MD
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BULLETIN E.26.

DEPARTMENT OF SCIENTIFIC & INDUSTRIAL RESEARCH.

SEISMOLOGICAL REPORT - NEW ZEALAND AND FIJI. JANUARY, 1931.

Dominion Observatory,
Kelburn, Wellington,
NEW ZEALAND.

Lat.41°17'S: Long.174°46'E: Height above M.S.L.401.5 feet.

INSTRUMENTS: Milne-Shaw Horizontal Seismographs Nos.13 and 36.
Magnetic Damping.
Galitzin-Wilip Vertical Seismograph, photo-galvanometric registration.

NOTE: Wood-Anderson Short-Period Seismograph installed 1931 January 28

CONSTANTS:

COMPONENT	Date of Determination	Galvanometer Free Period	Pendulum Free Period	Damping	AK/T/L
Milne-Shaw (N)	1930 Oct.3	-	9.8 secs.	20: 1	-
Milne-Shaw (E)	1930 Sept.29	-	9.8 secs.	20: 1	-
Galitzin-Wilip (Z)	1930 Nov.11	10.70 secs	10.33 "	1.72: 1	168.4

SUVA, FIJI: Lat.18°9'S: Long.178°26'E: Height above M.S.L.10 feet.
Milne-Twin-Boom Horizontal Seismograph .Undamped.

For notation used in this report see "MODERN SEISMOLOGY" by G.W. Walker.

OBSERVERS

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1931	Phase	Greenwich Time h m s	Period s	AN	AE	AZ	Dist. deg.	
Jan.2	eZ	10 2 20					91	0. 9h 48m 37s.
	PR1	5 39						
	S	13 1						Acc.to Jesuit S.A.
	L	31 33						15 N, 108.5 W.
	M	10 37	22		65	33		
	M	10 42	18	42		25		
8	e	1 22						
	L	1 25						Weak record of remote quake.
	M	1 30	12			4		Very small on Milne-Shaw.
9		10 43						Small movements.
10	e	21 30 24					25	0.21h 24m 46s.
	S	34 47						
	M	21 40	10	7	2	3		Wellington & Riverview indicate epicentre near New Hebrides.
12	e	21 21 40						Small, but suggests a repetition from same epicentre as on 10d.
	e	21 26						Neither of these registered at Suva.
	L	21 32						
13		5 26						Small movements.

1931	Phase	Greenwich Time h m s	Period s	AN μ	AE μ	AZ μ	Dist. deg.	
Jan.14	e	16 24						A series of waves with periods 6 to 8s and trace-amplitude not exceeding 1.5 mm.Probably nearby,but indecipherable
	F	17 15						
15	e	2 4 48						
	PR1	2 8 27						
	(S)	2 15 0					99	These phases,if correctly idenfified,do not fit well with epicentre and time given by Jesuit S.A. viz.15N,97W.0.1h 50m 20s
	e	18 50						
	SR1	21 30						
		2 27						
		2 30						
	L	2 36 15						
	M	2 38	24		460			
	M	2 43	20	85	275			
	W1	4 15	22?		20			
15		21 48						Weak record of distant quake given by Zikawei as 5.7 deg.distant
15	eP	22 51 55						
	S	22 58 33						44.5 At sea north of New Guinea.
	L	23 5						
	M	23 14	18	20	55			
	M	23 16	18			35		
16	eZ	19 41 45					100	
	(S)	44 17						On E comp Milne-Shaw only
	e	46 38						
	SR1	19 53						Repetition of quake on 15d 1h 50m
	SR2	19 56						Jesuit S.A.gives 0-19h19m26
	L	20 6						
	M	20 11	18		20	9		Found on Suva,but very sma
17	e 1	3 15 12					95	Not clear records on any comp. e 1 may be (S),e 2
	e 2	3 22						may be SR1.
	L	3 35 30			25	12		
	M	3 40	18					Jesuit S.A.gives 25N,110W,0 2h 49m 58s
								Very small on Suva.e 1. 3h 15.5m.
								clock error not known e 2. 3 32 = L?
								M 3 39
18	e	13 47						Weak record of quake in Dutch East Indies.
18		15 25						Small movements
18		20 18						
19	PZ	12 33 32					60	0 12h 23m 21s
	SZ	41 41						
	L	12 54						
	M	12 58	18	9	20	10		Acc.to Manila "In region of 14S,112E."
								Not found on Suva.
19	PZ	16 0 15						
	SZ	4 54					25.7	
	L	16 7						
	M	16 11	12			12		rather confused on Milne-Shaw.
								Not found on Suva.
21		0 20						Weak record of distant quake. Acc.to Batavia ther is one in Java at 20d23h 43m,but identification seer doubtful.
22		3 30						Small movements.

1931	Phase	Greenwich Time h m s	Period s	AN μ	AE μ	AZ μ	Dist. deg.	
January								
24	P	13 52 34					65	0 13h 41m 49s.
	S	14 1 14						
	L	14 15 30						Acc.to Manila, 11.5 N.
	M	14 25	18	6	8	10		126 E
								Not found on Suva.
25	e	13 11 27						Small, not found on NS comp.
	L	13 18						Not recorded at Suva.
27	e	20 28 0					96	Burma.
	(S)	20 33 30						0 20h 9m 18s
	SR1	20 41 0						Manila gives
	SR2	20 45 30						26 N, 93 E.
	L	20 56						
	M	21 6	22	45		56		much obscured by micros.
	M	21 9	20		75			
28	e	2 30						
	M	2 35	12		13			
28	PZ	21 34 7					62	Only EW recording, & much disturbed by repair work in buildings
	SZ	42 32						0 - 21h 23m 40s
	e	21 46						Manila gives 12 N, 146.5 E.
	L	21 51 15						
	M	21 55	18		110			
	M	21 57	18			66		NS not working

The records from the Wood-Anderson Torsion Seismometer are available as from January 28. AE And continue to be computed from the Milne-Shaw records. The abbeviation WA refers tothe Wood-Anderson instrument.

28	eP	17 9 29	WA small
	eS	9 50	
29	Pg	2 59 46	WA
	Sg	50	
29	P	5 17 52	WA
	S	18 49	
31	Pg	4 30 25	WA small
	Sg	30 41	