.S.C.G.S. 45 ⁰ N, 148 ⁰ E.
	ipP				26	Kurile Is. H = 15 08 29 h approx. = 60 kms. (J.M.A.)
27th	eiP	Z	00	15	47	U.S.C.G.S. 0 ⁰ , 121 $\frac{1}{2}$ ⁰ E.
	i				48	Celebes.
	i			16	03	H = 00 09 47
	i				07	h approx. = 60 kms.
	e			19	22	
	e			21	06	
	eP	Z	11	35	36	U.S.C.G.S. 20 ⁰ S, 170 ⁰ E.
	i				38 $\frac{1}{2}$	Loyalty Is.
	i				52	H = 11 30 33
	e(S)			40	14	h approx. = 100 kms.
e				20		
	iPcS			42	54 $\frac{1}{2}$	
	eScS			46	47	
	iP	Z	12	03	53	Compression
	eP	Z	15	52	48	
	i				53	
	iP	Z	18	19	57	
	eP	Z	22	00	28	B.C.I.S. 52 ⁰ N, 174 $\frac{1}{2}$ ⁰ W. Andreanov Is. H = 21 51 50
28th	iP!	Z	00	00	41 $\frac{1}{2}$	U.S.C.G.S. New Britain region. H = 00 00 15 Felt: Tol. Int. 2-3 (MM) 5 ⁰ 00'S, 152 ⁰ 05'E. Pomio. Int. 2-3 (MM) 5 ⁰ 30'S, 151 ⁰ 30'E. Rangarere. Int. 2 (MM) 4 ⁰ 15'S, 151 ⁰ 35'E. Warangoi. Int. 2 (MM) 4 ⁰ 30'S, 152 ⁰ 20'E. Ulamona. Int. 1-2 (MM) 5 ⁰ 00'S, 151 ⁰ 15'E. Rabaul. Int. 1 (MM) 4 ⁰ 11'S, 152 ⁰ 10'E.
	Dilatation to south-south-east.					

(cont. over)

10.

28th cont. iP! Z 01 29 34 $\frac{1}{2}$ U.S.C.G.S. 7°N, 127°E.
 i 49 $\frac{1}{2}$ Mindanao.
 i(PcP) 32 51 H = 01 23 40
 e(S) 34 10 Mag. = 6.5 (Uppsala). 5 $\frac{3}{4}$ -6 (Pas)

iP Z 10 37 31 U.S.C.G.S. 6°S, 155°E.
 Compression Solomon Is. H = 10 36 41
 h approx. = 60 kms.
 Felt: Karoola. Int. 5 (MM)
 5°10'S, 154°35'E.
 Aropa. Int. 3 (MM)
 6°25'S, 155°50'E.
 Sohamo. Int. 3 (MM)
 5°25'S, 154°40'E.
 Pomio. Int. 2-3 (MM)
 5°30'S, 151°30'E.
 Warangoi. Int. 2-3 (MM)
 4°30'S, 152°20'E.
 Waramung. Int. 2 (MM)
 4°05'S, 153°35'E.
 Tol. Int. 1 (MM)
 5°00'S, 152°05'E.
 Ulamona. Int. 1 (MM)
 5°00'S, 151°15'E.
 Londolovit. Int. 1 (MM)
 3°05'S, 152°40'E.
 (Buin. Int. 1 (MM)
 6°50'S, 155°45'E.
 Time doubtful).

29th i(PKS) Z 10 33 59 (U.S.C.G.S. 22°S, 66°W.
 Confused by microseisms. Argentina/Bolivia. H = 10 11 53
 h approx. = 200 kms.)

iP Z 16 48 26 Small local disturbance?

e(P) Z 19 28 (10) U.S.C.G.S. 5 $\frac{1}{2}$ °N, 126°E.
 Confused by microseisms. Mindanao. H = 19 22 58
 h approx. = 400 kms.

iP Z 21 04 20 $\frac{1}{2}$ U.S.C.G.S. 9°S, 107°E.
 e(PP) 06 28 Java. H = 20 55 57
 Mag. = 6.2 (Uppsala)

30th iP! Z 02 25 08 $\frac{1}{2}$ Felt: Pomio. Int. 3 (MM)
 Dilatation to south-west. 5°30'S, 151°30'E.

eP Z 05 31 07 $\frac{1}{2}$
 i 21
 i! 47
 i 32 05

eP Z 21 01 11 $\frac{1}{2}$
 i! 15
 i 27
 i 03 04
 i 26

.....

The following tremors were reported felt in the Territory - April, 1957.

Date	Approx. Time G.M.T.	Intensity Modified Mercalli	Locality	Latitude		Longitude	
				South	East	o	'
4th	1042	2 - 3	Warangoi	04	30	152	20
5th	0620	3	Buin	06	50	155	45
	1730	2	Wewak	03	35	143	40
	1755	4	"	"	"	"	"
9th	2216	3	Ambunti	04	15	142	50
13th	0008	1	Malalia	05	30	150	30
	0223	1 - 2	Warangoi	04	30	152	20
	1057	6	Malalia	05	30	150	30
	1117	1	"	"	"	"	"
	1123	3	"	"	"	"	"
	1139	1	"	"	"	"	"
	1220	2	Londolovit	03	05	152	40
	1336	"	"	"	"	"	"
	1930	4	Malalia	05	30	150	30
	14th	0920	1	Wau	07	20	146
0921		3	Popondetta	08	45	148	15
0925		3	Lae	06	45	147	00
0926		1	Lindenhafen	06	10	150	35
0928		2	Awelkon	05	40	147	50
0930		?	Koaru	08	05	146	00
1219		1	Londolovit	03	05	152	40
2025		1	Wau	07	20	146	45
15th		0425	1	Buin	06	50	155
	0442	1	"	"	"	"	"
	1922	2	Lindenhafen	06	10	150	35
	2025	2	Awelkon	05	40	147	50
19th	0840	4	Buin	06	50	155	45
	2145	2	Lindenhafen	06	10	150	35
20th	0035	3	Wau	07	20	146	45
	1225	4 - 5	Kilenge	05	30	148	20
	1230	4	Awelkon	05	40	147	50
	1330	2	Awelkon	"	"	"	"
	1350	1	Mendi	06	10	143	40
	1655	1	Awelkon	05	40	147	50
21st	1230 (+ 2 aftershocks)	4	Awelkon	05	40	147	50
(22nd) (date uncertain: maybe 23rd.)	0440	3	Lindenhafen	06	10	150	35
24th	1234	(3)	Lae	06	45	147	00
28th	0000	2 - 3	Tol	05	00	152	05
	0002	2 - 3	Pomio	05	30	151	30
	0001	2	Rangarere	04	15	151	35
	0010	2	Warangoi	04	30	152	20
	0002	1 - 2	Ulamona	05	00	151	15
	0001	1	Rabaul	04	11	152	10
	1037	5	Karoola	05	10	154	35
	1038	3	Aropa	06	25	155	50
	1036	3	Sohano	05	25	154	40

(cont. over)

Tremors reported felt cont.

Date	Approx. Time G.M.T.	Intensity Modified Mercalli	Locality	Latitude			
				South	East		
				o	'		
28th cont.	1040	2 - 3	Pomio	05	30	151	30
	1(1)40	2 - 3	Warangoi	04	30	152	20
	1037	2	Waramung	04	05	153	35
	1035	1	Tol	05	00	152	05
	1040	1	Ulamona	05	00	151	15
	1038	1	Londolovit	03	05	152	40
	(0727)	1	Buin	06	50	155	45
30th	0210	3	Pomio	05	30	151	30

Date	Time	Latitude	Longitude	Depth	Station	Amplitude	Phase
1962	11:40	34° 30'	151° 30'	0	Washburn	0.1	S
1962	11:40	34° 30'	151° 30'	0	Washburn	0.1	S
1962	11:40	34° 30'	151° 30'	0	Washburn	0.1	S
1962	11:40	34° 30'	151° 30'	0	Washburn	0.1	S
1962	11:40	34° 30'	151° 30'	0	Washburn	0.1	S
1962	11:40	34° 30'	151° 30'	0	Washburn	0.1	S
1962	11:40	34° 30'	151° 30'	0	Washburn	0.1	S
1962	11:40	34° 30'	151° 30'	0	Washburn	0.1	S
1962	11:40	34° 30'	151° 30'	0	Washburn	0.1	S
1962	11:40	34° 30'	151° 30'	0	Washburn	0.1	S



TERRITORY OF PAPUA AND NEW GUINEA.

VULCANOLOGICAL OBSERVATORY RABAU.

SEISMOLOGICAL BULLETIN.

MAY, 1957.

1st	iP	Z	05	11	39	Felt: Pomio. Int.2(MM) 5°30'S, 151°30'E.
						Confused by microseisms
2nd	iP!	Z	01	50	32	U.S.C.G.S. 4½°S, 153°E. New Britain region. H = 01 50 09 h approx. = 60 kms. Felt: Warangoi. Int.3(MM) 4°30'S, 152°20'E. Pomio. Int.3(MM) 5°30'S, 151°30'E. Namatanai. Int.2(MM) 3°40'S, 152°25'E. Ulamona. Int.1(MM) 5°00'S, 151°15'E.
						Dilatation to south-east
	iP	Z	17	55	25	Felt: Biaila. Int.2(MM) 5°20'S, 151°05'E.
	i!				26	
	i(S)				35½	
	eP	Z	21	42	08½	U.S.C.G.S. 7½°S, 120°E. Flores Sea. H = 21 36 25 h approx. = 600 kms.
	i				19½	
	i!(PcP)				44	
	i(ScP)				47	
3rd	Nil					
4th	eP	Z	10	09	29	U.S.C.G.S. 3½°S, 137°E. West of New Guinea. H = 10 05 45 Mag. = 6.4(Uppsala)
	i				32	
	i!				34½	
	e			10	47	
	i			11	14	
	i				38½	Deep.
	iP	Z	23	09	04½	
	i!				06	
	i!				09	
	i			11	47	
	e			12	43	
	e				59	
	i			13	21	
	iP	Z	23	52	08	
	i!				12	
	i(S)				33	
	i!			53	21½	
5th	iP	Z	00	36	01	B.C.I.S. Nr. the E. Coast of New Guinea. H = 00 35.2m.
	i!				02	
	(i!				05	
	(i!(P)		00	38	28	Superimposed shock?
	(i!(P)		00	39	00½	" " " "
	iP!	Z	23	54	18	Felt: Ulamona. Int.1(MM) 5°00'S, 151°15'E.
						Dilatation to west?
6th	iP	Z	06	44	37½	
	i(S)			45	10½	
	iP	Z	11	28	37	
	eS			29	14	

(cont. over

2.

6th. cont.	e(P) Z	11	44	01	U.S.C.G.S. 17 $\frac{1}{2}$ ^o S, 176 ^o W. Tonga Is. region H = 11 37 33 h approx. = 250 kms.
	iP e(S) i	14	34 35 38	20 52 11 $\frac{1}{2}$	
7th	iP i	08	07 08	38 56	B.C.I.S. Discordant data..
	eiP	Z	19	34	12 (Shock reported felt: Esa'ala. Int.2(MM) 9 ^o 45'S, 150 ^o 50'E.)
8th	i	Z	10	09	08 $\frac{1}{2}$
	(iP	Z	18	17	31 $\frac{1}{2}$ Local)
	iP	Z	19	28	47 Deep. Local.
	eP	Z	20	15	20 $\frac{1}{2}$ U.S.C.G.S. 15 $\frac{1}{2}$ ^o S, 179 ^o E. Fiji Is. H = 20 09 53. h approx. = 400 kms.
	eP i	Z	21	35	39 $\frac{1}{2}$ 41 Felt: Aiome. Int.3(MM) 5 ^o 10'S, 144 ^o 45'E.
9th	Nil				
10th	(iP (iS	Z	10	52	38 $\frac{1}{2}$ 55) Unimportant local. (See B.C.I.S.)
	iP!	Z	16	26	14 Dilatation to south.
11th	iP	Z	04	20	37 Compression. Deep.
	e	Z	11	48	17 $\frac{1}{2}$
	eP	Z	15	06	(22) U.S.C.G.S. 52 $\frac{1}{2}$ ^o N, 160 ^o E. Kamchatka. H = 14 56 30.
	eP i i(S)	Z	17	45 46	18 $\frac{1}{2}$ 12 $\frac{1}{2}$ 21 $\frac{1}{2}$ B.C.I.S. Solomon Is. H = 17 43.9m. Felt: Buin. Int.4(MM) 6 ^o 50'S, 155 ^o 45'E.
12th	ePKP ePP	Z	05	06 07	29 26 U.S.C.G.S. 60 $\frac{1}{2}$ ^o S, 26 ^o W. Sandwich Is. H = 04 47 44
	i(P) i	Z	06	58	21.5 27 U.S.C.G.S. 53 ^o N, 142 ^o E. Sakhalin, H = 06 48 27 Mag. = $\frac{1}{2}$ (Moscow)
	iP!	Z	09	08	34 $\frac{1}{2}$ Felt: Rabaul. Int.2(MM) 4 ^o 10'S, 152 ^o 10'E. Compression from north- north-east.
	iP i! i!	Z	09	13	42 $\frac{1}{2}$ 50 58 $\frac{1}{2}$
	iP!	Z	09	24	45 $\frac{1}{2}$ Compression from south-west

(cont. over

						4.
21st	eiP	Z	01	17	34	U.S.C.G.S. and B.C.I.S.
	i!				35	21 $\frac{1}{2}$ $^{\circ}$ N, 144 $^{\circ}$ E.
	i				42 $\frac{1}{2}$	Mariana Is.
	i(PPP)			18	44	H = 01 11 58
	iPcP			20	54	h approx. = 100 kms.
	eScP			24	23	Mag. = 7-7 $\frac{1}{4}$ (Pas)
	eScS			28	16	
	e(P)	Z	01	43	02	
22nd	iP	Z	09	18	40	Felt: Warangoi. Int.1-2(MM)
	Compression from north-west					4 $^{\circ}$ 30'S, 152 $^{\circ}$ 20'E.
	iP	Z	13	39	54	U.S.C.G.S. 50 $^{\circ}$ N, 177 $^{\circ}$ W.
	i				57	Andreanov Is.
	i			40	02	H = 13 29 44
	ePP			42	11	Mag. = 6 $\frac{1}{2}$ (Pas)
	i			43	47 $\frac{1}{2}$	
	e	(14)	09	25		
23rd	iP	Z	04	15	01.5	
	Compression					
	eP	Z	15	55	05	B.C.I.S. New Hebrides Is.
						H = 15 50.2m.
24th	e(PKS)	Z	03	00	16	U.S.C.G.S. 3 $^{\circ}$ N, 76 $\frac{1}{2}$ $^{\circ}$ W.
	Confused by microseisms.					Colombia. H = 02 37 37
						Mag. = 6 $\frac{3}{4}$ (Pas)
	eP	Z	10	12	23	U.S.C.G.S. 17 $^{\circ}$ N, 146 $^{\circ}$ E.
	i!				23 $\frac{1}{2}$	Mariana Is.
	i				55	H = 10 07 40
						h approx. = 100 kms.
						Deep.
25th	Nil					
26th	i(PP)Z		06	53	24	B.C.I.S. 40 $^{\circ}$ 7'N, 31 $^{\circ}$ 2'E.
	Confused by microseisms					Turkey. H = 06 33 30
	i				29 $\frac{1}{2}$	U.S.C.G.S. 41 $^{\circ}$ N, 31 $^{\circ}$ E.
	i			54	03	H = 06 33 31
						Mag. = 7 (Pas)
	iP	Z	15	58	15	U.S.C.G.S. 3 $^{\circ}$ S, 131 $^{\circ}$ E.
	i				18	Ceram.
	i(PP)				24	H = 15 53 30
	i(PPP)				43	
	i			59	03	
	iP!	Z	21	08	09	Felt: Rabaul. Int.1(MM)
		Dilatation				4 $^{\circ}$ 10'S, 152 $^{\circ}$ 10'E.
	i				10	
	i!				29	
27th	Nil					
28th	iP	Z	06	01	59 $\frac{1}{2}$	U.S.C.G.S. 25 $\frac{1}{2}$ $^{\circ}$ N, 95 $^{\circ}$ E.
						Pakistan/Burma
						H = 05 51 30
						Mag. = 6.0 (Uppsala)
	eP	Z	23	24.5	-	U.S.C.G.S. 15 $^{\circ}$ S, 168 $^{\circ}$ E.
	Confused by microseisms					New Hebrides Is.
	e(ScP)			31	08	H = 23 19 39
						h approx. = 300 kms.

5.

29th iP! Z 05 45 29½
Dilatation

iP! Z 10 34 30½ Felt: Rabaul. Int.3(MM)
Compression from south- 4°10'S, 152°10'E.
south-east. Karoola. Int.2(MM)
5°10'S, 154°35'E.

eP Z 16 14 03½
i 08½
i! 59

iP! Z 18 06 50½ Felt: Warangoi; Int.2(MM)
Dilatation to south- 4°30'S, 152°20'E.
south-east.

30th iP Z 09 38 27 B.C.I.S. Insufficient data.
i! 31 Deep.

e(P) Z 18 20 18½ B.C.I.S. South Pacific.
e 23 30 Insufficient data.
e 26 52

e(P) Z 19 48 (05) B.C.I.S. Tonga Is.
e(PcP) 50 33 Aftershock.
e 58 H = 19 40 58

eP Z 19 57 51½ J.M.A. 41°2N, 142°06E.
e 58 01 Hokkaido. H = 19 49 30
h approx. = 50 kms.

eP Z 21 04 07½ U.S.C.G.S. 22°S, 179°W.
i 09½ Fiji Is. region
i 38½ H = 20 58 15
i(ScP) 09 25½ h approx. = 600 kms.
Confused by microseisms.

31st No time breaks until 0500. Shock U.S.C.G.S. 27½°S, 63°W.
Argentine. H = 02 16 27
Mag. = 6¼-6½ (Pas) - Recorded.

Local shock recorded . Felt: Wau. Int.2(MM)
c.04 15 7°20'S, 146°45'E.
Kilenge. Int.2(MM)
5°30'S, 148°20'E.
Kandrian. Int.2(MM)
6°15'S, 149°35'E.

.....

6.

Tremors reported felt in the Territory, May, 1957.

Date	Reported Time G.M.T.	Intensity Modified Mercalli	Locality	Latitude		Longitude	
				South	East	o	'
1st	0512	2	Pomio	05	30	151	30
2nd	0153	3	Pomio	"	"	"	"
	0152	3	Warangoi	04	30	152	20
	0150	2	Namatanaï	03	40	152	25
	0151	1	Ulamona	05	00	151	15
	1755	2	Bialla	05	20	151	05
5th	2354	1	Ulamona	05	00	151	15
6th	1930	1	Esa'ala	09	45	150	50
7th	0747 $\frac{1}{2}$	2	Esa'ala	09	45	150	50
	1930	2	"	"	"	"	"
8th	2130	3	Aiome	05	10	144	45
9th	0807	2	Popondetta	08	45	148	15
11th	1745	4	Buin	06	50	155	45
12th	(0352)	2	Warangoi	04	30	152	20
22nd	0923	1 - 2	Warangoi	04	30	152	20
	1655	1	Esa'ala	09	45	150	50
29th	(0345)	3	Pomio	05	30	151	30
	1034	3	Rabaul	04	10	152	10
	1037	2	Karoola	05	10	154	35
	1807	2	Warangoi	04	30	152	20
30th	(1040)	3	Aiome	05	10	144	45
	1527	2	Esa'ala	09	45	150	50
	1535	(2)	"	"	"	"	"
	c.2005	1	"	"	"	"	"
	"	(1)	"	"	"	"	"
31st	"	1	"	"	"	"	"
	0415	2	Wau	07	20	146	45
	0415	2	Kilenge	05	30	148	20
	0420	2	Kandrian	06	15	149	35

Station	Latitude	Longitude	Depth	Magnitude	Time	Year
100	00 00	00 00	0	0.0	00 00	1962
101	00 00	00 00	0	0.0	00 00	1962
102	00 00	00 00	0	0.0	00 00	1962
103	00 00	00 00	0	0.0	00 00	1962
104	00 00	00 00	0	0.0	00 00	1962
105	00 00	00 00	0	0.0	00 00	1962
106	00 00	00 00	0	0.0	00 00	1962
107	00 00	00 00	0	0.0	00 00	1962
108	00 00	00 00	0	0.0	00 00	1962
109	00 00	00 00	0	0.0	00 00	1962
110	00 00	00 00	0	0.0	00 00	1962
111	00 00	00 00	0	0.0	00 00	1962
112	00 00	00 00	0	0.0	00 00	1962
113	00 00	00 00	0	0.0	00 00	1962
114	00 00	00 00	0	0.0	00 00	1962
115	00 00	00 00	0	0.0	00 00	1962
116	00 00	00 00	0	0.0	00 00	1962
117	00 00	00 00	0	0.0	00 00	1962
118	00 00	00 00	0	0.0	00 00	1962
119	00 00	00 00	0	0.0	00 00	1962
120	00 00	00 00	0	0.0	00 00	1962



TERRITORY OF PAPUA AND NEW GUINEA.

Vulcanological Observatory, Rabaul.

SEISMOLOGICAL BULLETIN.

JUNE, 1957.

1st	Nil					
2nd	iP!	Z	10	19	55	Felt: Kiep. Int. 3 (MM) 5°10'S, 152°00'E. Warangoi. Int. 2 (MM) 4°30'S, 152°20'E.
	Dilatation to south			21	18	
	i					
	iP	Z	11	20	09	
	i					
	Deep.			21	03	
3rd	iP	Z	09	08	05	
	Compression					
	i!				09	
	i			09	36	
	i				49½	
	i			10	02	
	e	Z	13	42.8	-	
	4th	eP	Z	11	18	36
iPP					49	
	iPPP				56.8	
	iS			21	32	
	iScP			27	00	
		eP	Z	17	10	48
i					48½	
	i!				59	
	i			11	24	
	i!			12	11	
	iS			15	19	
	i!ScP			16	13	
	eScS			20	10	
	Deep?					
	eP	Z	20	27	07	B.C.I.S. and U.S.C.G.S. 2½°S, 101½°E. Sumatra. H = 20 18 05 Mag. 5¼ (Matsushiro)
5th	iP	Z	13	57	40½	
	e				59	
	i		(14)	00	20	
	i			07	32	
6th	e	Z	14	20	45½	Distant tremor.
	i				21	
	eL				23.0	
	e	Z	15	07	14½	Distant tremor.
eL				09.2		
	iP	Z	19	55	27½	U.S.C.G.S. 3°N, 126½°E. Molucca Strait. H = 19 49 47 Mag. 6.1 (Kiruna)
	iPPP				56	
	eScP		(20)	02	32	
	7th	iP	Z	00	56	46½
eP		Z	13	36	55½	B.C.I.S. Insufficient data.
i!				37	02	
	e				38	35½
	Deep.					

8th	eP i(PP) e(S)	Z	03	24	47½ 56½	U.S.C.G.S. 3°S, 147½°E. Nr. the N.E. Coast of New Guinea. H = 03 23 33
	e(P) eL e e	Z	03	55 56.4 (04) 04.2 06	22½ - - (50)	(B.C.I.S. New Hebrides Is. H = 03 54 00)
	eP i e(S) i i!	Z	06	08	35½ 36½ 09.5 11	U.S.C.G.S. 3½°S, 150°E. New Ireland region. H = 06 07 47
	e	Z	12	32.3		Confused by microseisms
	eP i!	Z	14	27	39½ 45	
	eP e	Z	17	19	07½ 29½	U.S.C.G.S. 16½°S, 173½°W. Tonga Is. H = 17 12 03
	e(P)	Z	21	27	05½	
	eP	Z	21	28	33½	U.S.C.G.S. 7°S, 102½°E. Sumatra. H = 21 19 42
	eP	Z	22	19	45	B.C.I.S. Loyalty Is. Foreshock. H = 22 14 20
	eP e(SS)	Z	22	31.5 36	- 21	U.S.C.G.S. 19½°S, 168°E. Loyalty Is. H = 22 26 17
9th	Times uncertain owing to power cuts.					
10th	iP Dilatation - Deep? iPP iPPP i i i i	Z	01	06	44 07 08 42 50 12 13	U.S.C.G.S. 9°S, 117°E. Sumbawa Is. H = 00 59 54 Mag. 6¼ (Pas)
	iP! Dilatation - Deep. iS i(PcS)	Z	03	17	30 05 12	U.S.C.G.S. 13½°N, 143½°E. Mariana Is. H = 03 13 11 h approx. = 150 kms. Mag. 6¼-7(Pas)
	eP i! i i	Z	18	44 45 47	58½ 59½ 49 35	B.C.I.S. New Britain region. H = 18 43.9m. Felt: Kilenge. Int.2(MM) 5°30'S, 148°20'E.
11th	iP	Z	14	57	(06)± 2	seconds. U.S.C.G.S. 30°S, 178°W. Kermadec Is. H = 14 49 47 h approx. = 100 kms. Mag. 6¼-7(Pas)
	iP i i i(PcP)	Z	18	56 57 58 59	(50)± 2 (08½) (22½) (06½)	seconds. U.S.C.G.S. 18°N, 120½°E. Luzon. H = 18 49 24 Mag. 6.8 (Uppsala)

12th	iP iPP	Z	08	36 38	58± 2 57	seconds U.S.C.G.S. 41½°N, 142½°E. Hokkaido H = 08 28 34 Mag. 6.2 (Uppsala)
	iP i i i	Z	10	08 09 38 10	31± 2 30 38 47	seconds " " " " " "
13th	eP	Z	10	51	00½	U.S.C.G.S. 51½°N, 175°W. Andreanov Is. H = 10 40 38 Mag. 7 (Pas)
	e	Z	11	20	(10)	(B.C.I.S. Andreanov Is. H = 11 05 00)
	eIP	Z	20	30	17	U.S.C.G.S. 3°S, 101°E. Sumatra. H = 20 21 42 h approx. = 150 kms.
	iP e	Z	21	33	25 52	U.S.C.G.S. ½°N, 123½°E. Celebes. H = 21 27 18
14th	eP	Z	05	47	(42)	B.C.I.S. 16½°S, 168½°E. New Hebrides Is. H = 05 42 38
	eP ePP eS	Z	06	34 36 43	40 40 10	U.S.C.G.S. 52°N, 175½°W. Andreanov Is. H = 06 24 20 Mag. 6¼ (Berk)
	iP!	Z	20	02	31	Felt: Rabaul. Int.1(MM) 04°10'S, 152°10'E.
	iP! i	Z	21	02 06	41 23	Compression from East.
15th	iP i i i i!	Z	02	30	04 05½ 15 25½ 27	Local
	iP ePP ePPP eL	Z	18	28 31 32 46	55 21 49 (22)	U.S.C.G.S. 52°N, 171°W. Fox Is. H = 18 18 20 Mag. 6-6¼ (Matsushiro)
16th	Nil					
17th	e(P)	Z	06	23	(36)	U.S.C.G.S. 15°S, 173½°W. Samoa Is. H = 06 16 44 Mag. 5¾ (Pas.)
	Confused by microseisms					

18th	eP	Z	02	22	19	U.S.C.G.S. $14\frac{1}{2}^{\circ}\text{N}$, 96°E . Burma. H = 02 12 12 Mag. 6.4 (Uppsala)
	iP i	Z	11	26 28	13 46	U.S.C.G.S. 18°N , $120\frac{1}{2}^{\circ}\text{E}$. Luzon. H = 11 18 53 h approx. = 60 kms.
	eIP	Z	14	58	47)	U.S.C.G.S. 14°N , 96°E . Burma. Aftershock. H = 14 48 17 Mag. 6.7 (Uppsala)
	eP i ePPP eL	Z	18	01 02 12	53 54 55 -	U.S.C.G.S. 25°S , 170°E . Loyalty Is. H = 17 56 03 Mag. 6.4 (Matsushiro)
	eP	Z	18	50	(20)	(B.C.I.S. Insufficient data)
19th	iP eL	Z	08	07 13	17 -	U.S.C.G.S. $16\frac{1}{2}^{\circ}\text{S}$, $176\frac{1}{2}^{\circ}\text{E}$. Fiji Is. H = 08 01 30 Mag. 6.8 (Uppsala)
	eP i	Z	18	18	22 41	Local shock.
	iP	Z	19	48	19.5	B.C.I.S. New Britain. Insufficient data. Felt: Numundo. Int. 3-4(MM) $5^{\circ}35'\text{S}$, $150^{\circ}10'\text{E}$. Felt: Kandrian. Int. 3(MM) $6^{\circ}15'\text{S}$, $149^{\circ}35'\text{E}$.
20th	iP i!	Z	01	11	$45\frac{1}{2}$ $51\frac{1}{2}$	U.S.C.G.S. 20°N , $145\frac{1}{2}^{\circ}\text{E}$. Mariana Is. H = 01 06 25 Mag. 6.0 (Uppsala)
	eP eL	Z	16	56 58	$13\frac{1}{2}$ -	
	iP eL	Z	17	04 07	18 -	
	iP	Z	20	01	23	
21st	eP i eL	Z	06	05 07.5	45 49 -	
	eP eL	Z	06	21 23	06 -	
	iP iS eL	Z	16	40 41 44	57 30 -	
	iP e(S)	Z	18	24 25	45 32	
	eP	Z	18	47	29	U.S.C.G.S. 48°N , 155°E . Kurile Is. H = 18 38 03 Mag. $5\frac{1}{2}$ (Moscow)
	eP	Z	20	33	41	B.C.I.S. Probably Mariana Is. Insufficient data.
	eP	Z	22	06	29	B.C.I.S. Discordant data.

