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COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT

BUREAU OF MINERAL RESOURCES

VULCANOLOGICAL OBSERVATORY

RABAUL

RECORDS

T.P.N.G. 1964/8

I

SEISMOLOGICAL BULLETIN

1st January, 1959 - ~~31st December~~ 30TH APRIL, 1959.

Compiled by

G. W. D'Addario.

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ITORY OF PAPUA AND NEW GUINEA
Vulcanological Observatory, Rabaul.

SEISMOLOGICAL BULLETIN 1959.

The Observatory:

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.m. 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 1.5m. below the vault floor. The pier is separated from the floor by a gap 8cm. loosely filled with pumice dust.

ϕ = 04°11' 33" S., λ = 152° 10' 16" E.

Height above mean sea level 183 m. (600 feet)

The installed instrument is a Benioff, moving-coil 3-component, film recording seismograph.

Component	Symbol	Tg	To	Ground Motion Direction
Z	Z	0.35	1.26	Vertical trace up
NS	N	0.26	1.44	North trace up
EW	E	0.29	1.45	East trace up

Due to microseismic background, sensitivity is set at approximately 10%. The velocity of the film is about 15 mm./min.

Presentation of data: All times are Greenwich Mean Time, from midnight to midnight.

Time corrections are obtained by comparison between the Synchronome Electric Clock which causes time breaks on the record and the WWYH signal. A stop watch is used and correction plotted on a time correction graph. Corrections are given on slips attached to records for starting and finishing times; corrections for earthquake times may be obtained by calculation. The corrections are probably right to within 0.5 seconds.

Time Breaks: Time increases from left to right and from top to bottom. Time breaks occur between 27 and 30 seconds in the first minute after the hour and between 57 and 60 seconds at the end of every minute.

Sulphur Creek formerly Rapindik Station.

No information is available for the year 1959.

Symbols and abbreviations from U.S.C.G.S. nomenclature. "c" or "d" indicates initial compression or dilatation of the ground, respectively, from a wave of the compressional type; "+" or "-" indicates initial upward or downward motion of the ground respectively from a wave not known to be of the compressional type

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N,E,S, or W indicates that the initial horizontal direction of the ground motion was towards the north, east, south, or west, respectively.

Intensities on felt earthquakes are extracted from the Monthly reports produced by the Vulcanological Observatory of Rabaul and are given in Roman numerals, based on Modified Mercalli Scale of 1931.

C.B.M. = Confused by microseisms.

R.F. means record failure. No seismogram exists for this earthquake on this component.

Frequently quoted sources of information regarding epicentres, origin times, or shock magnitudes are as follows:

U.S.C.G.S. - U.S.Coast and Geodetic Survey, Washington D.C.

B.C.I.S. - Bureau Central Internationale Seismologique, Strasbourg, France.

J.M.A. - Japan Meteorological Agency, Tokyo.

Where no source is cited the determination of origin time and distance of the epicentre from Rabaul Observatory has been made at Rabaul.

References.

Jeffreys, H and Bullen, K.E. (1940). Seismological Tables. Brit. Ass., Gray-Milne Trust.

Richter, C.F. (1958) Elementary Seismology.

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

Eiby, G.A. and Muir, G. (1961). Tables to facilitate the study of near Earthquakes. Seismol. Obs. Bull. Wellington.

Requests for additional data or for copies of seismograms should be addressed to:

Vulcanologist
P.O.Box 386,
RABAUL T.P.N.G.

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1st Jan.	eP	Z	07	32	56+	U.S.C.G.S. 19°S., 176°W Tonga Is. region H = 07 26 12 Dist.= 34.5°
	eP	Z	07	56	22-	U.S.C.G.S. 8½°S., 177°W Fiji Is. region H = 07 49 35 Dist.= 33.3°
2nd Jan.	Nil					
3rd Jan.	iP!	Z	15	12	51 d	
	i!	Z			58	Local
	iP	Z	22	01	59 c	Local
4th Jan.	iP!	Z	16	05	37 c	Local
	EP	Z	21	14	14 +	U.S.C.G.S. 8°S., 126½°E Timor Is. region H = 21 08 52 Dist. = 26.3°
	iP!	Z	22	38	15 c	Local
5th Jan	eP	Z	02	41	43½d	traces U.S.C.G.S. 11½°N., 141°E Mariana Is region h about 200 H = 02 37 28 Dist. = 19.3°
	eP	Z	09	36	31 +	U.S.C.G.S. 7°S., 156½°E.
	iPP	Z		36	38	Solomons Is. h about 100
	iS	N		37	31	H = 09 35 13 Dist.= 5.1°
	iP	Z	09	52	20 d	Loyalty Is. region
	i	Z			24	U.S.C.G.S. 22°S., 171½°E
	iPPP	Z		53	01	H = 09 46 42 Mag. Pas 6½ - 6¾,
	iPcP	Z		55	47	Tac 6. Dist. = 25.8°
	iS	N		56	48	
	PcS	Z		59	36	
	eP	Z	13	06	34 -	
	i	Z			38	
	e(S)	Z		07	48	
	i	Z			51	
	i	Z		08	01	
	i	Z			12	
6th Jan.	eiP	Z	11	54	36 -	U.S.C.G.S. 6½°S., 155°E
	iS	N		55	20	Solomons Is. h about 150 H = 11 53 39 Dist. = 3.5°
	eiP	Z	14	56	30 -	U.S.C.G.S. 105½°E., 7½°S South of Java H = 14 48 03 Dist.= 47° Traces
7th Jan.	iP!	Z	07	21	41	Local. Felt:- Rabaul Int II (M.M.) 04°10'S., 152°10'E
	iP!	Z	15	43	02	Local
	i(S)	Z			18	Felt:- Rabaul Int I (M.M.) 04°10'S., 152°10'E

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8th Jan.	iPKP(AB)	Z	01	53	20 +	U.S.C.G.S. 15½°N., 61°W.
	i	Z		55	09	Windward Is. h about 100
	i	Z			37	H = 01 33 48
	i	Z		56	40	Dist. = 146° Mag. Pas 6½-6¾.
	iP!	Z	04	07	21 c	U.S.C.G.S. 5°S., 151½°E
	iS	N			41.5	New Britain h about 150
						H = 04 06 46
						Felt: Pomio Int 2 (M.M.)
						05°30'S., 151°30'E
						Dist. = 1.1°
	iP	Z	18	02	50 +	U.S.C.G.S. 7°S., 155½°
	iS	N		04	00	Solomon Is. h about 150
						H = 18 01 37
						Dist. = 5°
	iP	Z	22	39	32.3 c	U.S.C.G.S. 4½°S., 138½°E
						New Guinea H = 22 36 08
						Dist. = 14°
9th Jan.	iP	Z	12	17	16 d	(Solomon Is?)
	iPP	Z			22	
	iS	N		18	08	
	iSS	N			13	
	i	N			19	
10th.Jan.	iP	Z	02	29	54 d	Local
	iS	N		30	29	
	i	N			31	
	iP	Z	05	53	22 c	Local
						Felt: Londolovit Int I (M.M.)
						03°10'S., 152°40'E.
11th Jan.	Strong microseismic activity.					
12th Jan.	eP	Z	03	02	13 -	Northeastern New Guinea
						H = 03 00 38
						Felt: Mumeng Int I=II (M.M.)
						07°00'S., 146°35'E.
						Wau Int I (M.M.)
						07°20'S., 146°43'E.
	iP	Z	17	45	53 c	U.S.C.G.S. 14½°N., 145°E
	ePP	Z		46	20	Mariana Is. h about 150
	eS	N		49	18.5	H = 17 41 29
	ePcP	Z		50	01	Dist. = 20°.
13th Jan.	iP	Z	01	19	48 d	U.S.C.G.S. 13½°N., 146°E
	i	Z		20	10	Mariana Is. H = 01 15 25
						Mag. Pas 6¾. Dist.= 19°
	iP	Z	11	49	43.5 d	U.S.C.G.S. 5°S., 153½°E.
	iS	N			59	New Britain region
						Dist. = 1.7°
						H = 11 49 15
14th Jan.	Strong microseismic activity.					
15th Jan.	iP	Z	21	26	30 d	U.S.C.G.S. 25½°S., 180°E
	ePcP	Z			49	South of Fiji Is.
	epP	Z		27	54	h about 500 H = 21 20 26
	eS	N		31	22	Dist. = 21°. Mag. Pas 6½.
	eScP	Z				

