



APIA OBSERVATORY. SAMOA.

SEISMOLOGICAL REPORT.

1928. January to March.

Lat. 13° 48' 26" S. Long. 11h 27m 6s. W.

Instruments:

Wiechert Astatic Pendulum Seismometer. 1000 kg.
 Wiechert Vertical Seismometer. 180 kg.

C.J. Westland. Seismologist. A. Thomson. Director.

Cba Phase GMT T Ae An Av

Date	Cba	Phase	GMT	T	Ae	An	Av	Remarks
Jan 3	Iv		h m s	s				microns.
			1 30					
3		M	23 2 57	12	34	18		
		M	23 12 17	8	20	15		
10	Iv	e	5 16					
		M	5 18	12	25	70		
19	Iv	P	22 51 42					Obscured by microns.
		L	52 49	16				
		M	22 53 10	12	300			
20	Iv	M	10 39 33	14	22			Jan 23, 24. Very large microns.
28	Iv	M	10 22					
29		e	1 53 31					
		M	1 54 0	1	15	40	4	
31	Iv	e	23 12					
		F	23 30					
Feb. 1	Iv	P	2 54 26	1			1	Distance 2 deg;
		S	5 1 40					
		L	5 4 57					
		M	2 55 20	11	110	54		
		F	3 20					
4		\bar{P}	9 59 5	1			1	Distance 1.2 deg;
		\bar{S}	59 21	1	17	85		
		M	9 59 30	3		95	12	



Feb.			h m s	s						microns.
4		P	11 47 31	1						Distance 1.2 deg.
		S	47 48							
		M	11 48 12	4	50	30				
5		e	4 14 13							
		L	15 20							
		M	4 16 45	8	75	55				
13	Iv	e	22 48 2	1					2	
			48 21							
		M	22 50 0	3					20	
		M	22 50 10	7	35	55				
17		M	0 20 24	1	10	60	50			Felt in Apia, 2 RF.
22	Iv	e	13 2 0							
		S	3 0							
		M	4 42	10	50					
		M	13 12 15	8		23	3			
		F	14 30							
23		e	0 55 53							
		M	0 56 14	1	27	95	7			Felt in Apia, 2RF.
23	Iv		14 20							Traces
23		i	20 25 46							
		M	20 26 8	1	27	27				
26	Iv		6 5							
27		M	21 31 48	1	16	30	2			
29		L	22 24 23	16						
		M	22 25 23	13	7					
Mar.										
3		M	18 53 30	1	25	38				
9	Iu	L	18 54	28						
		M	19 3	18	45					Obscured by traces crossing
		M	19 9	16	40					
13	Ir	e	18 38 26							
			38 44							
			39 0							
			40 27	6	12					
		S	44 54	9	12				2	
		L	18 50	16						
		M	18 56 10	12	27					
		F	19 30							
										PR1 Distance 38 deg. O 18h 31m 3Ss.



Mar.			h	m	s	s		
16	IIr	P	5	5	26	2	42	4
		S			5 40			
		L			8 55	14		
		M	5	11				400
		L	7	30				
17		L	2	12				
18	Ir	e	3	6	49			
		e			10 1	8		
		L			11 48	18		
		M	3	16	40	16	45	48
18		e	12	9	32			
		e			9 48			
		L			14 25	18		
		M	12	18		14	14	
		M	12	19		14		11
20		M	12	31	56	1	6	60 4
21		i	11	59	15			
		M	12	0	12	1	18	50 9
22	IIu	P	4	29	29			
		S			33 3			
		S			39 25			
		L			44 45			
		L			53 50	28		
		M	4	57		24	60	200
		M	5	1	30	24	270	160
		F	5	50				

microns.

PRI ? Distance 19 deg.
O 5h 1m 3s
Lat 22 S, Long 170 E.

From 5h 11m to 5h 20m the arms are almost continuously striking against the steps.

Traces

Not clear, probably a repetition of quake on March 16.

Difficult

Off coast of Mexico.