					5.	
21st	eP	Z	06	05	45	
	i				49	
	eL			07.5	-	
	eP	Z	06	21	06	
	eL			23	-	
	iP	Z	16	40	57	
	iS			41	30	
	eL		44	-		
	iP	Z	18	24	45	
	e(S)			25	32	
	eP	Z	18	47	29	U.S.C.G.S. 48°N, 155°E. Kurile Is. H = 18 38 03 Mag. 5½ (Moscow)
	eP	Z	20	33	41	B.C.I.S. Probably Mariana Is. Insufficient data.
	eP	Z	22	06	29	B.C.I.S. Discordant data.
22nd	iP	Z	18	49	36	Local shock.
	i(S)			50	16	
	eP	Z	20	09	11	Probably foreshock in West New Guinea.
	e	Z	23	08	(38)	" " "
	eL			09.7	-	
	e	Z	23	32	(04)	Probably foreshock in West New Guinea.
	eL			32.8	-	
	e	Z	23	38	(18)	" " "
	e	Z	23	47	(38)	" " "
Onset of Major Shock near the N. coast of West New Guinea (H = 23 50 23 U.S.C.G.S.) lost during record change.						
23rd	Nil					
24th	Nil					
25th	eiP	Z	10	21	20	U.S.C.G.S. 10°N, 94°E. Adndaman Is. H = 10 11 17
26th	iP!	Z	12	56	03 ± 2 seconds.	B.C.I.S. East coast of New Guinea. H = 12 55.5 m. Felt: Warangoi. Int.2(MM) 4°30'S, 152°20'E. (Not Awelkon, as reported).
27th	Dilatation to east- south-east.					
	eP	Z	00	20	24) ± 2 seconds.	B.C.I.S. & U.S.C.G.S.
	i(PP)			22	40)	56½°N, 116°E, Lake Baikal.
	eS			29.3	-)	H = 00 09 28
	eL			49.0	-)	Mag. 7.9 (Uppsala)
	eP	Z	04	09	01	B.C.I.S. 5°N, 127½°E. Mindanao. H = 04 03 00
	e(P)	Z	09	45	39	
eP	Z	12	55	20	U.S.C.G.S. 22°S, 171°E. Loyalty Is. H = 12 49 51	
	e	Z	17	48	38	

28th	iP i(S)	Z	16	36 38	57 01	B.C.I.S. Solomon Is. H = 16 35.5 m. Felt: Buin. Int. 2 (MM) 6°50'S, 155°04'E.
29th	iP	Z	07	59	04½	U.S.C.G.S. 51½°N, 166°W. Fox Is. H = 07 48 18. Mag. 6.3 (Uppsala)
30th	Nil.					

The following shocks were reported felt from the Territory,
June, 1957.

Date	(G.M.T.) Time	Intensity Mercalli Modified	Locality	Latitude		Longitude	
				South		East	
2nd	1022	3	Kiep	05	10	152	00
	1040	2	Warangoi	04	30	152	20
10th	1845	2	Kilenge	05	30	148	20
13th	1225	4	Awelkon	05	40	147	50
14th	2002	1	Rabaul	04	11	152	10
19th	1945	3	Kandrian	06	15	149	35
	1950	3 - 4	Numundo	05	35	150	10
20th	0700	3	Esa'ala	09	45	150	50
	0700	2	Salamo	09	40	150	45
	0755	3	Esa'ala	09	45	150	50
	0755	5?	Salamo	09	40	150	45
	0815	2	Salamo	"	"	"	"
	0955	2	Salamo	"	"	"	"
	1017	3	Esa'ala	09	45	150	50
	1017 55	3	Esa'ala	"	"	"	"
	1020 30	4	Esa'ala	"	"	"	"
	1022 23	4	Esa'ala	"	"	"	"
	1023 20	3	Esa'ala	"	"	"	"
	1028	5?	Salamo	09	40	150	45
	1030	4	Esa'ala	09	45	150	50
	1220	3	Salamo	09	40	150	45
	1223	4	Esa'ala	09	45	150	50
	1318	2	Salamo	09	40	150	45
1320	3	Esa'ala	09	45	150	50	
23rd	0528	2	Awelkon	05	40	147	50
26th	1255	2	Warangoi	04	30	152	20

Station No. 1001
 Date 15 Feb 1962
 Time 14:50

The following stations were reported for the Territory
 June, 1962

Station No.	Latitude	Longitude	Intensity	Time	Place
1001	55 10	15 30	1	14:50	Edin
1002	55 20	15 30	1	14:50	Edin
1003	55 30	15 30	1	14:50	Edin
1004	55 40	15 30	1	14:50	Edin
1005	55 50	15 30	1	14:50	Edin
1006	56 00	15 30	1	14:50	Edin
1007	56 10	15 30	1	14:50	Edin
1008	56 20	15 30	1	14:50	Edin
1009	56 30	15 30	1	14:50	Edin
1010	56 40	15 30	1	14:50	Edin
1011	56 50	15 30	1	14:50	Edin
1012	57 00	15 30	1	14:50	Edin
1013	57 10	15 30	1	14:50	Edin
1014	57 20	15 30	1	14:50	Edin
1015	57 30	15 30	1	14:50	Edin
1016	57 40	15 30	1	14:50	Edin
1017	57 50	15 30	1	14:50	Edin
1018	58 00	15 30	1	14:50	Edin
1019	58 10	15 30	1	14:50	Edin
1020	58 20	15 30	1	14:50	Edin
1021	58 30	15 30	1	14:50	Edin
1022	58 40	15 30	1	14:50	Edin
1023	58 50	15 30	1	14:50	Edin
1024	59 00	15 30	1	14:50	Edin
1025	59 10	15 30	1	14:50	Edin
1026	59 20	15 30	1	14:50	Edin
1027	59 30	15 30	1	14:50	Edin
1028	59 40	15 30	1	14:50	Edin
1029	59 50	15 30	1	14:50	Edin
1030	60 00	15 30	1	14:50	Edin



VULCANOLOGICAL OBSERVATORY RABAU.

SEISMOLOGICAL BULLETIN.

JULY, 1957.

1st	iP!	Z	02	09	17½	B.C.I.S. New Britain Region. Felt: Warangoi. Int. 2-3 (MM) 4°30'S, 152°20'E. Tol. Int. 1 (MM) 5°00'S, 152°05'E.
	i	Z	08	50	42½	
	iP	Z	13	56	58	
	iS			57	40	
	iP	Z	17	04	56	
	eP	Z	19	40	47	U.S.C.G.S. 25°N, 94°E. India/Burma Frontier. H = 19 30 16 Mag. 7¼ (Matsushiro)
	i				48	
2nd	i(PP)	Z	01	00	17	U.S.C.G.S. 36°N, 53°E. Iran. H = 00 42 23 Mag. 7¼-7½ (Pas)
	eP	Z	14	19	03	
	i(S)				32½	
	iP	Z	15	02	28½	B.C.I.S. Discordant data. (? 2 earthquakes)
	e			09	11	
	i(S)			10	54	
	e			11	28	
	e			31	01	
3rd	eP	Z	12	34	45	U.S.C.G.S. 50½°N, 179°W. Andreanov Is. H = 12 24 37 Mag. 6½-6¾ (Matsushiro)
4th	iP!	Z	14	12	07	U.S.C.G.S. 5°S, 152°E. New Britain. H = 14 11 36 Felt: Pomio. Int. 4 (MM) 5°30'S, 151°30'E. Rabaul. Int. 2 (MM) 4°10'S, 152°10'E. Warangoi. Int. 1-2 (MM) 4°30'S, 152°20'E.
	iP!	Z	14	35	13	B.C.I.S. New Britain. Aftershock. H = 14 34 42 Felt: Pomio. Int. 4 (MM) 5°30'S, 151°30'E. Rabaul. Int. 2 (MM) 4°10'S, 152°10'E.
	iP	Z	15	18	42	
	Dilatation					
	iS			19	01½	
	iP!	Z	15	45	54½	
	Dilatation.					
	iP!	Z	15	55	00.5	B.C.I.S. Solomon Is. region H = 15 53.8m.
	Dilatation to east-south-					
	east.					

5th	iP Dilatation.	Z	02	04	46½	Felt: Pomio. Int. 3 (MM) 5°30'S, 151°30'E.
	iP	Z	02	48	23½	Felt: Pomio. Int. 4 (MM) 5°30'S, 151°30'E. Kiep. Int. 3 (MM) 5°10'S, 152°00'E. Ulamona. Int. 2 (MM) 5°00'S, 151°15'E. Tol. Int. 2 (MM) 5°00'S, 152°05'E. Rabaul. Int. 2 (MM) 4°10'S, 152°10'E. Warangoi. Int. 1-2 (MM) 4°30'S, 152° 20'E.
	iP	Z	11	37	08½	
	eP	Z	12	41	20	U.S.C.G.S. 28½°S, 179°W. Kermadec Is. H = 12 33 56 Mag. 6¼ (Matsushiro)
	iP	Z	17	34	36½	
	eP i(S)	Z	19	33	15½ 49	
	iP Dilatation iS	Z	23	41	35 49	
6th	iP iS	Z	02	05	29 54	
	iP! Dilatation to east-south-east.	Z	06	57	47	B.C.I.S. New Britain. H = 06 57.2m. Felt: Rabaul. Int. 2 (MM) 4°10'S, 152°10'E. Tol. Int. 2 (MM) 5°00'S, 152°05'E.
7th	iP i	Z	00	50	26½ 35	
	eP iS	Z	11	35 36	45 50	Felt: Aropa. Int. 3 (MM) 6°25'S, 155°50'E. Buin. Int. 1 (MM) 6°50'S, 155°45'E.
	eP	Z	15	40	18	B.C.I.S. 13½°S, 165½°E. New Hebrides Is. H = 15 36 15 Mag. 5¾ (Matsushiro)
	eP i!	Z	16	12	29 33	U.S.C.G.S. 6½°S, 156°E. Solomon Is. H = 16 11 15 Mag. 6¾ (Pas) Felt: Buin. Int. 6 (MM) Some damage. 6°50'S, 155°45'E. Aropa. Int. 4 (MM) 6°25'S, 155°50'E. Kieta. Int. 3 (MM) 6°15'S, 155°40'E. Karooia. Int. 3 (MM) 5°10'S, 154°35'E. Rabaul. Int. 2 (MM) 4°10'S, 152°10'E.

7th cont.	iP iS	Z	21	11	02 56	Felt: Aropa. Int.2(MM) 6°25'S, 155°50'E. Buin. Int.1(MM) 6°50'S, 155°45'E.
8th	iP e	Z	05	22	51 28 55	
	iP	Z	09	42	44	(? Mariana Is. B.C.I.S.)
	iP i	Z	12	25	23 31	
	iP e	Z	17	45 46	13½ 17½	
9th	iP	Z	00	26	51	
	ei Confused by	Z	10	06	(38)	U.S.C.G.S. 6°S, 104°E. Sumatra. H = 09 58 09 Mag. 6½ (Matsushiro)
	iP iS	Z	18	23	56 24 17	
10th	iP i(S)	Z	02	48	48 49 12	
	iP	Z	03	47	17	B.C.I.S. Insufficient data.
	iP	Z	10	11	15.5	
	i	Z	10	27	23	Short period pulse.
	iP	Z	13	22	44½	U.S.C.G.S. 20½°N, 123°E. Batan Is. H = 13 15 28
	iP	Z	23	01	35½	
	iP	Z	23	02	54½	
11th	iP! Dilatation.	Z	02	05	06½	
	eP iS	Z	19	41	31½ 42 20	
	eP eS	Z	23	53 54	26 21½	Felt: Buin. Int.1(MM) 6°50'S, 155°45'E.
12th	iP	Z	08	15	27½	B.C.I.S. Banda Sea. H = 08 10.6m.
	iP	Z	15	54	23	
	iP eL	Z	20	55 56.6	37 -	
	iP eL	Z	20	57 58.4	18 -	U.S.C.G.S. 3°S, 148½°E. Bismarck Sea. H = 20 56 18 Mag. 6¼ (Matsushiro)
	iP eS iL	Z	21 (22)	59 00.5 01	42 - 36	U.S.C.G.S. 3°S, 148½°E. Bismarck Sea. Aftershock. H = 21 58 45 Mag.6 (Matsushiro)

13th	iP	Z	07	48	37½	
	iP	Z	07	50	29½	
14th	eP	Z	02	35	50½	U.S.C.G.S. 46°N, 151½°E.
	i			36	02	Kurile Is. H = 02 26 54 Mag. 5½ (Matsushiro)
	eP	Z	06	30	45½	U.S.C.G.S. 27°S, 178°W.
	i				48½	Kermadec Is. region
	i(PPP)(PcP)			33	07½	H = 06 23 52
	e			35	36½	h approx. = 150 kms.
	i(ScP)(PcS)			36	37½	Mag. 7-7¼ (Pas)
	i			37	00½	
	e				26½	
	e(ScS)		40		42½	
	e				50½	
	eP	Z	08	18	06½	U.S.C.G.S. 30°S, 177°W.
	i				10½	Kermadec Is.
	i				35½	H = 08 10 45
	e(PP)		19		55½	Mag. 6¾ (Pas)
	iPcP			20	25½	
	iPcS			24	20½	
	eScS			28	27½	
	e				42½	
	eP	Z	09	20	32.5	U.S.C.G.S. 12½°N, 144°E.
						Mariana Is. H = 09 16 12
	eiP	Z	09	49	(30)	U.S.C.G.S. 20°S, 174½°W.
						Confused by microseisms. Tonga Is. H = 09 42 27 Mag. 6½ (Matsushiro)
	iP	Z	23	40	04½	
						Compression.
	iS				25½	
15th	iP	Z	01	44	17	
						Dilatation.
16th	iP	Z	01	13	25½	
						Dilatation to east-south-east
	iP	Z	10	00	52	(Felt: Awelkon. Int.1(MM)
	iS			01	16	5°40'S, 147°50'E)
17th	iP	Z	09	52	29	
						Compression.
	iP	Z	10	14	18.5	
	eP	Z	11	14	01	U.S.C.G.S. 11°S, 167°E.
	iPP				14	Santa Cruz Is.
	i			15	07	H = 11 10 20
	i				17	h = 100 kms.
	eS			16	58	Mag. 6¼-6½ (Pas)
	e			17	00	
	iSS				24	
	iSSS				35½	
	i				59	
	iPcP			18	59	
	eP	Z	12	29	45	U.S.C.G.S. 2°S, 137°E.
	i				47.3	New Guinea.
	i				51½	H = 12 26 06
	iPP				54	
	i			30	17	
	e			33	23	

18th	eP i!PPP	Z	11	12	34 49 $\frac{1}{2}$	U.S.C.G.S. 5°S, 146°E. Nr. the N. coast of New Guinea. H = 11 10 58 Felt: Karkar, Int. 4-5 (MM) 4°40'S, 146°00'E. Madang, Int. 3 (MM) 5°15'S, 145°50'E. Aiome, Int. 3 (MM) 5°10'S, 144°45'E. Saidor, Int. 3 (MM) 5°35'S, 146°30'E. Kumbug, Int. ? 4°20'S, 145°10'E.
19th	iP i i ePPP	Z	13	09	48	U.S.C.G.S. 25°N, 122 $\frac{1}{2}$ °E. Formosa. H = 13 02 05 Mag. 6-6 $\frac{1}{4}$ (Matsushiro)
					10 11 12	Dilatation. 07 $\frac{1}{2}$
	eP iPP iPPP i i iSS	Z	20	28	35 42 $\frac{1}{2}$ 49 $\frac{1}{2}$ 56 $\frac{1}{2}$	U.S.C.G.S. 3°S, 142°E. Foreshock. N. New Guinea. H = 20 26 03 Felt: Lumi, Int. 5 (MM) 3°30'S, 142°05'E. Aitape, Int. 2 (MM) 3°10'S, 142°20'E.
					29 30	08 39
	eP iPP iSS iSSS	Z	21	39	16 31 19 26	U.S.C.G.S. 3 $\frac{1}{2}$ °S, 142°E. N. New Guinea. H = 21 36 46 Felt: Lumi, Int. 6 (MM) 3°30'S, 142°05'E. Aitape, Int. 3 (MM) 3°10'S, 142°20'E. Nuku, Int. 3 (MM) 3°35'S, 142°10'E.
					41	19
20th	eiP	Z	01	39	25	(Felt: Lumi, Int. 4 (MM) 3°30'S, 142°05'E)
	iP iS	Z	06	58	53	
					59	13
	iP	Z	07	27	10	
						Compression
	eP	Z	11	22	18	U.S.C.G.S. 50 $\frac{1}{2}$ °N, 156°E. Kamchatka, H = 11 12 53 h approx. = 60 kms. Mag. 5 $\frac{1}{4}$ (Matsushiro)
	eP i	Z	14	16	47	U.S.C.G.S. 43°N, 145°E. Hokkaido, H = 14 08 14 Mag. 6 (Uppsala)
					17	04
	eP	Z	15	45	57	U.S.C.G.S. 19 $\frac{1}{2}$ °S, 174°W. Tonga Is. H = 15 38 47
	eP	Z	19	15	26	
	e(P)	Z	20	55	54	B.C.I.S. South Pacific. Rather inconclusive data.

21st	iP	Z	07	00	37 $\frac{1}{2}$	U.S.C.G.S. 4 $\frac{1}{2}$ 'S, 153°E. New Ireland. H = 07 00 10 Mag. 5 $\frac{3}{4}$ (Matsushiro)
	Dilatation to east-south-east.					Felt: Namatanai. Int. 4 (MM)
	i			06	54	3°40'S, 152°25'E.
	i			07	33	Rabaul. Int. 3 (MM)
	i			08	47	4°10'S, 152°10'E.
	i		09	02	Karoola. Int. 3 (MM) 5°10'S, 154°35'E. Warangoi. Int. 3 (MM) 4°30'S, 152°20'E. Kiep. Int. 3 (MM) 5°10'S, 152°00'E. Tol. Int. 2 (MM) 5°00'S, 152°05'E. Ulamona. Int. 2 (MM) 5°00'S, 151°15'E.	
	iP	Z	07	30	11.	Felt: Rabaul. Int. 1 (MM) 4°10'S, 152°10'E.
	iP	Z	20	36	56	
	iS			37	42	
22nd	eP	Z	06	24	32	U.S.C.G.S. 33 $\frac{1}{2}$ 'S, 178°W. Kermadec Is. H = 06 16 52 Mag. 6 $\frac{1}{4}$ -6 $\frac{1}{2}$ (Matsushiro)
	eP	Z	06	29	31	U.S.C.G.S. 34°S, 177 $\frac{1}{2}$ °W. Kermadec Is. Aftershock. H = 06 21 50
	i				55	
	eP	Z	16	39	35	
	i(S)				44	
	eP	Z	18	36	58	B.C.I.S. Probably New Hebrides Is. Rather inconclusive data.
	iP	Z	09	24	13	Felt: Warangoi. Int. 1-2 (MM) 4°30'S, 152°20'E.
	Dilatation to east-south-east.					
	i			27	48	
	i			28	29	
	i				32	
	i				41	
	eP	Z	19	36	12	Local shock.
	i				24	
	i				28	
23rd	eiP	Z	00	55	(35)	U.S.C.G.S. 52°N, 177°W. Andreanov Is. H = 00 45 12 Mag. 6 $\frac{3}{4}$ -7 (Matsushiro)
	Onset confused.					
	eP	Z	06	26	00	U.S.C.G.S. 20 $\frac{1}{2}$ 'S, 170°E. Loyalty Is. H = 06 20 43
	eP	Z	13	36	18	U.S.C.G.S. Kermadec Is. H = 13 30 17
	i				36	h approx. = 600 kms.
	e(S)			41	(28)	
24th	ePKP	Z	02	16	(32)	U.S.C.G.S. 30°S, 70 $\frac{1}{2}$ °W. Chile/Argentine border. H = 01 57 25 Mag. 6 $\frac{1}{2}$ (Pas)
	iP	Z	03	56	28	Felt: Goroka. Int. 2 (MM) 6°05'S, 145°25'E.
	Dilatation.					

(cont. over)

24th cont.	eP	Z	06	13	(09)	(Wellington. $35^{\circ}95'S$, $179^{\circ}4'W$. New Zealand. H = 06 05 34.5 Mag. 5.2 (Wellington))
	eP	Z	06	55	45	
	i				38	
	i			56	34	
	i(S)				37	
	eP	Z	10	02.1	-	U.S.C.G.S. $18^{\circ}S$, $169\frac{1}{2}^{\circ}E$. New Hebrides Is. H = 09 56 57
	Confused by microseisms,					
	eP	Z	11	07.4	-	U.S.C.G.S. $20^{\circ}S$, $169^{\circ}E$. New Hebrides Is. H = 11 02 30 Mag. $6\frac{1}{2}$ (Pas)
	Confused by microseisms.					
	i				34	
	e				37	
	e(PP)				57	
	i		08		28	
	eP	Z	14	44	52	U.S.C.G.S. $3^{\circ}S$, $134\frac{1}{2}^{\circ}E$. W. of New Guinea. H = 14 40 45
	eP	Z	15	02	59	(B.C.I.S. 400 kms. south-east of Kermadec Is. H = 14 55.2m.)
	iP	Z	18	29	28	Wellington. $34^{\circ}S$, $177\frac{3}{4}^{\circ}W$. S. of Kermadec Is. H = 18 21 18 Mag. $5\frac{1}{4}$ (Wellington)
	i				39	
	e			30	10	
25th	eP	Z	07	52	40	U.S.C.G.S. $51^{\circ}N$, $177^{\circ}W$. Andreanov Is. H = 07 42 25 Mag. $6\frac{1}{4}$ (Berk)
	eP	Z	11	59	28	
	eP	Z	14	13	17	Felt: Lae. Int. 3 (MM)
	i				18	$6^{\circ}45'S$, $147^{\circ}00'E$.
	i				34	
	i!				57	
	iP	Z	17	48	56	
	iS			49	13	
	eP	Z	18	40	04	U.S.C.G.S. $42^{\circ}N$, $142^{\circ}E$. Hokkaido. H = 18 31 36
	iP	Z	20	40	55	
	iS			41	14	
	eP	Z	22	07	(01)	
26th	iP	Z	03	48	13	Felt: Linga Linga. Int. 2 (MM)
	i				59	$5^{\circ}35'S$, $149^{\circ}45'E$.
	i			49	01	Talasea. Int. 2 (MM)
	i				28	$5^{\circ}20'S$, $150^{\circ}05'E$.
	iP	Z	05	04	25	
	i				40	
	i(S)			05	15	
	eP	Z	06	57	23	U.S.C.G.S. $35^{\circ}S$, 180° . New Zealand. H = 06 49 42 Mag. $5\frac{3}{4}$ (Matsushiro)

(cont. over)

26th cont.	eP	Z	14	53	04	
	eP	Z	18	31	22½	
	i! e(S)				33.7 47	
27th	eP	Z	14	52	32	U.S.C.G.S. 20°S, 174½°W. Tonga Is. H = 14 45 28 Mag. 5½-6 (Matsushiro)
	eiP	Z	15	43	03	U.S.C.G.S. 5½°N, 127½°E. Mindanao. H = 15 37 30
	iP	Z	18	43	57	U.S.C.G.S. 6½°S, 151½°E. New Britain. H = 18 43 01
						Compression from south- south-west.
	i iS! iL				59 44 36 47.4 -	
28th	eP	Z	01	35	17	U.S.C.G.S. 15°S, 167½°E. New Hebrides Is. H = 01 30 52
	iP	Z	03	00	56	B.C.I.S. 1200 kms. S.W. of Marie-Theresa Reef, South Pacific. H = 02 51.1m.
	e(P) i	Z	08	07	02 16	
	ePKP e(PP) e e(PPP) i e(SSS) eL	Z	08	58 59 (09) 00 01 10 (20) 33	(14) 15 17 17 58 - (40)	U.S.C.G.S. 17°N, 99°W. Guerrero, Mexico. H = 08 40 04 Mag. 7.8 (Uppsala)
	eP	Z	09	17	(41)	U.S.C.G.S. 18½°S, 176½°E. Fiji Is. region H = 09 11 49
	eP	Z	10	05	(01)	Wellington. 34°S, 178°W. S. of Kermadec Is. H = 09 57 13 Mag. 5.4 (Wellington)
	eP	Z	13	36	(17)	B.C.I.S. Fiji Is. region H = 13 30.3m.
29th	ePKP i i ePKS	Z	17	34	30 31 37 50	U.S.C.G.S. 23½°S, 71½°W. Chile. H = 17 15 14 Mag. 7-7¼ (Pas)
	eP	Z	19	29	(06)	
	iP	Z	23	41	27	
						Dilatation
	i! i i i				29 57 42 03 44 28	

30th	iP	Z	01	18	03
		Dilatation			
	i!				05
	i(S)				35
	i				39
	iP	Z	11	05	24
	i				33
31st	iP	Z	10	30	50½
		Dilatation			
	i			31	04
	i				11
	eP	Z	10	56	02
	i(S)			57	05½
	iP	Z	19	04	55
	i			05	20
	i(S)				26
	iP	Z	20	29	23
		Dilatation.			
	i				25½

The following shocks were reported felt from the Territory,
July, 1957.