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16th Jan.	Strong microseismic activity.					
17th Jan.	C.B.M.					
	iP	Z	11	33	41 d	U.S.C.G.S. 10°S., 162½°E Solomon Is. H = 11 30 46 Dist. = 12°
18th Jan.	iP!	Z	02	55	51.8 d	New Britain region Felt: Rabaul Int I (M.M.) 04°10'S., 152°10'E Gavit Int II (M.M.) 04°13'S., 151°40'E.
	iP!	Z	14	41	35 d	U.S.C.G.S. 5°S., 152½°E. New Britain region Felt: Rabaul Int III(M.M.) 04°10'S., 152°10'E Gavit Int II (M.M.) 04°13'S., 151°40'E. Rangarere Int IV(M.M) 04°15'S., 151°35'E. H = 14 41 06 Dist.= 1°
	iP	Z	19	26	14 d	U.S.C.G.S. 5°S., 152½°E New Britain region Felt: Rabaul Int II-III(MM) 04°10'S., 152°10'E Gavit Int II (M.M.) 04°13'S., 151°40'E Rangarere Int III(MM) 04°15'S., 151°35'E H = 19 25 45 Dist. = 1°
	iP	Z	22	29	12 d	U.S.C.G.S. 19°S., 178°W Fiji Is. h about 450 H = 22 23 15 Mag. Pas 6¼ Dist.= 33°
	ipP	Z		30	32.5	
	eS	N		33	57	
	iScP	Z		34	48	
	iScS	N		38	49	
19th Jan.	i(P)	Z	17	22	01 -	
	i(S)	N			57	
20th Jan.	Strong microseismic activity.					
21st Jan.	iP!	Z	06	52	46 c	Local
	iP	Z	11	15	43 c	U.S.C.G.S. 19°N., 120°E.
	i	Z			52	Near North Coast of Luzon P.I. H = 11 08 10 Dist. = 40°
	iP	Z	16	37	51 d	
22nd Jan.	iP	Z	05	18	25 c	U.S.C.G.S. 34°N., 142°E.
	iPcP	Z		20	37	Near east coast of Honshu,
	iS	N		24	02	Japan. Felt-. H = 05 10 25 Mag. Pas 6¾-7; Bks 6¾. Dist. = 40°
	iP	Z	05	40	53 c	U.S.C.G.S. 4°N., 132½°E.
	iS	N		44	49.5	About 300 miles north- east of Halmahera, East Indies. H = 05 36 06

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22nd Jan. contd.	iP!	Z	06	22	24	c	Local
	iP!	Z	17	51	31	c	Local
23rd.Jan	iP!	Z	06	20	11	d	
	i!				18		New Guinea Felt:- Saidor Int II (M.M.) 05°38'S., 146°28'E.
	iP	Z	09	37	46	c	Local
24th Jan	iP	Z	05	16	28	d	U.S.C.G.S. 37½°N., 141°E
	ipP	Z			49		Near coast of Honshu,Japan
	iPcP	Z		18	15		Felt. h about 100 H = 05 08 35 Dist.= 43°
	iP	Z	15	34	24.6	d	U.S.C.G.S. New Britain region. Felt: Rangarere Int III(M.M) 04°15'S., 151°35'E. Rabaul Int II (M.M.) 04°10'S., 152°10'E. h about 100 H = 15 33 56
	iP	Z	15	58	39		U.S.C.G.S. 17½°S., 175°W. Tonga Is. region h about 100 H = 15 51 47 Dist. = 35°
	iPKP(BC)	Z	20	14	59	d	U.S.C.G.S 37½°N., 24½°W
	i	Z		15	01		Azores Is. H = 19 55 14
	i	Z			16		Mag. Pas 6¼-6½. Dist. = 147°
	e	N		18	10		
	e	Z			16		
	iPP	Z			23		
25th Jan.	eP	Z	06	09	10	c	New Britain region
	i	Z			11		H = 06 08 24
	iS	N			45		Dist. = 3°
	iP	Z	11	47	39	c	
	iS	N		48	21		New Britain region H = 11 46 44 Dist. = 3.6°
	e	Z	21	19	10	+	Traces
	e	Z	22	02	10	-	Traces
	e	Z			23		
	e	Z	22	32	41	-	Traces
	e	Z			43		
26th Jan.	iP	Z	05	54	53	c	U.S.C.G.S. 16½°S., 174½°W.
	ipP	Z		55	48		Samoa Islands region
	iS	N	06	00	05		h about 300 H = 05 48 27 Dist. = 35°
	e(P)	Z	14	46	57	-	Local
	iP	Z	21	42	34.5	d	Local

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27th Jan.	e(P)	Z	20	12	33	d	Small Local or regional
	i	Z			34		
	iP	Z	21	11	03	c	U.S.C.G.S. 4°N., 126°E.
	i	Z		12	03		Celebes Sea
							h about 200 H = 21 05 29
							Dist. = 27.5°
28th Jan.	iP	Z	08	11	25	c	Small Local or regional
	iP	Z	17	13	15	c	Small Regional ?
29th Jan.	e(P)	Z	11	08	26	c	Local
	e	Z	20	32	06	+	Traces
							U.S.C.G.S. 52°N., 174°W
							Andreanof Islands,
							Aleutian Islands
							H = 20 21 17
							Dist. = 63°
							Mag. Pas 5¾-6.
30th Jan.	iP	Z	00	22	05	c	U.S.C.G.S. 10°S., 161°E
	iPP	Z			10		Solomon Island
	iS	N		24	04		H = 00 19 25
	i	Z			06		Dist.= 10.5°
							Mag. Pas 6¾.
	iP	Z	18	16	24	c	U.S.C.G.S. 31°S., 179°W
	i!	Z			25.2		Kermadec Islands.
	iS	N		21	33		H = 18 09 02
	i	Z			43		Dist. = 38°
	i(ScS)	N		25	43		
	i	Z		25	48		
	iP	Z	20	47	42	d	U.S.C.G.S. 44°N., 144°E
	eS	N		54.6			Hokkaido, Japan
							H = 20 38 58
							Dist. = 48°
							Mag. Pas 5¾-6
	iP	Z	22	25	31	d	U.S.C.G.S. 44°N., 144°E
	eS	N		32.5			Hokkaido, Japan.
							H = 22 16 47
							Mag. Pas 6¼.
							Dist. 48°

31st Jan. Nil recorded.

