

1926



APIA OBSERVATORY. SAMOA.

SEISMOLOGICAL REPORT.
1926. 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.

Jan.	Cha	Phase	G.M.T.	T.	Ac	An	Av	
			h m s	s				microns.
4	Iv	e	4 24					
		M	4 26	8	70		15	
4	Iv	e	4 33					
		M	4 30	8	45		12	
5	Ir	e	7 32 46					In minute mark.
		PR1	33 6				2	Distance 22 deg.
		S	36 51	11	13			
		L	33	23				
		M	30 15	16	60		50	
		F	8 0					
6			15 6	1			6	
8	Iv	e	2 55 8					
		F	3 0					
16		e	1 25 33					
		M	1 26 9	1	35	28	7	Felt in Apia 2RF.
7		e	16 34 51					
		M	16 35 19	1	35	20	3	
18		e	10 15 8					
		M	10 16 4	1	45	45	10	Felt in Apia, 2RF.
20	Iv	P	20 25 32					
		L	20 26 8	8	15	15		
		F	20 40					
22	Iv	e	21 34					
		F	21 40					
23		e	22 18 47					
		M	22 19 12	1	30	15	5	

	Cha.	Phase.	G.M.T.	T.	As	An	Av	
Jan. 25	IIIr	P PR1 S L M F	h m s 0 42 30 42 41 44 10 46 27 47 53 49 51 0 53 1 4 2 50	s 1 1 10 18 16 12	10	1	2	microns. Solomon Is. O, 0h 37m 32s. EW striking against stops.
26	Ir	P S L M F	7 9 10 12 56 14 18 14 54 7 50	1 23 17	3 95	30	50	Distance 21deg. O. 7a 4m 27s.
27		e M	3 25 47 3 26 25	1	85	75	12	
28		e M	22 0 17 22 1 11	1	75	60	16	
30 Feb. 3	Ir	P S L L M F	22 10 11 53 50 12 1 12 3 8 3 40 12 8 12 20	1 10 13 13 15	5 2 10 15	3 8	1	Confused. Felt in Apia, 2RF. Distance 25 deg.
4	Ir	P S L M M F	5 6 5 5 0 8 17 8 50 9 0 5 20	1 4 8 7 4	10 15	18 20	2 3 10	Distance 10 deg.
6	Iv	e F	7 55 8 6					
3	Iu	e L L M F	15 42 15 57 20 16 2 4 16 30	23 20 20	15	6		S ? Costa Rica.

Cha.	Phase.	G.M.T.	T.	Ae	An	Av	
Feb.							
12	Iv	P L M	h m s 7 41 49 7 42 36 7 43 28	s 1 4	8 380	5 360	3 20
							microns. Distance 4 deg.
12	Iv	P M F	8 1 23 8 2 48 8 30	1 4	18	40	1 3
							Obscured by end of pre- vious eq.
13	Iv	e S L M M M F	9 11 2 11 46 13 12 14 20 15 17 20 9 28 30 10 40	1 4 15 12 10 10	15 60	3 2 10 20 35	2 20
15	Iu	L M	3 39 3 45	20		5	
							No earlier phases.
15		i M	22 58 42 22 59 2	1	50	30	12
							Felt in Apia, 2RF.
22	Iv	P S L M M F	5 55 11 55 39 56 59 10 6 0 6 20	1 4 8	50	80	1 8 25
27		c M	18 15 25 18 15 50	1	35	20	8
							Felt in Apia, 2RF.
Mar.							
1	Iv	P S L M F	12 29 59 31 7 31 30 32 15 12 45	1 7 8 9	7 8 15		1
5	Iv	L M	12 15 32 12 18 37	9 8	3 6		
16	Id	i M	17 38 5 17 38 28	1	4	25	
							Felt in Apia, 4RF
17	Iu	e e L M	12 1 3 13 20 40 12 43	20	7		