Date	Time	Intensity Modified Mercalli	Locality	Latitude		Longitude	
				South	East	East	East
1st	0210	2 - 3	Warangoi	04	30	152	20
	0210	1	Tol	05	00	152	05
2nd	1020	1 - 2	Ulamona	05	00	151	15
4th	0237	1	Kaiapit	06	15	146	15
	1408	1 - 2	Warangoi	04	30	152	20
	1412	2	Rabaul	04	10	152	10
	1415	4	Pomio	05	30	151	30
	1430	4	Pomio	"	"	"	"
	1435	2	Rabaul	04	10	152	10
5th	0215	3	Pomio	05	30	151	30
	0245	4	Pomio	"	"	"	"
	0248	2	Ulamona	05	00	151	15
	0248	2	Rabaul	04	10	152	10
	0248	2	Tol	05	00	152	05
	0249	3	Kiep	05	10	152	00
	0249	1 - 2	Warangoi	04	30	152	20
6th	0221	2	Angoram	04	05	144	05
	0655	2	Tol	05	00	152	05
	0657	2	Rabaul	04	10	152	10
7th	0658	2	Ulamona	05	00	151	15
	1135	3	Aropa	06	25	155	50
	1135	1	Buin	06	50	155	45
	1610	6	Buin	"	"	"	"
	(Some damage)						
	1610	4	Aropa	06	25	155	50
	1613	3	Karoola	05	10	154	35
	1615	3	Kieta	06	15	155	40
	1617	2	Rabaul	04	10	152	10
	2110	2	Aropa	06	25	155	50
	2110	1	Buin	06	50	155	45

8th	0415	1 - 2	Warangoi	04 ⁰ 30'	152 ⁰ 20'
	1630	1 - 2	Londolovit	03 05	152 40
11th	2355	1	Buin	06 50	155 45
12th	0630	3	Walindi	05 25	150 05
16th	1008	1	Awelkon	05 40	147 50
18th	1110-1112	4 - 5	Karkar	04 40	146 00
	?	3	Madang	05 15	145 50
	1110	3	Aiome	05 10	144 45
	1111	3	Saidor	05 35	146 30
	1115	?	Kumbug	04 20	145 10
19th	1107	2	Goroka	06 05	145 25
	1113	2	Awelkon	05 40	147 50
	2020	?	Lumi	03 30	142 05
	2027	2	Aitape	03 10	142 20
	2030	5	Lumi	03 30	142 05
	2115	2	Lumi	"	"
	2130	3	Nuku	03 35	142 10
	2139	3	Aitape	03 10	142 20
	2140	6	Lumi	03 30	142 05
	2150	1	Lumi	"	"
	2235	3	Lumi	"	"
	2245	1	Lumi	"	"
	2324	1	Lumi	"	"
	20th	0135	4	Lumi	"
0155		3	Lumi	"	"
0230		2	Lumi	"	"
0250		1	Lumi	"	"
0440		1	Lumi	"	"
0450		1	Lumi	"	"
0515		1	Lumi	"	"
0730		2	Lumi	"	"
0824		2	Lumi	"	"
0919		2	Lumi	"	"
1930		2	Lumi	"	"
(2142)		(3)	Lae	06 45	147 00
21st		0015	2	Lumi	03 30
	0040	2	Lumi	"	"
	0325	3	Lumi	"	"
	0535	1	Lumi	"	"
	0700	3	Rabaul	04 10	152 10
	0700	3	Warangoi	04 30	152 20
	0700	2	Tol	05 00	152 05
	0702	3	Karoola	05 10	154 35
	0702	2	Ulamona	05 00	151 15
	0705	4	Namatanai	03 40	152 25
	0705	3	Kiep	05 10	152 00
	0730	1	Rabaul	04 10	152 10
	(1113)	3	Lae	06 45	147 00
	2010	1	Lumi	03 30	142 05
2015	4	Lumi	"	"	
22nd	0924	2	Lumi	03 30	142 05
	1925	1 - 2	Warangoi	04 30	152 20
	1957	3	Lumi	03 30	142 05
	2220	2	Kilenge	05 30	148 20
24th	0353	2	Goroka	06 05	145 25
	1910	3	Lumi	03 30	142 05
25th	1412	3	Lae	06 45	147 00
26th	0351	2	Linga Linga	05 35	149 45
	0351	2	Talasea	05 20	150 05

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TERRITORY OF PAPUA AND NEW GUINEA

VULCANOLOGICAL OBSERVATORY RABAU

Seismological Bulletin, August 1957.

<u>August 1st.</u>	eP	Z	16	29	(23)	U.S.C.G.S. 52°N, 170°W. Fox Islands. H=16 18 48 Mag. 5 $\frac{1}{2}$ -5 $\frac{3}{4}$ (Matsushiro)
	eiP	Z	17	59	41	J.M.A. 29°8N, 139°8E. Honshu. H= 17 53 14 h approx. = 400kms.
<u>2nd.</u>	eP	Z	02	20	16	U.S.C.G.S. 38°S, 178°E. New Zealand. H= 02 12 30 Mag. 5.2 (Wellington)
<u>3rd.</u>	No records					
<u>4th.</u>	eiP	Z	00	40	57 $\frac{1}{2}$	U.S.C.G.S. 3 $\frac{1}{2}$ °S, 145°E. Near the north coast of New Guinea. H= 00 39 12 Mag. 6 $\frac{1}{2}$ - 6 $\frac{3}{4}$ (Matsushiro)
	i			41	01 $\frac{1}{2}$	
	iPPP				13	
	i				16	
	i				24	
	i			42	14	Felt Manam Is. Int. 3-4 (M.M.) 4°05'S, 145°05'E
	i(S)				22	Felt Bogia, Int. 3 (M.M.)
	i				26	4°15'S, 144°55'E.
	eL			43.0	-	Felt Angoram, Int. 2 (M.M.)
	i			44	11	4°05'S, 144°05'E.
	i			45	48	Felt Karkar Is. Int. 2 (M.M.) 4°40'S, 146°00'E
	e(P)	Z	01	25	18	
	i				46	
	i				54	
	iP	Z	02	20	37 $\frac{1}{2}$	B.C.I.S. near 4 $\frac{1}{2}$ °S, 155 $\frac{1}{2}$ °E New Britain region. H= 02 19.8m
	Dilatation				40	
	i				41	Felt Rabaul, Int. 1 (M.M.)
	i!				41	
	i			24	35	4°10'S, 152°10'E. Felt Warangi, Int. ? 4°30'S, 152°20'E. Felt Karoola, Int. ? 5°10'S, 154°35'E.
<u>5th.</u>	iP	Z	08	13	34	U.S.C.G.S. 5°S, 154°E. New Britain region H= 08 12 46
	Dilatation (to north-west?)					
	i				17	34
	i				19	42
	iPcP				21	37
						Felt Namatanai, Int. 4 (M.M.) 3°40'S, 152°25'E. Felt Aropa, Int. 1 (M.M.) 6°25'S, 155°50'E
	eP	Z	21	38	01 $\frac{1}{2}$	Wellington. 32 $\frac{1}{2}$ °S, 179 $\frac{1}{2}$ °W. Kermadec Island region. H= 21 30 30 Mag. 5 $\frac{1}{2}$ - 5 $\frac{3}{4}$ (Matsushiro)
<u>6th.</u>	Nil					
<u>7th.</u>	eP	Z	19	46	41	U.S.C.G.S. 19 $\frac{1}{2}$ °S, 178°W. Fiji Islands. H= 19 40 46 h approx. = 550kms.
	eS				51	30
<u>8th.</u>	iP	Z	09	51	52 $\frac{1}{2}$	B.C.I.S. East coast of New Guinea. H= 09 50.5m Felt Bulolo, Int. 3 (M.M.) 7°10'S, 146°40'E. Felt Awelkon, Int. 2 (M.M.) 5°40'S, 147°50'E.
	i				52	11

RABUL OBSERVATORY. Seismological Bulletin, August 1957 (cont)

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August 9th. eP Z 02 32 58 U.S.C.G.S. 2°S, 137°E.
 i 33 05 New Guinea. H= 02 29 20
 iPP 10 Mag. 7 (Matsushiro)
 i 12
 iPPP 17
 i 25
 i 36
 i 43
 i 34 00
 i 25¹/₂
 i(S) 35 04¹/₂
 eL (40) -

eP Z 10 21 58
 i! 22 04
 i 55¹/₂

eP Z 13 02 51
 Confused by microseisms

eP Z 21 55 14
 Confused by microseisms

10th. eiP Z 02 24 (25) U.S.C.G.S. 21¹/₂°S, 179¹/₂°W.
 Fiji Islands region.
 h approx. = 600Kms.
 H= 02 18 38

iP Z 05 56 52¹/₂
 Compression
 i 57 02
 i 41
 i 58 50¹/₂

eP Z 12 02 17
 i 19
 i(S) 50
 i 03 31
 i 46

iP Z 19 18 26 U.S.C.G.S. 3¹/₂°N, 124¹/₂°E.
 Compression. Deep Celebes Sea. H= 19 12 47
 i! 27 h= 300kms. Mag. 6-6¹/₄ (Matsushiro)

11th. e Z 05 06.7 -
 Confused by microseisms

eP Z 05 20 (25) U.S.C.G.S. 38¹/₂°S, 177°E.
 New Zealand. H= 05 12 40
 Mag. 5-8 (Wellington)

iP Z 19 11 16¹/₂

iP Z 21 42 55 U.S.C.G.S. 17¹/₂°S, 169°E.
 i 43 00¹/₂ New Hebrides Islands.
 i 07 H= 21 38 05
 i 16
 i 23
 i 35
 i 44 18¹/₂

iP Z 22 15 15
 Dilatation

12th. iP! Z 00 00 22 Felt Rabaul, Int. 3 (M.M.)
 Dilatation to east-south 4°10'S, 152°10'E.
 east.

<u>August 12th.</u>	e(P)	Z	00	22	09	
cont.	i(S)				48	
	eP	Z	07	14	20	U.S.C.G.S. 6°N, 124½°E. Mindanao
	i				46	H= 07 08 38
	i			15	13	
<u>13th.</u>	iP!	Z	06	48	38	
	Compression					
	i			50	52½	
	i				58½	
	eP	Z	09	20	01.5	
	i				02	
	iS				27	
	iP	Z	10	40	11	
	iS				41	
	eP	Z	14	48 (40)		U.S.C.G.S. 9½°N, 126°E. Mindanao.
						H= 14 42 30
	eP	Z	15	58	40	U.S.C.G.S. 23½°N, 121½°E.
	i				41	Formosa. H=15 50 58
	i			59	41½	
	iP!	Z	16	07	49½	Local
	Compression from east-south-east					
	e	Z	18	56	(39)	
	ò	Z	19	03	37	
	i	Z	22	02	31	(J.M.A. 40°07'N, 142°09'E. Honshu
						H= 21 57 11?)
	eP	Z	23	43	(34½)	
	i				35½	
	i				56½	
	i			44	47	
<u>14th.</u>	eP	Z	13	25	(24)	
	i				42	
	i			26	13	
	i(S)				18	
	i				24	
	eP	Z	14	30	09	
	i				10	
	i				24	
	i				29	
	iP	Z	16	18	32	
	Compression					
	i				38	
	i!				41	
	i!				43	
	i				46	
	i		19		04	
	i				17	
	i				45	
	eP	Z	18	33	22	U.S.C.G.S. 21°S, 176½°W.
	i				32½	Tonga Islands. H= 18 26 52
	i				34	h approx. = 200kms.
	i				41	
	ei(PcP)			35	57½	
	e(ScP)			39	24	
	e	Z	21	27	15	

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<u>August 15th.</u>	iP!	Z	20	46	31½	U.S.C.G.S. 4½°S, 155°E. Solomon Islands region. H= 20 45 20
	Dilatation					
	i				32	h approx. = 500kms
	iP	Z	22	15	20½	Felt Sohano, Int. ?
	i				41	5°25'S, 154°40'E.
	iS				48	
<u>16th.</u>	iP	Z	03	26	51½	U.S.C.G.S. 5°S, 154°E. New Britain region. H= 03 26 05
	Dilatation					
	i				53	Felt Namatanai, Int. 5 (M.M.)
	i!				54	3°40'S, 152°25'E. Felt Karoola, Int. 3-4 (M.M.) 5°10'S, 154°34'E. Felt Rabaul, Int. 3 (M.M.) 4°10'S, 152°10'E. Felt Londolovit, Int. 2-3 (M.M.) 3°05'S, 152°40'E. Felt Waranggi, Int. 2-3 (M.M.) 4°30'S, 152°20'E. Felt Kokopo, Int. 2 (M.M.) 4°20'S, 152°15'E. Felt Aropa, Int. 2 (M.M.) 6°25'S, 155°50'E. Felt Sohano, Int. 2 (M.M.) 5°25'S, 154°40'E. Felt Kiep, Int. 2 (M.M.) 5°10'S, 152°00'E.
	iP	Z	03	54	07	
	i(S)				36	
	eP	Z	09	35	55½	Felt Sohano, Int. ?
	i!				36	5°25'S, 154°40'E.
	iP	Z	11	58	01½	U.S.C.G.S. 5°S, 155°E. Solomon Islands. H= 11 57 16
	Dilatation					
	i				02	Felt Namatanai, Int. 5 (M.M.)
	i!				05	3°40'S, 152°25'E. Felt Rabaul, Int. 4 (M.M.) 4°10'S, 152°10'E. Felt Karoola, Int. 3 (M.M.) 5°10'S, 154°35'E. Felt Kokopo, Int. 3 (M.M.) 4°20'S, 152°15'E. Felt Aropa, Int. 3 (M.M.) 6°25'S, 155°50'E. Felt Warangoi, Int. 2-3 (M.M.) 4°30'S, 152°20'E. Felt Londolovit, Int. 2 (M.M.) 3°05'S, 152°40'E. Felt Sohano, Int. 1-2 (M.M.) 5°25'S, 154°40'E.
	iP	Z	13	26	01	Felt Karoola, Int. 3 (M.M.)
	Dilatation					
	i				04	5°10'S, 154°35'E.
	i!				14	Felt Rabaul, Int. 1 (M.M.)
	i!				17	4°10'S, 152°10'E.
	i				24	
	i!				26	
	i(S)				31	

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<u>August 18th.</u>	iP Dilatation	Z	00 58 17	17	Felt Sohano, Int. 1 (M.M.) 5°25'S, 154°40'E.
	iP Dilatation	Z	06 39 27	27	Felt Karoola, Int. 4 (M.M.) 5°10'S, 154°35'E.
	i			29	Felt Aropa, Int. 3 (M.M.)
	i!			30	6°25'S, 155°50'E.
					Felt Sohano, Int. 1 (M.M.) 5°25'S, 154°40'E.
	eP i i (PPP) i i eS eL i i (ScP)	Z	08 43	29 41½ 44 45 48 45 49.0- 49 50	U.S.C.G.S. 12°N, 124°E. Philippine Islands. H= 08 36 57 Mag. 6½ (Strasbourg)
	eP i i! i!	Z	16 01	08 08½ 11½ 13½	B.C.I.S. New Britain, H= 16 00.9m Felt Rabaul, Int. 3 (M.M.) 4°10'S, 152°10'E.
	eP i i i i	Z	21 51	56½ 52 10 32 53	U.S.C.G.S. 50°N, 157°E. North of Kurile Islands. H= 21 42 30 Mag. 6½ (Pas.)
<u>19th.</u>	iP! Compression	Z	00 11	30½	U.S.C.G.S. 4½°S, 153°E. New Britain region. Aftershock. H= 00 11 13 Felt Kiep, Int. 4 (M.M.) 5°10'S, 152°00'E. Felt Rabaul, Int. 4 (M.M.) 4°10'S, 152°10'E. Felt Warangoi, Int. 3-4 (M.M.) 4°30'S, 152°20'E. Felt Tol, Int. 3 (M.M.) 5°00'S, 152°05'E. Felt Pomio, Int. 3 (M.M.) 5°30'S, 151°30'E. Felt Kokopo, Int. 3 (M.M.) 4°20'S, 152°15'E. Felt Ulamona, Int. 2 (M.M.) 5°00'S, 151°15'E.
	iP!	Z	02 42	05	U.S.C.G.S. New Britain region. Aftershock. H= 02 41 14 Felt Karoola, Int. 3 (M.M.) 5°10'S, 154°35'E. Felt Kokopo, Int. 2 (M.M.) 4°20'S, 152°15'E. Felt Rabaul, Int. 1-2 (M.M.) 4°10'S, 152°10'E. Felt Warangoi, Int. 1-2 (M.M.) 4°30'S, 152°20'E.
	iP!	Z	04 04	50½	Felt Warangoi, Int. 1-2 (M.M.) 4°30'S, 152°20'E.
	iP i e e	Z	11 37	25 37½ 40 43	U.S.C.G.S. 10°S, 161°E. Solomon Islands. Foreshock. H= 11 34 36. Mag. 6½ (Pas.)
	eIP	Z	22 23	12	

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<u>August 20th.</u>	iP	Z	06	30	02 $\frac{1}{2}$	U.S.C.G.S. 10°S, 161°E.
	e			32	35	Solomon Islands. Foreshock,
	e				44	H= 06 27 07. Mag. 6-6 $\frac{1}{4}$ (Pas.)
	e			35	13	
	e			37	18	
	Confused by microseisms					
	iP	Z	12	04	40	U.S.C.G.S. 10°S, 161°E.
	i(PP)				57	Solomon Islands. H= 12 01 54
	i			06	40	Mag. 6 $\frac{1}{2}$ (Pas.)
	i				50	
	e			07	50	
	e			12	59	
	e			13	55	
<u>21st.</u>	eP	Z	10	23	18	
	i!				19 $\frac{1}{2}$	
	eP	Z	17	25	23	Felt Buin, Int. 4(M.M.)
	i				29 $\frac{1}{2}$	6°50'S, 155°45'E.
	i			26	24	Felt Aropa, Int. 3(M.M.)
						6°25'S, 155°50'E.
<u>22nd.</u>	eP	Z	08	00	47	U.S.C.G.S. 1°N, 126°E.
	i				49	Molucca Strait. H= 07 55 06
	i			01	04	
	i			02	03	
	eP	Z	15	32	47	U.S.C.G.S. 3°N, 126 $\frac{1}{2}$ °E.
	i				48 $\frac{1}{2}$	Molucca Strait. H= 15 27 10
	eP	Z	16	48	05	U.S.C.G.S. 15°S, 168°E.
	i				09	New Hebrides Islands.
	i				59	H= 16 43 35
	eS			51	38	
	i(PcP)			52	26	
	e	Z	16	59	42	
	eP	Z	18	40	50	B.C.I.S. near 38°N, 87°E.
	i				52	Sinkiang Province, China.
						H= 18 27.3m.
	eP	Z	18	58	37	
	e				59	09
<u>23rd.</u>	eIP	Z	02	00	57	U.S.C.G.S. 6°S, 154 $\frac{1}{2}$ °E.
						Solomon Islands. H= 02 00 09
						h approx. = 60kms. Mag. 6 $\frac{1}{2}$ (Pas.)
						Felt Namatanai, Int. 5 (M.M.)
						3°40'S, 152°25'E.
						Felt Kokopo, Int. 5 (M.M.)
						4°20'S, 152°15'E.
						Felt Rabaul, Int. 5 (M.M.)
						4°10'S, 152°10'E.
						Felt Karoola, Int. 4-5(M.M.)
						5°10'S, 154°35'E.
						Felt Sohano, Int. 4-5(M.M.)
						5°25'S, 154°40'E.
						Felt Warangoi, Int. 4-5(M.M.)
						4°30'S, 152°20'E.
						Felt Londolovit, Int. 4(M.M.)
						3°05'S, 152°40'E.
						Felt Aropa, Int. 4(M.M.)
						6°25'S, 155°50'E.
						Felt Kiep, Int. 3(M.M.)
						5°10'S, 152°00'E.
						Felt Fead Islands, Int. 3(M.M.)
						3°25'S, 154°45'E.

August 23rd. eIP
cont.

Z 02 00 57 Continued.

Felt Ulamona, Int.2 (M.M.)
5°00'S, 151°15'E.
Felt Kieta, Int. 2 (M.M.)
6°15'S, 155°40'E.

eP Z 02 33 07½ Felt Warangoi, Int.1-2 (M.M.)
i! 08 4°30'S, 152°20'E.
Felt Aropa, Int. 1 (M.M.)
6°25'S, 155°50'E.
Felt Sohano, Int. 1 (M.M.)
5°25'S, 154°40'E.

eP Z .11 50 16 U.S.C.G.S. 24°N, 122°E.
i 21 Formosa. H= 11 42 34
Mag. 5¼(Moscow)

eP Z 13 34 35 Felt Rabaul, Int. 2 (M.M.)
i 35½ 4°10'S, 152°10'E.
Felt Warangoi, Int. 1-2 (M.M.)
4°30'S, 152°20'E.

eP Z 16 20 11 B.C.I.S. 0°, 126½°E.
i 13½ Molucca Strait. H= 16 14 30.

24th. eIP Z 01 28 09 Felt Rabaul, Int. 2 (M.M.)
4°10'S, 152°10'E.

eIP Z 01 46 07 + eP Z 01 08 43 B.C.I.S.
i 27 19½°S, 175°W. Tonga Islands
H= 01 01 58

iP! Z 12 14 06
Compression. Deep?

iP! Z 16 58 16
Dilatation. Deep?

iP! Z 17 33 38
i 52½
Compression. Deep?

eP Z 23 05 38
i! 42
i 06 44
Deep?

25th. iP! Z 14 43 16½ Felt Warangoi, Int. 1-2 (M.M.)
i Compression 4°30'S, 152°20'E.
22½

e Z 16 20 20
i 27

iP! Z 18 13 59½
i 14 16
i 18

eP Z 21 18 (36) U.S.C.G.S. 10°S, 111°E. Java.
H= 21 11 45

26th. ePKP Z 11 48 09 U.S.C.G.S. 18°S, 63°W. Bolivia
i H= 11 28 50 Mag.6. -6. (Pas.)
ePP 51 05
ePKS 52 03

ePKP Z 14 17 53 U.S.C.G.S. 2°S, 81°W. Ecuador.
H= 13 58 48. Mag. 6 (Pas.)

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<u>August 26th.</u> <u>cont.</u>	iP Dilatation 1	Z	19 54 17	17	U.S.C.G.S. 5 $\frac{1}{2}$ °S, 154°E. Solomon Islands region. H= 19 53 33. h approx. = 100kms. Felt Londolovit, Int. 3 (M.M.) 3°05'S, 152°40'E. Felt Rabaul, Int. 2 (M.M.) 4°10'S, 152°10'E. Felt Warangoi, Int. 1-2 (M.M.) 4°30'S, 152°20'E. Felt Ulamona, Int. 1 (M.M.) 5°00'S, 151°15'E.
<u>27th.</u>	eP 1 1 1 e(PcP) e(ScS) 1 e	Z	21 02 15	15 16 $\frac{1}{2}$ 20 22 $\frac{1}{2}$ 04 38 11 37	U.S.C.G.S. 25 $\frac{1}{2}$ °S, 178°E. Fiji Is. H= 20 56 29. h approx. = 650kms.
<u>28th.</u>	eP eP iPPP eP	Z	23 22 30	30 23 27 56 $\frac{1}{2}$ 28 50 23 55 45 $\frac{1}{2}$	B.C.I.S. Mariana Islands. Foreshock. H= 23 17.2m. U.S.C.G.S. 21°N, 145°E. Mariana Is. Foreshock. H= 23 22 21. Mag. 5-7(Kiruna) U.S.C.G.S. 21°N, 145°E. Mariana Is. H= 23 50 15.
<u>29th.</u>	eP eP i eP	Z	01 03 19 $\frac{1}{2}$	19 $\frac{1}{2}$ 02 20 50 21 01 16 45 56 $\frac{1}{2}$	U.S.C.G.S. 21°N, 145°E. Aftershock. Mariana Is. H= 00 57 45. B.C.I.S. near 21°N, 145°E. Mariana Is. H= 02 15.3m U.S.C.G.S. Mariana Is. Aftershock. H= 16 40 22
<u>30th.</u>	eP iP eP	Z	16 30 31 $\frac{1}{2}$	31 $\frac{1}{2}$ 20 11 27 $\frac{1}{2}$ 20 50 (48)	U.S.C.G.S. 39°N, 73°E. Tadjikistan. H= 16 17 56 Mag. 5 $\frac{1}{2}$ (Moscow) U.S.C.G.S. 20 $\frac{1}{2}$ °N, 121 $\frac{1}{2}$ °E. Batan Island region. H=20 04 01 Mag. 5-6 (Uppsala) U.S.C.G.S. Mariana Is. Aftershock. H= 20 45 18
<u>31st.</u>	No records.				

The following shocks were reported felt from the Territory:

Date 1957	Reported Time (G.M.T)	Intensity (Mod. Mercalli)	Locality	Lat. South °	Long. East °
Aug. 3rd.	0650	3	Lumi	03 30	142 05
	0655	2	Lumi	" "	" "
	0720	1	Lumi	" "	" "
4th.	0037	2	Karkar Is.	04 40	146 00
	0040	2	Angoram	04 05	144 05
	0042	3-4	Manam Is.	04 05	145 05
	0046	3	Bogia	04 15	144 55
	0220	1	Rabaul	04 10	152 10
	0221	3	Karoola	05 10	154 35
	0224	?	Warangoi	04 30	152 20
5th.	0815	4	Namatanai	03 40	152 25
	0815	1	Aropa	06 25	155 50
8th.	0750	3	Bulolo	07 10	146 40
	0950	3	Bulolo	" "	" "
	0952	2	Awelkon	05 40	147 50
12th.	0000	3	Rabaul	04 10	152 10
13th.	0346	1	Kokoda	08 50	147 45
15th.	c.2200	?	Sohano	05 25	154 40
16th.	0325	5	Namatanai	03 40	152 25
	0325	2	Aropa	06 25	155 50
	0326	3-4	Karoola	05 10	154 35
	0327	2	Kiep	05 10	152 00
	0328	2-3	Londolovit	03 05	152 40
	0327	3	Rabaul	04 10	152 10
	0330	2	Kokopo	04 20	152 15
	0330	2-3	Warangoi	04 30	152 20
	0330	2	Sohano	05 25	154 40
	c. (1400)	3	Karoola	05 10	154 35
	1326	1	Rabaul	04 10	152 10
	1450	3	Namatanai	03 40	152 25
	1449	2	Rabaul	04 10	152 10
	1450	1-2	Warangoi	04 30	152 20
	1610	3	Karoola	05 10	154 35
17th.	0220	1	Aropa	06 25	155 50
	0222	3	Karoola	05 10	154 35
	0222	2	Rabaul	04 10	152 10
	0225	1-2	Warangoi	04 30	152 20
	0225	1	Londolovit	03 05	152 40
	0226	2	Kiep	05 10	152 00
	1207	3	Karoola	05 10	154 35
	1207	1	Rabaul	04 10	152 10
	1200	1	Sohano	05 25	154 40
	1205	2	Ulamona	05 00	151 15
	1332	2	Rabaul	04 10	152 10
	1334	1-2	Londolovit	03 05	152 40

RABOUL OBSERVATORY. Felt shocks for August 1957 (cont) 2.

Date Aug.	Reported Time G.M.T.	Intensity (Mod. Mercalli)	Locality	Lat. south		Long. East	
				o	'	o	'
18th.	0105	1	Sohano	05	25	154	40
	0155	1	Sohano	"	"	"	"
	0225	2	Ulamona	05	00	151	15
	0640	4	Karoola	05	10	154	35
	0640	3	Aropa	06	25	155	50
	0650	1	Sohano	05	25	154	40
	1601	3	Rabaul	04	10	152	10
19th.	0010	3	Pomio	05	30	151	30
	0011	4	Rabaul	04	10	152	10
	0012	3-4	Warangoi	04	30	152	20
	0012	2	Ulamona	05	00	151	15
	0014	4	Kiep	05	10	152	00
	0014	3	Tol	05	00	152	05
	0015	3	Kokopo	04	20	152	15
	0243	3	Karoola	05	10	154	35
	0242	1-2	Rabaul	04	10	152	10
	0245	1-2	Warangoi	04	30	152	20
	(c. 0300)	2	Kokopo	04	20	152	15
	0315	1	Sohano	05	25	154	40
	0406	1-2	Warangoi	04	30	152	20
	21st.	(1625)	4	Buin	06	50	155
1725		3	Aropa	06	25	155	50
22nd.	0152	3	Fead Is.	03	25	154	45
	0158	5	Namatanai	03	40	152	25
	0159	4-5	Karoola	05	10	154	35
	0200	3	Kiep	05	10	152	00
	0200	4-5	Warangoi	04	30	152	20
	0200	4	Aropa	06	25	155	50
	0201	5	Rabaul	04	10	152	10
	0202	4	Londolovit	03	05	152	40
	0203	2	Ulamona	05	00	151	15
	0203	4-5	Sohano	05	25	154	40
	0203	2	Kieta	06	15	155	40
	0207	5	Kokopo	04	20	152	15
	0227	1	Sohano	05	25	154	40
	0233	1	Aropa	06	25	155	50
	0235	1-2	Warangoi	04	30	152	20
	1334	2	Rabaul	04	10	152	10
	1340	1-2	Warangoi	04	30	152	20
24th.	0128	2	Rabaul	04	10	152	10
25th.	1445	1-2	Warangoi	04	30	152	20
26th.	1954	2	Rabaul	04	10	152	10
	1955	1	Ulamona	05	00	151	15
	1956	3	Londolovit	03	05	152	40
	(20)55	1-2	Warangoi	04	30	152	20

MAGNITUDE ESTIMATION: This should be input only from

Date	Time	Station	Instrument	Amplitude	Period	Magnitude	Quality
1961	0100	1					
	0120						
	0140						
	0160						
	0180						
	0200						
	0220						
	0240						
	0260						
	0280						
	0300						
	0320						
	0340						
	0360						
	0380						
	0400						
	0420						
	0440						
	0460						
	0480						
	0500						
	0520						
	0540						
	0560						
	0580						
	0600						
	0620						
	0640						
	0660						
	0680						
	0700						
	0720						
	0740						
	0760						
	0780						
	0800						
	0820						
	0840						
	0860						
	0880						
	0900						
	0920						
	0940						
	0960						
	0980						
	1000						
	1020						
	1040						
	1060						
	1080						
	1100						
	1120						
	1140						
	1160						
	1180						
	1200						



TERRITORY OF PAPUA AND NEW GUINEA
VULCANOLOGICAL OBSERVATORY RABAUL

Seismological Bulletin.

