TERRITORY OF PAPUA & NEW GUINEA
RABAUL

Seismological Bulletin:

Tremors recorded on Omori Seismograph -(NS, EW). Stationed at Rapindik at an height of about 10 feet above sea level.

Latitude 04°13'44" South
Longitude 152°11'48" East

April 1955

April	7	e	00	38½	- (a)
	9	e	04	55	40
	11	eP	00	51	50
		eS?		52	58
	14	iP	22	31	33
		iS			42
April	18	iP	13	13	32
		iS			49
	23	e	01	17½	- (a)
	28	i	04	52	00

(a) to nearest ½-minute

May, 1955

May	3	eP	22	03	35
		iS			53
	4	e	05	34	10
	5	iP	08	44	57
		eS		45	19
	6	eP	02	54	17
		eS			28
	8	e	07	38	56
		i		39	07
	9	iP	01	02	27
		i			30
	12	e	07	11	10
	17	e(P)	04	30	34
		iS			52
		iP	07	54	00
		iS			17
	18	eP?	15	47	16
		e		48	12
		eP	16	35	58
		iS		36	20
	22	e	03	22	06
	24	e(P)	10	52	- (a)
		e		52	07
May	26	eP	16	26	26
		e	20	11	11
		e	21	25½	- (a)
	29	e	21	30	09
	30	eP	12	37	09
		iS?		38	48
		e	23	30	51

(a) to nearest half-minute

Tremors recorded on Benioff Seismograph (Z, NS, EW). Stationed at an height of 600 feet above sea level at the Vulcanological Observatory.

Latitude 04°11'33" South
Longitude 152°10'16" East

May 26
Commenced recording 0701 hours. Sensitivity on zero until 2301 hours

e	N	16	26	33

May 27	eP	12	29¼	--	
	(to nearest ¼ min.)				
	iP	18	32	20	
	i			22	
	iP	19	13	07	
28	iP	04	36	26	
	i(S)Z			52	
	iPZ	06	39	30	
	i		40	18	
	e		42	35	
	e Z	06	52	18	

No record from 0007 hours, May 29th, until 0038 hours, May 30. No record from 0719 hours, May 30 owing to belt breaking.

May 31 Record commenced 0137 hr

eP	Z	09	37	48
e	E			56
e(S)	H		39	38
e	Z		40	18
e	H		42	56
eP	Z	14	52	37
eP	Z	16	32	45
e	E			55
e	N		35	14
eP	Z	18	16	45
iN			17	15.5

Tremors reported to the Vulcanological Observatory, Rabaul, for the months of April, May 1955.

Date	Locality	Lat. S. °	'	Long. E. °	'	Strength Mercalli	Time G.M.T.
April 6	Esa'ala	09	45	150	55	1	1015
	Esa'ala					2	1120
	Esa'ala					2	2159
9	Aneityum Is., New Hebrides					3	2200
11	Finschhafen	06	40	147	50	4	0050
	Umboi (Rooke) Island	05	40	147	50	4	0055
	Kalingi	05	30	148	30	3	0052
12	Umboi Is.	05	40	147	50	1	0009
16	Esa'ala	09	45	150	55	2	2159
19	Esa'ala					2	0248
	Vila, New Hebrides					1-2	1736
23	Mt. Hagen	05	50	144	10	2	0722
27	Aneityum Is., New Hebrides					2	0300
	Umboi Is.	05	40	147	50	1	2010
28	Umboi Is.					2	0710

May 2	Umboi Is.					1	0945
4	Aneityum Is., New Hebrides					2	0400
6	Rabaul	04	10	152	15	2	0255
7	Talasea	05	15 1	150	00	2-3	0500, 0508
	Talasea					2-3	0515
	Walindi	05	30	150	05	1	0528
9	Rabaul	04	10	152	15	2	0103
15	Aneityum Is., New Hebrides					3	1000
	Umboi Is.	05	40	147	50	1	1800
23	Lae	06	45	147	00	4	0426
	Vila, New Hebrides						1742
30	Kalingi	05	30	148	30	2	1130
							(? Volcani
31	Aitape	03	10	142	20	1-3	Between 1630-16
	Aitape					Slight	1658-1822
	Aitape					3	1822

(M. A. Reynolds)
a/Vulcanologist.

TERRITORY OF PAPUA AND NEW GUINEA
RABAUL

Seismological Bulletin June, 1955

Tremors recorded on Benioff Seismograph (Z, NS, EW). Stationed at an height of 600 feet above sea level at the Vulcanological Observatory.

Latitude 04°11'33" South
Longitude 152°10'16" East

June 1
e(P) 08 58 27
i $29\frac{1}{2}$
eL $59\frac{1}{2}$ -
(to nearest $\frac{1}{4}$min.)

iP Z 09 18 $31\frac{1}{2}$
i 19 09
i(S)E 25
e N 34

eP Z 16 15 49
i Z 50
i NE 52
ipP Z 16 16

June 2 Z, NS components only

e Z 05 28 40
(obscured by microseisms)
i Z 55

eP Z 11 $28\frac{1}{2}$ --
(to nearest $\frac{1}{4}$-minute)

e Z 19 17 --
(to nearest $\frac{1}{4}$-minute)

iP Z 20 24 23
i N 51
e(S)N 25 21

June 3 Z, NS components only

iP! Z 12 07 $12\frac{1}{2}$
Compression

June 4 Z, NS components only

e Z 16 59 35

June 5 Z, NS components only

iP Z 06 19 05

June 6 Z, NS components only

eP Z 01 21 25
i Z 26

e(P)Z 14 39 51
e Z 40 20

eP? Z 16 20 27
e N 42
e Z 50

iP! ZN 18 33 14
Compression

June 7 Z, NS components only

eP Z 00 58 49

iP! 13 09 14

eP Z 15 40 13

eP Z 22 07 43.5
i! Z 44.5
i! N 08 13.5

June 8 Z, NS components only

eP Z 22 19 56
e N $23\frac{1}{4}$ --
(to nearest $\frac{1}{4}$-minute)

June 9 No records between 0306 and 0626 hours

iP Z 10 05 35
i Z 36
iS EN 58.5

June 10
eP? N 01 29 09
e NE 30 32
e NE 51
e(S)?NE 32 50
(Z component not recording tremors)

June 11
eP Z 03 28 13

eP Z 21 17 54

e(PKP)?Z22 37 41
i ZH 57
e Z 40 10
iPP?!ZH 29
i N 51
e Z 50 15
e Z 52 16

June 12
eP Z 16 23 12

eP Z 20 40 00
i Z 07

June 13
eP N 19 54 58

eP N 21 41 26

June 14
eP Z 08 51 27
i Z 59
i N 52 44
eL N 55.0
i Z 55 20

continued/

Date	Phase	Comp.	h	m	s
June 14 continued	iP	Z	10	33	04
	eP	N			05
	i	E			35
	i	N			43
	iS?	E			50
	i	Z		34	37
	eP	Z	17	29	53
June 15	iP	Z	03	06	26
	iP	Z	12	33	51
	compression, Deep(?)				
	i	ZN		34	13
	i	Z			17
	iP!	Z	15	36	38
	dilatation to SE				
	(S-P interval 16 sec.)				
June 17	eP	Z	08	14	11
	i	N			28
	e	N		15	46
	e	Z		16	12
	eP	Z	12	20	59
	eP	Z	18	06	27
	epP?	Z		07	16
	iPcP	Z		08	56
June 18	eP?	Z	16	15	02
	i	Z			14
	iP!	Z	21	56	50
			dilatation		
June 19	eP?	Z	21	36	12
June 20	eP?	Z	12	17	38
			Microseism?		
	i	Z			39½
	eP	N			40
June 21	iP	Z	11	00	49
	eP	Z	12	46	56
	eP	Z	16	03	11
	eP	Z	19	28	46
	i	Z		29	21½
June 22	iP	Z	12	57	41
			Dilatation		
	iP	NE			42
	i	Z			43
	iS	NE		58	05½
	eP	Z	18	55	53
	i	Z			58
	i	Z		56	20
	e	N		57	30
June 23	iP	Z	22	22	13
	i	Z			31
	e	Z		26	11
June 24	iP!	Z	10	49	29
	Dilatation to south-e				
	S-P interval 15 secon				
June 26	iP	Z	16	18	28
			Compression		
	iP	Z	16	33	35
June 27	eP	Z	10	26	13
	e	N		29	26
	i	Z			56
	iP	Z	14	41	27
	eP	Z	16	17	08
	i	Z			10
	i	Z			22
	i	Z		18	03
	i	Z			52
	eP	Z	18	13	03
	e(S)	N		16	03
June 29	eP	Z	03	30	09
	eP	Z	03	40	26
	iP	Z	04	37	54
	i	Z			57½
	iS?	N		38	58
	i	E		39	03
	eP	Z	04	56	37
	e	Z			52
	eP	Z	05	02	23
	i	Z			24½
	iP!	Z	08	57	42
			Dilatation		
	eP	Z	09	54	58
			Compression		
	iP	Z			58-3/4
			Dilatation		
	eP	N			59
	i!	Z		55	05
	i	N			06½
	iS?	N			55
	i	ZE		56	07
	i	E			19
	i	N			51

continued/

June 30	iP	Z	03	40	20
	iP!	Z	07	24	52
			Compression		

Tremors reported to the Vulcanological Observatory, Rabaul, for the month of June 1955.