The results tabulated above include 2 small earthquakes known to have been felt in Samoa, and 7 other shocks which may have been felt by a few persons but have not been reported. There are also 32 movements too small to be felt, of which 7 occurred in January, 10 in February, and 15 in March.

Printed at the Observatory.

APIA OBSERVATORY. SAMOA.

SEISMOLOGICAL REPORT.

1928. April to June.

Lat. 13° 48' 36" S.

Long. 11h 27m 6s. W.

Instruments:

Wiechert Astatic Pendulum Seismometer. 1000 kg.

Wiechert Vertical Seismometer. 180 kg.

C. J. Westland. Seismologist.

A. Thomson. Director.



SEISMOLOGICAL STATION
 BERKELEY, CALIFORNIA

Cba Phase G M T, T Ae An Av

Date	Cba	Phase	G M T, T	Ae	An	Av	microns.
Apr 6		M	h m s 11 24	s 1	60		
10		P	23 2 38	1	11	7	
		S	3 1	1		20	Felt in Apia, 3 RF.
		M	23 3 10	1	180	140	60
11		i	8 24 48				
		M	8 25 18	1	24	45	6
22	Iv	e	11 12 20				
		M	11 14 0	6	7	12	
22	Iv	P	19 56 58				
		S	58 29				
		M	19 59 52	6	6	8	
26		i	23 4 5				
		M	23 4 40	1	45	95	
30		i	14 0 19				
		M	14 0 43	1	24	60	
May 1		e	11 24 6	12			No short waves found.
		M	26 40	8		23	
		M	27 10	8	24		
		F	11 40				
4		M	5 56	1	16	28	3
5		M	4 48	1	8	35	2
9		e	23 51 18				
		M	23 51 45	1	48	95	9
12		M	3 50	1	15	45	3

Cha Phase GMT, T Ac An Av

			h	m	s	s			
May. 14	Iu	e	22	28	34				
		e		31	57				
		S	39	31		14	65	25	
		L	22	59	20	25			
		M	23	5		18	175	75	
		M	23	10	30	16	120	30	
		M	23	16		15	30	50	
15		F	0	10					
19	Iv	e	3	47	37				
		M	3	54	10	6			
		F	4	10					
23		\overline{P}	7	54	59				
		\overline{S}		55	21				
		M	7	55	28				
27	Iu	e	10	1	50				
		e		4	29				
		S	10	23		13		4	
				15	51				
		L	10	23	11	22		130	
		M	11	15					
28	Iv	e	0	52	57				
		M	0	54	11	8		10	
		F	1	8					
30		\overline{P}	6	19	22				
		\overline{S}		20	37				
		M	6	21	30	1	180	320	55
30 June		e	14	59	40				
		M	15	0	5	1			15
4		e	5	30	48				
		M	5	52	40	8	5	5	
6	Iv	e	19	10	7				
		e		11	38				
		S		12	18				
		L		12	30				
		M	19	13	12	8	120	80	30

mierons.

PRI

Distance 96 deg.
O 22h 14m 15s.

Reported felt in Lifuka, Haapai Is.
also two other sheets. A small tidal
wave was experienced and pumice
deposited on beach.
No disturbance recorded by tidegauge
at this observatory.

Felt in Apia, 3 RF.

e1 is not P, but e2 is almost
certainly PRI. Distance 65 deg.
O 9h 59m 53s.

Felt in Apia, 3 RF.

Felt in Apia, 2 RF.

Distance 10 deg.
O 19h 7m 47s.

Cha Phase GMT. T Ae An Av

June.			h	m	s	s			
7	lv	e	2	38	42				
		L		40	7	12			
		M	2	40	39	8	30	6	
16		P	1	20	45				
		S	1	21	12				
		M	1	21	17	1			4
17	lu	e	3	31	57				
		e		38	55	1			2
				54	8				
				55	35				
			3	57		24			
		F	4						
17		e	6	44	37				
		M	6	46	45	1			18
21	Ir	P	10	42	22				
		S		44	14				
		M	10	45	45	10			150
28		M	9	58		1			4
29	Ir	P	22	53	40				
		S		56	59				
			22	57	27				
		M	23	1					70
30		i	9	1	55				
		M	9	2	25	1			18

microns.