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Volcanological Observatory.
Rabaul T.P.N.G.

Final Bulletin
February 1959.

1st February	eP	Z	05	31	29		U.S.C.G.S. 8½°S., 158½°E Solomon Islands. H = 05 29 31
	i(S)	N		33	16		
2nd February	iP	Z	04	01	40	d	U.S.C.G.S 6½°S., 126°E Banda Sea. C.B.M. h about 150 H = 03 56 12 Dist= 26.5°
	iP	Z	11	58	10	d	Traces Local?
3rd February	iP	Z	01	51	23	d	About 300 Km west of Guam. H = 01 47.0 Dist.= 21°
	iP	Z	23	30	46.4	d	U.S.C.G.S. 39½°S., 175°E. Western Coast, North Island, New Zealand. h about 100 H = 23 23 10 Dist. = 41°
4th February	Strong microseismic activity.						
5th February	iP	Z	09	11	43	d	Local
	i	N		12	04		
	i(S)	N			54		
	i(P)	Z	19	06	16	(c)	C.B.M.
6th February	iP	Z	14	43	20	c	U.S.C.G.S. 51°N., 175½°W Andreanof Island Aleutian Islands h about 60 H = 14 33 02 Dist. = 62° Mag. Mat 6-6¼, Bks 5½-5¾, Upp, Kir 5½-5¾, Pas 6, Pra 6.3.
	i	Z			29		
	iPcP	Z		43	32		
	eS	N		41	34½		
7th February	iPKP	Z	09	55	57½		U.S.C.G.S. 4°S., 81½°W B.C.I.S. 4°S., 81½°W Near coast of northern Peru, H = 09 36 51. Felt. Mag. Mat.7¾-8, Bks 7¾-7½ Upp.,Kir 7.1; Tac 6.8, Kew 7.3,Mos 7, Pas 7¼-7½, Pra 7¼. Dist.= 128.5°
	iP	Z	10	16	26½	d	U.S.C.G.S. 16°N., 146°E. Mariana Is. H = 10 11 39 Dist. = 21°
	i	N			29½		
	eS	N		20	13		
	ePcP	Z			30		
8th February	Strong microseismic activity.						

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9th February	iP!	Z	21	13	53	c	U.S.C.G.S. 5°S., 154°E. Solomon Is. region h about 100. H = 21 13 18 Mag. Wel.6½. Dist. = 2° Felt:- Rabaul Int 1V M.M. 04°10'S., 152°10'E. Rangarere Int 11 M.M. 04°15'S., 151°35'E Warangoi Int 111 M.M. 04°30'S., 152°20'E Ulamona Int 1-11 M.M. 05°00'S., 151°15'E. Mag. Wel 6½. Dist. = 2°.
10th February		Strong microseismic activity					
11th February		Strong microseismic activity					
12th February	iP	Z	17	08	52	c	22°S., 173°E. U.S.C.G.S. Loyalty Is. region H = 17 03 10 Mag. Wel 5½-6 Dist. = 26.5°
13th February	iP	Z	15	15	13	c	U.S.C.G.S. 20'S., 177½°W
	i(pP)	Z		16	36		Tonga Is. h about 100 H = 15 09 05 Wellington 20°S., 177°W. h about 600 H = 15 09 18 Dist. = 34°
14th February	eP	Z	04	42	20		U.S.C.G.S. 7½°S., 122°E
	e	Z		43	17		Flores Sea. H = 04 36 10 B.C.I.S. 7½°S., 122°E H = 04 36 10 Moskva H = 04 36 20 Port Moresby H = 04 36 18 Mag.Wel. 5¾-6; PMG6½; Dist. = 30°
	eP	Z	07	32	52		B.C.I.S. 5½°S., 162½°E Solomon Is. region H = 07 29 59 Dist. = 11°.
	i	Z	22	21	07½	+	Traces
	iP	Z	22	36	13	c	U.S.C.G.S. 28°N., 97°E
	iPPP	Z		40	02		East Pakistan H = 22 25 50 Moskva 22 25 47 Quetta 27°N., 97°E H = 22 25 50 Shillong H = 22 26 02 Mag. Shl 5.9; Que 6.0. Dist = 62°.
15th February	iP	Z	04	14	25	c	U.S.C.G.S. 44½°N., 83½°E Sinkiang Province China H = 04 02 22 Moskva H = 04 02 33 Quetta 44½°N., 83¾°E H = 04 02 20
16th February	e	Z	14	21	29		Traces

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17th February	iP	Z	00	02	45½	c	New Britain region Felt:- Pomio Int II-IIIM.M 05°30'S., 151°30'E.
	iP	Z	11	54	41	c	U.S.C.G.S. 15°N., 142½°E
	i	Z			50		Mariana Is region H = 11 49 59 Dist. = 21½°
	iP	Z	12	13	35½	d	U.S.C.G.S. 51½°N., 171°W.
	i	Z			48		Fox Is. Aleutian Is.
	e	Z		14	33		H = 12 03 05 Dist. = 63°
18th February	eP	Z	17	33	30		U.S.C.G.S. 14°N., 144°E
	i	Z			42		Mariana Is. region h about 250 H = 17 29 07 Dist. = 20°
	iP	Z	18	41	58½	d	Rabaul New Britain region
	iS	N		42	25½		H = 18 41 23 Dist. 2.3°
19th February	eP	Z	11	43	28		Port Moresby 5½°S., 147°E
	i	Z			33		Nth coast of New Guinea Astrolabe Bay. H = 11 41 48 Dist.= 5°
	eP	Z	21	04	33		
	i	Z		05	08		
	e	Z		07.1			
	iP	Z	22	48	48	d	deeper than normal
	iS	N		49	10		
20th February	iP!	Z	02	54	09	d	
	iS	N			28		
	eP	Z	12	07	36		U.S.C.G.S. 18°S., 178½°W
	iP	Z			37	d	Fiji Is. h about 600 H = 12 01 57 Dist. = 32°
	iP!	Z	12	08	51	d	in coda of preceding
	iS!	N		09	02		Rabaul New Britain region H = 12 08 36 Dist. = 1°
21st February	Nil recorded						
22nd February	iP	Z	10	31	01	d	U.S.C.G.S. 5½°S., 131°E Banda Sea. H = 10 26 06 Moskva H = 10 26 22 Mag. Mat 5¼-5½;Que 6.5 Dist. = 21°
23th February	iP!	Z	01	59	34	d	U.S.C.G.S. 5½°S., 150°E New Britain H = 01 58 38 Mag. Mat 6¼-6½; Wel 5½-5¾. Dist. = 2.5° Felt:- Kandrian Int V-VI M.M. 06°15'S., 149°35'E Walindi Int IV M.M. 05°25'S., 150°05'E Pomio Int II M.M. 05°30'S., 151°30'E
	iP	Z	10	40	57	c	U.S.C.G.S. 52½°N., 159°E.
	i			41	23		Kamchatka h about 100 H = 10 31 14 Moskva H = 10 31 16 Dist. = 58°

