

1921 January & February. C. I.  
 EARTHQUAKE RECORDS FOR MALAYA.  
 BANJALINGGARA OBSERVATORY, 1918.



Instruments: Wiechert Astatic Pendulum Seismometer.  
 Wiechert Vertical Seismometer.  
 The Observatory is situated in latitude  $13^{\circ} 48'$  South.  
 longitude  $11^{\text{hrs}}, 27^{\text{m}}, 6^{\text{s}}$ , West.  
 Altitude above sea level 2 metres.

The notation is that generally used in tabulating the results of Wiechert Seismometers. The character is numbered, I, II, III for slight, moderate and severe earthquakes respectively, and the letters d v r u added are initials for domestic, vicinus, remotus and ultimus.

The local shocks are not given unless the ground movement amounts to  $10\mu$ . The time given with these is the hour preceeding the record of the shock. Greenwich Time is reckoned from midnight to midnight. The ground movement under  $A_E$ ,  $A_V$  and  $A_V$  is computed by Wiechert's formula.

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 Chief Assistant.

Magnification: Horizontal 120 Damping: Horizontal 4.3  
 Vertical 70 Vertical 2.3

Date	Char-	Phase	G.C.M.T.	Period	$A_E$	$A_V$	$A_V$	Remarks.
1921	acter		h m s	s	$\mu$	$\mu$	$\mu$	
Jan 1	I d		11					
1	I d		18					
3	I d		12					
4	I d		21					
6	I d		16					
6	I d		21					
7	II r	L	1					
7	II r	L	3					
7	II r	L	17					
9	II v	P	13	57.0				Looks like a small local shock
				58.2				superposed.
		L <sub>m1</sub>		59.8	9	83	118	70
		M <sub>2</sub>	14	00.1		62	74	80
		F <sup>2</sup>	14	40	or earlier, ends gradually.			
13	I d		19					
14	I d		18					
17	I d		5					
19	I d		2					
20	II v	P	1	24.9				
			1	25.8				
		L <sub>m</sub>	1	26.4	8	26		
		F	1	33				
20	II v	P	18	10.9				
				11.2				
		L M		11.7	3	105	140	quite near shock apparently.
		F	18	17				A succession of small shocks.
22	I d		7					
23	I d		3					
27	I d		1					
1921								
Feb 2	I d		8					
4	I d		18					
5	I d		3					
7	I d		21					
9	I d		18					
10	II v	P	19	46 06	4	5		
			19	47.8	13			Only 3 waves here: period doubtful.
		M		48.6	8	277	275	283
		F	20	30				$\Delta = 1100\text{km}$ -
11.12	Average microseisms				4			15 Due to heavy sea gale from North.
15	I d		20					
16	I d		12					
17	I d		18					

1921 February & March.  
EARTHQUAKE REPORTS NEW ZEALAND.  
Samoaan Observatory, Apia.



Date	Char-	Phase	G.C.M.T.	Period	A <sub>E</sub>	A <sub>N</sub>	A <sub>V</sub>	Remarks.						
1921	acter		h. m. s.	s.	μ	μ	μ							
Feb 19	II	u	18 23 35	6	7	-	7	Not a large earthquake. Δ = 6800 or 7000km probably.						
			18 31.2	10										
		L	18 43.9	18	50		150							
		M	18 44.2	18	75	-	150							
		M	18 45.1	18	-	45	-							
		F	18 54											
20	Id	17h:	22d	Id	10h:	22d	Id	23h:	23d	Id	20h:	24d	Id	1h:
24	Id	13h:	24d	Id	22h:	27d	Id	00h.						
27	III	v	P	18 24 51	2	85	60	34	Felt locally					
				18 25 18	2	200	150	34	III RossiForel					
			L	18 25 52	2	> 470	> 415	110	Δ > 1000km.					
			M	18 26.5	2	> 470	> 415	135						
				18 32	4	> 425	> 340	335	On vertical amplitude diminishes suddenly here					
				18 36.5	6	245	260	215						
			C	18 38										

On the horizontal waves of six seconds period continue until about 19h 30m, but amplitude diminishes steadily.

F 20 30

28 I d

F 20 30

1921  
Mar

Local earthquakes omitted.

11	I	v	P	23 43 39									
			L	45 20	7								
			M	46 23	7			12					
			F	23 50									
22	I	v		12 07.1									This appears to be a record of one or more small shocks.
				11.9	9								
			M <sub>1</sub>	14.9	9	30							
			M <sub>2</sub>	26.7	9			40					
			F <sub>2</sub>	12 50									
24	II	r		9 21.2	5								Period doubtful.
				25.5	13								
			M <sub>1</sub>	26.2	11	50		20					
			M <sub>2</sub>	41.1	6	15		20					
			F <sub>2</sub>	10 10									
26	II	v		1 57.8									
				58.9									
			M <sub>1</sub>	59.9	9			55					
			M <sub>2</sub>	2 00.9	8	35							
			M <sub>3</sub>	2 01.8	7					20			
			F <sub>3</sub>	2 15									
28	II	u	P	8 02 13	6	15		12		14			Disturbed here by small local shock.
				8 06.8	6								
			S	8 12.8	9								
				21.0	9								
			L	30.2	22	105		38					
			F	8 52									

This appears to be a record of a moderately strong shock 9000km distant, but movement is small and difficult to measure correctly.

30	I	r		15 12 08	2								A small shock. at considerable distance.
				15 20 06	7	20		20					
				15 35									
31				19 46 40	3								A series of waves of short period.
			F	19 53									

Copies of your earthquake reports are desired. Kindly post them to the Observatory, Apia, SAMOA.