

PERTH, WESTERN AUSTRALIA.

SEISMOLOGIC STATION, PERTH OBSERVATORY.

1933 MAY - 1 - AM 9:51

$\phi = 31^{\circ} 57' 9''.0$ S. $\lambda = 115^{\circ} 50' 21''.5$ E. Height = 182 ft.

Instruments mounted on cement piers sunk one foot in solid, dense sand resting on limestone rock which must be 50 to 100 feet or more below the surface.

TIME : Mean Greenwich, midnight to midnight.

TIME CORRECTION : Within .50 sec.

INSTRUMENTS—FIXED CONSTANTS.

INSTRUMENT.	SYMBOL.	REGISTRATION.	DAMPING.	PAPER SPEED.	MASS.
Milne	34	Photographic	...	8 mm per min.	
Milne-Shaw	27	Photographic	Magnetic	8 mm per min.	1 lb.

INSTRUMENTS—DETERMINED CONSTANTS.

INSTRUMENT.	T.	r.	V.	COMP.	I.	DETERMINED.
34	16.00			W.E.	1" = 1.72 min.	
27	12.00	20 to 1	250	N.S.	1" = .45 min.	

From... January 1st, 1933 to January 13th, 1933. No. I.

	No.	1933.	PHASE.	TIME.	PERIOD.	AMPLITUDE.		DISTANCE.	REMARKS.
						AE.	AN.		
				G. M. T.	s.	μ	μ	km.	
27	1932/160	Dec. 31	ca P	6. 51.30			cms.		Probably long distance disturbance
			M	7. 15.00	15.19				
27	I.	Jan. 1	ca F	7. 58.00					Recorded at Riverview
			e P	8. 56.51					25 ⁰⁶ from Sydney
			e	8. 57.30					
			l S	9. 4. 3			2.2		
			Mi	9. 14. 0					
			2	9. 17. 0					
27	2.	" 1	ca F	10. 52. 0					Small movement
			e	13. 3.50					
27	3.	" 4	ca F	13. 10.00					
			e P	1. 35.20			.3		Continuous movement.
			l S	1. 45.50					Intermittent traces of movement.
27	4.	" 4	ca F	2. 56.00					Recorded at Riverview.
			ca P	5. 3.00					
			ca F	6. 13.00					
27	5.	" 5	e	14. 7.50					
			e	14. 14.50					
			e m	14. 19.25			.4		
			e	14. 19.50					e 14. 04.5
			ca F	15. 8.00					
27	6.	" 7	ca P	4. 27.20					
			ca F	5. 6.00					
27	7.	" 7	? S	2. 13.30					
			L	2. 23.11					
			ca F	3. 13.00					
27	8.	" 13	ca P	14. 53.30					
			e	15. 01.00					
27	9.	" 15	ca F	15. 34.00					



International
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Centre

1933.

2.

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	No.	Date 1933	Phases	Time G.M.T.			Period	Amp. cms.	Distance	Remarks
				h.	m.	s.				
27	9	Jan. 15	? P	18.	9.	25				
			P	18.	9.	50				
			PR1	18.	11.	12				
			2	18.	11.	31				
			3	18.	16.	00		.8		
			S	18.	15.	20				
			? SR1	18.	16.	00				
			2	18.	17.	40				
			3	18.	15.	15				
			M	18.	18.	50				
			ca F	18.	24.	45		2.05		
27	10	" 17	ca F	19.	50.	00				
			ca P	19.	12.	00				
			ca F	19.	20.	00				
27	11	" 21	ca P	19.	30.	00				
			l S	19.	37.	00		1.2		
			M 1	19.	44.	50		2.3		
			M 2	19.	45.	30		2.5		
			ca F	22.	55.	00				
27	12	" 23	ca P	18.	28.	30				
			e	18.	30.	25				
			e	18.	31.	00				
			ca F	19.	02.	00				
27	13	" 27	e	12.	48.	50				
			i	22.	56.	50				
			Max.	23.	10.	30	20	.6		
		" 28	ca F	1.	34.	00				
27	14	" 29	e	16.	1.	20				
			ca F	16.	43.	00				
27	15	" 29	ca P	19.	55.	00				
			ca F	20.	3.	00				
27	16	Feb. 9	l P	15.	48.	30				
			PeP	15.	51.	30				
			S	15.	52.	05				
			S	15.	53.	30				
			SR1	15.	55.	47				
			2	15.	56.	10				
			3	15.	56.	40				
			L	15.	58.	00				
			M	16.	1.	30		.9		
			ca F	17.	10.	00				
27	17	" 13	ca P	3.	11.	40				
			ca F	4.	3.	00				
27	18	" 14	e P	4.	32.	00				
			e	4.	37.	10				
			m	4.	41.	30				
			m	4.	43.	10				
			ca F	5.	10.	00				
27	19	" 14	ca P	5.	50.	00				
			ca F	6.	39.	00				Small tremor movement.