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9th February	iP!	Z	21	13	53	c	U.S.C.G.S. 5°S., 154°E. Solomon Is. region h about 100. H = 21 13 18 Mag. Wel.6½. Dist. = 2° Felt:- Rabaul Int 1V M.M. 04°10'S., 152°10'E. Rangarere Int 11 M.M. 04°15'S., 151°35'E Warangoi Int 111 M.M. 04°30'S., 152°20'E Ulamona Int 1-11 M.M. 05°00'S., 151°15'E. Mag. Wel 6½. Dist. = 2°.
10th February		Strong microseismic activity					
11th February		Strong microseismic activity					
12th February	iP	Z	17	08	52	c	22°S., 173°E. U.S.C.G.S. Loyalty Is. region H = 17 03 10 Mag. Wel 5½-6 Dist. = 26.5°
13th February	iP	Z	15	15	13	c	U.S.C.G.S. 20'S., 177½°W
	i(pP)	Z		16	36		Tonga Is. h about 100 H = 15 09 05 Wellington 20°S., 177°W. h about 600 H = 15 09 18 Dist. = 34°
14th February	eP	Z	04	42	20		U.S.C.G.S. 7½°S., 122°E
	e	Z		43	17		Flores Sea. H = 04 36 10 B.C.I.S. 7½°S., 122°E H = 04 36 10 Moskva H = 04 36 20 Port Moresby H = 04 36 18 Mag.Wel. 5¾-6;PMG6½; Dist. = 30°
	eP	Z	07	32	52		B.C.I.S. 5½°S., 162½°E Solomon Is. region H = 07 29 59 Dist. = 11°.
	i	Z	22	21	07½	+	Traces
	iP	Z	22	36	13	c	U.S.C.G.S. 28°N., 97°E
	iPPP	Z		40	02		East Pakistan H = 22 25 50 Moskva 22 25 47 Quetta 27°N., 97°E H = 22 25 50 Shillong H = 22 26 02 Mag. Shl 5.9; Que 6.0. Dist = 62°.
15th February	iP	Z	04	14	25	c	U.S.C.G.S. 44½°N., 83½°E Xinkiang Province China H = 04 02 22 Moskva H = 04 02 33 Quetta 44½°N., 83¾°E H = 04 02 20
16th February	e	Z	14	21	29		Traces

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23rd February contd.	eP	Z	16	14	16		U.S.C.G.S. 50°N., 157°E Kurile Is. deeper than normal. H = 16 04 48 Dist. = 55°
	i				20		
	iP	Z	17	31	32½	c	Port Moresby 6°S., 147°E Near N.E. coast of New Guinea H = 17 30 12 PMG 4 Dist = 5.5°
24th February	eP	Z	12	52	11		U.S.C.G.S. 11°N., 122½°E Panay Is. P.I. h about 100 H = 12 45 41 Dist. = 33° Mag. Mat 5½.
25th February	iP	Z	20	13	07	c	U.S.C.G.S. 2°S., 129°E. Ceram Sea h about 200
	i	Z			19		H = 20 08 09 Dist.= 23°
	iP!	Z	23	19	15	c	Local Felt:- Rabaul Int I M.M. 04°10'S., 152°10'E.
26th February	iP	Z	00	09	31	d	RAB Local H = 00 09 15
	iS	N			43		Dist. 0.9° Felt:- Taliligap Int IM.M 04°19'S., 152°10'E.
	iP	Z	04	42	27½	d	U.S.C.G.S. 5½°S., 147°E. Near N.E. coast of New Guinea H = 04 41 00 Dist. 5.5° Felt:- Finschhafen Int I M.M. 06°34'S., 147°51'E. Saidor Int II M.M. 05°38'S., 146°28'E. Awelkon Int III M.M. 05°40'S., 147°47'E.
	iP	Z	17	18	44	c	
	iP!	Z	17	34	24	d	RAB Local
	iS	N			30		H = 17 34 16 Dist. 0.3°
27th February	iP	Z	21	04	01	d	U.S.C.G.S. 27½°N., 129°E Ryu Kyu Is.
	i	Z			09		H = 20 56 30
	eS or ScP	Z,N		09	58		B.C.I.S. H = 20 56 35 Moskva H = 20 56 42 J.M.A.Japon 27½°N., 128½°E H = 20 56 40 Dist.= 39° Mag. Mat 6.0; Kew 6¼.
28th February	iP	Z	03	58	58	c	U.S.C.G.S. 3°S., 129½°E. Ceram Is. region H = 03 53 51 Dist. 23.5°

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1st March	eP	Z	16	53	22½		U.S.C.G.S. ½°S., 134½°E
	iP!	Z			23		Near N.coast of New Guinea
	eS	N		56	39		Felt. h about 100 H = 16 49 13
	i(LQ)	N		57.0			Moskva H = 16 49 03 Dist.= 18°
	i(LR)	Z		58.0			Mag. Mat 7-7¼; Upp,Kir 7.1; Kew 7;Tac 7;Wel 6.7;Mos 6¾; Pas 7;Que6¾; Dist.= 18°
	e(P)	Z	18	28	01		Traces
	i				08		
	eP	Z	20	46	27½		U.S.C.G.S. ½°S., 135°E
	e	Z			28		Near N. coast of New Guinea
	i	Z			33½		H = 20 42 14 Dist. = 17.5°
2nd March	i(P)	Z	08	43	02	(c)	Local
	i				14		
	iP	Z	09	19	06	c	U.S.C.G.S. 7½°S., 127½°E Timor Is. H = 09 13 37 J.M.A. Japon H = 09 13 46 Mag. Mat 6,0; Wel 6.0;PMG 6¼; Dist. = 25°
	e	Z	13	34	35		Traces
	iP	Z	16	03	56	c	U.S.C.G.S. 36½°N;. 70½°E. h about 250 H = 15 51 41 Hindu Kush, Felt. B.C.I.S. 36.5°N., 70.5°E h about 220 H = 15 51 40 Moskva 36½°N., 71°E h about 200 H = 15 51 44 Shillong 36°N., 70¾°E H = 15 51 44 Quetta 36°N., 70¾°E h about 250 H = 15 51 44 Peking 36°N., 70°E. H = 15 51 38 Mag. Mat 5¼-5½; Upp,Kir 6.3; Kew 6; Que 6.6.Dist.= 86°
	e(P)	Z	21	15	02		Traces
3rd March	Strong microseismic activity						
4th March	Strong microseismic activity						
5th March	e(P)	Z	12	56	29		PMG H = 12 54 55 Off SE tip of Papua.
			"C.B.M"				B.C.I.S. 10½°S., 151½°E. H = 12 54 54 Dist = 6°
	iP	Z	14	18	20½	c	U.S.C.G.S. 44½°N., 147°E
	i(pP)	Z			53		Kurile Is. h about 100 H = 14 09 47 J.M.A. Japon 43¾°N., 147¼°E h about 80 H = 14 09 48 Dist. = 48°
	iP	Z	20	34	54	c	RAB 5¼°S., 151½°E.
	iS!	N		35	13		New Britain region H = 20 34 29 Dist. = 1.5° Felt:- Pomio Int II=III M.M. 05°30'S., 151°30'E Taliligap Int II M.M. 04°,9'S., 152°10'E.
6th March	iP!	Z	16	50	52	c	RAB Local Dist. = 0.7°
	iS	Z		51	02		
	iP	Z	20	31	52	c	U.S.C.G.S. 11°S., 162°E Solomon Is. region foreshock H = 20 28 43 Mag. Mat 5½-5¼; Wel 5½; PMG 5½; Dist. = 12°
	iS	N		34	07½		
	iP	Z	20	45	02½		

