

British Association for the Advancement  
of Science.

ON SEISMOLOGICAL INVESTIGATION.

Circular No. 3, issued by the Seismological Committee, Professor J. W. JUDD, C.B., F.R.S. (Chairman), Mr. JOHN MILNE, F.R.S., *Shide, Isle of Wight* (Secretary).

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I. *General Notes on Registers from Similar Horizontal Pendulums.*

These registers are continuous with those published by the Seismological Investigation Committee in their first two circulars and in the Reports of the British Association, 1896 to 1899.

The places to which they refer will be seen in the table of contents. In the next circular these registers should be continued up to June 30, 1901, and, so far as possible, supplemented by corresponding registers from the following places: Bidston, Edinburgh, Paisley, Strassburg, Coimbra, Cyprus, Beyrut, Batavia, Tokio, Jugga Row (Madras), Ceylon, Mexico, Swarthmore (Philadelphia), Baltimore, Melbourne, Sydney, West Australia, New Zealand (two stations), Cordoba, Arequipa, Trinidad, Irkutsk, Tiflis, Taschkent, and Honolulu.

*If observers at these and other places working with the type of instrument adopted by the British Association will kindly send a copy of their register, together with copies of their more important seismograms, to the Secretary of the Seismological Investigation Committee, British Association, Burlington*

House, London, W., as early as possible after June 30, and again after December 31 of each year, the interval of time which must elapse before they receive copies of the registers from co-operators in various parts of the world will be considerably reduced.

The time employed is Greenwich mean time (civil) expressed in hours, minutes, and in decimals of minutes.

*D. First P.T.s.*—This refers to the duration of the first preliminary tremors or the first uniform thickening of the trace.

*Amplitude* indicates half of the complete range of the maximum motion. When this exceeds one millimetre it is expressed in millimetres and in seconds of arc. Values less than one millimetre refer to the thickening of a line and indicate half its width.

The Register from *Shide, Isle of Wight, England.*  
Observer, JOHN MILNE. Assistant, SHINGOBU HIROTA.

Shide No.	Date	Commencement		Maximum		Amplitude		Duration	Remarks
		H.	M.	H.	M.	MM.	SEC.		
<b>1900.</b>									
421	July 2	1	56.6	—	—	0.5	—	0.25	Time uncertain.
422	" 15	19	8.5	19	38.2	1.0	—	1.10	—
423	" 23	0	44.5	—	—	1.0	—	0.25	—
424	" 29	7	18.0	8	35.0	6.0	3.0	3.25	—
425	Aug. 5	5	5.5	5	14.7	1.75	0.75	0.45	—
426	" 11	17	9.7	—	—	0.5	—	0.12	—
427	" 13	21	6.6	21	27.1	1.0	—	0.50	—
428	" 20	18	49.9	—	—	0.5	—	0.12	—
429	" 21	10	24.3	—	—	0.5	—	0.5	—
430	" 28	11	7.5	11	11.6	3.25	1.6	0.30	—
431	" 29	2	44.4	3	27.5	1.5	0.75	0.75	—
432	Sept. 1	8	21.9	8	46.4	1.0	—	0.50	—
433	" 8	4	13.5	4	22.7	0.75	—	0.30	—
434	" 12	0	27.8	—	—	0.5	—	0.25	Doubtful.
435	" 17	22	15.4	23	22.6	1.5	0.75	3.0	—
436	" 19	11	25.3	11	33.6	0.5	—	0.25	—
437	" 20	9	59.1	10	6.3	0.75	—	0.35	—
438	" 20	20	58.1	—	—	0.25	—	0.10	Doubtful.
439	" 27	3	28.3	—	—	0.25	—	0.2	—
440	Oct. 2	12	56.0	1	0.2	0.25	—	0.13	Time approx.
441	" 7	21	35.3	22	21.5	2.0	1.0	2.5	—
442	" 9	12	39.9	13	6.5	12.0	6.0	4.30	—
443	" 10	3	29.7	—	—	1.25	0.6	0.45	—
444	" 17	11	27.8	4	44.2	0.5	—	—	Duration exceeds 30 m.
445	" 29	9	28.9	9	44.6	—	—	—	Record from smoked paper.
446	Nov. 5	8	7.5	8	40.3	1.0	—	1.10	—
447	" 9	16	30.0	16	58.8	2.0	1.0	1.5	—
448	" 9	18	42.3	18	49.5	0.75	—	0.35	—
449	" 18	15	2.6	—	—	0.25	—	0.12	—
450	" 24	8	4.3	8	53.5	2.5	1.2	2.0	—
451	Dec. 7	8	5.0	—	—	0.5	—	0.20	—
452	" 18	23	58	24	13.0	1.0	—	0.35	—
453	" 22	10	0?	—	—	—	—	—	Earthquake?
454	" 25	5	16.9	5	28.3	3.0	1.5	2.30	—
				6	5.0	—	—	—	—