PERTH, WESTERN AUSTRALIA.

SEISMOLOGIC STATION,

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From Feb. 14th

to March 17th, 1933

No. 3.

	No.	Date. 1933.	Phase	Time.			Period.		Amp.		Distance miles.	Remarks.
				G.M.T.			s.		Ae.	An.		
				h.	m.	s.			μ	μ cme		
27	21	Feb. 15	ca P	9.	12.00							
			F	9.	31.00							
27	22	" 16	i	9.	20.40							
			ce F	9.	50.00							
27	23	" 17	ce P.	4.	51.00							
			F	5.	20.00							
27	24	" 18	i	8.	50.30							
			Max.	9.	3.50					135		
			ca F	10.	5.00							
27	25	" 20	?P	-								
			e S	2.	6.45							
			L	2.	8.25							
			M	2.	10.30					.5		
												Shocks felt at Broome 10 sec. dur- ation. 20 sec. La- grange.
27	26	" 27	ca P	16.	21.40							
			M	16.	27.00							
			ca F	17.	15.00							
27	27	Mar. 1	ca P	20.	50.00							
		"	ca F	21.	3.00							
												Electric supply falls 12-25-30 to 12-55-40
27	28	" 2	i P	17.	42.45						4850	
			S	17.	52.30							
			L	-								
												Earthquake in Japan 265 miles North of Tokio. Des- truction & loss of lif. life. Tidal wave.
			ca F	22.	51.00					6.5		
												Maximum movement continues from 18.00.00 to 19.00.00
27	29	" 5	ca P	8.	30.00							
			Max.	8.	43.00					.25		
			ca F	9.	20.00							
27	30	" 9	e P	21.	2.25							
			ca F	21.	25.00							
27	31	" 11	No record of Earth-Quake movement between times of California E.O. movement. Movement at 2 hr. Air Ministry, England, report destruction Long Beach, South California. 32.8°N 118.5°W.									
			e P	19.	49.00							
			ca F	20.	12.00							
27	32	" 13	ca P	17.	7.00							
			F	17.	27.00							
27	33	" 15	e P	5.	30.40							
			M	5.	37.00					15		
			ca F	6.	5.00							
27	34	" 17	ca P	19.	40.00							
			P M1	19.	41.40							
			2	19.	42.00							
			3	19.	42.20							
			PcS	19.	45.55							
			S	19.	46.05							
			Sk1	19.	49.00							
			2	19.	49.35							
			L	19.	52.19							
			Max	19.	55.00							
			ca F	20.	35.00							

PERTH, WESTERN AUSTRALIA.

SEISMOLOGIC STATION,

PERTH OBSERVATORY.



From March 17th

to April 23rd, 1933.

No. 4.

	No.	Date. 1933.	Phase.	Time			Period		Amo.		Distance.	Remarks.
				P.M.T.			s.		Ae.	An.		
				h.	m.	s.			μ	μ cms.		
27	35	Mar. 18	ca P	3.	43.	00	to	3-48.	00			Main shock 3-43.00
			M	3.	45.	00						
27	36	" 19	ca F	4.	00.	00						
			ca P	18.	33.	00						
			ca F	19.	00.	00						
27	37	Apr. 11	e P	6.	1.	00						
			ca F	6.	16.	00						
27	38	" 11	ca P	10.	21.	15						
			ca F	10.	32.	00						
27	39	" 11	e P	6.	12.	00						Slight move- ment of boom
			ca F	6.	28.	00						
27	40	" 12	ca P	12.	16.	30						
			ca F	12.	27.	00						
27	41	" 13	e P	22.	9.	20						Recorded at Riverview
			Max.	22.	13.	40						
				22.	16.	50						
			ca F	23.	2.	00						
27	42	" 16	e P	6.	17.	30	15					
			M	6.	42.	30						
27	43	" 16	P	19.	23.	40						Riverview.
			PR ₁	19.	25.	00						
			2	19.	25.	20						
			S	19.	30.	15						
			SR ₁	19.	32.	15						
			2	19.	33.	35						
			3	19.	34.	10						
			? L	19.	36.	05						
			M	19.	37.	50						
			M	19.	40.	00				4		
			M	19.	40.	20						
			ca F	21.	12.	00						
27	44	" 19	ca P	2.	27.	00						Riverview.
			ca F	3.	00.	00						
27	45	" 19	ca P	7.	20.	00						Riverview.
			ca F	8.	00.	00						
27	46	" 23	ca P	6.	39.	00						Riverview.
			ca F	8.	30.	00						
27	47	" 23	ca P	11.	6.	00						
			ca F	11.	28.	00						
27	48	" 23	ca P	14.	1.	50						
			ca F	14.	31.	00						

PERTH, WESTERN AUSTRALIA.

