

# ADELAIDE OBSERVATORY,

SOUTH AUSTRALIA.

No. 1. 1922.

January, 1922.

## SEISMOLOGICAL BULLETIN.

No. Date Char. Phase Time (Greenwich) E-W Opt in kms. Instrumental Remarks  
 φ. 34°. 55'. 38". S. λ. 9°. 14". 20'. E. Height above Mean Sea Level—134 feet.

SITUATION.—5 miles West of Mount Lofty Ranges, 5 miles East of Sea Coast.

FOUNDATION.—Marly Limestone and Clay of Adelaide Plains, to depth of 40 feet. Miocene Sandstone probably below. Depth of bedrocks not known, probably 1,000 to 2,000 feet.

Pendulum, No 50, 1904 Pattern. E.-W. Component Recorded.

No.	Date	Char.	Phase	Time	Amplitude	Period	Remarks
			(MAX)	49.4	0.5	13000	25m.
			e	15 07.8			
			e	09.6			
			M <sub>1</sub>	14.5	2.1		
			M <sub>2</sub>	20.0	1.8		
			F?	17 29.7			
2.	7	I	M <sub>1</sub>	7 00.5	0.4	0.33 19.2	Beginning & end in micros
			M <sub>2</sub>	11.6	0.5		
3.	17	IIIu	S?	4 11.5		5000 0.38 19.4	end lost, trace ran off paper.
			e	15.0			
			eSR <sub>3</sub>	23.0			
			eL?	28.6	2.0		
4.	19	IIIr	M <sub>1</sub>	22 13.8		Papua 0.40 19.4	Traces of a large EQ. Inst. just off level Jan. 19 12.30 to Jan. 20, 2.00
5	20	II	eS	7 02.4		2800 0.41 19.4	
			iL	05.7			
			M <sub>1</sub>	07.4	1.7		
			M <sub>2</sub>	12.0	1.0		
			e	21.5			Approx. 100 "s" in this record.
6	22	IIIr	i(S?)	3 38.2		4700 0.42 19.4	
			i	42.0			
			eL?	44.5			
			M <sub>1</sub>	47.4	1.6		
			M <sub>2</sub>	49.5	3.7		
			F?	5 22.0			
7	22	I	eL?	15 40.3		3500?	
			e	43.5		(commencement of max)	Preceding & following phases obscured by micros.
			M	44.7	1.3	0.42 19.4	
						(eL rather problematical)	
8	22	II	eS?	20 55.0		0.42 19.4	identification uncertain owing to micros. Spindle shaped max, probably false max, and true max 1½ minutes earlier.
			e	59.2			
			eL?	21 2.6			
			e	06.7		(alteration of phase period)	
			M	10.5			



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*[The following text is extremely faint and largely illegible due to bleed-through from the reverse side of the page. It appears to be a list or table of data, possibly related to seismic events, with columns that are difficult to discern.]*





ADELAIDE OBSERVATORY.

Bulletin No. 2. 1922.

February, 1922.


No.	Date	Char.	Phase	Time (Greenh.)		Ampl <sup>e</sup> . E-W Cpt in mms.	△ in Kms.	Instrumental Constants		Remarks
				n.	m.			Sens. "	Per. in secs.	
11	Feb. 2	I	e? eM M	3	11.0 24.0 27.5	0.5		0.43	18.5	
12	5	I	e e e L M <sub>1</sub> M <sub>2</sub>	3 4	44.5 51.0 54.2 57.2 00.4 05.0	0.5 0.5	3000			Microseismic not very clear- ly marked.
13	5	I	e i M <sub>1</sub> e M <sub>2</sub> e	10	03.5 06.5 07.8 09.0 10.0 12.2	0.5 0.6		0.43	18.4	
14	15	I	e e M	8	21.0 22.0 22.6	0.5		0.42	18.6	
15	15	I	e M	14	30.0 32.4	0.9		0.42	18.6	
16	18	I	e (eL) M	22	37.5 42.0 44.5	0.4		0.41	18.5	very faint.
17	20	I	e(S?) e e(L?) e M	7 8	58.0 04.0 06.0 10.8 11.5	0.8	5300	0.41 (commencement of max)	18.5	very faint
18	20	I	e e e eL? M	15 16	58.0 07.7 11.5 12.8 15.5	0.5		0.41	18.5	very faint faint faint
19	23	I	e? i M <sub>1</sub> i M <sub>2</sub>	16	05.3 07.3 09.1 11.9 13.2	0.1 0.7		0.40	18.5	earlier phases lost in micros.