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National Physical Laboratory (Kew Observatory), Richmond, Surrey. Director, Dr R. T. GLAZEBROOK, F.R.S. Superintendent of Observatory Department, CHARLES CHREE, Sc.D., F.R.S. Assistant, E. G. CONSTABLE.

Register No.	Date	Comencement of P.T.s		Duration	1st Max.	2nd Max.	Maximum Amplitude		Total Duration
		H.	M.				Milli-meter	Secs Arc	
<b>1900.</b>									
239	July 1	19	22.0	—	—	—	0.3	—	0.8
240	" 7	11	15.3	—	—	—	—	—	0.8
241	" 15	19	3.4	—	19 42.6	—	0.5	0.35	1.7
242	" 23	0	43.8	—	—	—	0.5	0.35	0.13
243	" 27	11	40.0	—	—	—	0.3	—	1.30
244	" 29	7	18.5	13.5	8 37.2	8 39.3	0.9	0.63	3.13
245	Aug 5	15	3.0	—	5 16.5	—	0.6	0.42	0.43
246	" 24	11	36.4	—	—	—	—	—	0.8
247	" 28	11	8.0	5.2	11 13.8	11 20.2	1.3	0.92	0.44
248	" 29	2	45.2	9.4	3 17.5	3 27.4	0.6	0.42	0.59
249	Sept, 1	8	44.0	—	—	—	0.3	—	0.42
250	" 17	22	7.2	—	—	—	0.4	0.30	2.0
251	Oct. 2	12	57.0	—	—	—	—	—	0.17
252	" 6	18	46.6	—	—	—	—	—	0.35
253	" 7	21	31.2	29.4	22 10.0	22 12.0	1.4	1.05	2.25
254	" 9	12	34.7	13.5	13 8.4	13 18.6	8.0	6.03	4.0
255	" 17	11	29.0	—	—	—	0.4	0.30	0.34
256	" 29	9	21.5	8.7	9 43.2	9 44.1	12.6	9.45	3.10
257	Nov. 5	8	13.2	19.2	8 40.0	—	0.9	0.68	1.13
258	" 9	16	30.2	23.0	16 55.0	17 0.8	1.2	0.90	1.8
259	" 9	18	38.5	9.0	18 53.1	—	0.7	0.52	0.52
260	" 12	1	28.8	—	2 22.0	—	0.4	0.30	1.30
261	" 18	18	43.5	—	—	—	—	—	0.10
262	" 24	8	8.7	9.6	8 47.8	—	2.5	1.87	2.0
263	Dec. 4	10	53.5	—	—	—	—	—	0.5
264	" 7	11	19.5	—	—	—	—	—	0.24
265	" 18	7	49.0	—	—	—	—	—	1.8
266	" 25	23	37.0	21.8	24 7.7	—	1.5	0.87	1.8
		5	16.4	9.8	5 27.4	5 55.1	3.5	2.03	3.7
						6 6.7	—	—	—

Notes on Seismograph Observations, July to December, 1900.