SEISMOLOGIC STATION, PERTH OBSERVATORY.

From April 23rd, 1933						to		May 19th, 1933.		No. 5.	
No.	Date. 1933.	Phase.	Time			Per- iod.	Amplitude		Dis- tance.	Remarks.	
			G.	M.	T.		Ae.	An.			
			h.	m.	s.	s.	μ	μ cms.	Miles.		
27	49	Apr 27.	e P.	3	1	50				Recorded at Riverview, Sydney.	
		? PR ₁	3	6	00						
		PR ₂	3	7	05						
		3	3	12	15						
		4	3	13	00						
		PS?	3	16	20						
		PS?	3	17	00						
		PPS	3	17	45						
		SR ₁	3	22	05						
		2	3	27	10						
		L	3	40	30						
		Max	3	43	50			25 cms.			
		caF	5	31	00						
27	50	May 8.	? caP	11	1	00					
		?	11	3	25						
		PR	11	4	32						
		S	11	15	30						
		L	11	46	40						
		Max	11	46	40						
		to	12	24	30						
27	51	" 10.	e P	3	15	30				20	
		e s	3	18	00						
		L	3	19	16						
		M	3	21	00			.3			
		ca F	3	45	00						
27	52	" 11.	e P							Slight Seismic movement.	
		ca	14	29	05						
		ca F	14	43	00						
27	53	" 15.	P ₁	1	20	50			2895.	Press re- port earth- quake shocks at San Francisco on May 16th at 3 ^h - 45 ^m . Pacific stand- ard time. (Not E.Q. No. 53).	
		2	1	21	35						
		PcS	1	26	30						
		S	1	26	50						
		PS	1	26	30						
		SR ₁	1	30	10						
		2	1	31	00						
		3	1	31	41						
		L	1	33	00						
		caF	2	18	00						
27	54	" 19.	e	18	56	52					
		caF	19	28	00						

25-21
27-30
17-51
12-51 km

7. R.P.P.

Another light shock.
Blade.

1933 SEP-19-M 11:37

PERTH, WESTERN AUSTRALIA.

SEISMOLOGIC STATION,

PERTH OBSERVATORY.



From May 20th, 1933 to

No. SIX.

	No.	Date 1933	Phase	Time G.M.T.		Period s.	Amp.		Distance miles	Remarks
				h.	m. s.		Ae cms	An cms		
27	55	May 20	caP?	4	48.00					
			?PR	4	51.20					
			?e	4	57.10					
			L	5	11.30					
			Max.	5	14.30					
			caF	5	50.00					
27	56	" 20	caP	8	39.00					
			caF	9	00.00					
27	57	" 21	e	12	1.35					
			i	12	3.40			.3cms		Distant disturbance
27	58	" 21	?	21	29.25					Distant seismic disturbance
			Max.	21	33.50					
			to	21	45.00					
			caF	21	50.00					
27	59	" 29	caP	10	46.00					Slight movement of Trace
			caF	11	00.00					
27	60	June 2	eP	12	41.00					
			caF	12	55.00					
27	61	" 4	eP	13	53.00					
			caF	14	17.00		.4			
27	62	" 7	i	6	8.00					Micro-séisms
			Max.	6	15.00					unsteady
			caF	6	34.00					
27	63	" 18	caP	4	24.00					
			caF	5	00.00					
27	64	" 18	caP	22	5.00					
			caF	22	50.00					
27	65	" 20	caP	10	17.00					
			caF	10	36.00					
27	66	" 21	caP	12	47.00					Slight movement of boom.
			caF	13	17.00					
27	67	" 22	caP	6	01.00					
				6	10.00					

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12:08

PERTH, WESTERN AUSTRALIA.

SEISMOLOGIC STATION.

PERTH OBSERVATORY.



From June 22nd, 1933, to August 4th, 1933.

No. SEVEN.