	Cha.	Phase.	G.M.T.	T.	Ac	An	Av	
Mar.			h m s	s				microns.
18	Iu	P	14 26 5	2			2	P clear on vertical.
		e	33 56	6		3		EW & NS difficult.
		M	59 26	25		10		
			15 59 40	6		2		
		M	16 1	24		7		
20		e	2 0 0					
		M	2 0 18.	1	130	90		Felt in Apia, 2RF
22	Iu	e	18 39 34					
		L	48 40	20	8			
		M	18 53 45	18	10			
27	Iir	P	10 55 4	2	7		1	
		S	11 0 19	9	50	10		Distance 31 deg.
			2 7					O 10h 48m 31s.
		L	3 40	32				
		M	5	20	415		160	
		F	11 45					

† Large microseisms have been prevalent during these three months, and frequently it has been difficult to distinguish small movements.

The previous pages include 7 small earthquakes known to have been felt in Samoa, and 5 other shocks which may have been felt by a few persons but have not been reported. There are also 26 movements too small to be felt, which occurred at the times given below.

Jan			Feb			Mar		
d	h	m	d	h	m	d	h	m
9	0	1	2	12	8	6	5	2
10	3	7	8	17	31	9	15	35
11	12	0	10	16	33	12	4	30
12	12	24	12	2	6	16	19	17
14	0	40	12	16	32	26	18	24
15	21	47	17	12	53	28	4	29
19	9	1	18	5	26	28	18	49
29	2	56	20	23	24			
			23	12	49			
			23	22	20			
			28	18	35			

Constants. January 16.

T. e V
EW 9.9 2.0 122
NS 9.4 2.2 155
Vert 2.4 2.2 70

APIA OBSERVATORY. SAMOA.

SEISMOLOGICAL REPORT.

1926. April to June.

Lat. 13° 48' 26" S

Long. 11h 27m 6s. W

Instruments: Wiechert Astatic Pendulum Seismometer
Wiechert Vertical Seismometer

1000 kg
180 kg

C. J. Westland. Seismologist.

A. Thomson. Director.

Cha	Phase	G.M.T.	T.	Ac	An	Av	
Apr 6	e	h m s	s				microns.
	M	6 38 20	1		3	1	
		6 38 57	1	15	15		
7	Ir	e	14 21 40				
		e	22 48				difficult.
		L	14 23 31	20	10		
7		e	22 34 1				
		M	22 34 23	1	30	30	7
12	IIIr	P	8 33 10	2	8	1	3
		S	39 21	8	14	15	Distance 21 deg.
			42 0	10		10	
		L	42 54				
		L	43 42	24			
		M	8 45	13	1100	900	
		M	8 46	13			450
		F	10 15				
14		i	13 52 19				
		M	13 52 40	1	110	120	30
							Felt in Apia, 2RF.
16	Ir	e	0 38 14				difficult.
		e	42 54				
		L	0 44 36				
24	Iv	P	5 12 36	1	2	2	
			12 51				P ?
		S	13 22				Distance 4 deg.
		L	13 34	12			
		M	16	8	20	10	
		F	5 30				
28		M	13 5	16	2		

Cl_a Phase. C.M.T. τ . A_c A_n A_v

Date	Cl _a	Phase	C.M.T.	τ	A _c	A _n	A _v	microns.
Apr. 30	Iv	P	h m s	s				
		S	8 2 43	1	10		6	
		M	3 7	1			8	
		F	3 40	4	120	360	10	
			8 20					
30	Iv	e	20 26					
		M	20 27	7		4		
May. 3	Iv	e	16 47					
		M	16 51	6	5			
5			25 24	1	23	20	10	
7	Iu	P	6 23 36	2				
		L	6 43 33	24			2	
		M	6 45	20		8		
12	Iv	e	23 50	1				
		M	23 52	6		10		
14	Iv	e	17 57					
		F	18 2					
15	Iv	e	15 1					
		F	15 6					
16		e	20 43 9					
		M	20 43 36	1	20	35	3	
19		i	11 30 54					
		M	11 31 4	1	30	17	3	
30		i	23 58 53					
		M	23 59 0	1	185	170	25	
June 3	IIr	P	4 51 28	2			2	
			53 45	8				
		S	54 39	8		10		
		L	55 20	17				
		M	56 10	14	130	140		
		M	4 59 10	12	100	60		
		M	5 3 20	10	70	85	25	
		F	6 15					
3		e	10 17 42					
		M	10 18 7	1	24	20	6	
4	Iv	M	21 31	4	4	4		
5	Iv	M	0 18	4	3			

P clear on vertical
EW & NS difficult.
Distance 62 deg ?