Date	Locality	Lat. South °	Lat. South '	Long. East °	Long. East '	Strength Mercalli	Time G.M.T.
June 1	Mt. Hagen	05	50	144	10	2	1040
2	Kalingi	05	30	148	20	2	2000 (?2025)
8	Popondetta	08	45	148	15	3	2112
9	Kokoda	09	00	147	45	2	0337
15	Warangoi	04	30	152	30	4)	
	Keravat	04	20	152	00	4)	
	Rabaul	04	10	152	10	2-3)	1535
	Warangoi	04	30	152	30	2	1600
18	Tol Pltn.	04	58	152	04	2	2158
22	Mt. Hagen	05	50	144	10	3	1855
24	Warangoi	04	30	152	30	3	0950 (?1050)
29	Umboi (Rooke) Island.	05	40	147	50	1	0440
29	Finschhafen	06	40	147	50	5	0950
	Umboi Is.	05	40	147	50	4	0958
	Wasu	06	00	147	20	1	0955

(M. A. Reynolds)
a/Vulcanologist.

VULCANOLOGICAL OBSERVATORY
RABAUL
TERRITORY OF PAPUA & NEW GUINEA

7,8,9

SEISMOLOGICAL BULLETIN

July - September, 1955.

Latitude 04°11'33" South
Longitude 152°10'16" East
Height above mean sea-level: 183m. (600 feet).

Observatory on rim (35 m. wide) of Blanche Bay Caldera, which is composed of beds of pumice dust and ash with occasional interspersed basalt lava flows; instrument vault (3 m. deep) is concrete lined and roof forms part of floor of Observatory. Seismometers mounted on concrete pier set on basalt about 1½ m. below vault floor; pier separated from floor by gap (8 cms.) loosely filled with pumice dust.

Instrument	Components	Symbol	Ts sec.	Tp sec.	Damping
Benioff	Z	Z	0.35	1.26	Unknown; it was necessary to alter both the seismometer and galvanometer damping resistances to obtain critical damping when tested in December, 1955.
	NS	N	0.26	1.44	
	EW	E	0.29	1.45	

Note: Because of strong background movement, the recorder was run with Seismometer Period Test switches in OFF positions (i.e. 1000 ohm resistance in series). Sensitivity set at 50% (Z), 30% (N, E.)

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

Latitude 04°13.7'South
Longitude 152°11.8' East
Height about 3 m. above sea level.

Instrument	Components	Symbol	M kg.	V	To	Damping
Omori	NS	N	15	11.9	3.6	Air; critical
	EW	E	15	10.2	3.8	

References: Tables - Jeffreys & Bullen, 1940.
U. S. Dept. of Commerce Special Publication No. 254

The station is maintained by the Administration of the Territory of Papua and New Guinea for vulcanological and seismological observations. The staff consists of officers of the Bureau of Mineral Resources, Geology andGeophysics, Canberra, Australia.

All communications should be addressed to:

Vulcanological Observatory,
Rabaul,
Territory of Papua and New Guinea.

M. A. Reynolds,
a/Vulcanologist.

July 1 iP!Z 02 38 09
Dilatation to south-east

e Z 17 18 42
Very small amplitude

July 3 eP Z 08 46 53
i Z 56
e E 56
ei N 57
i Z 47 11
ei(S)N 26
i NE 30
i! Z 33

eP Z 14 36 36
i Z 50
i Z 37 36
e Z 56
ePP?Z 38 55
U.S.C.G.S. 52°N, 178°E;
H 14 26 32.

iP:Z 19 34 17
iP NE 17
Dilatation to south-west
i N 19
i N 37
iS?N 35 14
e E 16
Probably deep.

e(P)Z 21 03 31
i Z 33½
e N 34
i Z 59
e N 05 07
e E 42

July 4 Horizontal components only

eP N 14 29 48
U.S.C.G.S. 51½°N, 177°E.
H 14 19 44

July 6 iP NE 02 03 54
(No record for Z)
i E 04 05
i N 37
i(PP)N 06 09
U.S.C.G.S. 51°N, 158°E.
H 01 54 17

iP! Z 09 16 05
Dilatation
i N 22
iS NE 24

eP Z 15 06 17
e Z 45
ePcPZ 08 40
e(PcS)NE 12 36
U.S.C.G.S. 24½°S, 177°W.
H 14 59 21
h about 100 kms.

July 8 iP! Z 08 09 23
Dilatation

iP Z 18 26 04
i Z 33½
ipP?Z 27 42
i N 30 00
This earthquake partly obscured by microseisms

iP ZE 18 45 00½
i Z 04½
i N 05
i E 09
i Z 09½
i Z 22
i Z 33½
i E 35½
ipP or PP Z 46 22
i(PcP) Z 47 28
iScPZ 50 19
i N 22
e E 24
e E 45
iPcSNE 51 22
eScSNE 54 21
U.S.C.G.S. 20½°S, 179½°W
H 18 39 11
h 600 km.

iP Z 19 10 15
i Z 25½
e E 26
e Z 12 03
i Z 22
U.S.C.G.S. 5°S, 110°E;
H 19 03 09
h about 600 kms.

iP! Z 23 21 39
Dilatation to south-east
probably deep

July 10 eP Z 06 40 21

e(P)Z 14 28 04
e Z 21
iPcPZ 30 32
e(PcS)E 34.2
U.S.C.G.S. 20°S, 175½°W;
H 14 20 52

iP Z 15 28 26½

July 12 eP Z 00 48 19
i Z 22

iP! Z 23 30 16
eP NE 16
i! NE 16½
Dilatation to south-west;
distance approx. 1.6°

July 13 eP Z 02 52 10
i Z 45
e Z 54 40

(continued)

July 1955 continued:

Date	Phase	Comp.	h	m	s
July 13 ctd.	e(P)	Z	08	30	20
	iP	Z	10	01	50
	e	N			55
	e	Z		02	49
	e	Z		04	22
	iP	Z	18	41	29
	Dilatation				
	eP	NE			29
	i	N			30
	i	Z			31
	i	N			33
	i!	Z			33$\frac{1}{2}$
	i	E			33$\frac{1}{2}$
	i!	E			34$\frac{1}{2}$
	i!	N			35
	U.S.C.G.S. 6°S, 154$\frac{1}{2}$°E.				
	H 18 40 34				
	iP!	Z	20	34	09
	Dilatation to south-east; distance approx. ~~18~~.10				
	iP!	Z	20	45	57
	Second shock with epicentre about 1° south-east of Rabaul.				
	iP!	Z	22	21	19
	Dilatation				
	iP	NE			19$\frac{1}{2}$
	iS?	E			49$\frac{1}{2}$
July 14	eP	Z	03	54	56$\frac{1}{2}$
	i	N		55	00$\frac{1}{2}$
	i!	Z			01
	i	E			02
	i	N			02$\frac{1}{2}$
	U.S.C.G.S. 6°S, 154$\frac{1}{2}$°E;				
	H 03 54 02				
	eP	Z	05	33	05
	i	Z			07
	i	Z			09$\frac{1}{2}$
	i	N			11
	i	ZE			30
	i	N			39
	eS	EN			43
	i	Z			44$\frac{1}{2}$
	i	N			45
	i	NE			50
	Aftershock of above Solomon Is. earthquake				
	e(P)	Z	10	01	41
	e	Z			49
	e	Z		02	05
	ePcP	Z			31
	ePP	Z		03	53
	U.S.C.G.S. 8$\frac{1}{2}$°N, 94°E;				
	H 09 51 37				
	eP	Z	11	48	00
	i	Z			11
	i	ZN			15
	i	E			17
	i	N			27
July 14 ctd.	eP	Z	17	48	38
	i	Z			39
	i	E			43
	i	Z		49	08
	e	Z			41
	eP	Z	19	43	49
July 15	eP	Z	16	21	56
	e	Z		22	01
	e	Z			33
	e	Z		23	05
July 16	eP	Z	02	05	18
	e(PKP)	Z	07	26	04
	ePP	Z		27	30
	U.S.C.G.S. 37$\frac{1}{2}$°N, 27°E;				
	H 07 07 08				
July 17	eP	Z	07	11	00
	eP	Z	08	03	05
	e(P)	Z	12	32	29
	i	Z			40
	iPcP?	Z			59$\frac{1}{2}$
	i	Z		33	17
	i	NE			33
	U.S.C.G.S. 53°N, 170°W;				
	H 12 21 42				
	e(P)	Z	22	09	14
	e	Z		10	02
	U.S.C.G.S. 54°N, 168°W;				
	H 21 58 25				
July 18	e(P)	Z	00	59	41
	i	Z			44$\frac{1}{2}$
	i	E			48$\frac{1}{2}$
	i	N			49$\frac{1}{2}$
	i	E	01	00	13
	i	N			35
	i	Z			58$\frac{1}{2}$
	U.S.C.G.S. 18°S, 170°E.				
	H 00 54 37				
	eP	ZN	11	34	04
	i!	Z			09
	i	NE			14
	i	E			23$\frac{1}{2}$
	i	N			27$\frac{1}{2}$
	i	Z			58
	i	Z		35	03
	e	N		36	11
	iS	NE		37	28
	i	Z			30
	e	E		38	17
	iPcP	Z			30
	e	E			50
	eScP	Z		41	48
	e	N			50
	e	E		42	13
	eScS	NE		45	32
	e	Z			34
	e	Z			43