No.	Date 1933	Phase.	Time G.M.T. H. m. s.	Period s	Amp.		Distance Miles.	Remarks.
					Ae. μ cms	An. μ cms		
27	68	June 24	cP eS M ₁ 2 caF	22-0-50 22-6-00 23-7-00 23-21-30 1-44-00		5.75		Continuous max. long waves between M ¹ and M ² . Kew reports destruction South Sumatra 40°S 103.5°E.
27	69	" 25	caP caF	5-55-00 6-10-00				
27	70	" 25	e e caF	18-1-00 18-3-25 18-15-00				
27	71	Jul. 2	No record on Milne-Shaw due to failure of lighting.					
27	71	" 9	i caF	11-53-50 12-49-00				
27	72	" 10	e Max. caF	10-45-00 10-50-00 11-12-00				e at Kew 10-53-36.
27	" 17	Micro Seisms reach max. .35 cms. period 10" +						
27	" 18	Micro Seisms excessive on this day also.						
27	73	" 21	e ?L M caF	19-43-00 19-49-00 19-56-00 20-14-00				Recorded at Kew. e at 20-21-13
27	74	" 22	caP caF	21-47-00 22-12-00				8420 K.M. from Kew.
27	75	" 24	caP	19-26-00 19-50-00				Recorded at Kew.
27	76	" 30	eP M ₁ M ₂ caF	16-31-05 16-41-00 16-45-10 17-49-00				
27	77	Aug. 4	P eS e L Max caF	- 0-59-05 1-1-50 1-7-20 1-10-40 2-13-00		1.5 cms.		

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AM 9:12

PERTH, WESTERN AUSTRALIA.

SEISMOLOGIC STATION.

PERTH OBSERVATORY.



From 4th August, 1933, to 6th September, 1933.

No. EIGHT.

No.	Date. 1933.	Phase.	Time G.M.T. h. m. s.	Period. s.	Amp.		Dis- tance. Miles.	Remarks.
					Ae.	An.		
					μ	μ		
27. 78.	Aug 10.	caP caF	4-52-00. 5-12-00.					280 K.M. from Bat- avia.
27. 79.	" 20.	e P caF m	11-59-00. 12-38-00. 11-15-00.					
27. 80.	" 22.	e P Max. caF	11-24-50. 11-27-40. 11-33-00.					
27. 81.	" 25.	1 P s SR ₁ 2 L caF Max.	8-1-20. 8-9-59. 8-17-30. 8-19-55. 8-24-50. 9-30-00. 8-24-55.	25 cms 25 cms				
27. 82.	28/ 29.	P PR ₁ 2 3 S S ₂ P.S PPS SR ₁ 2 caF	22-32-00. 22-35-25. 22-37-31. 22-38-31. 22-41-00. 22-42-45. 22-43-20. 22-43-20. 22-48-05. 22-54-00. 1-30-00.	25.			6500. 1.6 1.3	
Sep. 1. Sight fails from 16-40-20 to 17-00-00.								
27. 83.	" 2.	i I i Max. caF.	15-51-00. 15-59-30. 16-1-50. 16-2-25. 16-16-00.					
27. 84.	6.	i i caF	1-36-50. 1-39-30. 1-47-00.				.63	
27. 85.	6.	e PR 1 S e SR. caF	6-17-40. 6-19-45. 6-25-00. 6-26-10. 6-28-30. 7-15-00.				1.75	

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PERTH, WESTERN AUSTRALIA

SEISMOLOGIC STATION, PERTH OBSERVATORY.



From September 6th

to

October 2nd, 1933.

No. 9

Sym- bol.	No.	Date 1933.	Phase.	Time			Amplitude		Dist- ance.	Remarks.
				G.	M.	T.	Ae.	An.		
				H.	M.	S.				
27	86	Sept. 9	? P	11	36	00				
			i	11	40	40				
			Max.	11	44	00				
				to						
				11	46	00				
			caP	12	23	00				
27	87	Sept. 13	caP	13	45	20				
			caP	13	52	00				
27	88	" 16	caP	3	38	00				
			caP	3	43	00				
27	89	" 22	caP	11	55	00				Kew records.
			e	12	6	24				
			Max.	12	9	00		.28		
			caP	12	33	00				
27	90	" 24	e	15	45	15				
			caP	16	41	00				
27	91	" 25	i	13	59	11				
			caP	14	40	00				
27	92	" 25	e	16	49	00				Small trem- our movement
			caP	16	58	00				
27	93	" 25	i	19	12	41				Kew Records △ 6710 KM.
			? S	19	36	00				
			i	19	55	35				
			i	19	56	00				
			Max.	19	57	21				
			caP	20	40	00				
27	94	" 27	e	21	52	52				Kew Records eL 22-48-00
			e	21	55	25				
			i	21	58	20				
			caP	22	27	00				
27	95	" 30	? P	14	30	45				P marked by micro- seisms. Kew Records
			PR	14	32	00				
			PS	14	35	45				
			S	14	36	58				
			SR	14	39	35				
			L	14	42	40				
			Max.	14	46	00		2.7		
			caP	16	15	00				
27	96	Oct. 2	eP	14	25	00				
			Max.	14	27	10	20	.45		
			caP	14	38	00				
27	97	" 2	eP	18	48	00				Phases marked by micro- seisms.
			Max	17	3	00	20	.67		
			caP	17	12	00				

PERTH, WESTERN AUSTRALIA.