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6th March contd.	continuation of previous shock						
	iS	N	20	45	18½		U.S.C.G.S. 10½°S., 162°E Solomon Is. region H = 20 41 53 Mag. PMG 5½ Dist. = 12°
7th March	iP	Z	09	03	18	d	U.S.C.G.S. 5½°S., 153°E New Britain region. H = 09 02 52 Dist.= 1.6° Felt: Rabaul Int 1 M.M. 04°10'S., 152°10'E.
	iP	Z	10	53	24	d	RAB New Britain region
	iS	N			47		Dist. = 1.9°
8th March		C.B.M.					
	e(P)	Z	17	13	16		U.S.C.G.S. 21°S., 170°E Loyalty Is. H = 17 07 55 Mag. Mat 5-5¼; Wel 5.4. Dst. = 24°
	iP	Z	23	18	20½		New Britain region
	iS	N			40		RAB. H.= 23 17 54 Dist.= 1.6° Felt: Pomio Int II-III M.M. 05°30'S., 151°30'E.
9th March	Strong microseismic activity						
10th March	Strong microseismic activity						
11th March	iP	Z	07	12	19	c	U.S.C.G.S. 6°S., 127½°E
	i	Z			32		Banda Sea H = 07 06 58 Dist.= 25° Mag.PMG 5½.
	iP	Z	20	37	36	d	RAB H = 20 36 38½
	iS	N		38	20		New Britain region PMG H = 20 36 45 Dist. = 3.8° Mag. PMG 4¾.
12th March	eP	Z	01	32	23		U.S.C.G.S. 7°N., 145°E
	i	Z			26		Caroline Is. H = 01 29 07
	eS	N		36	45		B.C.I.S. 7°N., 145°E H = 01 29 07 Moskva H = 01 29 22 Peking 7½° 146°E. H = 01 29 09 Dist. = 13.5° Mag. Mat 6¼-6½; Upp,Kir 6; Wel.6; Mos.6; Pas 6,PMG 6.
	iP	Z	03	41	47	c	RAB. New Britain region
	iS	N		42	08		H = 03 41 19 Dist. = 1.7°
	iP!	Z	09	01	05	c	U.S.C.G.S. 5°S., 154½°E Solomon Is. region H = 09 00 30 h about 60 B.C.I.S. 5°S., 154½°E h about 60 H = 09 00 30 Felt: Rabaul Int III M.M. 04°10'S., 152°10'E Warangoi Int IV M.M. 04°30'S., 152°20'E Londolovit Int III M.M. 03°10'S., 152°40'E. Dist. = 3°
13th March	iP	Z	16	46	52	c	U.S.C.G.S. 21°S., 176½°W
	i	Z			57		Tonga Is. h about 200 H = 16 40 15 Mag. Wel 6 Dist. = 35°

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14th March	iP	Z	07	01	06	d	U.S.C.G.S. 18°S., 166°E
	iS	N		04	19		New Hebrides h about 500
	i	N			40		H = 06 57 08 Dist.= 20°
15th March	iP	Z	22	47	31	c	Local
	i	Z			35		
16th March	iP	Z	12	35	56	c	Local
	iP	Z	15	03	07	d	Local
17th March	iP	Z	08	32	41	c	U.S.C.G.S. 27½°N., 130°E
	i	Z			46		Ryukyu Is. H = 08 25 22
	iPcP	Z		35	02		B.C.I.S. idem
	eS	N		38	34		J.M.A. Japon 27½°N., 129½°E
	iScP	N			42		h about 60 H = 08 25 26
							Peking 27°N., 130°E
							Mag. Mat 6, Kew 6¼, Mos 6½;
							Pas 5¾-6; Stras. 7; PMG5¾.
							Dist. = 38.5°
	iP	Z	14	32	57½	c	RAB New Britain region
	iS	N			30½		H = 13 32 14 Dist. = 2°
							PMG H = 13 32 17
							Felt: Kandrian Int II M.M.
							05°15'S., 149°35'E.
	iP	Z	17	06	13½	c	New Britain region
18th March	No records available						
19th March	iP	Z	07	31	31½	c	U.S.C.G.S. 27°N., 130°E
							H = 07 24 11
							Ryu Kyu Is.
							Moskva H = 07 24 10
							Peking H = 07 24 00
							Dist. = 38°
	ePKP(AB)	Z	08	45	26		U.S.C.G.S. 35°N., 36°W North
							Alantic Ocean H = 08 25 32
							Dist.= 148° Mag. Bks 6½;Pas6¼
	iP!	Z	14	29	42		RAB Local H.= 14 29 31
	iS	N			50		Felt: Rabaul Int I M.M.
							04°10'S., 152°10'E.
							Dist. = 0.5°
	iP	Z	17	46	03	d	
	i	Z			09		Local
	e	Z	18	55	14		Traces
20th March	Nil recorded						
21st March	iP	Z	04	33	10	d	U.S.C.G.S. 19°S., 178°E
	ipP	Z		34	40		Fiji Is. H = 04 27 21
	iPcP	Z		35	40		h about 550. Peking
	i	E			43		H = 04 27 15
	iS	N,E		37	47		PMG h about 600 H = 04 27 30
	eScS	N,E		42	35		Dist.= 32.5° Mag. Wel 5½.
	e(P)	Z	08	40	32	+	Traces
	e	Z	13	07	06	-	
	iP!	Z	17	22	23	cNE	
	iS	N			32½		RAB Local H = 17 22 10
							Dist. = o.7°
	eP	Z	19	52	42(C)		U.S.C.G.S. 20°S., 177½°W
	iPPP	Z		54	22		Fiji Is. H = 19 46 00
	iS	N		58	00		B.C.I.S. 19½°S., 179°W
							H = 19 46 05 Dist. = 34°

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COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT

BUREAU OF MINERAL RESOURCES

VULCANOLOGICAL OBSERVATORY

RABAUL

RECORDS

T.P.N.G. 1964/8

SEISMOLOGICAL BULLETIN

1st January, 1959 - 31st December, 1959.

Compiled by

G. W. D'Addario.

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ITORY OF PAPUA AND NEW GUINEA
Vulcanological Observatory, Rabaul.

SEISMOLOGICAL BULLETIN 1959.

The Observatory:

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.m. 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 1.5m. below the vault floor. The pier is separated from the floor by a gap 8cm. loosely filled with pumice dust.

ϕ = 04°11' 33" S., λ = 152° 10' 16" E.

Height above mean sea level 183 m. (600 feet)

The installed instrument is a Benioff, moving-coil 3-component, film recording seismograph.

Component	Symbol	Tg	To	Ground Motion Direction
Z	Z	0.35	1.26	Vertical trace up
NS	N	0.26	1.44	North trace up
EW	E	0.29	1.45	East trace up

Due to microseismic background, sensitivity is set at approximately 10%. The velocity of the film is about 15 mm./min.

Presentation of data: All times are Greenwich Mean Time, from midnight to midnight.

Time corrections are obtained by comparison between the Synchronome Electric Clock which causes time breaks on the record and the WWYH signal. A stop watch is used and correction plotted on a time correction graph. Corrections are given on slips attached to records for starting and finishing times; corrections for earthquake times may be obtained by calculation. The corrections are probably right to within 0.5 seconds.

Time Breaks: Time increases from left to right and from top to bottom. Time breaks occur between 27 and 30 seconds in the first minute after the hour and between 57 and 60 seconds at the end of every minute.