(continued)

July 18 ctd.
U.S.C.G.S. 13½°S, 167°E;
H 11 29 58
h about 150 km.
Distance by calculation
17.3°
Distance by (S-P)
interval 19°.

eP Z 13 40 27

iP Z 17 53 03½ dilatation
i! Z 16
i Z 59½
i N 54 06½
i Z 19

July 19
eP Z 15 55 04

iP ZE 17 23 34½
eP N 35
Dilatation to south-east.

e(P)Z 23 32 24
i Z 35½
i Z 47

iP! Z 23 39 22

July 20
e(P)Z 00 04 02
e Z 14

eP Z 02 41 21
i Z 30

July 21
ePKPZ 12 04 45
Dilatation
i Z 05 12
e Z 08 01
e E 14
e ZE 43
U.S.C.G.S. 25°S, 74°W;
H 11 45 40
h about 100 kms.

July 22
iP! Z 06 42 04½
eP NE 05
i Z 16½
Distant - deep
Compression from north-west.

July 23
eP Z 12 53 48
i Z 54 13½
i N 22½
e Z 33

eP Z 14 03 49
e Z 05 06

iP Z 21 00 21½
Compression
i! Z 22
iP NE 22½

July 24
e(P)Z 01 11 45
e Z 59

July 24 ctd.
iP! Z 16 27 48
Compression
e E 59
i Z 28 00
e Z 17
e E 29 35

eP Z 20 18 39½
i Z 40
i E 47½

July 25
eP Z 12 57 26
i ZE 42
eS NE 58
i! Z 58 02½

iP! Z 19 51 03
i! NE 04½
i! N 22½
i! E 23

July 27
i(P)Z 05 08 13
e Z 24

iP!ZNE 12 00 01
Dilatation to south-sout
east. S - P on Omori
seismograph stationed 3
miles south of Observatc
equals 12 secs. Possibl
deep.

iP! ZE 15 05 12½
Compression (from west?)
i E 57
Deep?

e(P) Z 18 30 51
e Z 31 26

July 28
e Z 00 28 03

July 30
eP Z 08 31 39
i Z 44½
i Z 52
e Z 32 10
i N 19
i N 28
i E 30
e Z 40½
e Z 33 07

eP Z 18 50 42
i Z 59½
e Z 51 24

July 31
eP Z 02 31 34
i Z 41½
iS NE 32 42
Epicentre: 09°41'S., 150°49'E. H 02 30 06
Magnitude 4½

eiP Z 03 15 56
i Z 16 09
i ZN 41½
e(S)NE 17 03
Epicentre same as above
H 03 14 28

July 1955 continued:

July 31 ctd.	iP	Z	08	57	54	
	dilatation to south-east					
	i	Z		58	10	
	iS!	NE			11½	Deep.
	e	Z	14	04	10	
	eP	Z	20	35	19	
	i	NE			58	
	i	Z		36	35	
	ei	ZNE		37	24	
	i	ZNE		38	00	
	e	Z			11	
	e	Z			44	

Tremors reported to the Vulcanological Observatory, Rabaul, for the month of July, 1955.

Date	Locality	Latitude South	Longitude East	Strength Mercalli	Time G.M.T.
July 1	Warangoi	04 30	152 20	3	0240
3	Warangoi			1	0700
	Popondetta	08 45	148 15	1	1935
4	Umboi Is.	05 40	147 50	2	2239
6	Warangoi	04 30	152 20	1	0916
13	Karoola	05 10	154 35	2	0931
	Karoola			1	1950
14	Numa Numa	05 50	155 15	2	0345
	Sohano	05 25	154 40	2	0355
	Sohano			2	1830
19	Warangoi	04 30	152 20	2	1730
	Popondetta	08 45	148 15	2	1753
	Tol Pltn.	05 00	152 05	1	2339
23	Warangoi	04 30	152 20	2	2100
24	Warangoi			1	2045
25	Warangoi			1	1950
27	Warangoi			3	1200
	Pomio	05 30	151 30	3	1210
	Tol Pltn.	05 00	152 05	3	1200
	Ulamona	05 00	151 15	1	1200
28	Umboi Isl.	05 40	147 50	1	1124
31	Esa'ala *	09 45	150 50	5	0230
	Gehua	10 20	150 25	3	0230
	Esa'ala *	09 45	150 50	5	0315

* Aftershocks from these earthquakes continued until September, 1955.

Aug. 1	eP	Z	17	03	50
	i	Z			56
	i	N		04	07
	i	Z			21
	e	E		05.0	

(longer period waves)

	i	Z		05	06
	e	Z		06	07
	e(P)	Z	21	50	36
	e	Z			54
Aug. 3	eP	Z	10	39	08
	e	Z			11
	i	Z			16
	i(S)	Z			58½
	iS	E			59
	i	N		40	00
	i!	E			04½
	i!	Z			05½
	e	Z	12	07	43
	iP!	ZE	20	18	18
	iP	N			18¼

Dilatation to east; probably deep. (S) - P on Omori seismograph stationed at Rapindik equals 31 seconds. Max. ampl. EN 0.25 mm. Omori N x 10 approx. for EW component, slightly less for NS component due to greater friction. Note: Amplitudes for Omori seismograms are given to nearest quarter mm.

	eP	Z	22	52	08
Aug. 4	iP!	Z	10	53	27
	iP!	NE			27.2

Dilatation to south-east; Omori S - P 16 seconds. Max. ampl. E12, N 9 mms.

	iP!	Z	19	29	38.5
	iP	NE			38.7

Dilatation to south-east; Omori S - (P) 15 secs., Max. ampl. E 1, N 0.75 mm.

	e	Z	19	54	51
Aug. 5	i!	Z	00	29	10
Aug. 6	eP	Z	08	37	38
	eP	NE			40
	i!	Z			45½
	i!	Z			59
	ipP	Z		38	43
	iPP	Z		39	10
	i	E			57
	i	N		40	00
	iPcP	Z			09½
	eS	Z		42	29½
	eS	E			33½
	eS	N			35
	e	NE		43	04
	iScP	Z			24
	i	Z			36
	iPcS?	E		44	07
	eScS	Z		47	24
	eScS	NE			26
	i	Z			29½

Aug. 6 continued.

U.S.C.G.S. 21½°S., 177½°W.
H 08 31 25
h about 350 km.
Distance from Rabaul 34°
Max. ampl. Omori at 08.43.0
EN 0.5 mm.

	eP	Z	11	17	38½

Compression

	eP	NE			39½
	i	Z			42
	i	E			50
	i	Z			51
	i	N		18	00
	iS	N			11
	iS	EZ			12½

Max. ampl. Omori E 0.75, N 0.5 mm.

Aug. 7	iP!	ZNE	01	05	59½

Dilatation to south
S - P about 8 seconds. Max. ampl. Omori E 2.5, N 2 mm.

	eP	Z	12	36	27
	e	N		37	04
	e	Z			07
	eS	NE			43
	eL	N		38.7	

Recorded on shock-recorder, Bam Island. (S - P indet.) Small magn. (approx. 5) - Maxm. ampl. 0.75 mm.

	e	Z	16	02	59
	eP	Z	17	01	42
Aug. 9	eP	Z	18	18	13
	iPP	Z			23½
	i	N			37½
	e	Z			56
	eS	E		21	06½
	e	N			42
	i	Z			43

U.S.C.G.S. - 11°S., 166½°E.
H 18 14 25

Aug. 10	iP!	Z	05	02	24½

Compression from north-north-east.
Max. ampl. Omori E 1.5, N 1.25 mm.

	i	Z	07	13	47
	iP	Z	16	07	58
Aug. 11	iP	Z	11	24	11½

Compression

	eP	N			12
	i	E			13½
	iS	E			36½
	i!	ZN			37

Max. ampl.Omori EN 0.25 mm.

	iP!	Z	18	07	23

Compression from north-east

	iS?	E			34
	e	Z	18	49	01
Aug. 12	eP	Z	04	17	15
	e	Z			50

Aug. 12 continued					
	ei(P)	Z	08	00	52
	i	Z		01	13

Multiple impulses on seconds contacts of Synchronome Clock commenced due to battery resistance shortly after the above earthquake was recorded. Times given until 15th August in the seismological bulletin are based on arrival times shown on the Omori seismograph stationed 3 miles south of the Observatory.