September 1957

September 1st. Nil

2nd. iP Z 00 04 59 U.S.C.G.S. 18°N 147½°E
 Compression Mariana Is. H=23 59 54
 i 05 21 Mag. 5.9 (Uppsala)

eP Z 20 21 19½ B.C.I.S. Solomon Is. region.
 H=20 18.7m
 Record confused by microseisms.

3rd. eP Z 06 10 42½ U.S.C.G.S. 12°S 167°E
 Santa Cruz Is. H=06 06 42.

4th. eP Z 01 35 23½ U.S.C.G.S. 12°S 167°E
 Santa Cruz Is. H=01 31 23

iP! Z 11 24 37 B.C.I.S. New Britain region
 Compression Felt Rabaul, Int. 2(M.M.)
 4°10'S, 152°10'E

iP! Z 12 26 50½ B.C.I.S. Near 4°S, 156½°E
 Compression New Britain. H=12 26.6m
 Felt Rabaul, Int. 3(M.M.)
 4°10'S, 152°10'E

iP! Z 22 14 31 Felt Rabaul, Int. 1-2(M.M.)
 Compression 4°10'S, 152°10'E

iP Z 22 37 24½
 i(S) 53

5th. eP Z 09 29 56.8
 i! 57.1
 i 30 24½
 Deep?

6th. iP Z 01 19 04 B.C.I.S. near 18°N, 146°E
 Confused by microseisms Mariana Is. H=01 14.9m

iP Z 05 45 50
 i 46 09
 i(S) 18½
 i 38

7th. iP Z 06 58 02 U.S.C.G.S. 50°N, 156°E
 Compression Kurile Is. H=06 48 36
 eP Z 10 16 (45) U.S.C.G.S. 51½°N, 178½°W
 confused by microseisms Andreanov Is. H=10 06 47
 Mag. 6-8 (Tacubaya)

iP 19 31 43
 Compression
 i 46
 i 50
 i 57

8th. eP Z 08 44 21 U.S.C.G.S. 2°S, 141°E.
 iPP 30 N. coast of New Guinea
 iPPP 37 H=08 41 26

iP Z 09 33 14 Felt Lae, Int. 3(M.M.)
 i 21 6°45'S, 147°00'E
 i 34½ Felt Awelkon, Int. 1(M.M.)
 i(S) 34 21 5°40'S, 147°50'E.

<u>September 8th.</u>	iP!	Z	13	19	13	U.S.C.G.S. 5°S, 152°E New Britain. H=13 18 55 h approx = 60kms. Felt Kokopo, Int. 5 (M.M.) 4°20'S, 152°15'E Felt Warangoi, Int. 3-4 (M.M.) 4°30'S, 152°20'E Felt Rabaul, Int. 3 (M.M.) 4°10'S, 152°10'E Felt Kiep, Int. 3 (M.M.) 5°10'S, 152°00'E Felt Pomio, Int. 2 (M.M.) 5°30'S, 151°30'E.
<u>9th.</u>	eP	Z	00	23	56	U.S.C.G.S. 48°S, 100°E Indian Ocean H= 00 13 30
	i				58	
	i(PcP)			24	26	
	e			25	04	
	e(PPP)			27	30	
	e(ScS)			33	29	
	i(SSS)			39	26½	
	eP	Z	04	55	(45)	B.C.I.S. 9½°S, 161¾°E Solomon Islands
	e			57	31	
	i(S)			58	04	
	Confused by microseisms					
	e	Z	11	31	12½	
	iP	Z	16	02	49	
	Dilatation					
	i!				51	
	iS!			03	14	
<u>10th.</u>	Nil					
<u>11th.</u>	iP	Z	05	03	42	Felt Pomio, Int. 2 (M.M.) 5°30'S, 151°30'E
	Compression					
	iS				54½	
	iP	Z	14	27	33½	U.S.C.G.S. New Ireland region H= 14 26 45
	i				52½	
	i			28	06½	
	eL				47	
	e			30	41	
	iP	Z	15	09	19½	
	Compression					
	i			10	04½	
	eL				12	
	e			12	18	
<u>12th.</u>	Nil					
<u>13th.</u>	iP	Z	20	17	32½	Deep?
	Dilatation to south-east					
	i				39½	
	iS				55	
	i			18	11	
	i				31	
<u>14th.</u>	eP	Z	06	18	24	U.S.C.G.S. 4°S, 130°E Ceram. H=06 13 20
	Confused by microseisms					
	iP	Z	13	57	48½	U.S.C.G.S. 5½°S, 147°E. Near the north coast of New Guinea H= 13 56 25
	i				56	
	i			58	04	
	i				08	Felt Lae, Int. 4 (M.M.) 6°45'S, 147°00'E.
	i				27	

<u>September 15th.</u>	eP i!	Z	18	42	59 $\frac{1}{2}$ 43 00.3	U.S.C.G.S. 6°S, 153 $\frac{1}{2}$ °E. Solomon Islands, H= 18 42 20 h approx. =150kms. Felt Karoola, Int. 5(M.M.) 5°10'S, 154°35'E. Felt Londolovit, Int.5(M.M.) 3°05'S, 152°40'E. Felt Rabaul, Int. 4(M.M.) 4°10'E, 152°10'E Felt Warangoi, Int. 3-4(M.M.) 4°30'S, 152°20'E. Felt Ulamona, Int. 1-2(M.M.) 5°00'S, 151°15'E. (?Felt Kokopo, Int.5(M.M.) 4°20'S, 152°15'E. ?Felt Kiep, Int. 3(M.M.) 5°10'S, 152°00'E.)
	iP i iS	Z	22	05	32 $\frac{1}{2}$ 39 (06.0)-	Felt Rabaul, Int.1(M.M.) 4°10'S, 152°10'E.
<u>16th.</u>	iP	Z	04	19	57	Felt Kiep, Int. 3(M.M.) 5°10'S, 152°00'E.
	eP iS	Z	12	59	49 (13) 00 26	
<u>17th.</u>	iP i i(S)	Z	21	32	00 $\frac{1}{2}$ 11 $\frac{1}{2}$ (28)	
<u>18th.</u>	e	Z	06	36	06 $\frac{1}{2}$	
	e	Z	07	02	(56)	
<u>19th.</u>	eP	Z	17	08	36 $\frac{1}{2}$	U.S.C.G.S.19°S, 176°W. Tonga Is. H=17 02 02; h approx.= 200kms.
	iP Compression i i i i	Z	19	15	55 $\frac{1}{2}$ 16 01 $\frac{1}{2}$ 19 $\frac{1}{2}$ 19 52 $\frac{1}{2}$ 53 $\frac{1}{2}$	
<u>20th.</u>	e	Z	08	00	51	
	iP	Z	08	34	29 $\frac{1}{2}$	U.S.C.G.S.46°N, 151 $\frac{1}{2}$ °E.Kurile Is. H=08 25 19
	e	Z	17	54	02 $\frac{1}{2}$	
	i	Z	23	17	38.3	
	e(P)	Z	23	18	00	U.S.C.G.S. 52°N, 170 $\frac{1}{2}$ °W. Fox Is. H= 23 07 22
<u>21st.</u>	eP iS	Z	00	19	24 $\frac{1}{2}$ 49	
	eP	Z	15	56	09.5	B.C.I.S. New Zealand H=15 48.7m
	e(PKP) (PP)	Z	20	36	23	U.S.C.G.S. 40 $\frac{1}{2}$ °N, 34 $\frac{1}{2}$ °E. North Turkey.H=20 16 53 Mag.5-7 (Uppsala)
<u>22nd.</u>	Nil					

<u>September 23rd.</u>	iP	Z	09	27	39	U.S.C.G.S. 6°S, 131°E. Banda Sea H= 09 22 36	
	i			28	05		
	i				37½		
	i			29	29		
	iP	Z	11	38	31½	Felt Karoola, Int.2(M.M.) 5°10'S, 154°35'E.	
	i				34½		
	i				38½		
	iS				52½		
<u>24th.</u>	eP	Z	08	26	52½	U.S.C.G.S. 5½°N, 127½°E. Mindanao, H= 08 21 05 Mag. 7¼ (Pas.)	
	i			27	16½		
	iPPP				42		
	e			28	43		
	i			30	01		
	i				52		
	i			31	56		
	iSS			32	43½		
	i(SSS)				56½		
	eScP			33	50		
	e			37	35		
	eScS				45		
	e			59	34		
	eP	Z	09	16	13		U.S.C.G.S. 6°N, 127°E. Mindanao Aftershock. H= 09 10 30.
	e	Z	09	27	09		
		eP	Z	13	00		23
i					23½		
i!					28½		
e(S)		W			49½		
e(P)	Z	17	18	(15)			
	eP	Z	17	44	28		
	i				28½		
	i				29½		
	i				43½		
	eS				50½		
<u>25th.</u>	e	Z	02	19	29½	Confused by microseisms	
	eL			20.4	-		
	eP	Z	04	04	38½	Felt Warangoi, Int.? 4°30'S, 152°20'E.	
	i				39½		
	eS	W		05	02	Felt Londolovit, Int.? 3°05'S, 152°40'E.	
		eP	Z	05	31	38½	
		i				38.7	
		i(S)				50½	
	e	Z	06	15	35½		
		e	Z	06	59	(00)	B.C.I.S. discordant data
i					13½		
eL				59.5	-		
	eP	Z	07	00	08½	B.C.I.S. discordant data	
	eL			00.9	-		
	e			11.1	-		
	Confused by microseisms						

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<u>September 25th.</u> cont.	eP	Z	09	39	(47)	B.C.I.S. New Hanover region.
	i				50 $\frac{1}{2}$	H= 09 38.9m
	iPP				55.4	
	iPPP				59.0	
	e			40	(47)	
	eL			41	04	
	eP	Z	09	59	15 $\frac{1}{2}$	
	i				21 $\frac{1}{2}$	
	i		(10)	00	06 $\frac{1}{2}$	
	eP	Z	10	18	43 $\frac{1}{2}$	Felt Rabaul, Int. 1 (M.M.)
	i				44.0	4°10'S, 152°10'E.
	i				51 $\frac{1}{2}$	
	iS	W			58	
	iP	Z	13	35	41 $\frac{1}{2}$	
	Compression					
	iS				36	00
	e	Z	13	58	(28 $\frac{1}{2}$)	
	eP	Z	14	11	15	B.C.I.S. 2°S, 140°E. Near the
	i				23	north coast of New Guinea.
						H= 14 08.0m
	e	Z	15	33	10	B.C.I.S. Mindanao aftershock
						H= 15 27 18
	eP	Z	16	35	38	B.C.I.S. Mindanao aftershock
	e			42	07	H= 16 29 44
	e			49	27	
	eP	Z	16	42	17	Moscow, 6°N, 127 $\frac{1}{2}$ °E. Mindanao
	i				29.4	H= 16 36 38. Mag. 6 (Uppsala)
	eP	Z	18	05	07	B.C.I.S. Near 15°S, 167°E.
						New Hebrides Islands. H= 18 00.4m
	e(P)	Z	23	40.0	-	U.S.C.G.S. 5 $\frac{1}{2}$ °N, 127 $\frac{1}{2}$ °E.
						Mindanao. H= 23 33 30.
<u>26th.</u>	e	Z	02	38	05	U.S.C.G.S. 5°N, 127°E. Mindanao.
						H= 02 32 01
	eP	Z	10	13	27 $\frac{1}{2}$	U.S.C.G.S. 300kms south of
	i				40	Mindanao. H= 10 07 42.
	eP	Z	10	27	20	B.C.I.S. Mindanao. H= 10 22 33
	iP	Z	12	10	35	U.S.C.G.S. 39 $\frac{1}{2}$ °S, 174 $\frac{1}{2}$ °E.
	i			11	02 $\frac{1}{2}$	New Zealand. H= 12 03 01
	i				08	h= 150kms. Mag. 6.0 (Wellington)
	i				41	
	iPP			12	33	
	iPPP			13	08	
	iP	Z	12	16	17 $\frac{1}{2}$	Deep?
	i!				18	
	i				25 $\frac{1}{2}$	
	i			17	21	
	eP	Z	14	26	35	B.C.I.S. Mindanao. H= 14 20 50
	iP	Z	18	24	25	
	Compression					
	eP	Z	18	52	29	U.S.C.G.S. 3°N, 126 $\frac{1}{2}$ °E. Mindanao.
	i				40	H= 18 46 47. Mag. 6.0 (Uppsala)
	i				45	
	i			54	47 $\frac{1}{2}$	

<u>September 26th.</u>	e(P)	Z	19	06	22	
cont.	iP	Z	20	31	45	
	Dilatation					
	i				49 $\frac{1}{2}$	
	i				54	
	i		32		15	
	eS				23	
<u>27th.</u>	iP	Z	04	13	54	U.S.C.G.S. 1°S, 127°E. Molucca
	i			16	30	Sea. H= 04 08 23. Mag.6.2(Uppsala)
	e(S)			18	27	
	eScP			21	09	
	Confused by blasting					
	iP	Z	04	24	14 $\frac{1}{2}$	U.S.C.G.S. 1°S, 127 $\frac{1}{2}$ °E.
	i				41	Molucca Sea. Aftershock.
	iPP				50	H= 04 18 49
	iP	Z	05	10	09	U.S.C.G.S. 6 $\frac{1}{2}$ °N, 178°E.
						North Siberia. H= 04 58 52.
	e(P)	Z	05	39	05	
	iP	Z	06	02	18 $\frac{1}{2}$	U.S.C.G.S. 1°S, 127°E. Molucca
	i				30	Sea. Aftershock. H= 05 56 50
	i				54	
	i(PP)		03		04	
	e				35	
	i		08		55	
	iP	Z	14	29	01	U.S.C.G.S. 18°N, 121°E. Luzon.
						H= 14 21 43
	iP	Z	18	54	15.6	J.M.A. 33 $\frac{3}{4}$ °N, 136 $\frac{3}{4}$ °E. Honshu.
						H= 18 47 21. h approx= 360kms.
<u>28th.</u>	iP	Z	00	34	05	U.S.C.G.S. 30 $\frac{1}{2}$ °N, 137 $\frac{1}{2}$ °E.
	i				32 $\frac{1}{2}$	Honshu., H= 00 27 31, h approx =
	i(S)		39		15	500kms. Mag. 6 $\frac{3}{4}$ (Pas)
	i(ScP)				23	
	e(ScS)		43		25	
	iP	Z	02	54	13	
	iP	Z	04	15	21	U.S.C.G.S. 3°S, 135 $\frac{1}{2}$ °E. Near the
	iPPP				43	north coast of New Guinea
	i				54	H= 04 11 23
	i		16		11	
	i				17	
	eP	Z	14	25	49	U.S.C.G.S. 20 $\frac{1}{2}$ °S, 178°W. Fiji Is.
	i				50	H= 14 20 00. h approx = 650kms
	i				51	Mag.7 $\frac{1}{2}$ (Pas)
	i				54	
	i!pP		27		31	
	i!(Pcp)		28		20 $\frac{1}{2}$	
	i		30		06	
	i(S)				22	
	i(ScP)		31		09	
	i(PcS)		32		14	
	e(SS)		34		13	
	e(ScS)		35		09	
	eL		41		-	

<u>September 28th.</u>	eP	Z	14	49	53	U.S.C.G.S. 20 $\frac{1}{2}$ ^o S, 178 $\frac{1}{2}$ ^o W.
	i				57	Fiji Islands. H= 14 44 02
	i(PcP)			52	22	Aftershock. h approx. = 600kms.
	eS			54	31	
	i			56	15	
	e				58	
	e		(15)	04	17	
	e			07	25	
	e	Z	16	10	39	
	eP	Z	17	38	17	
	i				17.7	
	i				26	
	e	Z	18	30	47 $\frac{1}{2}$	
	iP	Z	21	08	00 $\frac{1}{2}$	U.S.C.G.S. 17 $\frac{1}{2}$ ^o S, 146 ^o E.
	i				41	Mariana Islands. H= 21 03 18
						h approx. = 200kms.

The records for 28th September are not available for further study.

<u>29th.</u>	eP	Z	02	19	36	(B.C.I.S.) 64 $\frac{1}{2}$ ^o S, 172 $\frac{1}{2}$ ^o W South Pacific
	iP	Z	06	43	18 $\frac{1}{2}$	U.S.C.G.S. 0 ^o , 124 ^o E. Celebes. H= 06 37 33. h approx = 200kms
	iP	Z	08	19	12.5	U.S.C.G.S. 25 ^o S, 178 $\frac{1}{2}$ ^o E. Fiji Is. H= 08 13 22. h approx. = 600kms
	Dilatation					Mag. 6 $\frac{1}{4}$ (Berk.)
	i!				14 $\frac{1}{2}$	
	i				54 $\frac{1}{2}$	
	e			20	50	
	iPP			21	41	
	i				49	
	i			22	27	
	i				52	
	i			23	39	
	iS				56	
	i!ScP			24	34	
	i			28	39	
	i			41	36	
	i			46	16	
	eP	Z	10	18	06	
	i				07	
	i				32 $\frac{1}{2}$	
	iP	Z	13	40	30.7	
	e				43	
	i				44	
	i			49	05 $\frac{1}{2}$	
	e	Z	16	01	18	
	eP	Z	17	40	11	B.C.I.S. 4 ^o N, 126 $\frac{1}{4}$ ^o E. Mindanao.
	i			41	08	H= 17 34 16
<u>30th.</u>	e(P)	Z	11	31	45 $\frac{1}{2}$	
	eP	Z	12	12	06	U.S.C.G.S. 1 $\frac{1}{2}$ ^o S, 126 $\frac{1}{2}$ ^o E. Molucca Sea. H= 12 06 43

The following shocks were reported felt from the Territory:

Date 1957	Reported Time (G.M.T)	Intensity (Mod. Mercalli)	Locality	Lat. South o ' "	Long. East o ' "
Sept. 1st.	2224	2	Awelkon	05 40	147 50
4th.	0930	1	Awelkon	05 40	147 50
	1124	2	Rabaul	04 10	152 10
	1226	3	Rabaul	" "	" "
	2214	1-2	Rabaul	" "	" "
7th.	1518	3	Lae	06 45	147 00
8th.	0932	3	Lae	06 45	147 00
	0935	1	Awelkon	05 40	147 50
	1319	3	Rabaul	04 10	152 10
	1320	3	Kiep	05 10	152 00
	1320	3-4	Warangoi	04 30	152 20
	1320	2	Pomio	05 30	151 30
	13(3)0	5	Kokopo	04 20	152 15
	1(4)40	2-3	Warangoi	04 30	152 20
	(?1540)				
11th.	0502	2	Pomio	05 30	151 30
14th.	1357	4	Lae	06 45	147 00
15th.	1(6)55	3	Kiep	05 10	152 00
	(1700)	5	Kokopo	04 20	152 15
	1843	5	Karoola	05 10	154 35
	1843	4	Rabaul	04 10	152 10
	1844	3-4	Warangoi	04 30	152 20
	1845	5	Londolovit	03 05	152 40
	1845	1-2	Ulamona	05 00	151 15
	2205	1	Rabaul	04 10	152 10
16th.	0418	3	Kiep	05 10	152 00
(18th) (?19th)	1123	2	Kiep	05 10	152 00
23rd.	1141	2	Karoola	05 10	154 35
25th.	0406	?	Londolovit	03 05	152 40
	0407	?	Warangoi	04 30	152 20
	1018	1	Rabaul	04 10	152 10

TERRITORY OF PAPUA AND NEW GUINEA

VULCANOLOGICAL OBSERVATORY RABAU

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Oct. 1st.	iP	Z	07	13	15	U.S.C.G.S. 5 $\frac{1}{2}$ ⁰ S, 155 ⁰ E. Solomon Islands. H= 07 12 26 h approx. = 100kms. Felt Londolovit, int.1-2 (M.M.) 3 ⁰ 05'S, 152 ⁰ 40'E. Felt Rabaul, Int. 1(M.M.) 04 ⁰ 10'S, 152 ⁰ 10'E.
	eIP	Z	21	10	55 $\frac{1}{2}$	
	i!			11	02 $\frac{1}{2}$	
	i(S)				(18 $\frac{1}{2}$)	
2nd.	eP	Z	01	54	09 $\frac{1}{2}$	B.C.I.S. 2 $\frac{1}{2}$ ⁰ S, 126 $\frac{3}{4}$ ⁰ E. Molucca Sea. H= 01 48 39
	i				11	
	eP	Z	11	30	47	U.S.C.G.S. 5 $\frac{1}{2}$ ⁰ N, 127 ⁰ E. Mindanao. H= 11 25 02
	i			31	08 $\frac{1}{2}$	
	eP	Z	12	47	35 $\frac{1}{2}$	(B.C.I.S. Insufficient data)
	i				36	
	i			48	00 $\frac{1}{2}$	
	i				30 $\frac{1}{2}$	
3rd.	eP	Z	06	02	38	U.S.C.G.S. 4 ⁰ S, 134 ⁰ E. New Guinea H= 05 58 12. Mag.6-6 $\frac{1}{4}$ (Matsushiro)
	i!				44 $\frac{1}{2}$	
	iPP				55 $\frac{1}{2}$	
	i				59	
4th.	eP ^{KP}	Z	05	45	40 $\frac{1}{2}$	U.S.C.G.S. 11 ⁰ N, 63 ⁰ W. Venezuela. Confused by microseisms H= 05 26 09. h approx. = 60kms. Mag. 7 $\frac{1}{4}$ (Matsushiro)
	iP!	Z	16	51	28 $\frac{1}{2}$	B.C.I.S. South of Tonga Islands. Dilatation to south Data rather inconclusive east
	i				30 $\frac{1}{2}$	
	e				43 $\frac{1}{2}$	
	i				47	
5th.	Nil					
6th.	eP	Z	21	37	09 $\frac{1}{2}$	U.S.C.G.S. 49 $\frac{1}{2}$ ⁰ N, 155 ⁰ E. North of Kurile Islands H= 21 27 51. h approx. = 60kms.
7th.	eP	Z	07	32	15	U.S.C.G.S. 7 ⁰ S, 155 ⁰ E. Solomon Is. H= 07 31 14. h approx. = 150kms.
	i!				22 $\frac{1}{2}$	
	i!				40	
	i				51 $\frac{1}{2}$	
	i(S)			33	13	
	i!				16	
	iP!	Z	12	14	57	
	Compression					
	iS			15	28	
	i!				44	
	eP	Z	13	29	32	U.S.C.G.S. 51 ⁰ N, 159 ⁰ E. Kamchatka. H= 13 19 45. Mag. 6.5 (Uppsala)
8th.	Nil					
9th.	Nil					

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Oct. 10th.	iP	Z	04	54	18½	
	iS			55	09½	
	eP	Z	10	57	50½	
	eL			58.4	-	
	iP	Z	11	02	16	
	i				26	
	eP	Z	11	10	15½	
	i				28½	
	eL			11.8	-	
	eP	Z	13	57	29½	
	i				39½	
	i				43	
	eL			58.9	-	
	eP	Z	14	22	(18½)	B.C.I.S 3¼°S, 146°E. Off the
	i(PP)				27½	north-east coast of New Guinea
	eL			23.6	-	H= 14 20 55
	iP	Z	16	50	26	
	Dilatation					
	i				32½	
	i				42½	
11th.	Nil					
12th.	i(P)	Z	17	39	36.4	U.S.C.G.S. 14°N, 145°E. Mariana Is. H= 17 35 26. h approx = 100kms.
	eP	Z	19	04	54	U.S.C.G.S. 8°S, 111°E. Java.
	i			05	12½	H= 18 57 02. Mag.6(Matsushiro)
	i				24½	
	iPP			06	33½	
	iP!	Z	19	51	46	Felt Warangoi, Int.2(M.M.)
	Compression from south-south east					4°30'S, 152°20'E. Felt Rabaul, Int. 2(M.M.) 4°10'S, 152°10'E.
	eP	Z	22	04	(24½)	B.C.I.S. 3°S, 146½°E. Near the
	i				42½	north coast of New Guinea
	i			05	23½	H= 22 03 02
	eL			05.8	-	
	iP	Z	22	39	(44.5)	
	i				50½	
	eL				41.5	
13th.	eP	Z	04	29	09½	U.S.C.G.S. and B.C.I.S. 52½°N, 160°E. Kamchatka. H= 04 19 17. Mag. 6½ (Matsushiro)
	eP	Z	20	42	41	U.S.C.G.S. 60°S, 151°E.
	e			43	57	Antarctic Ocean. H= 20 33 01.
	i			44	57	Mag. 6¾(Strasbourg)
	iP!	Z	23	06	16½	
	Compression					
	i!				28	
	iS!				35	
	i				43	
	i!		07		08	
	i				13	

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-3-

October 14th.	eP 1 Deep	Z	00 29	46 46.5	
	eP	Z	12 49	28	B.C.I.S. Santa Cruz Islands. H= 12 46.0m. approx. =60kms.
15th.	iP	Z	06 04	39	U.S.C.G.S. 30°S, 179°W. Kermadec Islands. H= 05 55 21 h approx. = 150kms.
	iP Dilatation i! i!	Z	14 22	10½ 12½ 16½	Felt Rabaul, Int. 1 (M.M.) 4°10'S, 152°10'E.
	iP! Dilatation to west-south- west	Z	23 02	00.5	Felt Rabaul, Int. 1 (M.M.) 4°10'S, 152°10'E.
16th.	Nil				
17th.	eP	Z	14 28	49½	U.S.C.G.S. 31°N, 141½°E. Honshu. H= 14 21 44
18th.	iP Dilatation i	Z	07 41	42 42½	U.S.C.G.S. New Britain region H= 07 41 02 Felt Rabaul, Int. 1(M.M.) 4°10'S, 152°10'E.
	i	Z	08 03	16	
	e	Z	17 28	(47)	
	eP i i eL	Z	19 00 01	46½ 22 40½	B.C.I.S. 2½°S, 146½°E. New Guinea, Admiralty Islands. H= 18 59 15
	eP	Z	19 14	29½	U.S.C.G.S. 22°S, 172°E. Loyalty Islands region. H= 19 08 53
19th.	eP	Z	15 50	46½	
	iP Dilatation e iPP i eS i	Z	18 36 37 38	36.0 15½ 15	U.S.C.G.S. 23½°N, 122°E. Formosa. H= 18 28 50 Mag. 7 (Moscow)
	iP e e	Z	21 50 51	32½ 01½ 16½	U.S.C.G.S. 44½°N, 146°E. Hokkaido. H= 21 41 59 h approx. = 150kms. Mag. 6½-6¾ (Pas.)
20th.	ePKP iPKP iPKS	Z	12 25 28	27 22½ 40.0	U.S.C.G.S. 11½°N, 42°W. Atlantic Ridge. H= 12 04 22
	iP i	Z	19 57	25 33½	
21st.	eP iPP	Z	00 21	08½ 31.4	U.S.C.G.S. 11°S, 167°E. Santa Cruz Islands H= 00 17 25 h approx. = 100kms.
	iP i	Z	10 05	18½ 49½	

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October 21st. iP Z 12 03 36.2
cont.