Bulletin No.3. 1922

ADELAIDE OBSERVATORY

March, 1922

No.	Date	Char	Phase	Time (Green.) h m.	Ampl <sup>e</sup> . E-W Cpt in mms	 inKms	Instrumental Constants		Remarks
							Sens. in "	Per. in secs.	
20	March 4	I	e(L?) eM M F	5 28.3 31.2 32.0 55.0	0.7	4800?	0.42	18.0	
21	4	I	s(S?) i M F	13 13.8 30.6 31.0 14 27.0	0.9	6000?	0.42	18.0	May be micro- seismic. Other phases indistinguishable from micros.
22	7	I	e(S?) e(L?) e M <sub>1</sub> i M <sub>2</sub> e	16 57.0 17 02.0 03.7 04.9 08.6 09.0 11.3	0.8 0.5	3200?	0.33	18.0	microseismic identification uncertain.  inst. off level Mch.7, 19.30 to 11, 2.10. Followed by micros for sev- eral hours.
23	11	I	e e e i i M <sub>1</sub> M <sub>2</sub> F	16 58.4 17 02.1 03.8 04.5 08.3 09.3 16.0 18.30	0.5 1.0 0.6		0.36	19.3	
24	12	I	e M	12 38.3 41.5	0.7		0.37	19.1	Beginning & end in micros.
25	17	I	s(S?) e e(L?) M <sub>1</sub> M <sub>2</sub> F	13 11.3 15.0 16.7 19.0 21.9 55.0	0.5 0.3	3700?	0.38	18.9	very small move- ment
26	17	I	es? eL? i M F	17 21.6 27.2 38.5 18 29.3 33.0	0.5				feeble, possibly micro.  very small move- ment
27	21	I	e M F	12 06.5 08.5 16.5	0.2				isolated faint micro.movement probably corres- ponding with Riverview No.53 of 1922.
28	26	I	e(S?) e(L?) i(L?) M <sub>1</sub> M <sub>2</sub> F	13 58.5 14 03.0 04.0 05.5 08.2 58.0	0.8 1.0	4300?	0.39 2	18.5	Looks like double shock.



ADELAIDE

OBSERVATORY

Seismological Bulletin No.5.1922.

May, 1922.

No.	Extr Char.	Phase	Time (Greenh.)		Ample. E-W Cpt. in mms.	△ in Kms.	Instrumental Constants		Remarks
			H.	M.			"	secs.	
34a	Ir	e	11	59.5	0.9	4700	.45	18.9	
		e	12	02.5					
		eSR1		06.6					
		eL		06.7					
		M		12.5					
34b	Ir	eS	11	31.0	0.6	7500	.45	18.9	South Japan
		e		35.2					
		eSR1		38.2					
		eSR2		41.5					
		e		43.2					
		eL		46.0					
		M1		54.0					
		M2	12	04.5					
F		40.0							
35	I	e	16	39.0	0.7				Other phases indistinguishable from micros.
		M		43.5					
36	Iu	eS	9	29.3	0.6	2000	.45	18.9	Keurile Islands.
		iSR1		35.5					
		e		43.0					
		eL?		47.0					
		M1		55.5					
		M2	10	18.5					
37	Ir	e(s)	13	32.6	0.6	3700	.32	18.9	F in No.38
		eL		37.0					
		M		40.0					
		F							
38	Ir	eSR1	14	00.5	0.7	3700	.32	18.9	Start in No.37
		iL		02.5					
		M1		05.0					
		M2		09.0					
		M3		12.8					
		M3		12.8					
		F	15	00.0					
39	Iir	eL	9	26.2	1.0	5500?	.32	18.9	
		M1		31.7					
		M2		34.0					
		M3		34.9					
		M4		36.7					
		F?	11	09.0					



ADELAIDE

OBSERVATORY

Seismological Bulletin No. 5. 1922 (Contd.)

May, 1922.