Aug. 13	iP	Z	21	11	49
	Compression				
	i!	Z			52½
	iS	N		12	16
	i	E			23

Max. ampl. Omori E 1, N 0.75 mm.

Aug. 15	iP	Z	14	59	15
	Compression				
	ei	N			32
	i!S?	Z			54
	i!	E	15	00	33

Max. ampl. Omori E1, N 0.75 mm.
Period of eS?N Omori about 5-6 secs.

The Benioff seismograph was stopped at 2116 hours, and details until 26th have been taken from Omori seismograms.

Aug. 16	eP	E	11	48	02
	e(S)	NE			42
	i!	NE			49

Max. ampl. E 31.5, N 25 mm.

Aug. 21	e	N	17	37	48
	i	E		38	01

Max. ampl. E 0.5, N 0.25 mm.

Aug. 26 Recommenced recording Benioff seismograph at 0130 hours.

	e	Z	09	09	20
	e	Z		10	11
	eP	Z	18	43	20
	iS	E			52
	i!	ZN			53
	i!	E			55
	iP	Z	20	59	31½
	i	Z			38
Aug. 27	iP	Z	06	53	01
	i	Z			24½
	i	Z		54	04
	i(P)!	Z	08	13	02
	iS	E			17½
	i!	E			22
Aug. 28	i(P)	Z	02	37	17½
	iP	NE			18
	i!	Z			18
	iS!	N			38½
	i!	E			39

Dilatation to north-west.

Aug. 29	eP	Z	11	06	10
	e	Z			59
Aug. 30	iP	Z	03	38	21½
	i	Z			26
	i	Z		39	13
	iP	Z	07	52	49
	iS?	N		53	13
	i	E			17
	i	Z			28
	i	NE			29
	iP	Z	13	59	17
	e	Z	14	00	56
	Distant				
	eP	Z	17	41	30
	e	Z			55
	e	Z		42	50
	eS	E		46	29

U.S.C.G.S. - 28°N., 139°E.
H 17 35 20
h about 500 kms.
Distance from Rabaul 35°.

	eP	Z	20	11	50
	ePP	ZN		12	18
	e	Z			52
	eS	E		16.1	

U.S.C.G.S. - 19½°S., 169½°E.
H 20 06 34
Distance from Rabaul 24°.

Aug. 31	eP	Z	02	25	00
	e	Z	10	45	07

Tremors reported to the Vulcanological Observatory, Rabaul, for the month of August, 1955.

Date	Locality	Latitude South		Longitude East		Strength Mercalli	Time G.M.T.
Aug. 3	Mt. Hagen	05°	40'	144°	05'	1	0656
4	Warangoi	04	30	152	20	2)	
	Tol Plantation	05	00	152	05	2)	1053
	Ulamona	05	00	151	15	1)	
	Warangoi	04	30	152	20	1	1930
Aug. 7	Bam Island	03	35	144	50	Felt	1235
10	Maprik	03	40	143	05	2	1210
	Konos	03	15	151	40	2	0503? No time given
13	Mt. Hagen	05	40	144	05	1	2242
14	Woodlark Island	09		153		Twelve tremors (Int. 2-3) felt on 14th (local time).	
16	Numa Numa	05	50	155	15	2	1055
	Karoola	05	10	154	35	4)	
	Pomio	05	30	151	30	3)	
	Sohano	05	25	154	40	4)	
	Aropa	06	25	155	50	4)	
	Kieta	06	15	155	40	5)	1150
	Numa Numa	05	50	155	15	4)	
	Rabaul	04	10	152	10	2-3)	
	Ulamona	05	00	151	15	2)	
	Tol Plantation	05	00	152	05	2)	
	Warangoi	04	30	152	20	5)	
21	Green River	03	55	141	10	2-3	(1725 (1740
24	Umboi Island	05	40	147	50	3	0550
29	Lindenhafen	06	15	150	35	2	0830
	Aropa	06	25	155	50	2	1820

Sep. 1 iP Z 05 45 38½
i Z 44½
i E 54
e L 46 28
8 sec. period waves commenced on NS component, Omori seismograph, at 05 46 39. (Brisbane: iP 05 50 07).

eP? Z 05 52 54
i Z 59½
i E 53 09
i E 45
Aftershock?

iP Z 06 02 09½
i Z 31
e E 03 06

i(P) Z 22 49 32
i Z 35
U.S.C.G.S. - 52½°N., 153°E.
H 22 40 15 h about 400 km.

Sep. 2 iP! Z 03 52 50
Dilatation
iS! E 33 15
i! NE 21½
Max. ampl. Omori:
E at 03 34 21, 0.5mm.
N at 03 35 23, 0.75 mm.

eP Z 13 21 47
small amplitude
U.S.C.G.S. Santa Cruz Islands
H 13 17 07

eP Z 21 15 27
i Z 53½
e E 17 31
e Z 57
U.S.C.G.S. - Western New Guinea;
H 21 11 56

Sep. 3 eP Z 03 51 58
U.S.C.G.S. 21½°S., 175°W.
H 03 45 27
h about 300 km.

iP Z 13 31 46
eP NE 47
i! Z 48
i N 32 01½
iS! NE 10½
Dilatation

iP! Z 16 29 12
iP NE 12
i ZE 30
i E 44½
eS Z 33 51
eS NE 52
e Z 35 17
e? N 50
Dilatation to west, distance 27½°.
U.S.C.G.S. 1°N., 123°E.
H 16 22 52

Sep. 4 e Z 11 29 56

Sep. 4 continued

ePKP Z 11 48 48
epPKP?Z 49 15
e Z 51 30
ePKS Z 52 05
e(PKS)E 07
e E 44
U.S.C.G.S. 22°S., 69°W.
H 11 29 40 h about 100 km.

e(P) Z 13 26 50
e Z 27 30
e Z 51

e Z 13 42 49

e(P) Z 19 18 04
i Z 06
i ZE 20
e E 19 55
U.S.C.G.S. 43°N., 145°E.
H 19 09 30

Sept. 5 e(P) Z 07 06 30
i Z 36
e Z 07 03
e Z 08 59
small amplitude

e(P)?Z 17 19 08
i Z 35 (possibly of small local shock)
e Z 21 15
e Z 23 17
Very small amplitude
U.S.C.G.S. 7°S., 120½°E.
H 17 13 24 h about 600 km.

e Z 19 02 55
e E 04 11
e Z 23
e Z 05 34
Very small amplitude
(U.S.C.G.S. Solomon Islands.
H 18 58 33)?

Sep. 6 e(P) Z 09 58 56
i Z 59 02½
i Z 12
iS? ZE 10 00 20
iS? N 22

iP Z 10 58 28½
i N 36
i Z 45
iS N 55
i! Z 59 02
i! E 02½
i! N 04½
Possibly same as recorded by Brisbane in Prov. Readings:
iP 11 02 41.

Sep. 7 iP Z 16 27 10

Sep. 8 iP Z 00 40 05
e Z 21

e Z 01 49 59
e Z 50 47

Sep. 8 continued

iP Z 02 18 26
i N 39½
i Z 52

e Z 02 30 29

Benioff seismograph off from 0322 until 0339 hours.

eP NE 03 28 39
i NE 47
i(S) N 29 32
i NE 40

Details taken from Omori seismograms.
Max. ampl. N 12 mms., E 19 mms.
at 03 29 40.
U.S.C.G.S. 7°S., 155½°E.
H 03 27 14

Benioff seismograph did not record from 0348 hours, 8th, until 0403 hours on 9th. The following very small amplitude movements were recorded on Omori seismograms.

e E 17 44 08

e E 20 28 18

Sep. 9 eP Z 09 51 08
U.S.C.G.S. 2°S., 100°E.
H 09 41 57
Mag. 6¼-6½ (Pas.)

iP ZNE 15 28 30
i! Z 31.2
i E 34
iS E 57½
i! N 29 01
i! E 01½
Compression from north-west.

eP Z 16 22 21
i Z 23½
i ZE 29
e N 30
i! Z 38
i! Z 46
iS? N 23 15
i NE 34
i! N 37
i! ZE 38½
Max. ampl. Omori at 16 23 30
N 3 mms., E 6½ mms.
U.S.C.G.S. - 7°S., 155°E.
H 16 21 12

eP? Z 17 47 06
e Z 26

Sep. 10 eP Z 06 04 16
U.S.C.G.S. 54½°N., 169°E.
H 05 54 08

eP Z 07 07 57
iS? Z 08 30
i E 37
i NE 39
i Z 09 05
Brisbane: iP 07 11 57

Sep. 10 continued

eP Z 07 34 51
Dilatation
i Z 55
i! Z 35 00
iS E 23
i! Z 24
i N 26
i E 30½
Max. ampl. Omori at 07 35 32:
N 1 mm., E 1.7 mm.
Brisbane: iP 07 38 51

e(P) Z 21 11 10
e Z 41
e Z 12 14
U.S.C.G.S. 10°N., 123°E.
H 21 04 40

eP Z 22 09 27
i Z 33
i N 50½
iS N 10 25
e(S) E 25

Sep. 11 eP Z 12 23 21
e Z 41
U.S.C.G.S. 31½°N., 140°E.
H 12 15 58

eP Z 17 55 38
i! Z 48
i! Z 56 14
i N 23
iS? NE 32
i! E 46½
i! ZN 47
Max. ampl. Omori at 17 57 03
N 11 mm., E 12½ mm.
U.S.C.G.S. 7°S., 155°E.
H 17 54 28

i Z 17 59 50
iS? N 18 00 34
iS? E 34½
i Z 43
i NE 47
i! E 51
i! ZN 52½
Aftershock; P obscured by waves from previous shock.