22nd. iP Z 07 28 01.9

iP Z 20 53 18.5 U.S.C.G.S. 43 $\frac{1}{2}$ ^oN, 146^oE.
i 31.5 Hokkaido. H= 20 44 38
i 40
e(PPP) 55 53

23rd. i(P) Z 12 21 20 $\frac{1}{2}$ (U.S.C.G.S. Kermadec Islands
H= 12 13 36)

iP Z 20 32 05 $\frac{1}{2}$

24th. eP Z 00 22 04 U.S.C.G.S. 14 $\frac{1}{2}$ ^oS, 168^oE.
e 55 New Hebrides Islands
i 23 38 H= 00 17 37. Mag. 6 $\frac{1}{2}$ (Pas.)

eP Z 03 16 31
e(S) 17 11
No records after 0800 hours

25th. No records.

26th. eP Z 04 36 52 U.S.C.G.S. 0^o, 125^oE.
i 53 Molucca Strait. H= 04 31 03

eP Z 08 32 05 U.S.C.G.S. 20 $\frac{1}{2}$ ^oS, 178^oW.
i 06 Fiji Islands. H= 08 26 12.
e 33 27 h approx. = 600kms.
iPcP 34 34 Mag. 6-6 $\frac{1}{4}$ (Pas.)
e(S) 36 45
eScS 41 27

e(P) Z 08 41 (27)

eP Z 12 58 07
i! 07.7 G.
iS 56

eP Z 14 24 06 U.S.C.G.S. 2^oS, 116^oE. Borneo.
i 07 H= 14 16 57. Mag. 6.3(Uppsala)
i 12 $\frac{1}{2}$
i 35
i(PP) 25 22 $\frac{1}{2}$
i(PPP) 43
e 26.1 -

eP Z 16 49 32

27th. iP Z 00 50 42
e 52 19

eP Z 07 29 26 Deep
i! 27

iP! Z 20 08 22
Dilatation

iP Z 22 42 36 U.S.C.G.S. 56^oN, 161^oE.
i 43 08 Kamchatka. H= 22 32 25
i 47 Mag. 6 $\frac{1}{2}$ - 6 $\frac{3}{4}$ (Pas.)

iP Z 22 59 48.9 U.S.C.G.S. 11 $\frac{1}{2}$ ^oS, 166 $\frac{1}{2}$ ^oE.
e (23) 02 57 Santa Cruz Islands.
e(SS) 03 59 H= 22 56 55
e 12 03

October 28th.	i(P)	Z	06	15	05 $\frac{1}{2}$	
	eP	Z	10	12	44 $\frac{1}{2}$	
	iS			13	07 $\frac{1}{2}$	
	iP	Z	13	46	43 $\frac{1}{2}$	
	Dilatation					
	iS			47	24 $\frac{1}{2}$	
	eP	Z	14	04	52 $\frac{1}{2}$	
	e			05	23 $\frac{1}{2}$	
	eP	Z	15	56	(09 $\frac{1}{2}$)	
29th.	eP	Z	00	18	57	U.S.C.G.S. 53 $\frac{1}{2}$ ^o N, 160 ^o E. Kamchatka. H= 00 09 07
	eP	Z	02	28	41	U.S.C.G.S. 2 ^o S, 116 ^o E. Borneo. H= 02 21 30
	iP	Z	06	48	25	
	eP	Z	10	06	10	
	i(S)				19 $\frac{1}{2}$	
	i(P)	Z	12	29	50.1	
	iP	Z	14	11	00	
	Compression					
	i!				05	
	i(S)!				10	
	iP	Z	16	15	09 $\frac{1}{2}$	Felt Warangoi, Int. 1-2. (M.M.) 04 ^o 30'S, 152 ^o 20'E.
	Compression					
	iS				18	
	iP	Z	17	15	03	
	e(P)	Z	18	23	04	
	iP!	Z	20	02	56	Felt Pomio, Int. 3 (M.M.) 5 ^o 30'S, 151 ^o 30'E.
	Compression from south-south east.					Felt Rabaul, Int. 1 (M.M.) 4 ^o 10'S, 152 ^o 10'E.
30th.	iP	Z	02	23	42.5	U.S.C.G.S. 53 ^o N, 167 ^o W. Fox Is. H= 02 13 08
	iP	Z	03	38	59 $\frac{1}{2}$	
	iS			39	18	
	e(PKP)	Z	07	50	(40)	B.C.I.S. 35 ^o 3'N, 27 ^o 8'E. Dodecanese Islands. H= 07 30 18 Mag. 5.7(Uppsala)
	iP	Z	15	05	19	
	iS				38	
	iP	Z	15	58	09	
	Dilatation to south-south-east					
	eP	Z	17	12	05	
31st.	iP	Z	04	26	28	U.S.C.G.S. 8 ^o S, 161 ^o E.
	i(PP)				33.9	Solomon Islands. H= 04 24 04
	e			29	25	

October 31st.
cont.

ePKP		10	27	02	U.S.C.G.S. $6\frac{1}{2}^{\circ}$ N, 83° W. Panama. H= 10 07 54 Mag. 7 (Tacubaya)
eP e(S)	Z	10	30	22 $\frac{1}{2}$ 33 01	B.C.I.S. Santa Cruz Islands H= 10 26 52
eP e	Z	13	33	47 36 18	
ePKP	Z	16	43	18	U.S.C.G.S. $1\frac{1}{2}^{\circ}$ N, 86° W. Galapagos Islands H= 16 24 17 Mag. 5.8 (Tacubaya)

The following shocks were reported felt during October 1957:

Date 1957	Reported Time G.M.T.	Intensity (Mod. Mercalli)	Locality	Lat. South °	'	Long. East °	'
Oct. 1st	0713		Rabaul	04	10	152	10
	0714	1-2	Londolovit	03	05	152	40
3rd.	1230	2	Wewak	03	35	143	40
12th.	1951	1	Rabaul	04	10	152	10
	1955	2	Warangoi	04	30	152	20
15th.	1422	1	Rabaul	04	10	152	10
	2302	1	"	"	"	"	"
18th.	0741	1	Rabaul	04	10	152	10
29th.	0600	1-2	Linga Linga	05	35	149	45
	1615	1-2	Warangoi	04	30	152	20
	2000	3	Pomio	05	30	151	30
	2002	1	Rabaul	04	10	152	10

October 1962

The following sheets were reported to be missing (1962):

Date	Reported Time	Latitude	Longitude	Depth	Mag.	Station
1962	0717	01	182	10	4.1	182
1962	0815	02	182	00	4.1	182
1962	1730	08	38	08	4.4	38
1962	1922	07	30	07	4.1	30
1962	1952	04	30	04	4.2	30
1962	2305	04	30	04	4.2	30
1962	2343	04	30	04	4.2	30
1962	0600	03	30	03	4.1	30
1962	1113	04	30	04	4.2	30
1962	2000	02	30	02	4.1	30
1962	2005	04	30	04	4.2	30





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Nov. 1st.	i	Z	09	42	41½	
	iP	Z	18	08	27½	
	Compression					
	iS!				50	
	iP	Z	18	10	14	Aftershock of the preceding
	iS				36	
	eP	Z	19	09	54	
2nd.	iP	Z	01	11	12	
	iP	Z	05	25	27	
	i	Z	11	00	30	
	iP	Z	13	04	00	
	i(S)				36	
	iP	Z	14	55	42	Distant
	e			56	34½	
	eP	Z	16	22	40	U.S.C.G.S. 6°N, 127½°E. Mindanao H= 16 16 52. Mag. 6.1(Quetta)
	iP	Z	18	17	35	
	iS				44	
	eP	Z	18	34	29	U.S.C.G.S. 13°S, 166½°E.
	i			36	25½	New Hebrides Islands. H= 18 30 24
	e(SS)			38	01	Mag. 6.4 (Kiruna)
	i(SSS)				15½	
	i(ScP)			42	45	
	(PcS)					
	eScS			46	28	
	i(P)	Z	21	33	00	
	iP	Z	21	47	54	
	iS			48	02	
3rd.	iP	Z	10	26	23	U.S.C.G.S. 6°S, 147°E. Near the
	i(PPP)				41	north east coast of New Guinea.
	e(S)			27	45	H= 10 24 51. Mag. 5½ (Matsushiro)
	i				50	Felt Camp Diddy, Int. 6(M.M.)
	i(SS)				56	6°30'S, 146°50'E.
	i			28	05	Felt Lae, Int. 5(M.M.)
	i				28½	6°45'S, 147°00'E.
	i			30	29	Felt Mumeng, Int. 2(M.M.)
						7°00'S, 146°35'E.
						Felt Wau, Int. 1(M.M.)
						7°20'S, 146°45'E.
	iP	Z	11	16	03	U.S.C.G.S. 6½°S, 147°E. Near the
	e(S)			17	(21)	north east coast of New Guinea
	i(SS)				35	H= 11 14 30. Mag. 5½-5½(Matsushiro)
	i(SSS)				43	Felt Camp Diddy, Int. 7(M.M.)
	i			18	09	6°30'S, 146°50'E.
						Felt Lae, Int. 4(M.M.)
						6°45'S, 147°00'E.
						Felt Mumeng, Int. 2(M.M.)
						7°00'S, 146°35'E.
	iP	Z	15	50	20	

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3rd. cont.	iP	Z	17	54	04 $\frac{1}{2}$		
	Dilatation						
	i(S)!				13		
	i				31		
	i!				34		
					40		
					49 $\frac{1}{2}$		
	e(P)	Z	18	13	41		
	e(P)	Z	19	08	(29)		
4th.	iP	Z	01	07	36 $\frac{1}{2}$		
	i(S)				45 $\frac{1}{2}$		
	iP	Z	01	10	29		
	i	Z	02	38	49		
	i	Z	03	40	20		
	eP	Z	10	57	46		
	i			58	13		
	e			59	26		
	iP	Z	11	03	23		
	iP	Z	13	48	13		
	i				29		
	iP	Z	21	57	22		
	iS				30		
	5th.	e	Z	00	40	(58)	B.C.I.S. 14 ⁰ N, 124 ⁰ E. Philippine Is. H= 00 34 10
		eP	Z	09	58	12	U.S.C.G.S. 13 ⁰ S, 169 ⁰ E.
i					12 $\frac{1}{2}$	New Hebrides Islands. H= 09 54 29	
i!					18 $\frac{1}{2}$	h approx. = 650 kms.	
i!					22	Mag. 6 $\frac{1}{4}$ (Matsushiro)	
iS			(10)	01	10		
e(ScS)				08	33		
iP!		Z	11	19	28	U.S.C.G.S. 6 ⁰ S, 150 ⁰ E. New Britain.	
Compression					H= 11 18 43		
i!					30 $\frac{1}{2}$	Felt Ulamona, Int. 1 (M.M.)	
						5 ⁰ 00'S, 151 ⁰ 15'E.	
iP		Z	15	02	17	Dilatation	
i!					19		
eP		Z	15	18	48		
i					50		
iS			19	12			
iP	Z	15	23	14			
iS				23			
iP!	Z	20	44	26			
6th.	iP	Z	00	42	33	B.C.I.S. near 5 ⁰ S, 154 ⁰ E.	
	i				36	Solomon Islands region. H=00 41.7	
						Felt Karoola, Int. 3(M.M.)	
					5 ⁰ 10'S, 154 ⁰ 35'E.		
	e	Z	11	23	(54)		
	eP	Z	13	21	(36)	U.S.C.G.S. 45 ⁰ N, 149 $\frac{1}{2}$ ⁰ E. Kurile Is. region. H= 13 12 53. Mag.6.3(Quetta)	

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6th. cont.	iP	Z	15	33	27 $\frac{1}{2}$	
	i(S)				36	
	e(P)	Z	15	46	(51)	
	iS			47	55 $\frac{1}{2}$	
7th.	eP	Z	04	31	(51)	
	i			32	36	
	eP	Z	19	33	39	
	i				48	
	eS			34	14	
	i	Z	23	27	08	
8th.	iP	Z	02	47	16	U.S.C.G.S. 5 $\frac{1}{2}$ °S, 155°E. Solomon Is. region. H= 02 46 22. Felt Karoola, Int. 3(M.M.) 5°10'S, 154°35'E. Felt Warangoi, Int. 1-2(M.M.) 4°30'S, 152°20'E. Felt Rabaul, Int. 1(M.M.) 4°10'S, 152°10'E.
	i(P)	Z	06	23	42	B.C.I.S. 0°, 121 $\frac{1}{2}$ °E. Celebes Islands h= 06 17 33
	iP	Z	12	20	51 $\frac{1}{2}$	
	i				21	00
	iP	Z	17	57	10	
	i					14
	i					21
	eS					39
	iP	Z	18	45	38	
	9th.	iP	Z	16	50	27
i					45	
iS!					51	01
iP		Z	19	11	21	U.S.C.G.S. Solomon Islands region. H= 19 10 39. h approx. = 150 kms.
i!					24	
i					26	
i!					35 $\frac{1}{2}$	
e(S)!					57	
10th.	eP	Z	02	37	26	U.S.C.G.S. 7°S, 155 $\frac{1}{2}$ °E. Solomon Is. H= 02 36 21 Mag. 6.5 (Quetta)
	i!				46	Felt Aropa, Int. 3(M.M.)
	i!				49	6°25'S, 155°50'E. Felt Buin, Int. 3(M.M.) 6°50'S, 155°45'E.
	eP	Z	03	45	03	U.S.C.G.S. 7 $\frac{1}{2}$ °S, 155 $\frac{1}{2}$ °E. Solomon Islands. H= 03 43 49 Mag. 6.2 (Quetta)
	i!				14	Felt Aropa, Int. 4(M.M.) 6°25'S, 155°50'E. Felt Buin, Int. 3(M.M.) 6°50'S, 155°45'E.
	eP	Z	04	40	27	Felt Buin, Int. 1(M.M.)
	i!					36 $\frac{1}{2}$
	i!					39 $\frac{1}{2}$
	iS				41	35

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10th. cont.	eP i i i(S) i i	Z	05	50 28 37 47 51 52 53	28 37 47 51 34 19	U.S.C.G.S. 6 $\frac{1}{2}$ ⁰ S, 147 ⁰ E. Near the north east coast of New Guinea. H= 05 48 57 Mag. 6.5 (Quetta) Felt Camp Diddy, Int. (M.M.) 6 ⁰ 30'S, 146 ⁰ 50'E. Felt Lae, Int. 5 (M.M.) 6 ⁰ 45'S, 147 ⁰ 00'E. Felt Mameng, Int. 2(M.M.) 7 ⁰ 00'S, 146 ⁰ 35'E. Felt Wau, Int. 2(M.M.) 7 ⁰ 20'S, 146 ⁰ 45'E.
	eP i i(S) i!1	Z	06	07 08 09	55 02 $\frac{1}{2}$ 56 10	Felt Buin, Int. 1(M.M.) 6 ⁰ 50'S, 155 ⁰ 45'E.
	iP e(S) e	Z	08	22 23 24	54 57 04 $\frac{1}{2}$	
	eP i i(S)	Z	08	44 45	11 18 18	U.S.C.G.S. 7 $\frac{1}{2}$ ⁰ S, 156 $\frac{1}{2}$ ⁰ E. Solomon Is. H= 08 42 50 Felt Aropa, Int. 1(M.M.) 6 ⁰ 25'S, 155 ⁰ 50'E.
	eP i i(S) i i	Z	10	04 05	09 30 12 24 30	Felt Aropa, Int. 1 (M.M.) 6 ⁰ 25'S, 155 ⁰ 50'E.
	ePKP e e	Z	10	40 44	31 03 32	U.S.C.G.S. 8 ⁰ N, 74 $\frac{1}{2}$ ⁰ W. Colombia. H= 10 21 14.
	eP e(S) i	Z	11	33 34	41 41 55	
	eP i(S) i i	Z	14	45 47	46 07 11 17	
	eP i e(S)	Z	15	36 37	44 53 56	
	eP e(S) i i i	Z	15	43 44 45	42 37 43 $\frac{1}{2}$ 48 $\frac{1}{2}$ 03 $\frac{1}{2}$	Felt Buin, Int. 1(M.M.) 6 ⁰ 50'S, 155 ⁰ 45'E.
	eP i(S) i i e	Z	16	38 39 40	(15) 19 28 34 14	Felt Lae, Int. 3(M.M.) 6 ⁰ 45'S, 147 ⁰ 00'E.
	eP	Z	18	08	46	U.S.C.G.S. 2 ⁰ S, 116 ⁰ E., Borneo. H= 18 01 37
	eP i iS	Z	18	25 26 27	50 54 01	
	eP	Z	19	27	43	U.S.C.G.S. 34 ⁰ N, 139 $\frac{1}{2}$ ⁰ E. Honshu. H= 19 20 05. Mag. 6.6(Matsushiro)

10th. cont.	eP	Z	19	38	27	B.C.I.S. Honshu. Aftershock. H= 19 30.5m	
	eP	Z	19	49	48		
	eS			50	59		
	eP	Z	20	00	06	B.C.I.S. Honshu. Aftershock. H= 19 53 07 Mag. 5.5 (Matsushiro)	
	iP iS	Z	22	04	21 $\frac{1}{2}$ 56	Felt Buin, Int. 2 (M.M.) 6°50'S, 155°45'E.	
eP e(S) i i	Z	22	51	21 52 36 42			
11th.	iP i iS i!	Z	01	54	29 $\frac{1}{2}$ 47 $\frac{1}{2}$ 59 $\frac{1}{2}$ 06 $\frac{1}{2}$	(Felt Lindenhafen, Int. 4 (M.M.) 6°10'S, 150°35'E. Reported as 0125 hours)	
	iP! i i	Z	06	04	41 19 $\frac{1}{2}$ 30 $\frac{1}{2}$	Dilatation to north-west. Deep?	
	iP iS! i! i	Z	07	48	58 $\frac{1}{2}$ 28 $\frac{1}{2}$ 30 $\frac{1}{2}$ 35 $\frac{1}{2}$	Dilatation	
	e	Z	11	50	01		
	i(P)	Z	12	06	17		
	iP	Z	14	47	57		
	eP i	Z	17	33	11 $\frac{1}{2}$ 12		
	eP iS i	Z	18	30	02 $\frac{1}{2}$ 31 07 28		
	i(P)	Z	22	54	27		
	12th.	eP i i!	Z	01	32	30 $\frac{1}{2}$ 33 $\frac{1}{2}$ 34	U.S.C.G.S. 6°S, 149 $\frac{1}{2}$ °E. New Britain. H= 01 31 40. Mag. 5 $\frac{3}{4}$ (Matsushiro) Felt Kandrian, Int. 2-3 (M.M.) 6°15'S, 149°35'E. Felt Walindi, Int. 2 (M.M.) 5°25'S, 150°05'E.
		iP! eS	N	07	00	40 $\frac{1}{2}$ 01 08 $\frac{1}{2}$	
		iP	Z	15	34	51.8	
iP i		Z	15	46	30 33		
13th.		eP i i iS! i! i!	Z	01	06	20 $\frac{1}{2}$ 39 07 20 $\frac{1}{2}$ 24 $\frac{1}{2}$ 30 $\frac{1}{2}$ 08 02 $\frac{1}{2}$	B.C.I.S. Solomon Islands. Aftershock. H= 01 05.0m

13th.	iP!	Z	06	15	32½	Deep?
cont.	i				33½	
	eS			16	10½	
	i!				23½	
	i				27	
	i				37	
	i				43½	
	iP	Z	11	39	07½	
	i				39½	
	i			40	17½	
	eP	Z	17	30	12	U.S.C.G.S. 33°S, 179°W, Kermadec Is.
	i				13	H= 17 22 41 Mag. 6½ (Berkeley)
	i				14	(Deep?)
	i!				16	
	i			31	04½	
	i				18½	
	i(PPP)			32	13½	
	e				35½	
	eS	E		36	07	
	e	Z			30½	
14th.	iP!	Z	01	00	51½	Felt Rabaul, Int. 1(M.M.) Dilatation 4°10'S, 152°10'E.
	eP	Z	20	55	(34)	Felt Mumeng, Int. 1(M.M.) 7°00'S, 146°35'E.
						Record confused by microseisms
15th.	iP	Z	07	58	50½	U.S.C.G.S. 8½°N, 124°E. Mindanao. H= 07 52 25. Mag. 6.3(Quetta)
	iP	Z	16	40	04½	U.S.C.G.S. 51½°N, 158°E.
	i				18	Kamchatka, H= 16 30 29.
	i				19½	Mag. 6½(Matsushiro)
	e			41	25½	
						Record confused by microseisms
16th.	Nil					
17th.	e(P)	Z	01	20	(23)	
	eP	Z	06	07	(40)	U.S.C.G.S. 49°N, 148½°E. Sea of Okhotsk. H= 05 57 48. h approx = 350kms. Mag. 7½(Matsushiro)
	iP!	Z	06	28	21½	Felt Rabaul, Int. 1(M.M.) Compression from south-west. 4°10'S, 152°10'E.
	e	Z	08	03	14	
	eP	Z	14	55	29½	
	i				40	
	iS			56	26½	
	i				48½	
18th.	i	Z	05	15	38.3	
	eP	Z	13	55	09	
	i				33½	
	eL				58.6	
	eP	Z	15	21	36	U.S.C.G.S. 44°N, 148°E. Kurile Is. H= 15 12 53
	iP	Z	16	32	50½	
	i			33	54	

18th.	eP	Z	16	42	54 $\frac{1}{2}$	
cont.	i			43	37 $\frac{1}{2}$	
	i(S)				58 $\frac{1}{2}$	
	i			44	40 $\frac{1}{2}$	
19th.	1P	Z	00	47	16	
	1P	Z	10	40	45	
	eP	Z	11	28	23	U.S.C.G.S 28 $\frac{1}{2}$ ^o N, 140 $\frac{1}{2}$ ^o E. Bonin Is. H= 11 21 39
	eP	Z	16	22	25	U.S.C.G.S. 47 ^o N, 152 $\frac{1}{2}$ ^o E. Kurile Is.
	i				27	H= 16 13 29. h approx. = 100kms.
	e				59	
	i			23	09 $\frac{1}{2}$	
	i				39 $\frac{1}{2}$	
	1P	Z	17	46	14 $\frac{1}{2}$	Compression
	i				23 $\frac{1}{2}$	
	1P	Z	19	31	33 $\frac{1}{2}$	B.C.I.S probably Mindanao. Rather discordant data
	1P	Z	20	16	23 $\frac{1}{2}$	Compression
	i			17	15	
20th.	eP	Z	12	51	(25 $\frac{1}{2}$)	U.S.C.G.S 54 ^o N, 165 ^o W. Unimak Is. H=12 40 23
					Mag. 6 $\frac{3}{4}$	(Matsushiro)
21st.	1P	Z	05	17	00 $\frac{1}{2}$	U.S.C.G.S. 1 ^o S, 127 $\frac{1}{2}$ ^o E. Halmahera. H=05 11 33
	i				38 $\frac{1}{2}$	Mag. 5 $\frac{3}{4}$ (Matsushiro)
	eP	Z	06	32	27	
	e	Z	18	02	20	U.S.C.G.S 3 ^o S, 130 ^o E. Ceram. H= 17 57 21
22nd.	eP	Z	21	56	35 $\frac{1}{2}$	U.S.C.G.S 1 ^o S, 127 ^o E. Spice Is. H=21 51 04
23rd.	i(P)	Z	01	04	02 $\frac{1}{2}$	U.S.C.G.S 52 ^o N, 172 ^o E. Near Is. H= 00 55 00
	eP	Z	01	09	24 $\frac{1}{2}$	U.S.C.G.S 53 ^o N, 167 $\frac{1}{2}$ ^o W. Fox Is. H= 00 58 36
	1P	Z	01	13	27	Mag. 6.7 (Quetta)
	1P	Z	08	23	50 $\frac{1}{2}$	Compression
	i!				53 $\frac{1}{2}$	
	i			24	23	
	iS!				26 $\frac{1}{2}$	
24th.	No records					
25th.	eP	Z	00	32	(00)	U.S.C.G.S 3 ^o N, 128 ^o E. Halmahera. H= 00 26 32
	Onset confused by local shock					
	eP	Z	20	08	26	B.C.I.S near 3 ^o (N), 132 ^o E. North-west coast of New Guinea. H= 20 03.6m
	eP	Z	22	42	(14)	U.S.C.G.S 1 $\frac{1}{2}$ ^o S, 116 $\frac{1}{2}$ ^o E. Borneo. H=22 35 00
	Onset confused by blasting. Mag. 6 $\frac{1}{2}$ (Matsushiro)					
26th.	eP	Z	05	17	10	U.S.C.G.S 2 ^o S, 116 ^o E. Borneo. H= 05 10 00
	i				52 $\frac{1}{2}$	Mag. 6 $\frac{1}{2}$ (Matsushiro)
	e			18	42	
	eP	Z	11	46	03	U.S.C.G.S 51 $\frac{1}{2}$ ^o N, 176 ^o W. Andreanov Is. H= 11 35 44
	Mag. 6.5 (Quetta)					
	eP	Z	12	32	(04)	
	i				09 $\frac{1}{2}$	
	Confused by local shock					

26th. cont.	eP	Z	19	14	28	U.S.C.G.S. 19°N, 121°E. Luzon. H= 19 07 02	
27th.	iP iS	Z	00	08	14½ 32		
	eP	Z	03	26	(51)	B.C.I.S. 5°N, 125½°E. Mindanao. H= 03 21 04	
	eP	Z	08	38	(55)	B.C.I.S. near 14°S, 167°E. Onset confused by local shock New Hebrides Islands H= 08 34.8m h approx. = 200kms	
	iPP				39 18		
	eS				42 11		
	e				46 40		
	eP	Z	10	03	06		
	e	Z	11	07	17		
	iP!	Z	11	51	20½	Felt Rabaul, Int. 1(M.M.) 4°10'S, 152°10'E	
	Dilatation to east-north-east						
	iS!				29½		
	e(PKP)	Z	14	15	49	(U.S.C.G.S 20°S, 67½°W. Bolivia. H=13 56 30)	
	iP	Z	16	44	17½		
	iP i(S)	Z	19	08	35½ (05)		
28th.	e	Z	03	28	45		
	iP	Z	07	24	02		
	eP iPP	Z	20	54	33 47½	U.S.C.G.S. 15°S, 168½°E. New Hebrides Islands. H= 20 50 10 Mag. 6¼ (Matsushiro)	
29th.	iP	Z	02	29	30½	Dilatation. Deep.	
	iP	Z	12	36	48	Distant? (Shock reported felt Madang, Int. 1(M.M.) 1230 hours. 5°15'S, 145°50'E.	
	eP	Z	17	52	37	U.S.C.G.S. 48½°S, 124½°E. Indian Ocean. H= 17 43 38	
	ePKP	Z	22	38	23	U.S.C.G.S. 21°S, 66°W. Bolivia. H= 22 19 38 h approx. = 200kms. Mag. 7¼ -8 (Pasadena)	
	i!				43½		
	i!				50½		
	e				39 42		
	i(PP)				41 21½		
	e				26		
	i				47½		
	i(PKS)				42 19½		
	i				43 22½		
	i(PPP)				44 28½		
	i				59½		
	e(P)	Z	23	14	38		
	e				18.8 -		
30th.	eP	Z	03	28	05		
	eP e	Z	07	16	(25) 25		
	iP iS	Z	14	29	34½ 02½		

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30th. cont.	e	Z	19 49 21				
	eP	Z	20 37 30	U.S.C.G.S. 49°N, 154°E.	Kurile Is.	H= 20 28 18.	
	eP	Z	21 46 20	U.S.C.G.S. 47°N, 154½°E.	Kurile Is.	H= 21 37 11	
	eP	Z	22 03 16	U.S.C.G.S. 47°N, 154°E.	Kurile Is.	H= 21 54 10 Mag. 6.2(Uppsala)	

The following shocks were reported felt in the Territory, Nov. 1957:

Date	Time (G.M.T.)	Intensity (M.M.)	Locality	Lat. o	South '	Long. o	East '
2nd.	0903	2-3	Aitape	03	10	142	20
	1500	2	Karkar	04	40	146	00
3rd.	1026	6	Camp Diddy	06	30	146	50
	1026	5	Lae	06	45	147	00
	1025	2	Mumeng	07	00	146	35
	1025	1	Wau	07	20	146	45
	1055	1	Lae	06	45	147	00
	1115	7	Camp Diddy	06	30	146	50
	1115	4	Lae	06	45	147	00
	1115	1	Mumeng	07	00	146	35
	1600	1	Lae	06	45	147	00
5th.	1117	1	Ulamona	05	00	151	15
6th.	0043	3	Karoola	05	10	154	35
	1130	1-2	Linga Linga	05	35	149	45
8th.	0247	3	Karoola	05	10	154	35
	0247	1	Rabaul	04	10	152	10
	(0346)	1-2	Warangoi	04	30	152	20
10th.	0051	1-2	Warangoi	04	30	152	20
	0235	3	Aropa	06	25	155	50
	0245	3	Buin	06	50	155	45
	0345	4	Aropa	06	25	155	50
	0345	3	Buin	06	50	155	45
	0448	1	"	"	"	"	"
	0549	7	Camp Diddy	06	30	146	50
	0549	5	Lae	06	45	147	00
	0548	2	Wasu	06	00	147	15
	0554	2	Mumeng	07	00	146	35
	0550	1	Wau	07	20	146	45
	0610	1	Buin	06	50	155	45
	0650	1	Buin	"	"	"	"
	0845	1	Aropa	06	25	155	50
	1005	1	"	"	"	"	"
	1545	1	Buin	06	50	155	45
	1625	1	Buin	"	"	"	"
	1635	3	Lae	06	45	147	00
	2010	2	Buin	06	50	155	45
	2055	1	Buin	"	"	"	"
	2145	1	"	"	"	"	"
2230	1	"	"	"	"	"	
11th.	0125	4	Lindenhafen	06	10	150	35
12th.	0132	2-3	Kandrian	06	15	149	35
	0140	2	Walindi	05	25	150	05
14th.	0100	1	Rabaul	04	10	152	10
	2053	1	Mumeng	07	00	146	35
17th.	0628	1	Rabaul	04	10	152	10
	1835	2	Lae	06	45	147	00



Shocks reported felt in the Territory, November 1957 (cont):

Date	Time (G.M.T)	Intensity (M.M.)	Locality	Lat.South		Long.East	
				o	'	o	'
24th.	0440	1	Linga Linga	05	35	149	45
	0445	2-3	Kandrian	06	15	149	35
27th.	1151	1	Rabaul	04	10	152	10
29th.	1230	1	Madang	05	15	145	50



Seismicity in the Territory, November 1957 (cont.)