Felt at Malua, 2RF.

Felt in Apia, 3RF.

Distance 16.7 deg.

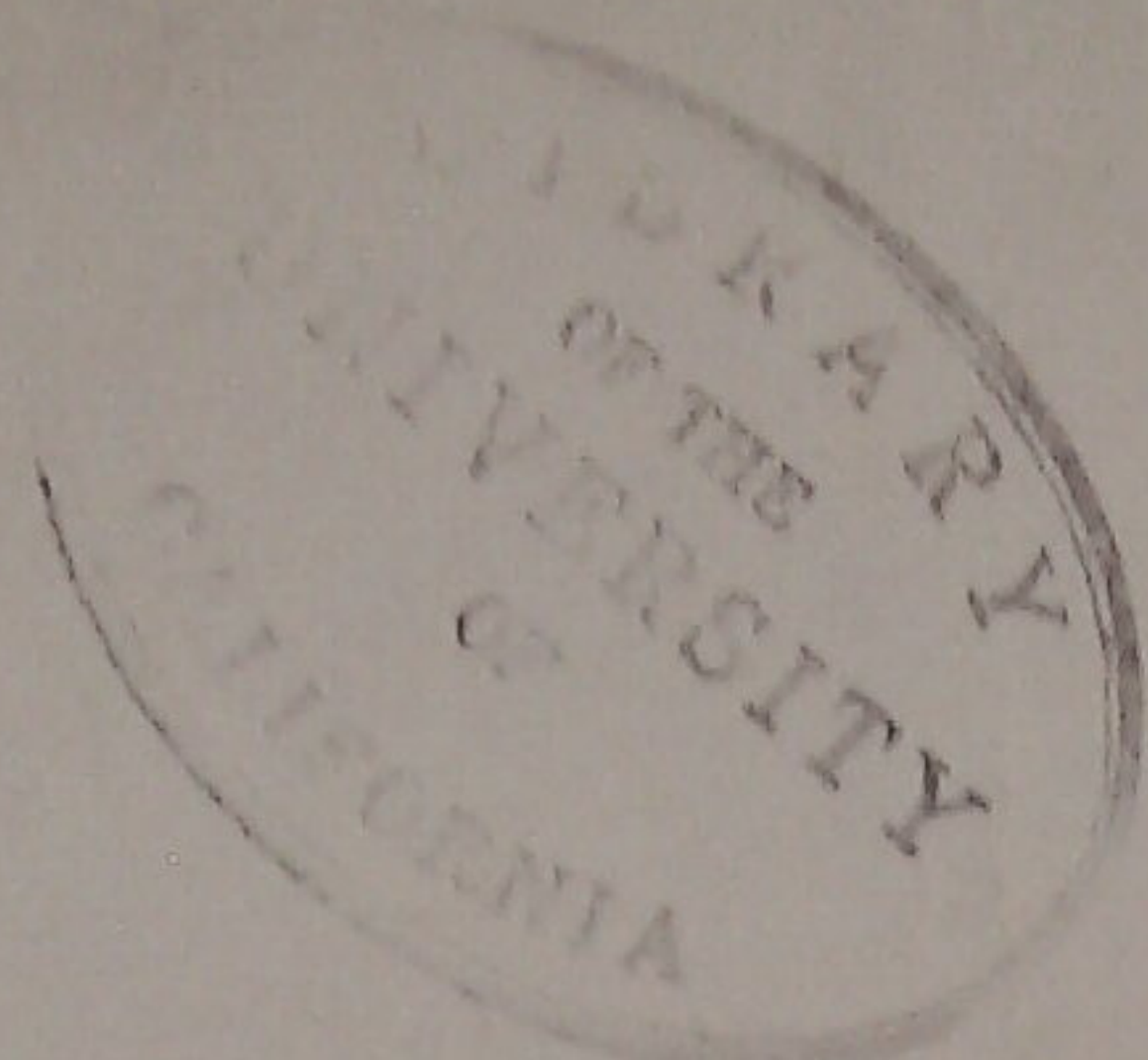
June.	Cl.	Phase.	C.M.T.	T.	Ac	An	Av	microns.
7	Ir	e	h m s	s			1	
		M	2 12 21	1				
			2 27 30	12	3	3		
8	Iv	M	6 9 8	8	5	8		
20	Iv	P	8 35 43	1			1	
			35 54					
		S	36 23	2		3	2	Distance 3.2 deg.
		L	36 30	10				
		M	8 40	8		8		
22	Iv	P	4 53 7	1	3	3		
			53 22					
		S	53 48					Distance 3.5 deg.
		L	54 0	8				
		M	54 40	8		20		
		M	4 57 40	8		50	15	
24		c	14 35 23					
		M	14 35 43	1		40	10	
26	Iv	P	20 6 34					L & M lost while changing paper.
		F	20 30					
26	Iu	c	21 8 10					doubtful.
		c	21 13 30					
		c	21 25 28					
		L	21 39	24				
		M	21 44	20		15	12	
27	Iv	P	19 4 58	1				
		S	5 36					Distance 3 deg.
		L	5 50	8				
		M	19 6	8	40			
		M	19 8	8		35		
		M	19 12	8		35	12	
28	Iu	c	3 48 40					doubtful.
		e	4 7 50					
		L	4 10	30				
		M	4 21	20	12			
29	Iv	M	2 12	8		5		
29	Iu	P	14 38 16	1			2	A small near-by shock obscures this record.
		L	15 0 40	22				
		M	15 4 40	20		3		