Sulphur Creek formerly Rapindik Station.

No information is available for the year 1959.

Symbols and abbreviations from U.S.C.G.S. nomenclature. "c" or "d" indicates initial compression or dilatation of the ground, respectively, from a wave of the compressional type; "+" or "-" indicates initial upward or downward motion of the ground respectively from a wave not known to be of the compressional type

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N,E,S, or W indicates that the initial horizontal direction of the ground motion was towards the north, east, south, or west, respectively.

Intensities on felt earthquakes are extracted from the Monthly reports produced by the Vulcanological Observatory of Rabaul and are given in Roman numerals, based on Modified Mercalli Scale of 1931.

C.B.M. = Confused by microseisms.

R.F. means record failure. No seismogram exists for this earthquake on this component.

Frequently quoted sources of information regarding epicentres, origin times, or shock magnitudes are as follows:

U.S.C.G.S. - U.S.Coast and Geodetic Survey, Washington D.C.

B.C.I.S. - Bureau Central Internationale Seismologique, Strasbourg, France.

J.M.A. - Japan Meteorological Agency, Tokyo.

Where no source is cited the determination of origin time and distance of the epicentre from Rabaul Observatory has been made at Rabaul.

References.

Jeffreys, H and Bullen, K.E. (1940). Seismological Tables. Brit. Ass., Gray-Milne Trust.

Richter, C.F. (1958) Elementary Seismology.

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

Eiby, G.A. and Muir, G. (1961). Tables to facilitate the study of near Earthquakes. Seismol. Obs. Bull. Wellington.

Requests for additional data or for copies of seismograms should be addressed to:

Vulcanologist
P.O.Box 386,
RABAUL T.P.N.G.

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Vulcanological Observatory
Rabaul T.P.N.G.

Final Bulletin
April 1959

1st April	iP	Z	12	41	27	d	
	iP	Z	14	21	58	d	U.S.C.G.S. 48°S., 98½°E
	i	Z		22	19		Indian Ocean H = 14 11 30
							Dist. = 63°
							P.M.G. H = 14 11 33
	iP	Z	14	53	11	d	U.S.C.G.S. 18°S., 169°E
	ipP	Z		54	31		New Hebrides Is. H about 150
							H = 14 48 28 Dist.= 21.5°
							P.M.G. 14 48 18
	e(P)	Z	22	52	31	-	U.S.C.G.S. 17°S., 168½°E
							New Hebrides Is. h about 100
							H = 22 47 54 Dist. 20.5°
							P.M.G. h about 140 H = 22 47 47
	iP	Z	23	34	34	d	U.S.C.G.S. 6°S., 154½°E
	i(S)			35	14		Solomon Is. region H = 23 33 36
							Dist.= 3°
							Felt: Pomio Int II-III M.M.
							05°30'S., 151°35'E
							Rabaul Int 1 M.M.
							04°10'S., 152°10'E
2nd April	iP!	Z	16	26	07	d	Local RAB H = 16 25 57 Delta = 0.4°
	iS	E			14		
	iP	Z	19	29	06½	c	U.S.C.G.S. 20½°N., 121°E
							Batan Is. region H = 19 21 34
							Dist. 39.5°. P.M.G. H = 19 21 31
3rd April	Strong microseismic activity.						
4th April	e(P)	N	18	55	41		
	i	N			44		
	e	N		56	30		
5th April	iP	Z	21	10	16	d	U.S.C.G.S. 15½°S., 167½°E
	iPP	Z			50½		New Hebrides Is. h about 150
	eS	E		13	36½		H = 21 05 54 Dist. = 19°
							PMG H = 21 05 50
	iP	Z	23	30	55	d	U.S.C.G.S. 5½°S., 146°E
	i	Z		31	50		Near N.Coast of New Guinea
	i(S)	E		32	01		H = 23 29 25.Dist.6°
							PMG H = 23 29 21 Mag.PMG 6½
							Felt: Saidor Int V M.M.
							05°38'S., 146°28'E
							Kundiawa Int III M.M.
							06°02'S., 144o58'E
							Gumine Int IV M.M.
							06°10'S., 144°55'E
							Kaiapit Int II M.M.
							06°16'S., 146°16'E
							Lufa Int IV M.M.
							06°20'S., 145°15'E
							Aiome Int II M.M.
							05°10'S., 144.°45'E
							Awelkon Int II M.M.
							05°40'S., 147°47'E.
							Wau Int I M.M.
							07°20'S., 146°43'E
6th April	eP	Z	08	42	59		PMG H = 08 42 18 Mag. PMG 3¾.
	iP	Z	13	11	17	c	
	eP	Z	14	19	06	c	U.S.C.G.S. 10°S., 120½°E
	iPcP	Z		21	56½		Sumba Is. H = 14 12 36
	eS	E		24	17		PMG H = 14 12 46 Mag. PMH 6½;
	eScP	Z		25	40		Pas. 6¼. Dist. 32°
	eLQ	E		26	01		
	eLR	Z		27	18		

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7th April	Strong microseismic activity						
8th April	iP	Z	01	30	14	c	U.S.C.G.S. 32½°S., 179°E
	ipP	Z		31			Kermadec Is. region
	iPcP	Z		32	20		h about 400 H = 01 23 36
	ScP	Z		35	28		Mag. Pas 6-6¼. PMG H = 01 23 33
	S	E			37		Dist. = 38.5°
	ScS	E		39	46		
	iP	Z	08	08	28	c	U.S.C.G.S. 17°S., 174½°W
	i	Z		35	29		Tonga Is. region h about 100
	i	Z		35	36		H = 08 01 36 Dist. 25.1°
9th April	e(P)	Z	06	30	23	c	U.S.C.G.S. 36°N., 76°E
							Indian Ocean H = 06 18 30
							PMG H = 06 18 36 Dist. = 77°
	iP	Z	17	57	35	c	Local
	iP	Z	18	03	57½	d	Local
	i(S)			04	46		
	iP!	Z	20	36	45	c	RAB Local H = 20 36 31 Dist.0.8°
	iS	E			55		Felt: Taliligap Int II M.M.
							04°19'S., 152°10'E
							Warangoi Int II M.M.
							04°30'S., 152°20'E
							Rangarere Int II M.M.
							04°15'S., 151°35'E
10th April	Strong microseismic activity						
	eP	Z	05	53	26	d	U.S.C.G.S. 25°S., 178½°E
	iS	Z		58	(41)		Sth of Fiji Is. h about 600
	iScS	E	06	02	43		H = 05 47 34 PMG H = 05 47 34
							Dist.= 33°
11th April	iP	Z	11	34	08	c	U.S.C.G.S. 1°S., 128°E
	iS	E		38	28		Spice Is. H = 11 28 50
							PMG H = 11 28 53 Mag. PMG 5½.
							Dist. = 24.5°
12th April	no records - power failure						
13th April	Strong microseismic activity						
14th April	Strong microseismic activity						
15th April	iP!	Z	09	44	55	c	RAB Gazelle Peninsula H = 09 44 31
	iS	E		45	13		Dist.= 1.5°
							Felt: Taliligap Int II M.M.
							04°19'S., 152°10'E
							Rabaul Int I M.M.
							04°10'S., 152°10'E
	iP!	Z	16	41	55	d	RAB. Local H = 16 41 43 Dist.=0.6°
	iS	E		42	04		
	iP	Z	19	21	17	c	U.S.C.G.S. 54°N., 160½°E
	i	Z			19		Near E.coast of Kamchatka
	iS	E		29	29		H = 19 11 20 Dist. 58°
16th April	iP	Z	07	33	16	d	U.S.C.G.S. 23½°S., 179°E
							S. of Fiji Is. H = 07 27 27
							h about 550. PMG H = 07 27 34
							Dist. 32.5°
	iP	Z	16	18	16	d	U.S.C.G.S. 12½°N., 143°E
	iS	E		21	49		h about 100. H = 16 13 56
	iScP	Z		26	06		Mag. Pas 6½. Dist 19°
	i(P)	Z	16	57	43	c	
17th April	iP	Z	06	10	40	c	Local
18th April	iP!	Z	06	18	23	d	U.S.C.G.S. 4½°S., 154°E
	i	Z		23.9			New Ireland H = 06 17 51
							PMG H = 06 17 58 Mag.PMG 5¾.
							Dist. = 2°
							Felt: Rabaul Int IV M.M.
							04°10'S., 152°10'E
							Warangoi Int III-IV M.M.
							04°30'S., 152°20'E