Register No.	General Remarks
239	Very slight. A maximum at 19h. 25.5m.
240	Simply a broadening of the normal line.
241	It is difficult to give duration of P.T.s, all movements being small.
242	A short movement, with a maximum phase at 0h. 46m.
243	A series of very slight isolated swings, spread over 1h. 30m.
244	An unusual curve, with none of the ordinary increasing swings to a maximum phase. A preliminary maximum is shown at 7h. 33.3m. The large motions ceased at 9h. 26m.
245	There is an uncertainty as to the P.T.s time, whether 5h. 3m. or 4h. 41m.; very slight swings.
246	Similar to No. 240.

## Notes on Seismograph Observations, 1900—continued.

Register No.	General Remarks
247	An interval of 0.6 minute only between end of P.T.s and the maximum.
248	A small movement, which died down rapidly after the maximum.
249	Very small; most marked at 8m. 47.5m.
250	Both the beginning and ending of this disturbance are uncertain, owing to the very slight character of the movements.
	[The action of the boom was inclined to be sluggish during August and September, and to overcome this if possible a new boom of standard pattern was fitted up on September 27. The weight is at 4½ inches, and the tie at 5 inches from the end of the boom. The pivot bearing was also sharpened up.]
251-252	Similar to No. 240.
253	A well marked movement, but not of large amplitude. The swings are 'repeated' at intervals of about 2 minutes from 22n. 10m. to 22h. 22m.
254	This was a large disturbance and lasted for 4 hours. The first maximum occurred in a sudden oscillation, 20 minutes after the beginning of the 'large waves.' There were a number of swings exceeding 5 mm. in amplitude, lasting for 20 minutes. The 'large waves' ceased at 14h. 17m.
	Scale determinations were made on October 10.
255	Of no great extent. A maximum at 11h. 44m.
256	A very large and well marked disturbance (origin, Venezuela). After the arrival of the 'large waves' the amplitude rapidly increased and the maximum was reached in 13 minutes. This was followed by a number of swings exceeding 8 mm. for 10 minutes. The larger pulsations died down in well-marked movements at intervals of 4 minutes. The 'large waves' ceased at 10h. 48m., but there was a renewal at 11 hours, which looks much like a 'repetition' of the original shock.
257	Only a small movement. Apparently a faint 'repetition' at 9h. 51m.
258	The P.T.s began with a larger amplitude than usual, but the maximum was not large.
259	This is only a small movement, and would well serve as a 'repetition' of the preceding disturbance.
260	Of but slight extent throughout.
261, 263, 264	Similar to No. 240.
262	A short, but well marked oscillation, with a slow and regular rise to the maximum. Swing very small after 9h. 5m.
265	There is a slight uncertainty as to the time of arrival of the P.T.s, the swings being very small.
266	The arrival of the 'large waves' is most marked, and the amplitude quickly reached a maximum. Swings of 1.5 mm. lasting for 9 minutes followed this, and at 5h. 50m. a marked increase in amplitude took place. The maximum of 3.5 mm. was recorded at 5h. 35m., and vibrations of 2.5 mm. were recorded till 6h. 11m.

The data given above for December were obtained with the Milne Seismograph, No. 31, which temporarily occupied the place of the regular seismograph No. 9. Judging by an investigation described elsewhere, it is believed that on the average the amplitudes given by No. 31 are some ten or fifteen per cent. larger than would have been given by No. 9.