The previous pages include 3 small earthquakes known to have been felt in Samoa, and 5 other shocks which may have been felt by a few persons but have not been reported. There are also 54 movements too small to be felt, which occurred at the times given below.

April.			May.			June.		
d	h	m	d	h	m	d	h	m
5	6	30	1	4	17	6	4	42
10	1	26	4	9	53	6	12	52
10	17	4	6	3	7	8	2	43
10	20	44	6	14	1	8	18	22
11	15	54	12	7	20	10	6	23
12	18	28	13	3	18	10	7	22
13	14	0	14	19	50	10	8	54
16	5	23	16	3	1	11	16	27
24	17	3	18	2	45	12	12	59
25	16	14	18	7	52	13	4	6
27	6	59	19	1	54	13	4	26
30	12	59	19	5	12	15	15	34
			20	17	20	17	0	50
			21	15	1	18	17	16
			24	0	32	19	9	25
			28	14	9	23	6	9
			30	1	3	24	15	35
			30	3	37	25	1	26
						25	2	7
						25	2	23
						25	15	46
						26	20	52
						27	19	54
						30	17	42

Constants. April 5.

	T.	e	V
EW	9.8	2.4	151
NS	9.0	2.2	137
Vert	2.4	2.0	69



GIFT
JUN 2 1930



International
Seismological
Centre

APIA OBSERVATORY. SAMOA.

SEISMOLOGICAL REPORT.
1926. July to September.

Lat. 13° 48' 28" 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.

July.	Cha	Phase	G.M.T.	T.	Ac	An	Av	
1		M	h m s	s				microns.
1	Iv	e	1 24	1				Apparently a local shock, but a small quake was re- ported in Haapai at this time.
1		M	11 2 11 6	6		8		
1	Iu	e	14 43					
		e	14 54					
		L	15 3	20		9		
2	Ir	P	6 3 46	2			2	
			5 37					
			6 23					
		L	8 15	12				
		M	6 22 30	9		35		
2	Iv	M	15 55					Both very small.
2	Iv	M	18 3					
10	Iv	P	4 4 7	1			1	Distance 3.6 deg.
		S	4 50					
		L	5 7					
		M	4 6 10	8		20		
10	Iv	P	4 41 3	1			1	
		L	41 55					
		M	4 42 25	8		10		
10	Iu	P	11 1 54					Distance 67 deg. O 10h 50m 57s.
		S	10 44					
		L	11 24					
		M	11 27	18	5	2		
10		i	11 53 2					
		M	11 53 16	1	70	40	10	