Date	Time (G.M.T.)	Intensity (M.M.)	Locality	Lat. South	Long. East
29th	0440	1	Large Kincaid	07 32	149 47
29th	0448	2-3	Kandarian	08 12	149 32
29th	1151	1	Rabaul	04 10	152 10
29th	1250	1	Madang	02 12	148 20



TERRITORY OF PAPUA AND NEW GUINEA

Vulcanological Observatory Rabaul

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Dec. 1st.	eP	Z	01	09	(30)	U.S.C.G.S. 47½°N, 153½°E. Kurile Is. H = 01 00 26 Mag. 6 (Matsushiro).
	eP	Z	01	18	05	U.S.C.G.S. 47½°N, 154°E. Kurile Is. H = 01 09 00 Mag. 6-6¼ (Matsushiro).
	e(P)	Z	08	54	02	B.C.I.S. near 3°N, 120°E. Celebes Sea. H = 08 48.2 m.
	eP	Z	14	31	55	B.C.I.S. Mindanao. Rather discordant data.
2nd.	iP	Z	02	31	36½	Compression.
	i!				38	
	iS!			32	02	
	iP	Z	11	41	20	Deep. Compression from East South East.
	i!				22½	
	i				34½	
	i				42	
	iS!				45½	
	iP!	Z	15	17	36½	Deep. Compression from East South East.
	iS!			18	26½	
	i				34½	
	i				45½	
	i				53½	
3rd.	iP	Z	10	27	17	
	i				21	
	eP	Z	15	21	(54)	
	i			22	06	
	iP	Z	21	03	00½	
4th.	The records for 4/12/57 are not available for study.					
	iP	Z	00	32	50½	U.S.C.G.S. 0°, 125°E. Molucca Strait. H = 00 27 01.
	i			34	22½	
	eP	Z	03	48	43½	B.C.I.S. 45½°N, 99°E. Outer Mongolia. H = 03 37 44 Mag. 8.6 (Pas.)
	i				51½	
	i(PS)			58	03	
	i				53½	
	i		04	03	44½	
	eL			08.0	-	
	eP'P'			17	12½	
	iP	Z	09	20	20½	U.S.C.G.S. 45½°N, 99°E. Outer Mongolia. After shock. H = 09 09 10.

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					2.	
Dec. 4th. cont..	eP	Z	11	30	25 $\frac{1}{2}$	U.S.C.G.S. 45 $\frac{1}{2}$ ^o N, 100 $\frac{1}{2}$ ^o E. Outer Mongolia. Aftershock. H = 11 19 30.
	eP	Z	13	31	02	U.S.C.G.S. 45 ^o N, 101 $\frac{1}{2}$ ^o E. Outer Mongolia. H = 13 20 08. Mag. 6.5 (Uppsala).
	iP	Z	19	45	06 $\frac{1}{2}$	Compression. <u>Felt</u> : Rabaul, Int. 1 (M.M.) 4 ^o 10'S, 152 ^o 10'E.
	eP	Z	22	27	57 $\frac{1}{2}$	U.S.C.G.S. 45 ^o N, 99 $\frac{1}{2}$ ^o E. Outer Mongolia. H = 22 16 59.
5th.	e	Z	01	07	56	
	eP	Z	08	52	45 $\frac{1}{2}$	
	i				52 $\frac{1}{2}$	
	eP	Z	09	03	18 $\frac{1}{2}$	
	i				19 $\frac{1}{2}$	
	i				33 $\frac{1}{2}$	
	e(P)	Z	18	00	30 $\frac{1}{2}$	
	i				34	
	i				55 $\frac{1}{2}$	
	iS			01	13 $\frac{1}{2}$	
	eP	Z	18	20	32	U.S.C.G.S. 45 ^o N, 100 ^o E. Outer Mongolia. H = 18 09 32 Mag. 5 $\frac{1}{4}$ -5 $\frac{1}{2}$ (Matsushiro).
6th.	eP	Z	00	44	49 $\frac{1}{2}$	
	e	Z	03	58	20	(U.S.C.G.S. 45 ^o N, 150 $\frac{1}{2}$ ^o E. Kurile Is. H = 03 49 33 h approx. = 60 kms.)
	eP	Z	08	45	(10)	U.S.C.G.S. 44 $\frac{1}{2}$ ^o N, 150 $\frac{1}{2}$ ^o E. Kurile Is. H = 08 36 21 Mag. 6.6 (Quetta),
	iP	Z	12	21	27 $\frac{1}{2}$	
	i				35 $\frac{1}{2}$	<u>Felt</u> : Awelkon, Int. 2 (M.M.) 5 ^o 40'S, 147 ^o 50'E.
	e	Z	17	45	(55)	
7th.	iP	Z	03	22	02	U.S.C.G.S. 6 $\frac{1}{2}$ ^o S, 123 $\frac{1}{2}$ ^o E. Flores Sea. H = 03 16 43 h approx. = 550 kms. Mag. 6 $\frac{1}{4}$ -6 $\frac{1}{2}$ (Matsushiro).
	iP	Z	07	57	46	
	i(S)				54 $\frac{1}{2}$	
	iP	Z	09	48	40	
	iP!	Z	13	20	11	
	i!				31 $\frac{1}{2}$	
	iS				59	
	i			21	11	

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3.

Dec. 7th. cont.,	eP i	Z	14	22	03 18	U.S.C.G.S. $43\frac{1}{2}^{\circ}\text{N}$, 100°E . Outer Mongolia. H = 14 11 15 Mag. $5\frac{1}{4}$ - $5\frac{1}{2}$ (Matsushiro).
	e	Z	15	02	$59\frac{1}{2}$	
	eP i	Z	15	46	30 50	B.C.I.S. New Britain region. H = 15 45.4 m.
	i	Z	16	16	47	
	e	Z	17	06	03	
	e	Z	17	57	49	
8th.	eP	Z	01	38	46	U.S.C.G.S. 13°S , 167°E . New Hebrides Is. H = 01 34 40.
	eP	Z	06	23	57	U.S.C.G.S. 45°N , $100\frac{1}{2}^{\circ}\text{E}$. Outer Mongolia. H = 06 13 02.
	e(P)	Z	12	24	08	U.S.C.G.S. 35°N , 142°E . Honshu. H = 12 16 30 Mag. 5.5 (Matsushiro).
	iP i	Z	13	58	43 52	
	e(P)	Z	14	49	06	U.S.C.G.S. $34\frac{1}{2}^{\circ}\text{N}$, 142°E . Honshu. H = 14 41 34.
	e(P)	Z	15	40	18	U.S.C.G.S. 45°N , 99°E . Outer Mongolia. H = 15 29 15 Mag. 5 (Ulan Bator).
	iP	Z	16	37	09	U.S.C.G.S. 45°N , 104°E . Outer Mongolia. H = 16 26 33 Mag. 5.5 (Ulan Bator).
	iP i i! i! iS!	Z	17	12	42 44 $46\frac{1}{2}$ 50 07	
	eP i	Z	17	57 58	06 11	
	eP	Z	21	39	42	U.S.C.G.S. $44\frac{1}{2}^{\circ}\text{N}$, 100°E . Outer Mongolia. H = 21 28 45.
9th.	eP	Z	01	23	21	U.S.C.G.S. 18°N , $122\frac{1}{2}^{\circ}\text{E}$. Luzon. H = 01 16 09.
	iP	Z	02	45	04	
	eP iS	Z	08	55 56	$53\frac{1}{2}$ $16\frac{1}{2}$	

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4.

Dec. 9th. cont..	eP i	Z	12	01	03 10½	(Felt: Awelkon, Int. 3 (M.M.) 5°40'S, 147°50'E)
	eP	Z	15	53	(50)	
	e	Z	16	48	38	
10th.	eP i! iS!	Z	14	36 37	58½ 02 57	U.S.C.G.S. 6°S, 154½°E. Solomon Is. H = 14 35 57. Mag. 7 (Matsushiro). Felt: Aroha, Int. 3 (M.M.) 6°25'S, 155°50'E. Felt: Buin, Int. 3 (M.M.) 6°50'S, 155°45'E. Felt: Rabaul, Int. 2 (M.M.) 4°10'S, 152°10'E.
	eP i e(S) i!	Z	14	57	(32) 35 58 59	Felt: Karoola, Int. 2 (M.M.) 5°10'S, 154°35'E.
	eP i! iS!	Z	15	53 54	58 06 50	U.S.C.G.S. 5½°S, 155°E. Solomon Is. H = 15 53 02. Felt: Rabaul, Int. 1 (M.M.) 4°10'S, 152°10'E.
	iP iS! e	Z	16	42	54 40 36	(?Felt: Karoola, Int. 2 (M.M.) 5°10'S, 154°35'E.)
	eP	Z	17	24	29	
	eP i iS	Z	17	31	47 08 35½	
	eP iS	Z	18	08	(42) (43)	Felt: Buin, Int. 2 (M.M.) 6°50'S, 155°45'E.
	eP iS	Z	18	30	48 02	Felt: Buin, Int. 1 (M.M.) 6°50'S, 155°45'E.
	eP i iS! i! i!	Z	19	20	18 23 10 20 29	(Felt: Buin, Int. 1 (M.M.) 6°50'S, 155°45'E.)
	eP iS	Z	21	10	27 26	
	eP	Z	21	20	23	
	eP iS	Z	22	26	54 48	
11th.	eP eS	Z	00	35	14 56	
	eP eS	Z	01	11	07 03	
	eP e(S) i(S)!	Z	02	48	37 35 16½	Felt: Karoola, Int. 2 (M.M.) 5°10'S, 154°35'E. Felt: Buin, Int. 1 (M.M.) 6°50'S, 155°45'E.

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5.

Dec. 11th.
cont..

eP	Z	03	02	31	
eS			03	18	
eP	Z	03	29	41	
i				50	
iS			30	40	
e	Z	10	11	30	
eL			13.8	-	
eP	Z	13	24	08	
i				09	
i				17½	
eP	Z	14	16	01	
i				12½	
eP	Z	14	42	(35)	
eS			43	(31)	
eP	Z	14	57	08	
i				13½	
i				34	
eP	Z	15	01	16½	
i				22	
iS			02	08	
e(P)	Z	18	18	10	
eP	Z	20	59	(06)	
i				12	
eS				55	
eP	Z	22	43	40	
eS			44	35	
eP	Z	09	22	40	
eS			23	33	
iP	Z	16	45	27½	
i				35½	
eP	Z	18	42	24	
e			43	26	
i			44	15	
e				23	
eP	Z	19	05	55	
i			06	29½	
iS				55	
eP	Z	19	15	(12)	
eP	Z	19	22	46	
eS			23	35	
eP	Z	21	08	30	
i				34	
iS				59½	
eP	Z	22	19	45	
iS			20	38	

Felt: Buin, Int. 1 (M.M.)
6°50'S, 155°45'E.

U.S.C.G.S. 6½°S, 155°E.
Solomon Is.
H = 03 28 44.

U.S.C.G.S. 30½°N, 142°E.
Honshu.
H = 18 11 07
Mag. 5.6 (Matsushiro).

U.S.C.G.S. 13½°S, 167°E.
New Hebrides Is.
H = 18 38 19
Mag. 6 (Matsushiro).

Felt: Karoola, Int. 1 (M.M.)
5°10'S, 154°35'E.

(Felt: Karoola, Int. 1 (M.M.)
5°10'S, 154°35'E).

12th.

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6.

Dec. 13th.	iPKP Z	01	51	05	U.S.C.G.S. 7°N, 76°W.
	i			21 $\frac{1}{2}$	Colombia.
	ePKS		54	27	H = 01 31 57
	e			33	h approx. = 100 kms.
	e		56	35	Mag. 6 $\frac{3}{4}$ (Pas.)
	e(PcSPKP)		02	32	
	ePP Z	02	03	25	B.C.I.S. 34°6N, 47°8E.
	e		04	56	Iran.
	e		15	14	H = 01 44 59
	e		19	10	Mag. 7 $\frac{1}{4}$ (Pas.)
	eP Z	02	28	36 $\frac{1}{2}$	U.S.C.G.S. 6°S, 155 $\frac{1}{2}$ E.
	i			47	Solomon Is.
	iS		29	30 $\frac{1}{2}$	H = 02 27 45
	iP Z	02	33	32 $\frac{1}{2}$	
	i			41	
	iS		34	23 $\frac{1}{2}$	
	i!			27 $\frac{1}{2}$	
	e(P) Z	03	08	(22)	(See Madang readings).
	e		09	23	
	e(P) Z	06	45	(51)	
	eP Z	13	02	(00)	
	eS			(53)	
	iP Z	13	29	56 $\frac{1}{2}$	
	i!			57	
	iS!		30	08	
	eP Z	20	05	00	U.S.C.G.S. 6 $\frac{1}{2}$ S, 155 $\frac{1}{2}$ E.
	eS			55 $\frac{1}{2}$	Solomon Is. H = 20 03 58.
	i!			58 $\frac{1}{2}$	<u>Felt</u> : Karoola, Int. 2 (M.M.)
					5°10'S, 154°35'E.
	eP Z	20	37	00	U.S.C.G.S. 52 $\frac{1}{2}$ N, 170°W.
	e		40	29	Fox Is. H = 20 26 22.
					Mag. 6 $\frac{1}{2}$ (Matsushiro).
	eP Z	22	09	45	
	eS		10	(37)	
14th.	e Z	05	41	(31)	
	eP Z	08	41	37	
	i(S)		42	34	
	i(P) Z	16	58	26	(See Madang readings).
	e(P) Z	19	27	(34)	
	e		29	06	
	e		30	27	
	iP Z	19	42	09.5	
	iS!			35.5	
	e(P) Z	21	25	(55)	
	i		26	01 $\frac{1}{2}$	
	i(P) Z	21	26	55	
	i(P) Z	21	28	07	(See Madang readings).

December, 1957. 7.

Dec. 15th. e Z 00 30.5 -

eP Z 01 50 16 Dilatation.
i! 16½

eP Z 07 24 00

e Z 08 56 -
i 58 53

iP Z 10 06 52½
iS 07 02

iP! Z 11 14 14½ Dilatation.
Felt: Rabaul, Int. 1 (M.M.)
4°10'S, 152°10'E.

iP Z 11 19 35½
i(S) 54
e 20 08

eP Z 12 29 27
i! 31
eS 53½

e(P) Z 15 27 20

eP Z 17 22 14 Dilatation.

eP Z 17 42 24

iP Z 18 20 55
i 21 04
eS 07

iP Z 20 33 39 Deep. Small.
i(S) 56

16th. eP Z 04 50 10
e(S) (50)

eP Z 08 43 42

eP Z 12 13 (35)

eP Z 12 31 06
eS 32 (05)

eP Z 13 37 11
iS 38 03

eP Z 14 20 00
iS 49

e(P) Z 15 10 21

e(P) Z 17 40 32

eP Z 18 49 48
eS 50 38

e(PKP)Z 19 22 02 (B.C.I.S. 28¾°S, 66°W.
Argentina. H = 19 02 49)

i Z 22 09 13

December, 1957.

8.

Dec. 17th. iP! Z 00 58 26

Dilatation.

Felt: Rabaul, Int. 1 (M.M.)
4°10'S, 152°10'E.

eP Z 04 16 31
i! 31½

Dilatation.

Felt: Rabaul, Int. 1 (M.M.)
4°10'S, 152°10'E

eP Z 05 20 05
ePPP 23 44

U.S.C.G.S. 53½°N, 162°E.
Kamchatka. H = 05 10 11.
Mag. 6.8 (Quetta).

iP Z 07 15 43½
iS 52½

iP Z 08 31 10½

iP Z 13 54 05½
i! 13½

U.S.C.G.S. 12½°S, 166½°E.
Santa Cruz Is.
H = 13 50 12.
Mag. 7¼ (Pas.)

iS 57 07½

i (14)
i 19½
i! 24

e(ScS) 14 06.1 -

e Z 14 29 (21)

e Z 14 38 06

e Z 14 42 08

eP Z 15 12 (24)
iS 13 (09½)

eP Z 17 14 18
iS 27½

e Z 17 17.5 -

18th. e(PKP)Z 02 31 (12)

(U.S.C.G.S. 11°N, 63½°W.
Venezuela. H = 02 11 40).

iP Z 19 40 39½
i 48½

eP Z 20 44 (45)
eS 45 (29)

iP! Z 21 06 19
iS! 31½

Dilatation to E.N.E.

19th. eP Z 01 13 11
i 17½

eS 14 02
i! 18

eP Z 05 25 37
i 43
iS! 26 27½

eP Z 10 11 (30)
i 33
iS 12 18
i 37

iP Z 11 30 50
i 31 00

December, 1957.

9.

Dec. 19th. 1P Z 14 36 03
 cont.. i 11
 eS (31)

1P Z 15 04 59
 e(S) 05 57

Deep.

eP Z 19 08 13

U.S.C.G.S. 30¹/₂°N, 142°E.
 Honshu. H = 19 01 08.

eP Z 20 32 (42)

eP Z 22 09 27
 iS! 10 03¹/₂

eP Z 22 54 43
 i 45
 i 52¹/₂

1P Z 23 17 06
 iS 26¹/₂

Dilatation.

Felt: Rabaul, Int. 1 (M.M.)
 4°10'S, 152°10'E.

20th. e Z 10 09 55

eP Z 12 17 44
 eS 18 39¹/₂
 i! 44

eP Z 14 59 15¹/₂
 i 16

eP Z 17 11 49

eP Z 18 14 06
 i 13
 i 54¹/₂

eP Z 18 20 17

eP Z 18 26 09
 e 27 12
 e 22

1P Z 22 51 01
 i 10

21st. No records.

22nd. 1P Z 13 15 05¹/₂
 i 11
 iS 21¹/₂
 i 26

eP Z 14 14 13
 i(S) 25¹/₂

1P Z 18 25 48¹/₂
 iS 55¹/₂

1P Z 19 21 22¹/₂
 iS 27¹/₂

1P Z 19 29 39¹/₂
 i 42¹/₂
 iS 43¹/₂

December, 1957. 10.

Dec. 22nd. iP Z 19 35 40 $\frac{1}{2}$
 cont.. iS 43 $\frac{1}{2}$

iP! Z 19 36 10 $\frac{1}{2}$ Compression.
 iS! 15 $\frac{1}{2}$

eP Z 19 40 55 $\frac{1}{2}$
 iS 41 01

23rd. e Z 01 43 09

eP Z 02 51 25
 iS 55

i Z 03 53 22

eP Z 04 44 55 Deep?
 i! 57
 eS 45 26

eP Z 05 03 (36)

ePKP Z 12 53 51 B.C.I.S. 35 $\frac{3}{4}$ ^oN, 35^oW.
 Atlantic Ridge.
 H = 12 34 06.
 Mag. 6-6 $\frac{1}{4}$ (Matsushiro).

e(P) Z 19 36 20 B.C.I.S. Luzon.
 H = 19 29.4 m.

e(P) Z 19 39 48

24th. iP Z 00 58 19

iP Z 02 55 29 Compression. Deep?
 iS 37

iP Z 06 45 09 Dilatation. Deep.

iP Z 21 54 40
 iS 55 00

25th. iP Z 01 02 08
 i 17

iP Z 01 58 21 $\frac{1}{2}$ Dilatation. Deep.
 iS! 45

eP Z 02 19 14 U.S.C.G.S. 53 $\frac{1}{2}$ ^oN, 162^oE.
 Kamchatka. H = 02 09 20.
 Mag. 6 (Matsushiro).

iP Z 03 10 04 $\frac{1}{2}$
 i 13
 iS 18

iP Z 06 44 26 $\frac{1}{2}$
 i 38
 i(S) 40 $\frac{1}{2}$

iP Z 13 52 14 $\frac{1}{2}$ U.S.C.G.S. 55^oN, 161^oE.
 Kamchatka. H = 13 42 12.

ePKP Z 16 45 37 $\frac{1}{2}$ U.S.C.G.S. 10 $\frac{1}{2}$ ^oN, 62 $\frac{1}{2}$ ^oW.
 i 40 $\frac{3}{4}$ Venezuela.
 i 46 08 $\frac{3}{4}$ H = 16 26 01.
 i 38 $\frac{3}{4}$ Mag. 6 $\frac{1}{4}$ (Matsushiro).
 i 58 $\frac{3}{4}$

Dec. 25th. cont..	iP i! e(S)	Z	17	41 42	59½ 05 (18)
26th.	iP i(S) i	Z	07	57	39 48 58
	eP i i! i! i! e	Z	12	16	42 44 48 49 17 11 33 24
	iP i	Z	17	28	05 14
	iP iS!	Z	19	30	04½ 23
27th.	e	Z	02	11	37
	iP!	Z	10	54	37
	e	Z	12	16	40
	iP i i i	Z	15	05 06	54 03 15 29
	eP	Z	15	10	41
	e(P) i	Z	15	47	05 13½
	iP iS	Z	16	14	03 27
	e(P)	Z	16	29	29
	iP i i i	Z	16	52	35 45 49 58
	iP! iS!	Z	18	16 17	51 11½
	eP i i	Z	21	18 19	43 45 54
28th.	eP	Z	02	08	47
	i(P)	Z	04	47	01
	e	Z	13	36	(32)
	ePKP	Z	14	56	12
	eP e e(S)	Z	19	08 10 14	35 38 16

Dilatation.

U.S.C.G.S. 32½°S, 178°W.
Kermadec Is.
H = 12 09 11
Mag. 5½ (Matsushiro).

Dilatation.

Compression from S.S.E.

Dilatation.

U.S.C.G.S. 53½°N, 162°E.
Kamchatka. H = 15 00 45.

Dilatation to S.W.

Felt: Awelkon, Int. 2 (M.M.)
5°40'S, 147°50'E.

B.C.I.S. 11°S, 163°E.
Solomon Is. H = 02 05 43.

U.S.C.G.S. 18°S, 64½°W.
Bolivia. H = 14 36 40.
Mag. 6 (Kew).

U.S.C.G.S. 16°S, 172°W.
Tonga Is.
H = 19 01 22.

December, 1957.

12.

Dec. 29th.	eP	Z	00	16	56	
	i				59 $\frac{1}{2}$	
	eS			17	(30)	
	i!				33	
	eP	Z	02	29	18	
	iS				35	
	iP	Z	06	01	52	Dilatation.
	i(S)			02	01	
	iP!	Z	09	32	16 $\frac{1}{2}$	Compression.
	i(S)				(24)	
	eP	Z	14	16	02	U.S.C.G.S. 13 $^{\circ}$ N, 144 $^{\circ}$ E. Mariana Is. H = 14 11 40.
30th.	iP	Z	10	39	01	Compression.
	iS				10	
	ePKP	Z	13	48	31	U.S.C.G.S. 10 $\frac{1}{2}$ $^{\circ}$ N, 62 $^{\circ}$ W. Venezuela. H = 13 28 51.
	iP	Z	14	05	56	Compression. U.S.C.G.S. 19 $^{\circ}$ N, 120 $\frac{1}{2}$ $^{\circ}$ E. Luzon. H = 13 58 26. Mag. 5 $\frac{1}{2}$ -5 $\frac{3}{4}$ (Matsushiro).
	iP!	Z	23	41	10	Compression from N.N.E.
	iS				20	
31st.	iP	Z	03	29	00	
	i				07 $\frac{1}{2}$	
	e(P)	Z	12	17	33	
	iP	Z	14	36	14	Compression.
	eS			42	35	U.S.C.G.S. 45 $^{\circ}$ S, 165 $\frac{1}{2}$ $^{\circ}$ E. New Zealand. H = 14 28 15. Mag. 6.6 (Wellington).
	iP	Z	17	08	56	Compression.
	i			09	04 $\frac{1}{2}$	
	iP	Z	17	49	54 $\frac{1}{2}$	
	i			50	04 $\frac{1}{2}$	
	eP	Z	21	26	35	U.S.C.G.S. 45 $^{\circ}$ S, 96 $\frac{1}{2}$ $^{\circ}$ E. Indian Ocean. H = 21 16 03.
	eP	Z	22	04	33	
	eP	Z	22	38	21 $\frac{1}{2}$	
	i				30	
	iS				52 $\frac{1}{2}$	
	iP	Z	22	40	50 $\frac{1}{2}$	
	i			41	00 $\frac{1}{2}$	
	iS				05 $\frac{1}{2}$	

TERRITORY OF PAPUA AND NEW GUINEA

The following earthquakes were reported felt in the Territory during December 1957.