## The Register from Toronto, Ontario, Canada. Director, Professor R. F. STUART.

No.	Date	Commencement of P.T.s	Beginning of Large Waves.	Maximum	Ending	Amp.	Remarks
1900.							
187	Jan. 2	H. M. S. 19 16 39	H. M. S. —	H. M. S. —	H. M. S. —	MM. —	Minute jog.
188	" 2	21 5 50	—	—	—	—	" "
189	" 2	21 31 30	—	—	—	—	" "
190	" 2	21 46 0	Several	minute	jog s	close	together
191	" 5	17 57 0	—	—	—	—	Small jog.
192	" 5	19 33 57	—	20 25 0	21 20 abt.	0.4	Small decided movements.
193	" 8	17 17 22	—	—	—	—	Very small hitch.
194	" 10	20 56 30	—	—	—	—	Small jog.
195	" 11	Uncertain	—	10 11 18	12 0 abt.	1.0	Moderate P.T.s and A.C.s mixed
196	" 13	11 23 39	—	—	—	—	Thickenings.
197	" 15	20 16 25	—	20 20 0	20 43 0	0.9	Small vibrations.
198	" 18	—	—	—	—	—	Air currents.
199	" 20	6 40 17	—	6 55 57	10 about	23.8	Large well marked.
200	" 20	16 21 18	—	—	—	—	Small jog.
201	" 20	16 37 28	—	—	—	—	" "
202	" 20	17 13 3	—	—	—	—	" "
203	" 24	8 Impossible to measure	—	—	—	—	Mere thickening.
204	" 24	21 08 00	—	—	—	—	Small jog.
205	" 25	15 11 55	—	—	—	—	" "
206	" 26	22 0 0	—	—	—	—	Air currents.
207	" 31	19 38 00	—	19 52 0	20 25 abt.	0.15	Small prolonged.
208	Feb. 1	Air currents masked,	quake	—	—	—	Air currents.
209	" 3	5 30 45	—	5 38 50	5 50 abt.	0.1	Marked thickening.
210	" 5	Masked by air currents	—	—	—	—	Masked by A.C.s.
211	" 7	" "	"	—	—	—	"
	" 13	Nothing	—	—	—	—	Nothing.
	" 23	"	—	—	—	—	"
	" 24	"	—	—	—	—	"
212	" 26	3 55 30	—	—	—	—	Mixed with A.C.s.
213	Mar. 1	20 15 38	—	—	—	—	Very small jog.
214	" 1	20 32 47	—	—	—	—	"
215	" 1	21 6 39	—	—	—	—	"
216	" 9	2 47 00	—	3 38 37	4 55 abt.	0.3	Small but prolonged.
217	" 12	1 59 40	—	—	—	—	Thickening.
	" 12	Nothing	—	—	—	—	Nothing.
218	" 12	13 44 44	—	—	14 00 abt.	0.1	Marked thickening.
219	" 12	18 0 0	—	—	18 12 abt.	0.15	Small P.T.s; paper being changed.