	Cha.	Phase	G.M.T.	T.	Ac	An	Av	
July.			h m s	s				microns.
12	Iv	P	19 14 3					
		S	14 26					
		L	14 30					
		M	19 15					
13		M	18 48 0	1	60	30	6	
14		M	23 50 27	1	60	20	5	
16	Ir	P	2 12 54	2				
		L	2 22	20	3	15		Difficult.
16	Iv	P	6 50 30	1			1	
		S	50 39					
		L	51 3	2			4	
		M	51 11	10				
		M	52 0	8	55	35		
		M	6 54 15	8			40	
17	Iv	F	21 30					P & L lost while changing paper
18	Iv	M	3 12					
18	Iv	P	19 23 20	1	3	2	2	
		S	30 47				1	
		L	31 8	5				Distance 7 deg.
		M	19 31 20	5	50	20	15	
25		e	20 14 31					
		M	14 57	1	45			
		M	20 15 25	1		20	15	
28	Ir	P	8 58 39					
		S	9 4 3					Distance 32 deg.
		L	5 11					
		M	7 20	20				
		M	8 50	16	13			
		F	9 50					
28		e	13 43 56					
		M	13 44 23	1	35	25	10	
Aug.		e	13 17					
2		F	13 40					
3	Ir	P	3 18 47	1		6		
		S	20 53	4		3		
		L	21 33					Distance 10 deg.
		M	3 22 40	12	65	60		
		F	4 20					

Aug.	Cha.	Phase.	G.M.T.	m	sec	sec	sec	sec	sec	sec	microns.
9	Iu	e	3 50								Not clear.
		e	3 58								
		L	4 10								
		M	4 14								
10	Iv	e	21 21								
		M	21 24	12	20						
		F	21 50								
14	Iv	M	5 6								Small.
14	Iv	M	21 47								Small.
20		e	16 54 40								
		M	16 55 12	1	40	120	4				Felt in Apia, 2RF.
25	IIr	P	5 48 54	1							Distance 13 deg.
		S	5 51 24	8							
		L	5 52 7	12							
		M	5 53 30								
		M	6 3 10								
25	Ir	P	7 47 10	1							Much obscured by end of preceding quake.
		L	7 50 50	12							
		F	8 30								
25	Iv	F	20 20 44								Distance 2 deg.
		S	21 6								
		L	21 14								
		M	20 23 10								
26	Iv	M	18 42								
31		e	0 42 23								
		M	0 43 15	1							
Sept 1	Iv	e	12 18								
		E	13 0								
2	Iu	e	1 58								Difficult.
		L	2 15								
		M	2 21								
		F	3 10								
6	Iv	P	7 11 19								
		L	12 2	9							
		M	7 13								
		F	8 10								
6		e	11 53 54								
		M	11 54 56	1							

Sept.	Cha.	Phase.	G.M.T.	T.	Am	An	Av	
6	Iv	e	h m s	n				microns.
		F	14 14					
			14 30					
10	Ir	P	10 47 28					
		PR1	48 25					Distance 33 deg.
		S	52 59					
		L	10 57 26	16				
10	Iu		11 1 38					Doubtful.
			4 10	9				looks like S. The be-
		L	11 16	27				ginning of this quake is
		F	11 50					much obscured by end
								of preceding one.
11		M	11 45					Felt in Apia, 3RF.

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 26 movements too small to be felt, of which 11 occurred in July, 11 in August, and 4 in September.

From Sept 14 to 30, while repairs to the building were in progress, no results were obtained from the seismographs.

APIA OBSERVATORY. SAMOA.

SEISMOLOGICAL REPORT.
1926. October to December.

Lat. $13^{\circ}48'26''$. 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.