No.	Date	Char.	Phase	Time	Ample.	△ in Kms.	Instrumental		Remarks
				(Greenh.) h. m.	E-W Cpt. in mms.		Constants	Per. in	
	May						Sens.	Secs.	
40	12	IIIr	1st shock.			3800	.32	19.0	Several shocks. Apparently some phases of successive shocks synchronise with earlier phases of preceding ones.
			esR1	18 49.8					
			iSR2	50.7					
			eL	51.9	2.1				
			M1	55.2	2.5				
			2nd shock.						
			iS	18 50.7					
			esR1	53.0					
			iSR2	54.0					
			iL	55.0					
			M2	58.7	7.5				
			3rd shock.						
			eS	18 53.0					
			iSR1	55.0					
			eL	(18 57.0)	in M2				
			M3	19 00.2	4.7				
			4th shock						
			iS	18 53.8					
			iSR1	55.7					
			iSR2	56.6					
			eL	(18 57.8)	in M2				
			M4	19 01.1	3.7				
			5th shock.						
			iL	19 00.0					
			M5	03.6	1.8				
			F	in micros.					
41	29	Ir	es?	11.39.0		1600?	.33	19.1	Earlier phases obscured by micros.
			eL?	40.0					
			M	41.2	1.3				

Seismological Bulletin No. 6. 1922.

June. 1922.

42	June 3	Iir	ep	20 19.0		5200	.33	19.1	Near S. Phillipines.
			es	26.3					
			esR1	29.3					
			esR2	31.0					
			eL	33.0					
			M	33.5	2.2				
43	27	Ir	es?	14 46.0		4700?	.33	19.3	
			esR1?	48.8					
			esR2	50.0					
			eL?	52.0					
			M?	56.2	0.5				

NOTE:- Light failed May 22, 6h.30m. to May 23, 7h.15m.  
 " " June 1, 3h.40m. to 13h.30m.- 7, 9h. to 9, 6h.30m.-  
 11, 22h.30m. to 12, 6h. 40m.



Bulletin No.7.1922

July, 1922.

ADELAIDE OBSERVATORY

Date	No.	Char.	Phase	Time		Ample. E-W Cpt. in mms.	△ in Kms.	Instrumental Constants		Remarks
				(Greenh.)	n. m.			Sens.	Per.in secs.	
44	2	IIIu	eS eSR1 SR2 SR3 eL M	16	01.5 08.8 13.5 16.9 26.5 37.0	1.0	11700?	0.33	19.3	
45	13	I	e e M	1	26.0 28.0 31.0	0.5		0.32	19.3	
46	13	I	iS iSR1 eL M F	5	12.8 16.8 20.0? 24.4? 28.0?	0.6		0.32	19.3	
47	14		M1 M2	3	45.2 50.5	0.6 0.5				Preliminaries lost in micros.
48	18	I	M	9	15.0	0.5		0.32	19.3	Room entered. Out of action July 24, 0h.40m. to 1h.40m.
49	26		e M	8	32.0 34.5	0.5				







Seismological Bulletin No. 9.1922

September, 1922.

ADELAIDE

OBSERVATORY

No.	Date Sept 1922	Char.	Phase <del>XXXXXXXXXX</del> (Green)	Time h. M.	Ample. E-W Cpt. in mms.	△ in Kms.	Instrumental Constants		Remarks.
							Sens. "	Per. in secs.	
58	1	IIIr	iS iSR2 eL M <sub>1</sub> ? M2 M3 M4 F	19 34.5 41.9 46.5 47.6 50.2 57.0 59.1 23 14.0	2.0 1.7 2.4 1.7	6800	0.29	19.7	Formosa. Earlier phases ob- scured by micros. Max. probab- ly affected by boom period, and position of true max not clearly shown
59	5	Ir	eP eS L M	2 45.5 48.1 50.5 52.2	0.9	1800	.28	19.7	
60	10		e M <sub>1</sub>	5 18.5 23.5	0.4				
61	11		e M	14 58.0 15 00.2	0.5		.28	19.7	Light out. Sept. 14th 19h.30m. to 16th, 2h.33m.

(Micros Sept. 16th to 21st, Some of the possible connected with Formosa EQs.)



Bulletin No. 10. 1922.

Adelaide Observatory

October, 1922.