## Toronto Register—continued.

No.	Date	Commencement of P.T.s			Beginning of Large Waves.			Maxi- mum	Ending	Amp.	Remarks
		H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.				
220	Mar. 15	21 29 5	—	—	—	—	—	—	—	Small jog.	
221	" 15	21 33 55	—	—	—	—	—	—	—	" "	
222	" 24	21 37 49	—	—	21 37 49	21 43 50	0.5	—	—	Sudden little vibration, gradually came to rest.	
	Apr. 1	Nothing	—	—	—	—	—	—	—	Nothing.	
	" 1	Nothing	—	—	—	—	—	—	—	" "	
223	" 16	23 09 27	—	—	32 13 37	23 30 37	0.2	—	—	Small.	
224	" 18	8 15 35	—	—	—	8 33 25	0.05	—	—	Very slight thickening.	
225	" 24	23 34 11	23 15 19	23 51 09	—	0 18 00 (25th)	0.8	—	—	Small but well marked prolonged tremors.	
226	May 11	0 53 34	0 53 35	0 54 20	—	1 20 00	1.4	—	—	Medium, almost fac-simile of Victoria.	
227	" 11	Changing paper	—	—	18 0 00	19 05 abt.	0.3	—	—	Small and continuous.	
	" 15	Nothing	—	—	—	—	—	—	—	Nothing.	
228	" 16	20 18 39	20 19 47	20 32 35	—	22 24 49	3.3	—	—	Medium prolonged.	
229	June 2	18 13 0	—	18 15 0	—	18 17 abt.	0.55	—	—	Very small vibration.	
	" 8	Nothing	—	—	—	—	—	—	—	—	
230	" 15	14 52 45	—	14 56 48	—	14 59 59	0.2	—	—	Two small well marked vibrations.	
231	" 16	15 3 2	15 7 34	15 11 51	—	15 40 44	1.0	—	—	Medium well marked.	
	" 18	Nothing	—	—	—	—	—	—	—	—	
232	" 19	4 51 30	—	—	—	4 55 48 (22nd)	—	—	—	Slight thickening.	
233	" 21	20 58 11	21 64 54	21 11 43	—	1 00 00	8.0	—	—	Very large.	
234	" 22	3 9 45	3 15 40	3 16 42	—	3 32 5	0.4	—	—	Number of slight vibrations.	
235	" 27	23 0 53	23 4 17	23 6 11	—	23 24 0	1.2	—	—	Medium well marked quake.	
236	" 28	2 59 35	3 3 9	3 4 56	—	3 21 42	1.2	—	—	Very similar in character to No 235.	
237	" 28	7 10 0	—	7 16 0	—	7 19 abt.	0.1	—	—	Very small.	
238	" 28	7 40 6	7 43 17	7 45 5	—	7 58 11	0.9	—	—	Very similar to Nos. 235 and 236.	
239	" 29	3 36 33	—	3 42 36	—	4 0 0	0.3	—	—	Small well marked vibrations.	
240	July 2	1 21 0	—	1 25 55	—	1 41 0	0.11	—	—	Small well marked vibrations.	

## Toronto Register—continued.

No.	Date	Commencement of P.T.s			Beginning of Large Waves			Maxi- mum	Ending	Amp.	Remarks
		H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.	H. M. S.				
241	July 2	1 53 30	—	—	—	—	—	—	—	0.05	Very small.
	" 11	Nothing	—	—	—	—	—	—	—	—	Nothing.
	" 11	Nothing	—	—	—	—	—	—	—	—	—
242	" 15	18 58 30	19 02 15	19 03 50	—	20 07 0	7.0	—	—	—	Large and well marked.
243	" 16	11 54 4	—	11 54 7	—	12 2 abt.	0.4	—	—	—	Small but decided.
	" 21	7 40 9	—	7 53 8	—	8 30 8	0.2	—	—	—	Mt. Azuma, Japan.
244	" 21	7 40 9	—	7 53 8	—	8 30 8	0.2	—	—	—	Small, prolonged.
245	" 22	18 4 6	—	18 5 7	—	18 9 abt.	0.2	—	—	—	Thickening.
246	" 22	24 50 9	—	24 51 9	—	24 53 3	0.3	—	—	—	Very small vibration.
247	" 29	7 18 8	7 28 4	8 14 4	—	10 7 2	1.5	—	—	—	Medium, prolonged.
248	Aug. 5	4 44 2	—	—	—	5 0 5	0.2	—	—	—	Very small vibrations.
249	" 10	5 4 5	—	5 7 4	—	5 24 2	0.3	—	—	—	Several thickenings.
250	" 10	8 27 6	—	8 30 8	—	8 38 8	0.2	—	—	—	" "
251	" 13	21 14 6	—	—	—	21 16 6	0.1	—	—	—	Very small.
252	" 16	17 4 3	—	—	—	17 6 3	0.05	—	—	—	" "
253	" 19	11 44 7	—	12 12 3	—	12 43 2	0.4	—	—	—	Small, prolonged.
254	" 22	20 46 1	—	20 53 1	—	21 23 3	0.5	—	—	—	Small, well marked.
255	" 28	11 16 1	—	11 25 6	—	11 44 6	0.2	—	—	—	Very small.
256	" 29	2 54 3	2 54 3	2 54 3	—	3 47 6	0.5	—	—	—	Small, prolonged.
257	Sept. 1	8 6 3	8 15 6	8 17 5	—	8 35 5 (about)	1.2	—	—	—	Medium.
258	" 8	2 38 7	2 51 6	2 53 2	—	3 17 1 (about)	1.15	—	—	—	Medium, well marked.
259	" 17	22 21 8	22 58 6	22 59 6	—	Lost, clock stopped	1.05	—	—	—	Medium, continuous.
260	" 19	4 52 2	4 52 2	4 52 2	—	5 20 3 (about)	0.5	—	—	—	Medium; a number of sharp shocks.
261	" 20	19 54 2	—	—	—	—	0.05	—	—	—	Maximum at commencement.
262	Oct. 7	21 32 4	—	—	—	22 32 abt.	0.05	—	—	—	Minute jog.
263	" 8	9 24 0	—	—	—	9 32 1	0.02	—	—	—	Very small, prolonged.
264	" 9	12 37 4	12 43 8	12 57 7	—	17 10 1	—	—	—	—	Mere thickening.
	" 9	12 37 4	12 43 8	12 57 7	—	17 10 1	—	—	—	—	Off paper over 27 mm.
	" 9	12 37 4	12 43 8	12 57 7	—	17 10 1	—	—	—	—	Very large; one of the largest yet; magnetometers vibrated.
265	" 10	4 6 5	—	—	—	—	0.2	—	—	—	Thickening.