SEISMOLOGIC STATION, PERTH OBSERVATORY.

From October 2nd, 1933, to November 18th, 1933.

No. 10.



International
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	No.	Date 1933	Phase.	Time			Per- iod. s.	Amplitude		Dist- ance. Miles.	Remarks.
				G. M. T.				Ae.	An.		
				h. m. s.				μ	cms.		
27.	98.	Oct 4.	e	17-32-00							Recorded at Riverview.
			i	17-34-50							
			caF	18-00-00							
27.	99.	" 7.	1	13-1-50.							
			Max	13-5-20.					.65		
			caF	13-11-00							
27.	100.	" 17.	? e	12-30-00							
			i	12-34-10							
			Max	12-41-50					.6		
			caF	13-14-00							
27.	101.	" 23.	i	13-54-00							
			Max	13-57-00	20.				.2		
			caF	14-10-00							
27.	102.	" 26.	? eP	0-5-00							
			caF	1-0-00							
27.	103.	" 26.	eP	12-48-35							
			P	12-49-10							
			e	12-51-40							
			Max	12-55-00	35"				.48		
			caF	13-29-00							
27.	104.	" 30.	eP	7-14-00							
			iP	7-15-52							
			PR ₁	7-15-35							
			2	7-15-55							
			cS	7-19-30							
			PcS	7-20-02							
			Max	7-28-20	20				2.1		
			caF	8-24-00							
27.	105.	Nov 2.	caP	13-18-00							
			caF	13-40-00							
27.	106.	" 4.	eP	8-45-00							
			Max	8-48-00							
			caF	8-50-00							
27.	107.	" 9.	eP	7-28-00							
			caF	7-35-00							
27.	108.	" 11.	eP	18-20-00							
			caF	18-45-00							
27.	109.	" 12.	eP	19-7-00							
			Max	19-12-05					.45		
			caF	19-23-00							
27.	110.	" 18.	eP	4-8-35							
			M	4-20-00					.3		
			caF	5-14-00							

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PERTH, WESTERN AUSTRALIA.
SEISMOLOGIC STATION, PERTH OBSERVATORY.



From November 18th, 1933 to December 12th, 1933. No. 11

	No.	Date 1933	Phase	Time G.M. T.		Per- iod s.	Amplitude		Dist- ance miles	Remarks
				h.	m. s.		Ae.	An. cms.		
27	111	Nov. 18	e	6.	33.00					
			m	6.	37.20			.3		
27	112	18	caF	6.	50.00					
			caP	17.	00.00					
			L	17.	13.00					
			M	17.	15.15	10		.45		
27	113	19	caF	17.	46.00					
			P	3.	18.00				3700	Phases marked by microseisms
			Pop	3.	20.30					
			PR ₁	3.	21.55					
			E	3.	27.25					
			PS	3.	27.35					
			SR	3.	31.10					
			L	3.	35.35	25				
			Max.	3.	42.00	11		1. 17		
			caF	3.	16.00					
27	114	29	caP	14.	22.30					
			caF	15.	6.00			.2		
27	115	20	cP	23.	41.00					Baffin Bay
			N	23.	45.00			.87		
		21	caF	2.	00.00					
27	116	22	cP	12.	50.12			.55		
			S	12.	56.40					
			Max.	13.	10.25			1.35		
			caF	14.	32.00					
27	117	24	caP	20.	56.00					
			caF	21.	20.00					
27	118	28	caP	10.	57.00					
			F	11.	2.00					
27	119	28	caP	11.	58.00					
			caF	12.	30.00					
27	120	Dec. 1	cP	10.	46.00					
			M	10.	50.00					
			caF	11.	5.00					
27	121	2	i	5.	30.35					
			L	5.	33.00					
			M	5.	35.00					
			caF	7.	00.00					
27	122	2	caP	20.	40.30					
			M	21.	5.00	15		.25		
			caF	21.	25.00					
27	123	12	caP	14.	19.30					
			cS	14.	26.00					
			M	14.	36.00					
			to							
				14.	42.00			1.2		

APR 27 1934

International
Seismological
Centre

to

No. 12.

Number of Movements recorded.

(1931 - 158.
(1932 - 159.
(1933 - 129.