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Taliligap Int III M.M.
04°19'S., 152°10'E
Londolovit Int III M.M.
03°10'S., 152°40'E

	iP	Z	08	48	46	d	
	i	Z			47		
	iP!	Z	13	54	55	d	
	e(P)	Z	15	41	29		
	i	Z			38		
	i	Z			45		
	i	Z		42	14		
19th April	iP	Z	07	54	09	d	PMG 5°S., 157½°E Solomon Is.region H = 07 53 40 Mag. PMG 5½ Dist. = 5.5°
	eP	Z	15	40	33		
	i				35		
	i			41	42		
	i				51		
	i				53		
	i			43.2			
	iP!	Z	15	55	51	d	
	i			59	48		
	eP	Z	16	13	14		
	i				16		
	i				19		
	i			14	06		
20th April	eP	Z	01	09	26		
	eP	Z	03	28	52		U.S.C.G.S. 6°S., 149°E
	iP!				53	c	New Britain region h about 100 H = 03 27 52.PMG H = 03 27 54 Dist. 3° Felt: Lingalinga Int V M.M: 05°32'S., 149°45'E Walindi Int III M.M. 05°25'S., 150°05'E Kandrian Int III-IV M.M. 06°15'S., 149°35'S. Awelkon Int III M.M. 05°40'S., 147°47'E
	iP	Z	12	02	55	d	
21st April	eP	Z	09	35	31		
	i				35		
	i			36	40		
22nd April	iP	Z	11	26	15	c	RAB New Britain region H = 11 25 48½ Dist.= 1.6° Felt: Pomio Int 2 M.M. 05°30'S., 151°30'E
	iS	E			35		
	iP	Z	16	43	46½	d	Local
	iP	Z	16	49	47½	c	Local
23rd April	iP!	Z	02	13	48	c	RAB New Britain region
	iS	E		14	13		H = 02 13 15 Dist. = 2°
24th April	iP!	Z	13	52	04	d	RAB Gazelle Peninsula
	iS	E			23		H = 13 53 39 Dist. = 1.5° Felt: Taliligap Int 1 M.M. 04°19'S., 152°10'E
	iP	Z	18	05	30	c	U.S.C.G.S. 31°S., 178°E
	ScP	Z	18	11	30		Kermadec Is. H = 17 57 58 PMG 17 58 01 Mag 6¾-7, Bks 6½-6¾. Dist.= 39° (Pas)
25th April	iP!	Z	06	59	04	c	Local
	iP!	Z	15	48	10	c	Gazelle Peninsula H = 15 47 51
	iS	E			24		Dist. 1.1°

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25th April contd.							Felt: Taliligap Int 11 M.M. 04°19'S., 152°10'E
26th April	eP	Z	08	48	54		U.S.C.G.S. 7½°S., 157°E
	i	E		49	23		Solomon Is. region H = 08 47 28
	iS	E			57		Mag. PMG 5. Dist.= 5.5°
	iP	Z	17	30	50	d	PMG H = 17 29 23 New Britain region Felt: Awelkon Int II M.M. 05°40'S., 147°47'E
	iP	Z	20	48	10	c	U.S.C.G.S. 25°N., 122½°E
	ipP	Z			37		Near N.E.coast of Formosa.
	iPcP	Z		50	12		2 killed. Damage at Taipei.
	iScP	Z		53	52		h about 150 H = 20 40 38 Mag. Bks
	iS	E		54	17½		7¾-7½; Pas 7½-7¾. Dist = 41°
27th April	iP	Z	09	53	20	d	U.S.C.G.S. 7°S., 129°E Banda Sea.
	iPP	Z			47		H = 09 48 09 Dist.= 23.5°
	iPcP	Z		57	08		
	iS	E			30		
	iLQ	E	10	00	29		
	iP	Z	12	53	12	d	U.S.C.G.S. ½°S., 124°E.
	ipP	Z			50		Celebes region.h about 200 H = 12 47 27 Dist. = 28.5°
28th April	ePKP	Z	11	28	14	d	U.S.C.G.S. 15°N., 93°W
	iPP	Z		29	37		Mexico-Guatemala border
	i(PS)	Z		38	56		H = 11 09 30 Dist.=117.5° Mag. Bks 6½; Pas 6¼.
	iP!	Z	13	01	13	c	U.S.C.G.S. 5°S., 152½°E New Britain region. h about 100 H = 13 00 57. Dist.=1°. Felt: Rangarere Int II-III M.M. 04°15'S., 151°35'E. Karlai Int II M.M. 05°05'S., 152°00'E. Rabaul Int II M.M. 04°10'S., 152°10'E
	iP	Z	15	59	39½	c	U.S.C.G.S. 6½°S., 150°E. Near
	i	Z			44		S.coast of New Britain.
	iS	E	16	00	59		PMG. H = 15 58 09 RAB H = 15 57 56½ Dist. = 3° Felt: Awelkon Int 1 M.M. 05°40'S., 147°47'E
29th April	iP!	Z	03	29	01½		Local
	iP	Z	12	14	33½		PMG 3½°S., 151½°E. H = 12 14 16 Mag.PMG 4¼. Felt: Rangarere Int II M.M. 04°15'S., 151°35'E
	iP	Z	12	47	58	c	Local
	iP	Z	12	48	26	d	RAB New Britain region
	iS	E			45		H = 12 48 01 Dist. = 1.5°
	eP	Z	15	40.3			U.S.C.G.S. 16½°N., 145°E Mariana Is. H = 15 34 45 Dist= 22°
	iP	Z	17	55	16	d	Local
30th April	iP	Z	09	15	30	c	RAB New Britain region
	i	Z			32		H = 09 14 52 Dist = 2.4°
	iS	E			59		
	iPKP (DE)	Z	13	44	27	d	U.S.C.G.S. 55½°S., 26°W Sandwich Is. H = 13 25 35 Dist.120°
	iP	Z	17	16	50½		RAB Gazelle Peninsula
	iS				59		H = 17 16 39 Dist. = 0.9° Felt. Taliligap Int 1 M.M. 04°10'S., 152°10'E.