## Toronto Register—continued.

No.	Date	Commencement of P.T.s	Beginning of Large Waves		Maximum	Ending	Amp.	Remarks
			H. M. S.	H. M. S.				
266	Oct. 10	H. M. S. 4 23 1	H. M. S. —	H. M. S. —	H. M. S. 4 28 abt.	MM. 0.1	Thickening.	
267	" 10	10 48 8	—	—	—	0.1	Small hitches.	
268	" 10	10 53 9	—	—	10 59 abt.	0.1	" "	
269	" 13	15 38 5	—	—	15 44 abt.	0.1	Thickening.	
270	" 13	16 36 4	—	—	16 41 abt.	0.1	" "	
271	" 14	22 47 3	22 51 0	22 52 0	22 59 9	0.8	Small, but decided.	
272	" 17	Masked by air current	11 20 6	11 24 5	Air current	2.1	Medium, well defined.	
273	" 29	9 18 7	9 23 1	9 44 5	12 49 5	15.5	Very large; magnetometers vibrated.	
274	Nov. 5	8 32 9	—	8 42 9	9 8 2	0.15	Small vibrations.	
275	" 9	16 19 8	16 25 1	16 28 9	19 22 8	7.9	Large, rapid vibrations prolonged.	
276	" 12	1 27 4	No decided maximum		3 30 9	0.5	Continuous and rapid vibrations.	
277	" 18	14 43 4	—	14 44 0	15 11 0	1.0	Small marked, boom gradually came to rest.	
278	" 18	16 6 3	—	16 7 8	16 13 3	0.2	Very small, boom came to rest much quicker than previous quake.	
279	" 22	2 31 5	—	—	2 33 5	0.05	Thickening.	
280	" 24	No P.T.s.	8 17 9	8 50 7	10 26 0	1.1	Medium extended.	
281	" 30	15 5 5	—	—	—	0.05	Slightly zigzag.	
282	Dec. 7	7 41 0	—	—	8 16 abt.	—	Thickening.	
283	" 8	6 47 8	—	—	6 53 3	—	Very slight thickening.	
284	" 13	17 8 5	—	—	17 13 5	0.1	Thickening.	
285	" 18	16 50 2	—	—	16 58 2	—	Wavy.	
286	" 18	23 28 3	—	23 36 8	24 13 5	0.2	Thickening.	
287	" 24	18 16 0	—	—	18 21 3	0.2	Marked thickening. Hayti and Cuba.	
288	" 24	18 31 3	—	—	18 34 0	0.05	Less marked.	
289	" 25	5 17 3	5 25 8	5 42 7	7 36 8	1.3	Medium and well marked.	