e(P) Z 18 05 28
i! Z 35½
i! Z 06 01½
iS? E 17½
iS? N 18½
i! E 31
i! Z 33
i! N 36½
Max. ampl. Omori at 18 06 30
N 4 mm., E 9 mm.
U.S.C.G.S. 7°S., 155°E.
H 18 04 16

eP Z 23 40 22
U.S.C.G.S. 34°N., 93½°E.
H 23 29 36

Sep. 12 e(P) Z 01 46 58
i Z 47 02½
i Z 42
Brisbane: iP 01 49 16

e(PKP)Z 06 28 11
i Z 13
e Z 32
ePP Z 29 34
e Z 51
e N 30 11
e Z 31 37
e Z 38 25
e NE 29
e Z 41 49
e N 42 21
U.S.C.G.S. 32½°N., 30°E.
H 06 09 20
M 6¼(Pas.)

Sep. 13 iP Z 02 11 02
ipP Z 20½
e Z 32½
ePcP Z 41
U.S.C.G.S. 52°N., 176°W.
H 02 00 43 h about 60 km.
M 5¾ - 6 (Pas.)

iP Z 16 46 57½
Dilatation
eP E 57½
eP N 58
i Z 47 01½
i! Z 14½
i! Z 19½
iS NE 24½
i E 28½
i N 30
i! N 33
Brisbane: iP 16 51 10

e(P) Z 17 10 20
e Z 48
U.S.C.G.S. 45°S., 96½°E.
H 16 59 52

eP Z 17 42 36
i Z 43 01½
i Z 08½
ePP Z 20
U.S.C.G.S. ½°N., 125°E.
H 17 36 41

iP Z 19 39 42
Compression
i Z 55
e E 40 30
e N 31½
e NE 50
Brisbane: iP 19 43 14

Sep.14 i(P) Z 08 14 12
confused by microseisms
i Z 35
i E 38
i N 44
i ZE 51½
i Z 15 02½
i ZE 28
e Z 08 17 54 (long

Sep. 14 continued

waves; also possibly of second small amplitude shock confused by above shock and microseisms.)
The EW Omori record shows small amplitude (¼ mm.) waves of 4 second period commencing at 08 15 03.
Brisbane: iP 08 18 52.

eP Z 11 28 32
i Z 37
e N 42
i Z 47½
i E 52½
i Z 29 06
eS? NE 26
i Z 27
i EZ 37½
i! E 45
i N 48
i E 57
Brisbane: iP 11 32 10

Sep.15 eP Z 12 34 40
e E 42
e N 44
i Z 44
i! Z 47½
i Z 35 14½
e Z 38 50
Max. ampl. Omori at 12 38 55 on EW component: 0.8 mm.
U.S.C.G.S. 5°S., 134½°E.
H 12 30 27 M 6¾ (Pas.)

eP Z 16 41 18
e Z 34
cf. Brisbane: e 16 52 19

No records between 2332 hours, 15th and 1024 hours, 16th.

Sep. 16 e(P) Z 18 38.1
e Z 38 13
iP Z 18 42 23½
(Compression, deep?)
eP EN 24
e NE 43 13
i E 25
e Z 44 06
Two shocks mixed?
cf. Brisbane: iP 18 40 15

eP Z 20 51 34
ePcP?Z 54 03
Apia - 25°S., 179½°W.
H 20 45 32
h between 500 and 600 kms.

Sep. 17 eP Z 12 00 10
e Z 23
e Z 02 51
e N 03 39
U.S.C.G.S. 17½°S., 168½°E.
H 11 55 26

e Z 12 16 19

e Z 12 20 42

Sep. 17 continued

ePZ 14 54 21
e Z 33
e NE 34
ePP Z 41
U.S.C.G.S. 17½°S., 168°E.
H 14 49 40

eP Z 18 21 20
e NE 22 07
U.S.C.G.S. 17½°S., 168½°E.
H 18 16 35

eP Z 20 04 20
i Z 25
ePcP?Z 06 26
U.S.C.G.S. 32°S., 178°W.
H 19 56 46

eP Z 23 38 39
e Z 39 22
e Z 43 03
Brisbane: iP 23 37 59

Sep. 18
e(P) Z 01 20 27
i Z 33
e ZN 39
iPP Z 44
e Z 55
U.S.C.G.S. 17½°S., 167½°E.
H 01 15 46.

e(P) Z 07 29 35
e N 49
ePP? Z 52
e Z 30 35
e NE 48
i Z 51½
New Hebrides aftershock?

eP Z 11 02 32
e Z 40
e Z 04 11
e N 12
New Hebrides aftershock
Brisbane: iP 11 01 50

eP Z 11 46 22
U.S.C.G.S. 39°N., 129°E.
H 11 32 32; h about 600 kms.

Benioff seismograph did not operate from 0438 hours 19th until 0301 hours 23rd.
Following details taken from Omori seismograph stationed at Rapindik (04°13'44" S., 152°11'48"E.) N x 10 approx.

Sep. 21 e(P) E 22 44 09
i NE 10
i E 41
eS E 58
Max. ampl. for S; N ½, E 1 mm.
Max. ampl. at 22 46.6: N 1, E 1 mm.
U.S.C.G.S. 6°S., 148°E.
H 22 42 55

Sep. 22 e(P) E 05 35 30
i NE 38
eS? N 36 15
i NE 26
(A - N 2, E - 4½ mms.)
Max. ampl. (N) at 05 37.4:
3½ mms.
U.S.C.G.S. New Britain; H 05 34

Sep. 23 Benioff seismograph recording from 0301 hours.

e(P?) Z 12 28.3
e Z 28 27
e Z 45
i Z 58
U.S.C.G.S. 15°S., 170°E;
H 12 23 00.

eP Z 15 16 07
i Z 12
i Z 35½
i Z 50
iPcP Z 17 02½
i Z 36
ePPP Z 19 42
U.S.C.G.S. 27°N., 101½°E.
H 15 06 19

eP Z 17 30 54
ePP? Z 31 13
e Z 28
New Hebrides aftershock.
Brisbane: iP 17 30 17

eP Z 19 22 31
i Z 32½
ePP? Z 51
e Z 23 05
U.S.C.G.S. - New Hebrides
H 19 17 29.

Sep. 24 eP Z 02 08 18
e Z 27
e Z 57
ePcP Z 10 25
eS Z 14 18
U.S.C.G.S. 32°S., 178°W.
H 02 00 45.

i Z 07 27 32

eP Z 10 29 06
i Z 20
U.S.C.G.S. 22°N., 122°E.
H 10 21 29

iP Z 11 38 52
Dilatation
i Z 59
i! Z 39 01
eS? N 42
i Z 43
e E 49
i N 40 06
Brisbane: iP 11 42 46

Sep. 24 continued:

iP Z 19 52 18½
i! Z 22
iS? E 46½
i! Z 48
i N 50
ei E 55
U.S.C.G.S. Solomon Islands
H 19 51 43
Max. ampl. Omori N 3 mms. at 53 05
E 4½ mms. at 53 28.

Sep. 25 e(P) Z 19 05 04
i Z 07
e Z 29
i N 34
e N 06 34
e Z 59
e Z 09 17
eS E 37
eSS N 10 45
e Z 12 11
e N 13
e Z 41
e(ScS)Z 15.8
U.S.C.G.S. 6°N., 127½°E;
H 18 59 22
h about 100 km.
M 6½ (Pas.)

Sep. 26 e(P) Z 07 38 39
(Confused by microseisms)
i Z 45
i Z 53
iS E 39 39
i Z 41
i E 50½
i! N 56½
i E 58
i Z 40 18½
Brisbane: iP 07 41 58

iPKP Z 08 46 52½
eSKS?N 53.4
U.S.C.G.S. 15½°N., 92½°W.
H 08 28 20
h about 200 kms.
M 6¾ (Pas.)

Sep. 27 e(P) Z 07 08 11
e Z 32
Very small amplitude
Brisbane: iP 07 06 11

iP Z 13 07 29½

e Z 16 07 10
e N 08 03
small amplitude

Sep. 28 eP Z 01 56 27
e Z 48
U.S.C.G.S. 27°N., 101½°E.
H 01 46 36

Sep. 29 iP Z 13 08 17
Dilatation
U.S.C.G.S. 28°N., 101°E.
H 12 58 29

eP Z 20 06 34
e Z 57½
i Z 07 13
U.S.C.G.S. 40°N., 141°E.
H 19 58 27
h about 150 kms.