No.	Date	Char.	Phase	Time (Greenh.) h. m.	Ampl <sup>e</sup> . E-W Cpt. in mms.	in Kms.	Instrumental Constants <sup>m</sup> Sens. Per.in. " secs.	Remarks
62	11	IIu	e	14 54.5		14000?		Peru- Brazil
			e	15 2.0				
			e	6.0				
			eSR <sub>1</sub> ?	10.5			.28 19.9	
			e	15.0				
			iSR <sub>2</sub> ?	20.0				Clock stop- ped Oct.4th to 6th 7.30
			e	26.0				
			e	30.5				
			eL?	35.4				
			e	40.0				
			M	51.5	1.2			Many micros Oct. 14 - 23
63	24	II	e	21 32.0			.28 20.0	Phases ob- scured by micros.
			e	41.0				
			i	43.5				
			M	43.8	1.8			
64	30	I	eSR <sub>2</sub> ?	13 20.5		6600	2.8 20.0	
			eL?	24.5				
			e	28.2				
			M	31.0	0.6			

Bulletin No.11. 1922

November, 1922.

65	7	II	e	18 27.0		4700?	.28 20.0	Boom off level Nov.2, 14h.15m to Nov.4, 2h.22m
			eL?	28.9				
			e	32.5				
			M	33.7	1.5			
66	11	IIIu	e	4 25.0?		12000	.29 20.1	micro.? Destructive E.Q. in Chile
			eP?	38.0				
			eS?	52.0				
			e	56.0				
			iSR <sub>1</sub> ?	58.0				
			i	5 0.0				
			eSR <sub>2</sub> ?	4.0				
			i	7.0				
			eL?	18.0				
			M <sub>1</sub>	28.5	7.0			
			M <sub>2</sub>	32.0	6.0			
			M <sub>3</sub>	34.0	4.0			
			M <sub>4</sub>	44.0	4.5			
			M <sub>5</sub>	52.0	3.5			
			M <sub>6</sub>	6 23.0	4.0			
			M <sub>7</sub>	37.0	3.5			
			M <sub>8</sub>	54.3	3.5			
			F	10 08.0				
67	11	IIu	c	18 38.8			.29 20.1	
			e	43.2				
			e	19 1.5				
			e	3.2				
			e	5.0				
			e	6.8				
			M	9.0	0.5	Many micros		Nov. 14 - 25.







Bulletin No.12. 1922. Adelaide Observatory December, 1922.

No.	Date	Char.	Phase	Time (Green <sup>n</sup> .) h. m.	Ampl <sup>e</sup> . E-W Cpt. in mms.	in Kms	Instrumental Constants		Remarks
							Sens.	Per. in " secs.	
68	Mxxx Dec. 14	IIIr	i(S)?	23 15.8		3000?	.30	20.1	Boom off level Dec.2, 16h.20m to Dec.4, 7h.6m.
			eSR <sub>1</sub> ?	17.6					
			eSR <sub>2</sub> ?	18.3					
			eL?	19.0					
			M <sub>1</sub>	21.3	2.0				
			M <sub>2</sub>	23.0	3.0				
M <sub>3</sub>	24.5	4.0	Light burnt out Dec.7, 12.15 to Dec.8.7.19						
69	23	Ir	e	22 15.0				20.1	Beginning and end in micros.
			e	19.0					
			M <sub>1</sub>	21.5	0.7				
			M <sub>2</sub>	23.4	1.0				
			M <sub>3</sub>	24.5	1.2				
70	25	IIIr	ePR <sub>1</sub> ?	3 39.0		3200	.31	20.0	Felt in New Zea- land, South Is- land.
			iS?	43.8					
			eSR <sub>2</sub> ?	46.2					
			eL?	47.2					
			e	48.0					
			M <sub>1</sub>	50.5	5.0				
			M <sub>2</sub>	52.4	1.9				
71	25	Ir	e	11 41.0				20.0	In micros.
			M	43.5	0.8				
72	31	IIu	i(S)?	7 42.5		11000?	.32	20.0	Long spindle shaped max.
			eSR <sub>1</sub> ?	50.0					
			eSR <sub>2</sub> ?	55.6					
			eL?	8 6.6					
			e	8 8.2					
			e	11.0					
			e	12.2					
			M <sub>1</sub>	15.5	1.2				
			M <sub>2</sub>	24.0	0.6				
			F	10 15.0					