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## The Register from Victoria, B.C., Canada. Mr. E. BAYNES REID, Superintendent.

No.	Date	Commencement of P.T.s	Beginning of Large Waves		Maximum	Ending	Amp.	Remarks
			H. M. S.	H. M. S.				
<b>1900.</b>								
141	Jan. 2	H. M. S. 19 7 59	H. M. S. —	H. M. S. —	H. M. S. —	MM. 0.05	Minute jog.	
142	" 2	20 57 00	—	—	—	—	" "	
143	" 2	20 59 00	—	—	—	—	" "	
144	" 2	22 0 00	—	—	—	—	" "	
145	" 5	19 52 10	—	—	—	—	Thickening.	
146	" 5	19 24 00	—	20 20 00	21 42 abt.	1.00	Moderate and extended.	
147	" 8	17 air currents	—	—	—	—	—	
148	" 10	Nothing	—	—	—	—	—	
149	" 11	9 22 0	—	9 59 16	11 50 abt.	8.0	Large, well marked.	
150	" 13	9 26 8	Corresponds with first defined mark on Toronto.		11 9 30	12 25 0	0.5	Small gradual.
151	" 15	20 35 36	—	—	20 45 0	0.2	Number of small vibrations.	
152	" 18	8 2 49	—	—	8 32 49	0.1	Two minute series vibrations.	
153	" 20	6 39 48	—	6 53 38	10 15 0	19.0	Large (Mexican).	
154	" 20	16 27 54	—	—	16 32 0	0.1	Two small vibrations.	
155	" 24	7 29 53	—	7 57 2	8 20 abt.	1.0	Medium; a number of well marked vibrations.	
156	" 24	22 20 15	—	—	—	—	Small jog.	
157	" 25	15 12 30	—	—	—	—	Thickening.	
158	" 26	23 0 52	—	—	—	—	Small jog.	
159	" 31	19 33 59	—	19 37 0	20 0 0	0.2	Small, but decided.	
160	Feb. 1	23 48 50	—	—	—	—	Small jog.	
161	" 3	5 18 56	—	5 28 31	Uncertain	0.1	Thickening.	
162	" 5	10 27 49	—	10 56 9	11 26 0	1.1	Medium, well marked.	
163	" 7	11 4 10	—	11 5 15	11 11 0	0.1	Small, lasting short time.	
164	" 13	7 21 30	—	7 24 30	7 40 abt.	0.1	Two small displacements.	
165	" 23	23 20 00	—	—	—	0.1	Slight jar.	
166	" 24	1 38 50	—	1 45 20	1 55 abt.	0.15	Small, gradual.	
167	" 26	3 43 57	—	3 51 02	3 58 abt.	0.9	Small, well marked.	
168	Mar. 1	20 51 40	—	—	—	—	Very small.	
169	" 1	20 59 50	—	—	—	—	—	
170	" 9	2 42 03	—	3 9 06	4 12 0	0.6	Small vibrations gradually increased and decreased.	