The clock of the horizontal seismograph broke on June 7, and from this date until July 29 only the vertical instrument could be used.

L?

Probably two small local shocks.

Distance 9 deg.

Felt in Apia,, 2RF.

The results tabulated above include 5 small earthquakes known to have been felt in Samoa, and 8 other shocks which may have been felt by a few persons but have not been reported. There are also 31 movements too small to be felt, of which 15 occurred in April, 12 in May, and 4 in June.

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APIA OBSERVATORY. SAMOA.

SEISMOLOGICAL REPORT.

1928. July to September.

Lat. 13° 48' 26" S.

Long. 11h 27m 6s. W.

Instruments:

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A. Thomson. Director.

Cha Phase U T, T Ap An Av

July	Cha	Phase	U	T	T	Ap	An	Av
9	Iv	e	h	m	s			
		e	21	27				
		M	21	38	20	16		
22	Iv	e	10	47	33			
		M	10	48	43	2		2
28		M	18	58		1		15
28		M	21	32		1		10
Aug 2		e	7	54	55			
		M	7	55	17	1		9
4	Iu	e	18	34	38			
		L	19	2	14	23		
		M	19	3	20	22	55	
7	Iv	e	2	18	0			
		M	2	18	33	1	20	55
7	Iv	e	21	53				
		F	22	3				
21		e	11	53	7			
		M	11	53	27	1	20	32

microns.

During these three months the horizontal seismograph was of little use owing to the failure of the driving clock, and much of the record was lost.

Felt in Apia., 2RF.

Cha	Phase	U	T	T	Ae	An	Av	
Aug								microns.
34	Ir	P	h m s	s			2	
			21 48 0	1			10	
			21 48 4	2	12			
		S	50 59					
		L	52 4	12				
		M	21 53	8	45	12		
		F	22 40					
26	Iv	P	4 3 17	1				
		L	4 40	12				
		M	5 35	8			16	
		M	4 6	8	120	70		
		L	5					
29	Iv	c	2 41					
		F	3 0					
Sep		P	7 39 36					Confused,
1			40 40					
			41 11	12				
		M	7 47	8				
2		c	16 56 52					
		M	16 58 37	1			2	
6	Iv	P	8 52 0					Distance 2 deg.
		S	52 19	1				
		M	52 40	1			10	
		M	8 56 35				12	
6		P	12 32 15					Distance 2deg.
		S	32 39					
		M	32 58	1			9	
		M	12 55	1			9	
13		e	7 33 8					
		M	7 33 30	1	14		5	
14		e	4 3 54					
		M	4 4 24	1	12			
22	Iv	i	5 56 44					
		M	5 57 10	3			80	Horizontal instrument striking against stops.
22	Ir	P	7 36 22					The records of these two earthquakes obscure one another, and it is difficult to see details on the seismogram,
		S	7 40 22					
		L	7 43					

Cha Phase U T. T Ae An Av

apt		h m s	s				microns.
22	e	21 49					
	M	21 50 40	3	7			
22	P	21 55 17					
	S	21 55 40					
	M	21 57 50	3	300		25	Felt in Apia, 2 RF
24	e	1 46 45					
	M	1 47 55	1			24	

The results tabulated above include 2 small earthquakes known to have been felt in Samoa, and 7 other shocks which may have been felt by a few persons but have not been reported. There are also 24 movements too small to be felt, of which 3 occurred in July, 13 in August, and 8 in September.

Printed at the Observatory.

Department of Geology
University of California

APIA OBSERVATORY. SAMOA.

SEISMOLOGICAL REPORT.
1928. October to December.

Lat. $13^{\circ} 48' 26''$ S. Long. $11^{\text{h}} 27^{\text{m}} 6^{\text{s}}$ W.

Instruments:

Wiechert Astatic Pendulum Seismometer. 1000 kg.

Wiechert Vertical Seismometer. 180 kg.

C.J. Westland. Seismologist. A. Thomson. Director.