Date	Time (G.M.T.)	Intensity (Modified Mercalli)	Locality	Lat. South		Long. East	
				°	'	°	'
Dec. 2nd	2244	1-2	Lae	06	45	147	00
	2245	1	Awelkon	05	40	147	50
Dec. 4th	1945	1	Rabaul	04	10	152	10
Dec. 5th	2116	1	Awelkon	05	40	147	50
Dec. 6th	0340	2	Karkar	04	40	146	00
	1221	2	Awelkon	05	40	147	50
Dec. 7th	1320	1	Rabaul	04	10	152	10
Dec. 9th	(1200)	3	Awelkon	05	40	147	50
Dec. 10th	(0245)	(2-3)	(Warangoi)	04	30	152	20
	1435	3	Aropa	06	25	155	50
	1437	2	Rabaul	04	10	152	10
	1443	3	Buin	06	50	155	45
	1445	2	Karoola	05	10	154	35
	1553	1	Rabaul	04	10	152	10
	(1645)	2	Karoola)	05	10	154	35
	(1810)	2	Buin	06	50	155	45
	1830	1	Buin	06	50	155	45
	(1912)	1	Buin	06	50	155	45
Dec. 11th	(0223)	1	Buin	06	50	155	45
	?	2	Karoola	05	10	154	35
	0303	1	Buin	06	50	155	45
Dec. 12th	1905	1	Karoola	05	10	154	35
	(2045)	1	Karoola	05	10	154	35
Dec. 13th	2005	2	Karoola	05	10	154	35
Dec. 15th	1114	1	Rabaul	04	10	152	10
Dec. 17th	0058	1	Rabaul	04	10	152	10
	0417	1	Rabaul	04	10	152	10
Dec. 18th	1114	2	Awelkon	05	40	147	50
Dec. 19th	2317	1	Rabaul	04	10	152	10

2.

Date	Time (G.M.T.)	Intensity (Modified Mercalli)	Locality	Lat. South		Long. East	
				o	'	o	'
Dec. 21st	0000	2	Vanimo	02	40	141	20
Dec. 22nd	0330	1	Vanimo	02	40	141	20
	0745	4	Vanimo	02	40	141	20
Dec. 27th	2118	2	Awelkon	05	40	147	50

Since the records for 28th September 1957 and 4th December 1957 have now been returned to the Observatory, the following additions and corrections should be made to the readings already listed.

28th September 1957

Additional Phase e(ScS) 00 43 20 U.S.C.G.S. 30 $\frac{1}{2}$ °N, 137 $\frac{1}{2}$ °E.
Honshu. H = 00 27 31.
h approx = 500 kms. Mag. 6 $\frac{3}{4}$ (Pas.)

iP Z 06 40 28 $\frac{1}{2}$
i 34
i 40 $\frac{1}{2}$
i(S)! 59

Additional Phases i 14 26 17 $\frac{1}{2}$ U.S.C.G.S. 20 $\frac{1}{2}$ °S, 178°W.
iS 30 17 Fiji Is. H = 14 20 00.
e 53 $\frac{1}{2}$ h approx = 650 kms.
eSS 34 28 Mag. 7 $\frac{1}{2}$ (Pas.)
i 35 25

Additional Phase e 15 07 58 U.S.C.G.S. 20 $\frac{1}{2}$ °S, 178 $\frac{1}{2}$ °W.
Fiji Is. H = 14 44 02.
Aftershock. h approx = 600 kms.

4th December 1957

Additional Phases i(PcP) 00 36 09 U.S.C.G.S. 0°, 125°E.
eS 37 25 $\frac{1}{2}$ Molucca Strait. H = 00 27 01.

Additional Phase i(SS) 04 02 32 B.C.I.S. 45 $\frac{1}{4}$ °N, 99°E.
Outer Mongolia. H = 03 37 44.
Mag. 8.6 (Pas.)

iP Z 04 39 50 $\frac{1}{2}$

eP Z 04 45 40

e(P) Z 08 04 09 B.C.I.S. Outer Mongolia.
Aftershock. H = 07 53 05.

iP Z 09 40 44 $\frac{1}{2}$
i 53 $\frac{1}{2}$
i 41 02 $\frac{1}{2}$

iP Z 15 47 19 Dilatation. Local.
iS 38
i! 40

eP Z 23 52 58 U.S.C.G.S. 45°N, 99°E.
Outer Mongolia. Aftershock.
H = 23 41 57. Mag. 5 (Ulan Bator).

ACKNOWLEDGEMENT

The Vulcanologist and Staff of the Observatory, Rabaul, take this opportunity of acknowledging with thanks receipt of the many publications, monthly bulletins and provisional bulletins which Stations, throughout the world, have regularly sent to us.

J.H. Latter
Vulcanologist

20th November, 1961.



Date	Time	Intensity	Location
Dec. 21st	0000	2	...
Dec. 22nd	0030	1	...
Dec. 23rd	0045	2	...
Dec. 24th	0115	2	...

Since the records for 24th December 1952 have not been received for the stations mentioned in the table, the stations should be taken to have recorded already listed.

24th December 1952
Additional phases

U.S.G.S. 20° 30' N, 178° 00' W
U.S.G.S. 20° 30' N, 178° 00' W
U.S.G.S. 20° 30' N, 178° 00' W



Additional phases

U.S.G.S. 20° 30' N, 178° 00' W
U.S.G.S. 20° 30' N, 178° 00' W
U.S.G.S. 20° 30' N, 178° 00' W

Additional phases

U.S.G.S. 20° 30' N, 178° 00' W
U.S.G.S. 20° 30' N, 178° 00' W
U.S.G.S. 20° 30' N, 178° 00' W

25th December 1952
Additional phases

U.S.G.S. 20° 30' N, 178° 00' W
U.S.G.S. 20° 30' N, 178° 00' W
U.S.G.S. 20° 30' N, 178° 00' W

Additional phases

U.S.G.S. 20° 30' N, 178° 00' W
U.S.G.S. 20° 30' N, 178° 00' W
U.S.G.S. 20° 30' N, 178° 00' W

25	00	2	...
26	00	2	...
27	00	2	...
28	00	2	...
29	00	2	...
30	00	2	...
31	00	2	...
32	00	2	...
33	00	2	...
34	00	2	...
35	00	2	...
36	00	2	...
37	00	2	...
38	00	2	...
39	00	2	...
40	00	2	...
41	00	2	...
42	00	2	...
43	00	2	...
44	00	2	...
45	00	2	...
46	00	2	...
47	00	2	...
48	00	2	...
49	00	2	...
50	00	2	...

The original order and part of the answer, which, like this opportunity of communicating with the only public station, mainly believed and recorded at this station, throughout the world, has recently been to the

MADANG

All Copied

TERRITORY OF PAPUA AND NEW GUINEA

29.4.63

JS/17

Vulcanological Observatory Rabaul

JULY - DEC 1957

SUPPLEMENTARY READINGS FROM MADANG 1957-58

No. 968

<u>Addition</u>	(05°14'S 145°48'E)	Recorded on Vertical Willmore Seismograph.
July 3rd. (eP (i	06 09 12½ 13½)	U.S.C.G.S. 24°S, 180°. Fiji Is. H = 06 02 37 h approx. = 550 kms.
July 4th. (iP (iS	02 34 11½ 33)	
iP eS	15 17 31 59½	
e	15 56 14	B.C.I.S. Solomon Islands region. H = 15 53.8 m.
July 5th. e e i	17 34 02½ 17½ 36 09	
July 7th. eP	16 13 51.8	U.S.C.G.S. 6½°S, 156°E. Solomon Is. H = 16 11 15 Mag. 6¾ (Pas.)
July 8th. iP iS	05 27 22 56	
July 9th. (iP (iS	00 58 22) 49½)	
(iP (iS	03 39 40½) 40 59½)	
(e	10 05 56)	U.S.C.G.S. 6°S, 104°E. Sumatra. H = 09 58 09 h approx. = 60 kms. Mag. 6½ (Matsushiro)
July 12th. eP	20 55 34½	Foreshock.
iP i eL	20 57 15½ 43½ 21 01.3 -	U.S.C.G.S. 3°S, 148½°E. Bismarck Sea. H = 20 56 18 Mag. 6¼ (Matsushiro)
iP i i i i eL	21 59 40 43½ 54 (22) 00 08 01 00½ 04.6 -	U.S.C.G.S. 3°S, 148½°E. Bismarck Sea. Aftershock. H = 21 58 45 Mag. 6 (Matsushiro)
July 14th. eP i i	06 31 33 24 32 12½	U.S.C.G.S. 27°S, 178°W. Kermadec Is. region. H = 06 23 52 h approx. = 150 kms. Mag. 7½ (Rome)

1957.

2.

July 14th.
cont..

iP 08 18 42
i 43

U.S.C.G.S. 30°S, 177°W.
Kermadec Is.
H = 08 10 45
Mag. 7 (Berk.)

✓ 1(P) 09 50 19

U.S.C.G.S. 20°S, 174½°W.
Tonga Is.
H = 09 42 27
Mag. 6½ (Matsushiro)

July 15th.

iP 14 13 38½
iS 14 08½

iP 20 33 38
eS 45

July 16th.

iP 03 41 53½
iS 42 22½

iP 04 22 52½
iS 59½

iP 10 05 16½
iS 36½

July 17th.

iP 08 05 53½
iS 06 05½

eP 11 15 02½
i 04½

U.S.C.G.S. 11°S, 167°E.
Santa Cruz Is.
H = 11 10 10
h = 100 kms.
Mag. 6½ (Berk.)

e 12 28 21½
i 29 05

U.S.C.G.S. 2°S, 137°E.
H = 12 26 06

e(P) 12 30 03½

iP 15 17 53½
iS 18 03.7

i(P) 21 20 09
(iS 21 20)

July 18th.

iP! 11 11 08½
i 13 04
i 20½

U.S.C.G.S. 5°S, 146°E. Near
the N. coast of New Guinea.
H = 11 10 58

Felt: Karkar, Kumbug and Madang
(see Rabaul Bulletin)

iP! 11 18 57
iS 19 02½

iP 11 28 46
iS 52

iP 12 05 44

iP 12 58 28½

iP 13 23 17
iS 23

iP 13 38 48
iS 54

iP 14 02 05½

1957.

July 19th.	iP	20	27	12	U.S.C.G.S. 3°S, 142°E. North of New Guinea. Foreshock.
	i			44	H = 20 26 03
	i		28	21	<u>Felt:</u> (see Rabaul Bulletin)
	i			58	
	iP	21	37	54 ¹ / ₂	U.S.C.G.S. 3 ¹ / ₂ °S, 142°E.
	i!		38	04	North of New Guinea.
	i			12	H = 21 36 46
	i!			53 ¹ / ₂	<u>Felt:</u> (see Rabaul Bulletin)
	i		39	30 ¹ / ₂	
July 21st.	iP	00	23	56	
	eP	07	03	06	U.S.C.G.S. 4 ¹ / ₂ °S, 153°E.
					New Ireland.
					H = 07 00 10
					Mag. 5 ³ / ₄ -6 (Matsushiro)
					<u>Felt:</u> (see Rabaul Bulletin)
	iP	08	13	45	
	i(S)		14	13 ¹ / ₂	
	eP	18	33	29	
	i		34	09	
July 22nd.	iP	01	04	50 ¹ / ₂	
	iS			59	
	iP	06	25	02	U.S.C.G.S. 33 ¹ / ₂ °S, 178°W.
	i			11 ¹ / ₂	Kermadec Is. region.
	i			19	H = 06 16 52
					Mag. 6 ¹ / ₄ -6 ¹ / ₂ (Matsushiro)
	eP	06	30	00 ¹ / ₂	U.S.C.G.S. 34°S, 177 ¹ / ₂ °W.
	i			08 ¹ / ₂	Kermadec Is. region.
	i			17	H = 06 21 50. Aftershock.
July 23rd.	iP	05	38	06	
	iS			19	
	e	13	36	55 ¹ / ₂	U.S.C.G.S. Kermadec Is. region.
					H = 13 30 17
					h approx. = 600 kms.
July 24th.	i(P)	02	07	50 ¹ / ₂	
	eP	05	53	38	
	e	10	48	07	
	eP	18	09	22	
	i(S)			45	
	i		10	07	
July 25th.	eP	14	11	17	<u>Felt:</u> Lae (see Rabaul Bulletin)
	i			36	
	e(S)			40	
	i		14	02	
July 26th.	eP	03	55	06	
	i			06.8	
	e	05	12	(28)	
	e	07	04	50	
	iP	17	37	35	
	iS		38	03	

1957.

4.

July 27th. eP 18 44 29 U.S.C.G.S. 6 $\frac{1}{2}$ °S, 151 $\frac{1}{2}$ °E.
 i 45 10 New Britain region.
 i 15 H = 18 43 01

iP 20 31 29
 iS 47

Aug. 4th. eP 00 39 43 $\frac{1}{2}$ U.S.C.G.S. 3 $\frac{1}{2}$ °S, 145°E. Near
 i 44 the N. coast of New Guinea.
 i(S) 40 07 $\frac{1}{2}$ H = 00 39 12
 i 43 $\frac{1}{2}$ Mag. 6 $\frac{1}{2}$ -6 $\frac{3}{4}$ (Matsushiro)
Felt: (see Rabaul Bulletin)

Aug. 14th. ~~iP 14 (10 48)
 i (11 04 $\frac{1}{2}$)
 i (13)
 i (21)
 Times doubtful.~~

~~iP 15 (27 24)
 eS (53)
 Times doubtful.~~

Aug. 15th. iP 03 38 18
 i(S) 24

iP 20 47 35 U.S.C.G.S. 4 $\frac{1}{2}$ °S, 155°E.
 i(pP) 48 00 $\frac{1}{2}$ Solomon Is. region.
 e(sP) 17 H = 20 45 20
 e(pPP) 46 h approx. = 500 kms.
 i(S) 49 24 $\frac{1}{2}$

Aug. 16th. iP 00 18 06 $\frac{1}{2}$
 eS 17 $\frac{1}{2}$

eP 03 28 16 U.S.C.G.S. 5°S, 154°E.
 New Britain region.
 H = 03 26 05
Felt: (see Rabaul Bulletin)

iP 05 37 49.9
 i(S) 38 07.5

eP 11 59 26 $\frac{1}{2}$ U.S.C.G.S. 5°S, 155°E.
 Solomon Is.
 H = 11 57 16
Felt: (see Rabaul Bulletin)

Aug. 17th. eP 02 23 38 U.S.C.G.S. 4°S, 151°E.
 New Britain.
 H = 02 21 47
Felt: (see Rabaul Bulletin)

Aug. 18th. eP 00 (12 or
 13) 25 $\frac{1}{2}$
 iS 54 $\frac{1}{2}$
 iP 02 21 07.7
 iS 23

iP 11 02 55 $\frac{1}{2}$
 i 57
 e(S) 03 24

e 21 52 12 $\frac{1}{2}$ U.S.C.G.S. 50°N, 157°E.
 N. of Kurile Is.
 H = 21 42 30
 Mag. 6.6 (Tacubaya)

1957,

5.

Aug. 19th.	eP i	00	12 13	57.3 10.5	U.S.C.G.S. 4 $\frac{1}{2}$ ^o S, 153 ^o E. New Britain region. H = 00 11 13 Felt: (see Rabaul Bulletin)
	e	02	43	27 $\frac{1}{2}$	U.S.C.G.S. New Britain region. H = 02 41 14 Felt: (see Rabaul Bulletin)
	e	11	38	33 $\frac{1}{2}$	U.S.C.G.S. 10 ^o S, 161 ^o E. Solomon Is. H = 11 34 36 Mag. 6 $\frac{1}{2}$ (Pas.)
	iP eS	11	54 55	32 $\frac{1}{2}$ 12 $\frac{1}{2}$	
Aug. 20th.	iP iS	00	30	10 $\frac{1}{2}$ 48 $\frac{1}{2}$	
	e	06	31	00	U.S.C.G.S. 10 ^o S, 161 ^o E. Solomon Is. Foreshock H = 06 27 07 Mag. 6 $\frac{3}{4}$ (Matsushiro)
	e	12	05	44 $\frac{1}{2}$	U.S.C.G.S. 10 ^o S, 161 ^o E. Solomon Is. H = 12 01 54 Mag. 6 $\frac{3}{4}$ (Matsushiro)
	e i i	21	23 24	37 56 $\frac{1}{2}$ 05 $\frac{1}{2}$	
Aug. 21st.	iP i iS	04	(33 (57) 34)	55) (57) 23 $\frac{1}{2}$)	
	iP	10	(21	43).	Times doubtful.
Sept. 21st.	e	14	(39	20)	
	e	14	(56	20)	
	iP iS	17	(26 (55)	33 $\frac{1}{2}$) (55)	Times uncertain.
Sept. 24th.	eP i	08	26	04 $\frac{1}{2}$ 16	U.S.C.G.S. 5 $\frac{1}{2}$ ^o N, 127 $\frac{1}{2}$ ^o E. Mindanao. H = 08 21 05 Mag. 7 $\frac{3}{4}$ (Pas.)
	iP iS	20	11	40 $\frac{1}{2}$ 49 $\frac{1}{2}$	
	eP i eS i	23	26 27	34 34 $\frac{1}{2}$ 20 28 $\frac{1}{2}$	
	iP iS	23	47 48	52 $\frac{1}{2}$ 04	
Sept. 25th.	eP	02	(19	36) (42)	Times uncertain.

1957.

6.

Sept. 25th. e(P) 06 (58 36) B.C.I.S. Discordant data.
 cont.. e (59 32) (Several shocks)
 e (18)

1P 09 (39 57) B.C.I.S. New Hanover region.
 i (59½) H = 09 38.9 m.
 eL (43 -)

1P 14 (09 56) B.C.I.S. 2°S, 140°E. Near
 i (12 59½) the N. Coast of New Guinea.
 H = 14 08.0 m.

✓ e 16 (41 32½) (U.S.C.G.S. Nr. the S.E. Coast
 of Mindanao.
 H = 16 36 37
 Mag. 6 (Uppsala))

Times uncertain.

Sept. 26th. ✓ e 18 51 44½ U.S.C.G.S. 6°N, 126½°E.
 Mindanao.
 H = 18 46 41
 Mag. 6.0 (Uppsala)

1P 19 05 47½
 e(S) 06 30½

1P 20 28 12½
 eS 39½

Sept. 27th. eL 04 (07 50) Probably Moluccas. Times inaccurate.
 eL 04 (18 12) " " " "
 e 05 (56 16) " " " "
 1P 14 (50 50½)
 iS (51 15½)

1P 17 (23 40.3)
 iS (49½)

Times uncertain.

Sept. 28th. e 04 (14 00) U.S.C.G.S. 3°S, 135½°E. Near
 the N. Coast of New Guinea.
 H = 04 11 23

1P 12 (54 13½)
 eS (49½)

✓ eP 14 (26 32) U.S.C.G.S. 20½°S, 178°W.
 i! (32½) Fiji Is.
 i (28 36) H = 14 20 00
 i (31 48) h. approx. = 650 kms.
 Mag. 7.6 (Uppsala)

✓ e(P) 14 (50 36) U.S.C.G.S. 20½°S, 178½°W.
 Fiji Is. Aftershock.
 H = 14 44 02
 h approx. = 600 kms.

1P 17 (35 48½)
 iS (54½)

Times uncertain.

Sept. 29th. ✓ 1P 00 14 15
 1P 03 56 48
 iS 59

1957.

7.

Sept. 29th. eP 06 42 22 U.S.C.G.S. 0° , 124°E.
 cont.. Celebes.
 H = 06 37 33
 h approx. = 200 kms.

✓ eP 08 19 50 U.S.C.G.S. 25°S, 178½°E.
 i! 50½ S. of Fiji Is.
 i 20 02 H = 08 13 22
 e 24 50 h approx. = 600 kms.
 e 59½ Mag. 6½ (Berk.)

Sept. 30th. 1P 07 29 56
 1S 30 47

1P 15 09 45½
 1S 10 08

1P 22 44 25½

Oct. 10th. eP 10 57 10

eP 11 01 30

eP 11 09 33½
 i 47

eP 11 43 16

1P 13 56 47

1P 14 21 36
 eL 24.7 -

B.C.I.S. 3½°S, 146°E. Near
 the N.E. Coast of New Guinea.
 H = 14 20 55

1P! 16 49 17½
 Times uncertain.

Oct. 12th. 1P 22 15 58½

1P 22 38 50
 Times uncertain.

Oct. 13th. 1P 12 20 09
 eS 36

Oct. 14th. eP 00 29 07½
 i 11
 eS 37½

1P 04 05 24
 1S 34

Oct. 16th. 1P 22 23 32½

1P 22 29 39

Oct. 17th. 1P 00 50 08

eP 15 17 34½

Oct. 18th. 1P 18 59 59 B.C.I.S. 2½°S, 146½°E. Nr. the
 N.E. Coast of New Guinea.
 H = 18 59 15

✓ Oct. 19th. 1P 18 36 05½ U.S.C.G.S. 23½°N, 122°E.
 Formosa.
 H = 18 28 50
 Mag. 7 (Moscow)

1957.

Oct. 19th.	iP	19	51	02 $\frac{1}{2}$
cont..	iP	21	31	52
Oct. 20th.	iP	01	42	39
Oct. 21st.	iP	02	36	01
	iS			20
Oct. 23rd.	iP	15	20	17
	iS			37
Oct. 24th.	iP	00	22	57

U.S.C.G.S. 14 $\frac{1}{2}$ ^oS, 168^oE.
New Hebrides Is.
H = 00 17 37.
Mag. 6 $\frac{1}{2}$ (Pas.)

✓ eP 09 14 08
i 09 $\frac{1}{2}$

(U.S.C.G.S. 20 $\frac{1}{2}$ ^oS, 179^oW.
Fiji Is.
H = 09 07 30.
h approx. = 550 kms.)

iP 14 24 35 $\frac{1}{2}$
i(S) 47

iP 22 43 58
i(S) 44 10
i 39

Oct. 25th. iP 14 49 11

Oct. 26th. iP 01 08 50
i(S) 09 21

✓ iP 03 46 21 $\frac{1}{2}$

✓ iP 08 32 48

U.S.C.G.S. 20 $\frac{1}{2}$ ^oS, 178^oW.
Fiji Is.
H = 08 26 12.
h approx. = 600 kms.
Mag. 6-6 $\frac{1}{4}$ (Pas.)

Oct. 27th. eP 00 51 03 $\frac{1}{2}$

iP 07 28 39 $\frac{1}{2}$
i(S) 29 04 $\frac{1}{2}$
i 50

iP 22 12 12
iS 13 07

Oct. 28th. iP 13 58 25 $\frac{1}{2}$
iS 50

eP 17 14 58

Nov. 2nd. eP approx. 18 45 -

U.S.C.G.S. 13^oS, 166 $\frac{1}{2}$ ^oE.
New Hebrides Is.
H = 18 30 24.
Mag. 6.4 (Kiruna)

Times very uncertain.

Nov. 3rd. iP approx. 07 13 -

iP approx. 07 34 -
S-P approx. = 12 seconds

iP approx. 08 32 -
S-P approx. = 13 seconds

1957.

Nov. 3rd. cont..	eP approx. 10	27	-		U.S.C.G.S. 6°S, 147°E. Near the N.E. coast of New Guinea. H = 10 24 51. Mag. 5 $\frac{3}{4}$ (Matsushiro). <u>Felt:</u> (See Rabaul Bulletin).
	i!			P+5 $\frac{1}{2}$ secs	
	iS!			P+3 $\frac{1}{2}$ secs	
	eP approx. 11	17	-		U.S.C.G.S. 6 $\frac{1}{2}$ °S, 147°E. Near the N.E. coast of New Guinea. H = 11 14 30. Mag. 5 $\frac{1}{4}$ -5 $\frac{1}{2}$ (Matsushiro). <u>Felt:</u> (See Rabaul Bulletin).
	i!			P+5 secs	
	iS!			P+3 $\frac{1}{2}$ secs	
	eP approx. 15	52	-		
	i(S)			P+about 30 secs	
	Times very uncertain.				
Nov. 5th.	iP	11	17	42 $\frac{1}{2}$	
	i			46 $\frac{1}{2}$	
	i(S)	18		12 $\frac{1}{2}$	
	iP	11	22	53 $\frac{1}{2}$	U.S.C.G.S. 6°S, 150°E. New Britain. H = 11 18 43. <u>Felt:</u> (See Rabaul Bulletin).
	i			57 $\frac{1}{2}$	
	i(S)	23		26	
	iP	18	19	01 $\frac{1}{2}$	
	i			06	
	i(S)			32	
Nov. 10th.	eP approx. 02	42	-		U.S.C.G.S. 7°S, 155 $\frac{1}{2}$ °E. Solomon Is. H = 02 36 21. Mag. 6.5 (Quetta). <u>Felt:</u> (See Rabaul Bulletin).
	eP approx. 03	50	-		U.S.C.G.S. 7 $\frac{1}{2}$ °S, 155 $\frac{1}{2}$ °E. Solomon Is. H = 03 43 49. Mag. 6.2 (Quetta). <u>Felt:</u> (See Rabaul Bulletin).
	eP approx. 05	53	-		U.S.C.G.S. 6 $\frac{1}{2}$ °S, 147°E.
	i			P+ 2 secs	
	i			P+ 4 secs	
	iS			P+33 secs	
	iP approx. 11	24	-		
	iS			P+ 7 secs	
	iP approx. 12	29	-		
	iS			P+25 secs	
	iP approx. 16	41	-		
	iP approx. 19	36	-		
	Times very uncertain.				
Nov. 11th.	eP approx. 19	30	-		
	Times very uncertain.				
Nov. 12th.	iP approx. 01	04	-		
	i			P+10 secs	
	iS			P+19 secs	
	eP approx. 01	38	-		(U.S.C.G.S. 6°S, 149 $\frac{1}{2}$ °E. New Britain. H = 01 31 40. Mag. 5 $\frac{3}{4}$ (Matsushiro). <u>Felt:</u> (See Rabaul Bulletin)).

1957.					10.
Nov. 12th.	e	approx.09	10	-	
cont..					
	e	approx.10	08	-	
	iP	approx.11	19	-	
	eP	approx.18	01	-	
	eP	approx.18	08	-	
	eP	approx.19	03	-	
Nov. 14th.	iP	approx.20	27	-	
	iP	approx.20	54	-	
Nov. 15th.	iP	approx.08	37	-	
	eS		P+30 secs		
Nov. 16th.	eP	approx.05	17	-	
Nov. 18th.	eP	approx.05	11	-	
Nov. 19th.	eP	approx.06	46	-	
	eP	approx.17	49	-	
Nov. 21st.	e	approx.05	11	-	
	iP	approx.18	03	-	
Nov. 22nd.	iP	approx.00	50	-	
	eS		P+30 secs		
	iP	approx.23	30	-	
	iS!		P+19 secs		
Nov. 23rd.	iP	approx.14	08	-	
Nov. 28th.	iP		12 34	12	
	iS			(17)	
Nov. 29th.	eP		22 38	42	
	e		41	44	
Nov. 30th.	iP		03 27	19½	
	iS			48	
	(eP		07 16	26)	
	iP		15 07	34½	
	iS			48½	
Dec. 2nd.	e(P)		15 18	21	
	e(P)		17 41	05	
	e		42	14	
	iP		22 37	17	
	e(S)			41	
Dec. 3rd.	e(P)		18 05	03	

U.S.C.G.S. 21°S, 66°W.
 S. of Bolivia.
 H = 22 19 38
 h approx. = 200 kms.
 Mag. 7½-8 (Pas.)



1957

11.