Cha Phase G.M.T. T. Ae An Av

Oct.	Cha	Phase	G.M.T.	T.	Ae	An	Av	
3	IIIu	P	19 45 36	2				Distance 48 deg. O 19h 36m 42s. At 20h 3m both pens went off the paper.
		PR1	42 25					
		PR2	48 4					
		S	52 37	9				
		L	19 57	23				
		F	22					
5	Iv	P	1 6 7					
		L	1 6 20					
		M	1 7 30	8				
5	Iv	c	11 20				Small.	
		F	11 23					
5	Iv	P	16 18 21					
		S	18 59					
		L	19 10	12				
		M	16 19 35	10				
		F	17 5					
11	Iv	e	0 11 7				Doubtful. Distance 3.3 deg.	
		e	11 15					
		S	11 52					
		L	12 0	12				
		M	12 15	10				
		F	1 10					
11	Iv	e	8 18					
		F	8 25					
12	Iv	P	16 32 19					
		L	32 57					
		M	16 33 35	10				
		P	17					

Oct.	Cha.	Phase.	G.M.T.	T.	Ac	An	Av
13	Iu	e	6 21 50				
		e	23 33				
		L	6 31 40	25			
13	Iu	e	14 37 45				
		L	14 48	26			
13	Ir	e	19 18 58				
		e	28 40				
		L	35 30	15			
		M	19 39	12			
		M	19 41	12			
		F	20 40				
18		M	3 52 45	1			
22		M	13 6				No other phases.
		M	14 7				
24		e	23 57 53				
		M	53 6				
26	IIIu	P	3 54 31				Distance 50 deg.
		PR1	3 56 34				O 3h 45m 28s.
		S	4 1 40	10			
		SR1	4 34	14			
		SR2	6 50	14			
		L	9 40	35			
		M	4 12	24			
			4 18				Amplitude now diminishes rapidly.
26	Iu	P	6 20 31				Distance 50 deg.
		S	27 56				
		L	35 15	28			
		M	6 39 21				
26	Ir	e	8 52				Difficult.
		L	9 1				
26	Ir	P	14 31 54				Distance 32 deg.
		S	37 34				
		L	14 42				
26		i	16 38 14				Felt in Apia, 4 RF.
		M	16 38 39	1			
31		i	22 32 54				Felt in Apia, 2 RF.
		M	22 33 21	1			

Cha Phase. G.M.T. T. Ac An Av

Nov.	Phase	G.M.T.	T.	Ac	An	Av	microns.	
3	Iv	P L M F	h m s 18 35 5 35 32 18 38 20	s 7 6				
5	Iu	e L M L M F	8 12 58 18 46 20 0 37 33 8 39 20 9	22 20 22 20			PR1 ? Distance 88 deg.	
13		e M	9 25 30 9 25 56	1				
15		e M	20 36 59 20 37 23	1				
20		e M	6 40 1 6 40 22	1	35	60	4	Felt in Apia, 2 RF.
23		e M	19 21 1 19 21 53	1	25	20	2	
24	Iv	e F	1 9 1 20					Small.
25		M	3 16	1	20	85	1	
Dec. 15		M	1 51	1	15	6	4	
16	Iv	P S L M M F	0 25 16 26 6 26 24 27 30 0 33 20 1 10	1	1	1	1	Distance 4 deg.
16	Iv	e e L M F	3 41 30 42 15 43 0 3 46 20 4 20	21 10	4	12		
16	Iv	M	22 59	8	3	4		
20		e M	11 56 50 11 57 20	1	70	90	12	Felt in Apia, 2 RF.

Cha.	Phase	G.M.T.	T.	Ae	An	Av	
Dec.		h m s	s				microns.
25	Ir	e	6 50 22			1	
		L	54 26	10			
		M	55 35	10	4	4	
			7 9				A local shock here obscures the record.
27		e	9 10				
		F	10 30				
27		e	19 28				
		F	19 40				
28		M	22 44	1	12	13	3

The results tabulated above include 4 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 37 movements too small to be felt, of which 10 occurred in October, 11 in November, and 16 in December.

Constants.		T.	e.	V.
Dec 1.	E W	10,0	2,0	136
	N S	8,6	2,0	155
	Vert	2,3	2,0	74