Cha Phase U T Ae Au Av

Oct.	Cha	Phase	U	T	Ae	Au	Av	
4			h m s					microns.
		c	12 0 13					
		M	12 1 37	1	12		5	
9	Iu	c	3 13 46					
		c	14 17					
		S	24 12					
			29 11					
		L	39 40	24				
		M	3 42 39	18	130			SR1 ? Distance 84 deg. O 3h 1m 4s.
		F	4 30					
15	Iv		9					Small. No time marks.
18	Iv	M	7 3					
18		c	22 16 43					
		M	22 17 1	1	15		4	
19	Iv	c	10 21 39					
		S	23 52					
		L	24 13					Distance 9 deg.
		M	10 28 10	10	56			
		M	10 48	10	28			
		F	12					
21	Iv	P	15 20 12					
		S	20 51					
		L	15 21					
		M	15 23	8	75		25	
		F	16					
22	Iv	c	5 55					
		F	6 10					
Nov.								
2		M	5 56	1	10		3	

Cha	Phase	U	T	T	Ae	An	Av	microns.
Nov								
2		M	23	2				
6	Ir	e	4	9 12				
		S		13 19	10	25		
		L		14 17				Distance 23 deg.
		M		14 23	22		550	
		M		15 10	18	600		
		M	4	15 20	15	600		
		F	5	30				
10	Ir	e	12	33				
		M	12	33	20	50	50	
11	Iv	e	22	5				
		M	22	30				
13		i	0	36 20				
		M	0	33 33	1	32	8	e may be S.
20	Iu	e	20	50 10				
		L	21	20	28	50		
28	Ir	P	11	2 30				Distance 33 deg.
		S		8 23	13		16	
		L		13 20	23			
		L	11	17 30	24	17		
		F	12					
20	Iv	P	13	54 56				Distance 3 deg.
		S		55 39				
		M	13	57 10	9	200	300	Many small movements, no phases recognised.
29			15					
			16					
29		e	18	6 45				
		e		8 39	13			
		M	18	9 26	12	150	30	
29		L	23	16 46	14			
		M	23	19 11	12	80	65	
Dec.	IIIu	e	4	19 32				Distance 85 deg. Chile
1		e		22 5				O 4h 6m 44s.
		S		30 4	11		230	
		L		47 30	20	410	550	
		M	4	50	20	360		
		M	4	52	20		140	
		M	4	53	18			
		M	5	1	18			
		M	5	2	18		340	
			6	33				

M. rept.

Cha Phase U T. T Ae An Av

Dec.	Phase	U	T.	T	Ae	An	Av	microns
2	Ir	e	4 58 43					e may be S. Distance 31 deg.
		L	5 2 3					
		M	5 3 50	20	80	150	110	
		M	5 10 30	20		180		
3	Iv	P	8 13 18					
		S	14 1					
		M	8 16 10	8		20		
4		e	4 33					
		M	4 35					
7		L	9 46					Traces.
8	Iv	e	18 8 18					Dec. 9. Many small movements about 5h, 6h, 17h, and 18h.
		M	18 9 48	10	12			
9		e	0 4 9					
		e	9 13					
		e	12					
		L	13 30	20				
		M	0 15	18	30			
12	Ir	P	20 43 9					Distance 15 deg. @ 20h 19m 30s
		S	26 2					
		M	20 28	10			70	
		F	23 30					
14	Iv	M	23 24	10	20			
18	Iv	e	18 14 8					
		M	18 15	8	25			
19	Ir	e	11 48 33	2	3			e is probably PR1. Distance 53 deg.
		S	53 47	7	4			
		L	11 57	28				
		M	11 59 15	12	22			
		M	12 19	12	20			
		F	13					
20		e	7 36					
		F	7 44					
20		e	11 22					
		F	11 30					
22		e	0 8					
		F	0 16					
22		M	10 8					

The results tabulated above include 2 small earthquakes known to have been felt in Samoa, and 4 other shocks which may have been felt by a few persons but have not been reported. There are also 29 movements too small to be felt, of which 8 occurred in October, 17 in November, and 4 in December.

Printed at the Observatory.