Sep. 30 iP? Z 03 14 50
i Z 15 01
confused by microseisms
U.S.C.G.S. 8°N., 126½°E.
H 03 08 46

i Z 07 07 27
i Z 48
i Z 09 13
confused by microseisms
U.S.C.G.S. 7½°N., 126½°E.
H 07 01 22.

Tremors reported to the Vulcanological Observatory Rabaul, for the month of September, 1955.

Date	Locality	Lat. South	Long. East	Strength Mercalli	Time G.M.T.
Sep. 4	Bam Island	03 35	144 50	3-4	About 100 (W
	Mt. Hagen	05 40	144 05	2	1127
8	Buin	06 50	155 45	6)	
	Aropa	06 25	155 50	4)	0330
8?	Aropa	"	"	3	1750
9	Aropa	"	"	3	0200
	Aropa	"	"	2	0420
	Aropa	"	"	1	0440
	Aropa	"	"	2	1625
10	Aropa	"	"	2	0713
	Aropa	"	"	2	0738
11	Aropa	"	"	2	0600
	Aropa	"	"	2	0620
	Aropa	"	"	1	0800
	Aropa	"	"	1	0810
	Buin	06 50	155 45	3-4	1800
	Buin	"	"	3-4	1810
12	Aropa	06 25	155 50	2	0055
	Aropa	"	"	1	0100
15	Lindenhafen	06 15	150 35	3	0535
17	Vila, New Hebrides			2 heavy shocks follow by lesser shocks for hours; first at 1200	
21	Tongoa, New Hebrides			6 followed by several minor tremors during following week.	0640
	Walindi	05 25	150 05	2)	
	Umboi Island	05 40	147 50	2)	2245
	Kalingi Mission	05 30	148 25	3)	
	Walindi	05 25	150 05	felt	2340
22	Kalingi Mission	05 30	148 25	3)	
	Umboi Island	05 40	147 50	1)	0535

M. A. Reynolds
a/Vulcanologist.

TERRITORY OF PAPUA AND NEW GUINEA.

VULCANOLOGICAL OBSERVATORY RABAUL.

SEISMOLOGICAL BULLETIN. NOVEMBER, 1955.

1st	iP!	Z	08	44	06	
	iP!	Z	08	48	10	In coda of preceding. Felt: Rabaul Int.1-2(MM) S-P (Omori) 18 secs.
	iP i!	Z Z	10	12 12	38 39	Felt: Rabaul Int.1-2(MM) S-P (Omori) 18 secs. U.S.C.G.S. 5°S, 153°E. New Britain H = 10 12 09
	eP	Z	15	19	35	
2nd	iP	Z	08	43	17	
	eP	Z	18	41	54	
3rd	iP	Z	01	33	36	
4th	iP	Z	01	55	49	Felt: Sohano Int.2(MM)
5th	e(P) i(pP) i(PcS)	Z Z NE	03 04	58 05	39 54 51	U.S.C.G.S. 19½°S, 169°E. New Hebrides Is. H = 03 53 38 h = 150 kms.
6th	Nil					
7th	iP	Z	07	39	17	
8th	iP i!	Z Z	22	43 43	45 46	Felt: Rabaul Int.2(MM) Aropa Int.1(MM)
9th	iP!	Z	01	14	10	Felt: Rabaul Int.2(MM) S-P (Omori) 17 secs.
	iP	Z	16	47	17	
10th	iP!	Z	01	25	01	(S)-P (Omori) 24 secs. U.S.C.G.S. 5°S, 152°E. New Britain H = 01 24 20
	iP iPcP eS	Z Z NE	01	50 53 56	54 26 20	U.S.C.G.S. 15°S, 174°W. Samoa Is. H = 01 44 04 h = 100 kms. M = 7¼ - 7½ (Pas).
11th	Nil					
12th	iP!	Z	10	08	33	Felt: Numa Numa Int.3(MM) Kunua Int. 3-4(MM) Esa'ala Int.2(MM) Rabaul Int.3(MM) Kokopo Int.3(MM) Karoola Int.4(MM) Aropa Int.2(MM) S-P (Omori) 25 secs. U.S.C.G.S. 5°S, 152½°E. New Britain H = 10 07 47 h = 60 kms.
	iP	Z	12	25	32	Felt: Kunua Int.2(MM) Kokopo Int.2(MM) Karoola Int.2(MM)

12th cont.	iP!	Z	13	43	46	Felt: Kunua Int.3(MM)
						Kokopo Int.2(MM)
						Aropa Int.3(MM)
						Karoola Int.2(MM)
						(S)-P (Omori) 23 secs.
						B.C.I.S. 5°S, 154°E.
						New Britain
						H = 13 43 01
	eP	Z	15	50	13	
	iP	Z	18	27	05	
	i	E		27	10	
13th	e(P)	Z	05	22	55	
	iP	N	05	22	50	
	i	Z		23	05	
	i	Z		23	54	
	i	Z		25	55	
	i	Z		26	01	
	iP	N	05	41	40	
	i	N		41	41	
	i(P)	E		41	42	
	i(P)	Z		41	46	
	i	N		41	48	
	i	Z		43	22	
	i	N		43	32	
	i	Z		43	34	
	i	Z		44	54	
	i	N		45	01	
	iP	E	07	25	01	Felt: Rabaul Int.1-2(MM)
	iP	Z	22	50	10	
	iP	Z	23	14	28	
14th	iP	Z	01	20	50	U.S.C.G.S. $17\frac{1}{2}^{\circ}$N, 146°E.
	i	E		20	57	Mariana Is.
	i	NE		21	59	H = 01 16 04
	eS	NE		24	50	h = 100 kms.
	iP	Z	03	13	14	U.S.C.G.S. 14°S, 167°E.
	i(P)	NE		13	15	New Hebrides Is.
	i	E		13	19	H = 03 09 10
	i	E		13	40	h = 200 kms.
	i	N		14	19	
	i	E		14	59	
	e	N		16	19	
	iS	E		16	30	
	eM	NE		21	20	
	eScS	N		24	38	
	eScS	E		24	39	
	iP!	Z	13	08	38	S-P (Omori) 19 secs.
						U.S.C.G.S. $5\frac{1}{2}^{\circ}$S, $152\frac{1}{2}^{\circ}$E.
						New Britain
						H = 13 08 07
	iP	Z	13	28	01	U.S.C.G.S. $17\frac{1}{2}^{\circ}$N, $145\frac{1}{2}^{\circ}$E.
	i	E		29	25	Mariana Is.
	i	N		29	57	H = 13 23 09
	i(S)	N		31	47	h = 150 kms.
	i(S)	E		31	53	
15th	iP	Z	03	17	20	Felt: Rabaul Int.1(MM)
						Numa Numa Int.1(MM)
						Aropa Int.1(MM)
						U.S.C.G.S. 5°S, 154°E.
						Solomon Is.
						H = 03 16 32

15th cont.	iP	Z	08	34	29	Felt: Rabaul Int.2(MM)
	iP	Z	10	18	18	
	iP	Z	22	22	41	
16th	Nil					
17th	iP i(S)	Z E	03	44 45	55 24	U.S.C.G.S. 5°S, 154°E. Solomon Is. H = 03 44 05
	iP i	Z Z	07	12 12	24 36	
	iP	Z	14	18	19	
18th	iP! iS	Z E	04	00 00	28 59	
	iP!	Z	17	03	33	
19th	Nil					(Power break on 19th)
20th	Nil					
21st	iP! iS	Z E	21	08 08	24 41	Felt: Walindi Int.2(MM)
	iP i i	Z NE NE	21	17 17 18	18 28 25	
22nd	iP!	Z	17	06	01	S-P (Omori) 20 secs. U.S.C.G.S. New Britain H = 17 05 22
23rd	iP	Z	06	38	57	
	iP	Z	08	45	57	
	iP i(S) i(S)	Z E N	09	11 12 12	59 51 55	Felt: Sangara Int.3(MM)
	i(P)	Z	17	26	43	
24th	iP	Z	04	58	59	
	iP i! i i i(S)	Z Z E E NE	15	30 30 30 31 31	21 25 28 07 14	
25th	Nil					
26th	iP iS	Z NE	07	11 12	21 21	
	iP	Z	13	28	36	U.S.C.G.S. Santa Cruz Is. H = 13 24 47**
	iP!	Z	16	37	37	S-P (Omori) 16 secs.
27th	Nil					

28th	i(P)	Z	18	28	19	
29th	iP!	Z	09	31	51	S-P (Omori) 19 secs. U.S.C.G.S. Solomon Is. H = 09 31 12 **
30th	iP e(S)	Z E	17	18 20	24 44	U.S.C.G.S. 11°S, 166°E. Santa Cruz Is. H = 17 14 36

Tremors felt in the Territory, November, 1955.