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1st May.	eP	Z	07	23	13	d	U.S.C.G.S. 3½°S., 135½°E
	i	Z			17		H = 07 19 16 Dist.= 16.5°
							Western New Guinea
							PEK 4°S., 135°E H = 07 19 18
							Mag. Mat 5¾; PMG 5¾.
	eP	Z	08	49	11	c	B.C.I.S. 3°S., 141°E New Guniea
							H = 08 45.4 Dist. = 11°
							PMG H = 08 45 23 Mag. PMG 5.9
	iP!	Z	14	57	26	c	U.S.C.G.S. 5°S., 154°E
	Felt:						Solomon Is. region H = 14 56 57
	Taliligap Int IV M.M.						h = 60 Dist. = 2°
	04°19'S., 152°10'E						
	Rabaul Int 111 M.M.						
	04°10'S., 152°10'E						
	Londolovit Int 11 M.M.						
	03°10'S., 152°40'E						
	iP!	Z	15	01	26	c	RAB 5°S., 154°E Solomon Is.
	iS	N			46		region H = 15 00 59 Dist. = 2°
	iP	Z	23	20	50	c	RAB Solomon Is. region
	i!	Z			52		H = 23 20 21 Dist. 1.8°
	i(S)	N		21	12		
2nd May	i(P)	Z	10	11	39	c	B.C.I.S. Off NE coast of
							New H = 10 10.3
	iP!	Z	21	30	54	d	RAB Solomon Is. region
	iS	E		31	18		H = 21 30 22 Dist. 2°
3rd May	Nil recorded						
4th May	iP	Z	07	25	29	d	U.S.C.G.S. 52½°N., 159½°E
	i	Z			30		Near E. coast of Kamchatka
	i	Z		27	53		h = 60 H = 07 15 42 Dist.= 58°
	iS	E		33	21		Moskva 53°N., 160½°E H=07 15 45
	i	E			25		J.M.A. H = 07 15 47
	i	E		34	08		TAC h = 50 H = 07 15 49
	e	E		54	58		Mag. Kew 7.5; Wel 7¾; Mos 7¾;
	i	E		55	31		Pas 8; Pra 8.3; Bks 8¼; Rey 8.4;
	i	E			36		PMG 7¾. 1 killed 13 injured.
5th May	eP	Z	19	14	07	c	U.S.C.G.S. 53°N., 159°E
	eS	E		22	00		Kamchatka aftershock
							H = 19 04 16 Dist. 58°
							Moskva H = 19 04 (12)
							PEK 52°N., 160°E H = 19 04 16
							Mag. Mat 6½-6¾; Kew 6¼; Mos 6¼;
							Pas 6; Pra 6.7
6th May	eL	Z	18	17.9			
	iP	Z	18	39	25	c	Local
	eL	Z		40.9			
	iP	Z	18	57	44	d	U.S.C.G.S. 3°S., 128°E
							Ceram Is. H = 18 52 22
							Dist. = 24° Mag. Mat 5½;
	i(P)	Z	19	59	28	d	
7th May	iP	Z	00	04	26		U.S.C.G.S. 3½°S., 148½°E
	i	Z			30		Bismark Sea. H = 00 03 24
	eL_R			05.3			Dist. = 4° Moskva H = 00 03 22
							PEK H = 00 03 24 Mag. Mat 6½;
							Upp,Kir 6.2; Mos 6; Pas 6 - 6¼;
							Str 6.4; PMG 5¾.
	i(P)	Z	04	42	17	d	Bismark Sea aftershcok
	eLR	Z		43.1			
	iP	Z	04	49	37	d	Bismark Sea aftershock
	eLR	Z		50.3			

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7th May contd.	iP	Z	05	24	36	d	B.C.I.S. H = 05 24.2 Dist.= 4° Mag. PMG 4
	eLr	Z		25.3			
	iP	Z	09	04	28	c	U.S.C.G.S. 3½°S., 149½°E Bismark Sea H = 09 03 46 Dist. = 2.5° Mag. PMG 5
	eLr	Z		05.1			
	iP	Z	11	17	57	d	U.S.C.G.S. 3½°S., 150°E Bismark Sea H = 11 17 16 Dist. = 2° PEK H = 11 17 14 Mag. PMG 5
	eLr	Z		18.5			
	iP	Z	13	19	04	c	Bismark Sea aftershock.
	eLr	Z		19.9			
	eP	Z	20	28	40	c	U.S.C.G.S. 8½°S., 123½°E Flores Is. H = 20 22 41 Dist. 29° MOS H = 20 22 48 PEK H = 20 22 45
	iP P	Z		31	52		
	i(S)	N		33	12		
	iP	Z	20	48	03	d	RAB New Britain region H = 20 47 37 Dist. = 1.6°
	iS	E			23		
8th May	iP	Z	11	44	40	d	U.S.C.G.S. 53½°N., 160½°E Near E coast of Kamchatka h = 60 H = 11 34 50 Dist. = 59° Moskva H = 11 34 50 PEK H = 11 34 55 Mag. Mat 5¾-6; Kew 6; Mos 6; Pas 6; Rey 6.7.
9th May	R.F.						
10th May	iP	Z	05	02	21	c	RAB 5½°S., 147°E Off S. coast of New Britain H = 05 00 56 B.C.I.S. H = 05 01.1 Dist. = 5.5° PMG 5½°S., 147°E. h = 150 H = 05 01 05
	iPP	Z			29		
	iS	N		03	27		
	iSS	N			34		
	iLr	Z			41		
	i	N		04	01		
	iP	Z	20	03	54	c	RAB New Britain region H = 20 03 34 Dist. 1.4°
	iS	E		04	12		
	Felt: Rabaul Int II M.M. 04°10'S., 152°10'E Taliligap Int I-II M.M. 04°19'S., 152°10'E						
11th May	iP	Z	05	37	16	d	C.B.M.
	iP!	Z	15	33	16	c	RAB New Britain region H = 15 32 53 Dist. 1.3°
	iS	E			33		
	iP	Z	16	38	41	d	U.S.C.G.S. 53½°N., 160°E Kamchatka H = 16 28 49 Dist.= 58° Moskva 53°N., 160½°E
	e	Z		40	01		
12th May	iP	Z	05	07	47	d	U.S.C.G.S. 54½°N., 168°E Kamandorskie Is. H = 04 57 35 Dist. = 61°. Moskva 54½°N., 169E H = 04 57 35. QUE H = 04 57 37 PEK H = 04 57 39. Mag. Mat 6¾; Upp,Kir 6.3; Kew 6.2; Pas 6½; Que 6½; Bks 6¼-6½; PEK 6½-6¾.
	iS	E		16	05		
	iP	Z	08	08	01	d	U.S.C.G.S. 9½°S., 159½°E Solomon Is h = 100, H = 08 06 01 Dist. = 8.5°
	iS	E		09	55		
	i	E		10	02		
	i	E			49		
	i	E		12	44		
	ePKP	Z	10	06	13	c	U.S.C.G.S. 23½°S., 64½°W Salta Province, Argentina H = 09 46 51 Dist. = 135° B.C.I.S. idem. TAC H = 09 46 52 La Plata 22°S., 64.5°W PEK H = 09 46 56 Mag. Mat 6¾-7; Upp,Kir 6.8; Pas 6¾; Que 6½; Bks; 6¼-6½; Pek7; Tac 6.4; STR 6½; PMG 6½;
	i	Z			19		
	iPP	Z		08	51		
	iPKS	E		09	58		