Dec. 4th.	eP	00 31 54	U.S.C.G.S. 0° ⁰ , 125° ⁰ E. Molucca Strait. H = 00 27 01
	eP	03 48 (06)	B.C.I.S. 45 ¹ / ₂ °N, 99° ⁰ / ₄ E.
	e	33	Outer Mongolia.
	eL	04 (11.0)-	H = 03 37 44
	e(P'P')	17 44	Mag. 8.6 (Pas.)
Dec. 5th.	iP	00 27 51 ¹ / ₂	
	iS	28 02	
	iP	08 52 12 ¹ / ₂	
	eP	09 02 31	
	i	31 ¹ / ₂	
	iS	53	
Dec. 6th.	eP	12 20 59	
	i	21 09	
	i	29	
Dec. 7th.	e(P)	13 21 19	
	iP	15 01 33	
	iS	42 ¹ / ₂	
	eP	15 46 34 ¹ / ₂	B.C.I.S. New Britain region.
	i	47 17	H = 15 45.4m.
Dec. 8th.	eP	17 56 35	
Dec. 9th.	eP	12 00 26 ¹ / ₂	
	eP	19 00 23	
	e(S)	52	
Dec. 10th.	eP	10 37 03	
	eS	34	
	e(P)	14 38 18	U.S.C.G.S. 6° ⁰ S, 154 ¹ / ₂ °E.
	i	23	Solomon Is.
	eL	42 -	H = 14 35 57
			Mag. 7 (Matsushiro).
			<u>Felt</u> : (See Rabaul Bulletin).
	e(P)	15 55 21	U.S.C.G.S. 5 ¹ / ₂ °S, 155°E.
			Solomon Is. Aftershock.
			H = 15 53 02
			<u>Felt</u> : (See Rabaul Bulletin).
	eP	16 16 35	
Dec. 11th.	eP	08 52 (13)	
	eP	10 10 23	
	i	44	
	i	11 16	
Dec. 12th.	iP	03 31 35	
	iS	52	
	eP	09 54 43	(U.S.C.G.S. 14 ¹ / ₂ °S, 167 ¹ / ₂ °E. New Hebrides Is. H = 09 47 02).
	eP	18 42 25	U.S.C.G.S. 13 ¹ / ₂ °S, 167°E. New Hebrides Is. H = 18 38 19 Mag. 6 (Matsushiro).

1957.

12.

Dec. 13th. e(P) 03 07 (20)
 e (27 $\frac{1}{2}$)
 i 36
 eP 04 00 (17)
 e 12 11 (20)
 e(P) 20 06 (24)

U.S.C.G.S. 6 $\frac{1}{2}$ ^oS, 155 $\frac{1}{2}$ ^oE.
 Solomon Is.
 H = 20 03 58

Dec. 14th. iP 06 10 30
 eP 06 40 (07)
 eP 12 08 29
 eS 57
 iP 15 50 07
 iS 13
 iP 16 56 27
 iS 33
 iP 18 25 36
 iS 26 04
 iP 21 28 53
 eS 29 03

Dec. 17th. ✓ eP 13 55 01 $\frac{1}{2}$
 i 06 $\frac{3}{4}$
 i 56 15 $\frac{3}{4}$
 i 38 $\frac{3}{4}$

U.S.C.G.S. 12 $\frac{1}{2}$ ^oS, 166 $\frac{1}{2}$ ^oE.
 Santa Cruz Is. H = 13 50 12.
 h approx. = 100 kms.
 Mag. 7 $\frac{3}{4}$ (Pas.)

Dec. 19th. eP 00 28 27 $\frac{1}{2}$

Dec. 20th. eiP 16 11 35
 e(S) 50
 iP 21 02 33 $\frac{1}{2}$
 iS 38 $\frac{1}{2}$

Dec. 22nd. e(P) 07 45 29
 e(P) 14 05 36
 e(S) 06 08
 eP 17 13 25 $\frac{1}{2}$
 eS 49

Dec. 24th. iP 06 44 29
 eS 41

1958.

Jan. 4th. ✓ eP 13 09 00
 e 11 50
 e 12 17
 eP 18 02 (18)

U.S.C.G.S. 6^oS, 133^oE.
 Banda Sea.
 H = 13 05 24

TERRITORY OF PAPUA AND NEW GUINEA
Vulcanological Observatory Rabaul

SUPPLEMENTARY READINGS FROM MADANG 1957-58

<u>Addition</u>	(05°14'S 145°48'E)	Recorded on Vertical Willmore Seismograph.	
July 3rd.	(eP (i	06 09 12½) 13½)	U.S.C.G.S. 24°S, 180°. Fiji Is. H = 06 02 37 h approx. = 550 kms.
July 4th.	(iP (iS	02 34 11½) 33)	
	iP eS	15 17 31 59½	
	e	15 56 14	B.C.I.S. Solomon Islands region. H = 15 53.8 m.
July 5th.	e e i	17 34 02½ 17½ 36 09	
July 7th.	eP	16 13 51.8	U.S.C.G.S. 6½°S, 156°E. Solomon Is. H = 16 11 15 Mag. 6¾ (Pas.)
July 8th.	iP iS	05 27 22 56	
July 9th.	(iP (iS	00 58 22) 49½)	
	(iP (iS	03 39 40½) 40 59½)	
	(e	10 05 56)	U.S.C.G.S. 6°S, 104°E. Sumatra. H = 09 58 09 h approx. = 60 kms. Mag. 6½ (Matsushiro)
July 12th.	eP	20 55 34½	Foreshock.
	iP	20 57 15½	U.S.C.G.S. 3°S, 148½°E.
	i	43½	Bismarck Sea.
	eL	21 01.3 -	H = 20 56 18 Mag. 6¼ (Matsushiro)
	iP	21 59 40	U.S.C.G.S. 3°S, 148½°E.
	i	43½	Bismarck Sea. Aftershock.
	i	54	H = 21 58 45
	i	(22) 00 08	Mag. 6 (Matsushiro)
	i	01 00½	
	eL	04.6 -	
July 14th.	eP	06 31 33	U.S.C.G.S. 27°S, 178°W.
	i	24	Kermadec Is. region.
	i	32 12½	H = 06 23 52 h approx. = 150 kms. Mag. 7½ (Rome)



1957.

2.

July 14th. cont..	iP	08	18	42	U.S.C.G.S. 30°S, 177°W. Kermadec Is. H = 08 10 45 Mag. 7 (Berk.)
	i			43	
	i(P)	09	50	19	U.S.C.G.S. 20°S, 174½°W. Tonga Is. H = 09 42 27 Mag. 6½ (Matsushiro)
July 15th.	iP	14	13	38½	
	iS		14	08½	
	iP	20	33	38	
	eS			45	
July 16th.	iP	03	41	53½	
	iS		42	22½	
	iP	04	22	52½	
	iS			59½	
	iP	10	05	16½	
	iS			36½	
July 17th.	iP	08	05	53½	
	iS		06	05½	
	eP	11	15	02½	U.S.C.G.S. 11°S, 167°E. Santa Cruz Is. H = 11 10 10 h = 100 kms. Mag. 6½ (Berk.)
	i			04½	
	e	12	28	21½	U.S.C.G.S. 2°S, 137°E. H = 12 26 06
	i		29	05	
	e(P)	12	30	03½	
	iP	15	17	53½	
	iS		18	03.7	
	i(P)	21	20	09	
	(iS		21	20)	
July 18th.	iP!	11	11	08½	U.S.C.G.S. 5°S, 146°E. Near the N. coast of New Guinea. H = 11 10 58 Felt: Karkar, Kumbug and Madang (see Rabaul Bulletin)
	i		13	04	
	i			20½	
	iP!	11	18	57	
	iS		19	02½	
	iP	11	28	46	
	iS			52	
	iP	12	05	44	
	iP	12	58	28½	
	iP	13	23	17	
	iS			23	
	iP	13	38	48	
	iS			54	
	iP	14	02	05½	

1957.					3.
July 19th.	iP	20	27	12	U.S.C.G.S. 3°S, 142°E. North of New Guinea. Foreshock. H = 20 26 03 <u>Felt:</u> (see Rabaul Bulletin)
	i			44	
	i		28	21	
	i			58	
	iP	21	37	54½	U.S.C.G.S. 3½°S, 142°E. North of New Guinea. H = 21 36 46 <u>Felt:</u> (see Rabaul Bulletin)
	i!			38	
	i			12	
	i!			53½	
	i		39	30½	
July 21st.	iP	00	23	56	U.S.C.G.S. 4½°S, 153°E. New Ireland. H = 07 00 10 Mag. 5¾-6 (Matsushiro) <u>Felt:</u> (see Rabaul Bulletin)
	eP	07	03	06	
	iP	08	13	45	
	i(S)			14 13½	
	eP	18	33	29	
	i			34 09	
July 22nd.	iP	01	04	50½	
	iS			59	
	iP	06	25	02	U.S.C.G.S. 33½°S, 178°W. Kermadec Is. region. H = 06 16 52 Mag. 6¼-6½ (Matsushiro)
	i			11½	
	i			19	
	eP	06	30	00½	U.S.C.G.S. 34°S, 177½°W. Kermadec Is. region. H = 06 21 50. Aftershock.
	i			08½	
	i			17	
July 23rd.	iP	05	38	06	
	iS			19	
	e	13	36	55½	U.S.C.G.S. Kermadec Is. region. H = 13 30 17 h approx. = 600 kms.
July 24th.	i(P)	02	07	50½	
	eP	05	53	38	
	e	10	48	07	
	eP	18	09	22	
	i(S)			45	
	i		10	07	
July 25th.	eP	14	11	17	<u>Felt:</u> Lae (see Rabaul Bulletin)
	i			36	
	e(S)			40	
	i		14	02	
July 26th.	eP	03	55	06	
	i			06.8	
	e	05	12	(28)	
	e	07	04	50	
	iP	17	37	35	
	iS			38 03	

1957.

4.

July 27th.	eP i i	18	44 45 15	29 10 15	U.S.C.G.S. 6½°S, 151½°E. New Britain region. H = 18 43 01
	iP iS	20	31	29 47	
Aug. 4th.	eP i i(S) i	00	39	43½ 44 07½ 43½	U.S.C.G.S. 3½°S, 145°E. Near the N. coast of New Guinea. H = 00 39 12 Mag. 6½-6¾ (Matsushiro) <u>Felt:</u> (see Rabaul Bulletin)
Aug. 14th.	iP i i i	14	(10 (11 (13 (21)	48) 04½) (13) (21)	Times doubtful.
	iP eS	15	(27 (53)	24) (53)	Times doubtful.
Aug. 15th.	iP i(S)	03	38	18 24	
	iP i(pP) e(sP) e(pPP) i(S)	20	47 48	35 00½ 17 46 24½	U.S.C.G.S. 4½°S, 155°E. Solomon Is. region. H = 20 45 20 h approx. = 500 kms.
Aug. 16th.	iP eS	00	18	06½ 17½	
	eP	03	28	16	U.S.C.G.S. 5°S, 154°E. New Britain region. H = 03 26 05 <u>Felt:</u> (see Rabaul Bulletin)
	iP i(S)	05	37 38	49.9 07.5	
	eP	11	59	26½	U.S.C.G.S. 5°S, 155°E. Solomon Is. H = 11 57 16 <u>Felt:</u> (see Rabaul Bulletin)
Aug. 17th.	eP	02	23	38	U.S.C.G.S. 4°S, 151°E. New Britain. H = 02 21 47 <u>Felt:</u> (see Rabaul Bulletin)
Aug. 18th.	eP iS iP iS iP i e(S) e	00	(12 or 13)	25½ 54½ 07.7 23 55½ 57 24 12½	U.S.C.G.S. 50°N, 157°E. N. of Kurile Is. H = 21 42 30 Mag. 6.6 (Tacubaya)

1957,

5.

Aug. 19th.	eP i	00 12 13	57.3 10.5	U.S.C.G.S. $4\frac{1}{2}^{\circ}\text{S}$, 153°E . New Britain region. H = 00 11 13 <u>Felt:</u> (see Rabaul Bulletin)
	e	02 43	$27\frac{1}{2}$	U.S.C.G.S. New Britain region. H = 02 41 14 <u>Felt:</u> (see Rabaul Bulletin)
	e	11 38	$33\frac{1}{2}$	U.S.C.G.S. 10°S , 161°E . Solomon Is. H = 11 34 36 Mag. $6\frac{1}{2}$ (Pas.)
	iP eS	11 54 55	$32\frac{1}{2}$ $12\frac{1}{2}$	
Aug. 20th.	iP iS	00 30	$10\frac{1}{2}$ $48\frac{1}{2}$	
	e	06 31	00	U.S.C.G.S. 10°S , 161°E . Solomon Is. Foreshock H = 06 27 07 Mag. $6\frac{3}{4}$ (Matsushiro)
	e	12 05	$44\frac{1}{2}$	U.S.C.G.S. 10°S , 161°E . Solomon Is. H = 12 01 54 Mag. $6\frac{3}{4}$ (Matsushiro)
	e i i	21 23 24	37 $56\frac{1}{2}$ $05\frac{1}{2}$	
Aug. 21st.	iP i iS	04 (33 (57) (34	55) (57) $23\frac{1}{2}$)	
	iP	10 (21	43)	Times doubtful.
Sept. 21st.	e	14 (39	20)	
	e	14 (56	20)	
	iP iS	17 (26	$33\frac{1}{2}$) (55)	Times uncertain.
Sept. 24th.	eP i	08 26	$04\frac{1}{2}$ 16	U.S.C.G.S. $5\frac{1}{2}^{\circ}\text{N}$, $127\frac{1}{2}^{\circ}\text{E}$. Mindanao. H = 08 21 05 Mag. $7\frac{3}{4}$ (Pas.)
	iP iS	20 11	$40\frac{1}{2}$ $49\frac{1}{2}$	
	eP i eS i	23 26 27	34 $34\frac{1}{2}$ 20 $28\frac{1}{2}$	
	iP iS	23 47 48	$52\frac{1}{2}$ 04	
Sept. 25th.	eP	02 (19	36) (42)	Times uncertain.



1957.

6.

Sept. 25th. e(P) 06 (58 36) B.C.I.S. Discordant data.
 cont.. e (59 32) (Several shocks)
 e (18)

iP 09 (39 57) B.C.I.S. New Hanover region.
 i (59½) H = 09 38.9 m.
 eL (43 -)

iP 14 (09 56) B.C.I.S. 2°S, 140°E. Near
 i (12 59½) the N. Coast of New Guinea.
 H = 14 08.0 m.

e 16 (41 32½) (U.S.C.G.S. Nr. the S.E. Coast
 of Mindanao.
 H = 16 36 37
 Mag. 6 (Uppsala))

Times uncertain.

Sept. 26th. e 18 51 44½ U.S.C.G.S. 6°N, 126½°E.
 Mindanao.
 H = 18 46 41
 Mag. 6.0 (Uppsala)

iP 19 05 47½
 e(S) 06 30½

iP 20 28 12½
 eS 39½

Sept. 27th. eL 04 (07 50) Probably Moluccas. Times inaccurate.
 eL 04 (18 12) " " " "
 e 05 (56 16) " " " "
 iP 14 (50 50½)
 iS (51 15½)

iP 17 (23 40.3)
 iS (49½)

Times uncertain.

Sept. 28th. e 04 (14 00) U.S.C.G.S. 3°S, 135½°E. Near
 the N. Coast of New Guinea.
 H = 04 11 23

iP 12 (54 13½)
 eS (49½)

eP 14 (26 32) U.S.C.G.S. 20½°S, 178°W.
 i! (32½) Fiji Is.
 i (28 36) H = 14 20 00
 i (31 48) h. approx. = 650 kms.
 Mag. 7.6 (Uppsala)

e(P) 14 (50 36) U.S.C.G.S. 20½°S, 178½°W.
 Fiji Is. Aftershock.
 H = 14 44 02
 h approx. = 600 kms.

iP 17 (35 48½)
 iS (54½)

Times uncertain.

Sept. 29th. iP 00 14 15
 iP 03 56 48
 iS 59

1957.

7.

Sept. 29th. cont..	eP	06	42	22	U.S.C.G.S. 0° , 124°E. Celebes. H = 06 37 33 h approx. = 200 kms.
	eP	08	19	50	U.S.C.G.S. 25°S, 178½°E.
	i!			50½	S. of Fiji Is.
	i		20	02	H = 08 13 22
	e		24	50	h approx. = 600 kms.
	e			59½	Mag. 6¼ (Berk.)
Sept. 30th.	1P	07	29	56	
	1S		30	47	
	1P	15	09	45½	
	1S		10	08	
	1P	22	44	25½	
Oct. 10th.	eP	10	57	10	
	eP	11	01	30	
	eP	11	09	33½	
	i			47	
	eP	11	43	16	
	1P	13	56	47	
	1P	14	21	36	B.C.I.S. 3¼°S, 146°E. Near the N.E. Coast of New Guinea. H = 14 20 55
	eL		24.7	-	
	1P!	16	49	17½	
	Times uncertain.				
Oct. 12th.	1P	22	15	58½	
	1P	22	38	50	
	Times uncertain.				
Oct. 13th.	1P	12	20	09	
	eS			36	
Oct. 14th.	eP	00	29	07½	
	i			11	
	eS			37½	
	1P	04	05	24	
	1S			34	
Oct. 16th.	1P	22	23	32½	
	1P	22	29	39	
Oct. 17th.	1P	00	50	08	
	eP	15	17	34½	
Oct. 18th.	1P	18	59	59	B.C.I.S. 2½°S, 146½°E. Nr. the N.E. Coast of New Guinea. H = 18 59 15
Oct. 19th.	1P	18	36	05½	U.S.C.G.S. 23½°N, 122°E. Formosa. H = 18 28 50 Mag. 7 (Moscow)

1957.

Oct. 19th. iP 19 51 02½
 cont. iP 21 31 52
 Oct. 20th. iP 01 42 39
 Oct. 21st. iP 02 36 01
 iS 20
 Oct. 23rd. iP 15 20 17
 iS 37
 Oct. 24th. iP 00 22 57

U.S.C.G.S. 14½°S, 168°E.
 New Hebrides Is.
 H = 00 17 37.
 Mag. 6½ (Pas.)

eP 09 14 08
 i 09½

(U.S.C.G.S. 20½°S, 179°W.
 Fiji Is.
 H = 09 07 30.
 h approx. = 550 kms.)

iP 14 24 35½
 i(S) 47

iP 22 43 58
 i(S) 44 10
 i 39

Oct. 25th. iP 14 49 11

Oct. 26th. iP 01 08 50
 i(S) 09 21

iP 03 46 21½

iP 08 32 48

U.S.C.G.S. 20½°S, 178°W.
 Fiji Is.
 H = 08 26 12.
 h approx. = 600 kms.
 Mag. 6-6¼ (Pas.)

Oct. 27th. eP 00 51 03½

iP 07 28 39½
 i(S) 29 04½
 i! 50

iP 22 12 12
 iS 13 07

Oct. 28th. iP 13 58 25½
 iS 50

eP 17 14 58

Nov. 2nd. eP approx. 18 45 -

U.S.C.G.S. 13°S, 166½°E.
 New Hebrides Is.
 H = 18 30 24.
 Mag. 6.4 (Kiruna)

Times very uncertain.

Nov. 3rd. iP approx. 07 13 -

iP approx. 07 34 -
 S-P approx. = 12 seconds

iP approx. 08 32 -
 S-P approx. = 13 seconds

1957.

9.

Nov. 3rd. eP approx. 10 27 -
 cont.. i! P+5½ secs
 iS! P+34½ secs

U.S.C.G.S. 6°S, 147°E. Near
 the N.E. coast of New Guinea.
 H = 10 24 51.
 Mag. 5½ (Matsushiro).
Felt: (See Rabaul Bulletin).

eP approx. 11 17 -
 i! P+5 secs
 iS! P+34 secs

U.S.C.G.S. 6½°S, 147°E. Near
 the N.E. coast of New Guinea.
 H = 11 14 30
 Mag. 5¼-5½ (Matsushiro).
Felt: (See Rabaul Bulletin).

eP approx. 15 52 -
 i(S) P+about 30 secs
 Times very uncertain.

Nov. 5th. iP 11 17 42½
 i 46½
 i(S) 18 12½

iP 11 22 53½
 i 57½
 i(S) 23 26

U.S.C.G.S. 6°S, 150°E.
 New Britain.
 H = 11 18 43
Felt: (See Rabaul Bulletin).

iP 18 19 01½
 i 06
 i(S) 32

Nov. 10th. eP approx. 02 42 -

U.S.C.G.S. 7°S, 155½°E.
 Solomon Is.
 H = 02 36 21.
 Mag. 6.5 (Quetta).
Felt: (See Rabaul Bulletin).

eP approx. 03 50 -

U.S.C.G.S. 7½°S, 155½°E.
 Solomon Is.
 H = 03 43 49.
 Mag. 6.2 (Quetta).
Felt: (See Rabaul Bulletin).

eP approx. 05 53 -
 i P+ 2 secs
 i P+ 4 secs
 iS P+33 secs

U.S.C.G.S. 6½°S, 147°E.

iP approx. 11 24 -
 iS P+ 7 secs

iP approx. 12 29 -
 iS P+25 secs

iP approx. 16 41 -

iP approx. 19 36 -
 Times very uncertain.

Nov. 11th. eP approx. 19 30 -
 Times very uncertain.

Nov. 12th. iP approx. 01 04 -
 i P+10 secs
 iS P+19 secs

eP approx. 01 38 -

(U.S.C.G.S. 6°S, 149½°E.
 New Britain. H = 01 31 40.
 Mag. 5½ (Matsushiro).
Felt: (See Rabaul Bulletin)).

1957.					10.
Nov. 12th.	e	approx.09	10	-	
cont..					
	e	approx.10	08	-	
	iP	approx.11	19	-	
	eP	approx.18	01	-	
	eP	approx.18	08	-	
	eP	approx.19	03	-	
Nov. 14th.	iP	approx.20	27	-	
	iP	approx.20	54	-	
Nov. 15th.	iP	approx.08	37	-	
	eS		P+30 secs		
Nov. 16th.	eP	approx.05	17	-	
Nov. 18th.	eP	approx.05	11	-	
Nov. 19th.	eP	approx.06	46	-	
	eP	approx.17	49	-	
Nov. 21st.	e	approx.05	11	-	
	iP	approx.18	03	-	
Nov. 22nd.	iP	approx.00	50	-	
	eS		P+30 secs		
	iP	approx.23	30	-	
	iS!		P+19 secs		
Nov. 23rd.	iP	approx.14	08	-	
Nov. 28th.	iP		12	34	12
	iS				(17)
Nov. 29th.	eP		22	38	42
	e			41	44
Nov. 30th.	iP		03	27	19 $\frac{1}{2}$
	iS				48
	(eP		07	16	26)
	iP		15	07	34 $\frac{1}{2}$
	iS				48 $\frac{1}{2}$
Dec. 2nd.	e(P)		15	18	21
	e(P)		17	41	05
	e			42	14
	iP		22	37	17
	e(S)				41
Dec. 3rd.	e(P)		18	05	03

U.S.C.G.S. 21°S, 66°W.
 S. of Bolivia.
 H = 22 19 38
 h approx. = 200 kms.
 Mag. 7 $\frac{3}{4}$ -8 (Pas.)

1957

11.

Dec. 4th. eP 00 31 54

U.S.C.G.S. 0°, 125°E.
Molucca Strait.
H = 00 27 01

eP 03 48 (06)
e 33
eL 04 (11.0)-
e(P'P') 17 44

B.C.I.S. 45½°N, 99°4 E.
Outer Mongolia.
H = 03 37 44
Mag. 8.6 (Pas.)

Dec. 5th. iP 00 27 51½
iS 28 02

iP 08 52 12½
eP 09 02 31
i 31½
iS 53

Dec. 6th. eP 12 20 59
i 21 09
i 29

Dec. 7th. e(P) 13 21 19
iP 15 01 33
iS 42½

eP 15 46 34½
i 47 17

B.C.I.S. New Britain region.
H = 15 45.4m.

Dec. 8th. eP 17 56 35

Dec. 9th. eP 12 00 26½

eP 19 00 23
e(S) 52

Dec. 10th. eP 10 37 03
eS 34

e(P) 14 38 18
i 23
eL 42 -

U.S.C.G.S. 6°S, 154½°E.
Solomon Is.
H = 14 35 57
Mag. 7 (Matsushiro).
Felt: (See Rabaul Bulletin).

e(P) 15 55 21

U.S.C.G.S. 5½°S, 155°E.
Solomon Is. Aftershock.
H = 15 53 02
Felt: (See Rabaul Bulletin).

eP 16 16 35

Dec. 11th. eP 08 52 (13)

eP 10 10 23
i 44
i 11 16

Dec. 12th. iP 03 31 35
iS 52

eP 09 54 43

(U.S.C.G.S. 14½°S, 167½°E.
New Hebrides Is.
H = 09 47 02).

eP 18 42 25

U.S.C.G.S. 13½°S, 167°E.
New Hebrides Is.
H = 18 38 19
Mag. 6 (Matsushiro).

1957. 12.

Dec. 13th. e(P) 03 07 (20)
 e (27 $\frac{1}{2}$)
 i 36
 eP 04 00 (17)
 e 12 11 (20)
 e(P) 20 06 (24)

U.S.C.G.S. 6 $\frac{1}{2}$ ^oS, 155 $\frac{1}{2}$ ^oE.
 Solomon Is.
 H = 20 03 58

Dec. 14th. iP 06 10 30
 eP 06 40 (07)
 eP 12 08 29
 eS 57
 iP 15 50 07
 iS 13
 iP 16 56 27
 iS 33
 iP 18 25 36
 iS 26 04
 iP 21 28 53
 eS 29 03

Dec. 17th. eP 13 55 01 $\frac{1}{2}$
 i 06 $\frac{1}{2}$
 i 56 15 $\frac{1}{2}$
 i 38 $\frac{1}{2}$

U.S.C.G.S. 12 $\frac{1}{2}$ ^oS, 166 $\frac{1}{2}$ ^oE.
 Santa Cruz Is. H = 13 50 12.
 h approx. = 100 kms.
 Mag. 7 $\frac{3}{4}$ (Pas.)

Dec. 19th. eP 00 28 27 $\frac{1}{2}$

Dec. 20th. eiP 16 11 35
 e(S) 50
 iP 21 02 33 $\frac{1}{2}$
 iS 38 $\frac{1}{2}$

Dec. 22nd. e(P) 07 45 29
 e(P) 14 05 36
 e(S) 06 08
 eP 17 13 25 $\frac{1}{2}$
 eS 49

Dec. 24th. iP 06 44 29
 eS 41

1958.

Jan. 4th. eP 13 09 00
 e 11 50
 e 12 17
 eP 18 02 (18)

U.S.C.G.S. 6^oS, 133^oE.
 Banda Sea.
 H = 13 05 24

1958.

13.

Jan. 7th.	eP	04	58	30
	e(S)		59	01
Jan. 8th.	iP	03	34	48
	eS		35	00
	eP	03	47	26
	eS		48	(32)
	iP	10	02	57
	eS		03	05
	iP	14	34	39
	eS			50
Jan. 9th.	iP	11	13	56
	eS		14	02
	iP!	11	14	38
	eP	21	18	35
	i		19	49

U.S.C.G.S. $5\frac{1}{2}^{\circ}\text{S}$, 147°E . Near
the North Coast of New Guinea.
H = 11 13 56.
h approx. = 150 kms.
Mag. $6\frac{1}{2}$ (Matsushiro)
Felt: (See Rabaul Bulletin).

13

13

17	11	11	33
18	13	13	35
19	14	14	37
20	15	15	39
21	16	16	41
22	17	17	43
23	18	18	45
24	19	19	47
25	20	20	49
26	21	21	51
27	22	22	53
28	23	23	55
29	24	24	57
30	25	25	59
31	26	26	61
32	27	27	63
33	28	28	65
34	29	29	67
35	30	30	69
36	31	31	71
37	32	32	73
38	33	33	75
39	34	34	77
40	35	35	79
41	36	36	81
42	37	37	83
43	38	38	85
44	39	39	87
45	40	40	89
46	41	41	91
47	42	42	93
48	43	43	95
49	44	44	97
50	45	45	99

U.S.C.O.S. 405, W.S. West,
 the North Coast of New Guinea,
 N = 11 13 36,
 N approx. = 150 kms,
 N of (Wauson),
 (See Report Bulletin).