Date	Locality	Latitude South ° '	Longitude East ° '	Strength Mercalli Modified	Time G.M.T.
Nov. 1st	Rabaul	04 11	152 10	1 - 2	0848
	"	"	"	1 - 2	1013
2nd	Numa Numa	05 50	155 15	2	0858
4th	Sohano	05 25	154 40	2	0154
	Aropa	06 25	155 50	2	0158
5th	Awelkon	05 40	147 50	1	1205
8th	Rabaul	04 11	152 10	2	2243
	Aropa	06 25	155 50	1	2245
9th	Rabaul	04 11	152 10	2	0115
11th	Tari	05 50	143 00	1 - 2	0400
	"	"	"	1 - 2	0430
	Wakunai	05 50	155 13	2	2330
12th	Wakunai	05 50	155 13	3	0100
	Numa Numa	05 50	155 15	3	1006
	Esa'ala	09 45	150 50	2	1010
	Kunua	05 50	154 45	3 - 4	1015
	Karoola	05 10	154 35	4	1010
	Kokopo	04 20	152 15	3 - 4	"
	Rabaul	04 11	152 10	3	"
	Aropa	06 25	155 50	2	"
	Kokopo	04 20	152 15	2	1208??
	Karoola	05 10	154 35	2	" ??
	Kunua	05 50	154 45	2	1230
	"	"	"	3 - 4	1345
	Karoola	05 10	154 35	2	1343
	Kokopo	04 20	152 15	2	"
	Aropa	06 25	155 50	3	1345
13th	Rabaul	04 11	152 10	1 - 2	0745
14th	Sangara	08 49	148 09	3	1015
15th	Numa Numa	05 50	155 15	1	0317
	Rabaul	04 11	152 10	1	0318
	Aropa	06 25	155 50	1	0320
	Rabaul	04 11	152 10	2	0835
17th	Kunua	05 50	154 45	2	1630
21st	Walindi	05 25	150 05	2	2109
23rd	Sangara	08 49	148 09	3	0915

TERRITORY OF PAPUA AND NEW GUINEA.

VULCANOLOGICAL OBSERVATORY RABAUL.

SEISMOLOGICAL BULLETIN. DECEMBER, 1955.

1st	iP!	Z	08	39	02	S-P (Omori) 45 secs. U.S.C.G.S. Solomon Is. H = 08 38 13
2nd	iP	Z	00	55	06	
3rd	iP	Z	20	00	09	
	i	E		02	17	
	iP	Z	22	23	58	
	i	E		24	44	
	e	E		25	01	
	i	N		25	06	
	i	N		25	23	
	e	N		25	43	
4th	iP	Z	02	09	08	U.S.C.G.S. 33½°S, 180°. Kermadec Is. H = 02 01 34
5th	iP	Z	20	21	57	
6th	iP!	Z	06	00	39	
	iP!	Z	08	28	40	
7th	iP	Z	15	09	36	
8th	iP!	Z	17	36	54	S-P (Omori) 43½ secs. U.S.C.G.S. 4°S, 152°E. New Britain H = 17 36 00 h = 500 kms.
	iP!	Z	19	42	20	Felt: Kunua Int.1-2(MM)
9th	iP!	Z	22	17	00	
10th	Nil					
11th	i(P)	Z	03	30	57	
	iP	Z	11	19	03	
	i	N		19	23	
	i	E		20	05	
	i	N		20	23	
12th	Nil					
13th	Nil					
14th	iP!	Z	15	19	42	Felt: Walindi Int. 2-3 (MM)
15th	iP!	Z	02	32	45	
	eiP	Z	19	03	37	
	iS	NE			45.3	
16th,17th	Nil					
18th	iP!	Z	03	06	28	
	iP!	Z	10	07	58	U.S.C.G.S.
	i(S)	E		08	41	Nr. N.E. New Guinea
	Felt:	Sangara Int.4(MM)				H = 10 07 04 h = 200 kms.

18th cont.	iP	Z	18	00	27	
19th	iP	Z	03	19	43	
	i	Z		19	52	
20th,21st,22nd, 23rd,24th		Nil				
25th	iP	Z	11	55	07	
	i	Z		56	08	
	i	E		56	19	
	i	N		56	23	
26th	Nil					
27th	iP	Z	08	51	21	
	iP	Z	10	03	18	
	iP	Z	17	26	26	
	i	ZE		27	03	
	e	E		28	02	
28th,29th		Nil				
30th	eP	Z	07	03	23	U.S.C.G.S. ½°N, 126°E. Molucca Strait H = 06 57 51
31st	Nil					

Tremors felt in the Territory, December, 1955.

Date	Locality	Latitude South	Longitude East	Intensity Mercalli Modified	Time G.M.T.
Dec. 1st	Kunua	05 50	154 45	1 - 2	0845
3rd	Kunua	"	"	1 - 2	0630
8th	Kunua	"	"	1 - 2	1945
12th	Rabaul	04 11	152 10	3	0928
	"	"	"	1	1040
14th	Walindi	05 25	150 05	2 - 3	1516
18th	Sangara	08 49	148 09	2	1010
24th	Sangara	"	"	3	1035
25th	Awelkon	05 40	147 50	2	1153
26th	Sangara	08 49	148 09	4	0825
28th	Budoia	09 43	150 50	2	1500
29th	Esa'ala	09 45	150 50	2	0725

TERRITORY OF PAPUA AND NEW GUINEA.

VULCANOLOGICAL OBSERVATORY RABAUL.

SEISMOLOGICAL BULLETIN. OCTOBER - DECEMBER, 1955.

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 (8 cm) loosely filled with pumice dust.

Latitude - 04°11'33"S. Longitude - 152°10'16"E.

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

Instrument	Components	Symbol	Tg. sec.	Tp. sec.
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°13.7'S. Longitude - 152°11.8'E.

Height above mean sea level - about 3 metres.

Foundation - unconsolidated volcanic ash.

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

References. Tables - Jeffreys & Bullen, 1940.

U.S. Dept. of Commerce Special Publication No.254

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

Communications should be addressed to:-

Vulcanologist,
RABAUL,
Territory of Papua and New Guinea.

G. A. Taylor,
Vulcanologist.

1st	eP	ZN	18	54	24	U.S.C.G.S. 19°S, 169°E.
	e	E		54	34	New Hebrides Is.
	i(PP)	N		54	48	H = 18 49 10
	i(PPP)	Z		54	57	S-P (Omori) 58 secs.
	i	N		55	15	
	i	E		55	20	
	e	Z		55	34	
	e	N		56	01	
	e	E		56	05	
	e	Z		58	34	
	e	Z	19	01	32	
	i	Z		05	35	
2nd	iP	ZN	15	34	03	
	e	N		35	39	
	eP	Z	19	42	48	U.S.C.G.S.
	e	Z		43	03	Tonga Is. Region
	e	Z		43	18	H = 19 35 43
3rd	eP	Z	18	25	27	
	i	Z		26	23	
	i	Z		27	21	
	i	Z		27	31	
4th	iP	Z	10	33	36	
	eP	NE	10	33	36	
	i	ZNE		33	55	
	i	ZE		34	27	
	i	Z		34	46	
	i	Z		35	21	
	e	Z	20	55	11	
	e	Z	21	00	36	
5th	iP	Z	09	07	52	U.S.C.G.S. 53½°N, 161°E.
	i	Z		08	08	Kamchatka
	i	Z		08	33	H = 08 57 55
	i(PcP)	E		08	42	
	i	Z		08	59	
	i	Z		09	27	
	e	Z		09	47	
	i(PP)	Z		10	01	
	e	Z		10	18	
	e	Z		10	34	
	e	Z		11	08	
	e	Z		11	20	
	iP	Z	20	50	34	
	i	ZN		50	59	
	i	Z		51	15	
6th	i(P)	Z	11	15	15	
	iP	Z	17	53	33	U.S.C.G.S. 19°S, 147°E.
	i	Z		53	36	New Hebrides Is.
	e(PP)	Z		53	51	H = 17 48 39
	i(PPP)	ZE		54	01	
	i	Z		54	24	
7th	e	Z	07	53	09	
8th	eP	Z	06	21	09	
	i	Z		21	13	
	i	Z		21	21	
	eP	Z	11	26	18	

9th	i(P)	Z	01	14	33	
	~~iP!~~	~~Z~~	~~17~~	~~40~~	~~36~~	...(Felt: Rabaul Int.3+(MM)
	iP	Z	18	03	59	(Kokopo Int.3+(MM)
	i	E		04	14	(Tol Int.3(MM)
	iS!	NE		04	16	(U.S.C.G.S. 5°S, 153°E. (New Britain
	iP	Z	21	09	16	(H = 17 40 09
	iS	NE		09	26	
	i	N		09	27	
	(e)	Z	23	23	45	
	(e)	Z		24	12	
	iP	Z	23	26	46	
	iS	Z		26	56	
	i	N		26	57	
	iP!	Z	23	59	28	
10th	iP!	Z	05	09	17	
	iP!	ZNE	08	58	10	U.S.C.G.S. 5°S, 153°E. New Britain H = 08 57 44 Mag. = 7¼ (Pas) Almost continuous after-shocks for 2-3 hours. Records unreadable. Felt: Kokopo Int.6-7(MM) Tol. Int.6(MM) Many aftershocks; damage to water tanks & crockery; landslides. Felt: Toriu Ptn. Int.5-6(MM) Aftershocks felt for one hour. Rabaul, Namatanai - after-shocks felt; little damage some small tidal waves. Felt: Karoola, Londolovit, Sohano, Lolobau Is. Numanuma, Walindi, Fead Is.
	iP	Z	18	20	03	
	i(P)	Z	23	10	44	
	i	Z		11	10	
11th	eP	Z	13	03	45	
	i	Z		03	52	
12th	Nil					
13th	eP	Z	09	29	19	U.S.C.G.S. 9½°S, 161°E.
	i	Z		29	24	Solomon Is.
	e	E		29	24	H = 09 26 44
	i	Z		30	29	M = 6¾-7 (Pas)
	i	ZNE		30	49	
	iP	Z	16	27	18	
	iP	Z	17	58	09	
14th	i(P)	Z	10	00	47	
	i	Z		01	18	
15th	Nil					
16th	Nil					

17th	iP	Z	01	09	04	Felt: Sohano Int.2(MM)
	i	Z		09	06	Warangoi Int.2(MM)
						Ulamona Int.1(MM)
						Aropa Int.2(MM)
						U.S.C.G.S 6°S, 154°E.
						Solomon Is.
						H = 01 08 07
	iP	Z	07	36	25	Felt: Warangoi Int.2(MM)
						Aropa Int.1(MM)
	iP	Z	19	52	47	
	i	Z		52	50	
18th	Nil					
19th	e(P)	Z	11	40	25	
	e	Z		40	40	
	e	Z		42	40	
	e	Z		42	54	
20th	Nil					
21st	iP!	ZNE	03	48	49	
	i	E		48	56	
	iP	Z	04	42	53	U.S.C.G.S. 4°N, 95°E.
	e	Z		43	08	Sumatra
	i	Z		43	43	H = 04 32 03
	i	Z		44	33	
	e	Z		45	04	
	i(P)	Z	08	55	21	
	i	Z		55	33	
	i	ZN		55	43	
	i	ZN		55	56	
	i	N		56	48	
	iP!	ZNE	09	33	58	
	i	E		34	02	
	i	E		34	43	
	i	E		34	53	
	e	E		35	07	
	iP	Z	19	08	24	U.S.C.G.S. 21°S, 179°W.
	i	Z		08	31	Fiji Is.
	i	Z		08	38	H = 19 02 40
	i	Z		09	33	h = 650 kms (approx)
	i(PcP)	ZE		10	47	M = 6¼ (Pas)
	i	Z		10	51	
	e	E		10	52	
	i(S)	NE		12	54	
	e	NE		14	43	
	e(ScS)	NE		17	12	
	i(P)	Z	21	34	32	
	iP	ZNE	23	15	42	U.S.C.G.S. ½°S, 123½°E.
	i(PPP)	Z		16	49	H = 23 09 38
	i(PcP)	Z		19	06	
	e			20	34	
	i(PcS)			22	36	
	e(ScS)			26	35	

22nd	iP!	Z	03	37	09	Felt: Awelkon Int.2(MM)
	i(S)			38	05	S-P (Omori) 56 secs.
	iP!	Z	05	56	29	Felt: Kilenge Int.2(MM)
	e(S)	E		57	22	Awelkon Int.3(MM)
						S-P (Omori) 57 secs.
	eP	Z	11	24	27	
	iP	Z	12	50	34	
	eP	Z	20	27	06	
	iP	Z	22	07	59	Felt: Walindi Int.3(MM)
	i(S)	E		08	53	Awelkon Int.2(MM)
						Sangara Int.2(MM)
						S-P (Omori) 54 secs.
						U.S.C.G.S. 6°S, 149°E.
						New Britain
						H = 22 06 56
	iP	Z	22	50	09	
	i(S)	N		50	59	
23rd	iP	Z	14	34	23	
	i	Z		34	28	
	i	Z		34	52	
	iP	Z	17	07	21	U.S.C.G.S. 11½°S, 163°E.
						Solomon Is.
						H = 17 04 09
24th	iP!	Z	00	21	16	U.S.C.G.S. 4½°S, 150°E.
	i(S)	E		21	52	New Britain
						H = 00 19 52
						h = 250 kms. (Pas)
						S-P (Omori) 31 secs.
	eP	Z	12	00	47	
25th	eiP	Z	07	08	33	Felt: Aropa Int.2(MM)
	iPP	Z		08	38	
	i(S)	N		09	31	
	i(S)	E		09	36	
	eP	Z	12	45	51	Felt: Finschhafen Int.3(MM)
	i	Z		45	56	
26th	iP!	Z	20	40	01	
27th	iP	Z	01	42	33	
	iP	Z	11	10	13	U.S.C.G.S. 10½°S, 166°E.
	i	Z		10	27	Santa Cruz
	i	Z		10	36	H = 11 06 32
	eP	Z	14	22	45	
	e(S)	E		23	51	
28th	Nil					
29th	Nil					
30th	iP	Z	11	26	31	
	i	Z		28	59	
	iP	Z	19	26	30	U.S.C.G.S. 19°S, 180°.
	i	Z		26	44	Fiji Is.
	iPcP	Z		28	59	H = 19 20 50
	iScS	ZNE		35	49	h = 650 kms.
31st	Nil					

Tremors felt in the Territory, October, 1955.

Date	Locality	Latitude South	Longitude East	Strength Mercalli Modified	Time G.M.T.
Oct. 9th	Vanimo	02 40	141 20	(1 - 2)	0200
	Sangara	08 49	148 09	2	1700
	Tol	05 00	152 05	3	1735
	Ulamona	05 00	151 15	1	1742
	Warangoi	04 30	152 20	4	1742
	Kokopo	04 20	152 15	3+	1742
	Rabaul	04 11	152 10	3+	1742
	Tol	05 00	152 05	3	1742
	Warangoi	04 30	152 20	2	1805
10th	Warangoi	04 30	152 20	2	0510
	Tol	05 00	152 05	6	0900
	Tol	"	"	1	0903
	Popondetta	08 45	148 15	3	0900
	Kokopo	04 20	152 15	6 - 7	0900
	Toriu	04 43	151 41	5 - 6	0900
	Rabaul	04 11	152 10	5	0900
	Namatanai	03 40	152 25	4 - 5	0900
	Karoola	05 10	154 35	4	0900
	Lolobau	04 55	151 10	3 - 4	0900
	Numa Numa	05 50	155 15	3	0900
	Walindi	05 25	150 05	2 - 3	0900
	Fead Is.	03 25	154 45	2	0900
	Kunua	05 50	154 45	5 - 6	0900
	Warangoi	04 30	152 20	7 - 8	0900
	Londolovit	03 05	152 40	4	0900
	Sohano	05 25	154 40	4	0900
	Pomio	05 30	151 30	4	0900
	Warangoi	04 30	152 20	2	0910
	"	"	"	2 - 3	0920
	"	"	"	3	0930
	"	"	"	2	0945
	Rabaul	04 11	152 10	2	0917
	"	"	"	2	1014
	Warangoi	04 30	152 20		1000
	"	"	"		1010
	"	"	"	2	1030
	"	"	"	3	1035
	"	"	"	2	1135
	"	"	"	3 - 4	1253
	"	"	"	4	1300
	"	"	"	2	1400
11th	Vanimo	02 40	141 20	(1 - 2?)	0000
	Fead Is.	03 25	154 45	2	0856
13th	Aropa	06 25	155 50	2	1830
17th	Sohano	05 25	154 40	2	0110
	Warangoi	04 30	152 20	2 - 3	0110
	Ulamona	05 00	151 15	1	0110
	Aropa	06 25	155 50	2	0112
	Warangoi	04 30	152 20	2	0730
	Aropa	06 25	155 50	1	0740
20th	Sangara	08 49	148 09	2	0940
	"	"	"	1	1020
21st	Kilenge	05 30	148 25	3	0933

Date	Locality	Latitude South	Longitude East	Strength Mercalli Modified	Time G.M.T.
Oct.22nd	Awelkon	05 40	147 50	2	0340
	Kilenge	05 30	148 25	2	0554
	Awelkon	05 40	147 50	3	0600
	"	"	"	1	1015
	Aropa	06 25	155 50	1	1124
	Walindi	05 25	150 05	3	2210 (NW-SE)
	Awelkon	05 40	147 50	2	2210
	Sangara	08 49	148 09	2	2205
	Kilenge	05 30	148 25	2	2215
23rd	Aropa	06 25	155 50	1	0617
24th	Warangoi	04 30	152 20	2	0225
	Aropa	06 25	155 50	2 - 3	0900
	Kunua	05 50	154 45	3 - 4	1220
	"	"	"	3 - 4	1330
25th	Aropa	06 25	155 50	2	0710
	Finschhafen	06 35	147 50	3	1245
29th	Kilenge	05 30	148 25	2	1700
	Sangara	08 49	148 09	2	2145