## The Register from Victoria, B.C.—continued.

No.	Date	Commencement of P.T.s		Maximum	Ending	Amp.	Remarks
		H. M. S.	H. M. S.				
171	Mar. 12	7 27 18	—	7 33 0	7 40 abt.	0.2	Thickening.
172	" 12	13 56 38	—	—	14 9 0	0.1	Slight.
173	" 12	18 09 abt.	—	—	—	—	Very small.
	" 24	Clock stopped	—	—	—	—	—
174	Apr. 1	7 34 00	—	—	7 45 abt.	0.1	Small gradual vibrations.
175	" 1	20 14 00	—	—	20 20 0	0.1	Small.
176	" 16	22 50 47	—	22 53 41	23 07 30	0.8	Small but decided.
177	" 18	7 57 28	—	7 54 28	8 06 28	0.3	"
178	" 24	Air current masked commencement	23 39 12	23 48 12	Air C	1.2	Medium marked, lasting about two hours.
179	May 11	No P.T.s	0 37 19	0 38 15	0 46 0	2.1	Medium very sudden vibration.
180	" 11	17 33 22	17 42 53	18 04 53	0 19 abt.	0.5	Small prolonged shake.
181	" 15	18 57 32	—	19 15 00	19 21 00	0.4	Several small vibrations.
182	" 16	Changing paper	20 30 00	20 32 47	21 26 00	5.6	Moderate followed by small vibrations.
183	June 2	18 10 54	—	18 13 14	18 20 abt.	0.15	Small vibrations.
184	" 15	15 00 50	—	15 01 50	15 07 abt.	0.1	Two very small vibrations.
185	" 16	15 12 29	15 14 11	15 15 50	15 33 00	2.0	Medium well marked.
186	" 18	23 48 32	—	23 52 30	23 58 00	0.5	Small gradual.
187	" 19	4 56 30	—	4 59 30	5 02 abt.	0.1	Thickening.
188	" 21	20 59 39	21 16 02	21 26 15	0 34 42	21.0 abt.	Very large.
189	" 22	3 23 50	—	3 29 00	3 37 abt.	0.4	Small.
190	" 27	23 16 47	23 20 14	23 23 14	23 28 abt.	0.4	Thickening followed by larger vibrations.
191	" 28	3 14 28	3 18 20	3 21 15	3 27 abt.	0.3	—
192	" 28	7 16 45	—	7 19 13	7 21 40	0.1	Thickening.
193	" 28	7 57 38	7 59 38	8 02 38	8 07 abt.	0.1	A larger vibration.
194	" 29	3 50 58	—	3 53 00	4 03 30	0.15	Small decided.
195	July 2	1 26 37	—	1 28 00	1 29 15	0.25	Small decided.
196	" 11	1 00 54	—	—	1 27 18	0.05	Four small vibrations.
197	" 11	6 43 54	—	6 54 24	7 01 30	0.4	Small well marked.
198	" 15	19 01 35	19 15 30	19 22 21	20 00 abt.	2.1	Medium.

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## The Register from Victoria, B.C.—continued.

No.	Date	Commencement of P.T.s		Maximum	Ending	Amp.	Remarks.
		H. M. S.	H. M. S.				
199	July 16	11 39 2	—	11 39 5	11 46 3	0.9	Sudden, well marked, medium.
200	" 21	7 5 1	7 24 1	7 29 1	7 55 4	0.5	Small prolonged.
201	" 29	7 12 2	7 22 1	7 44 8	11 3 abt.	18.8	Very large, extended. Increased activity at 9h. 20m. Is.
202	" 29	12 0 5	—	—	12 2 0	0.15	Small.
203	Aug. 1	6 47 2	—	6 50 0	6 56 4	0.2	Small vibration.
204	" 1	8 25 9	8 44 5	8 48 3	9 6 3	1.6	Medium, well defined.
205	" 5	4 40 1	—	—	4 42 6	0.1	Very small.
206	" 5	5 1 0	—	—	5 2 6	0.1	Very small.
207	" 10	4 49 9	—	—	4 54 5	0.15	Very small.
208	" 10	8 13 4	—	8 14 8	8 19 2	0.5	Small.
209	" 11	16 40 3	—	16 47 3	16 50 5	0.9	Medium, well marked.
210	" 13	21 9 1	—	21 14 7	21 16 abt.	0.5	Small vibrations.
211	" 16	17 3 7	—	17 4 8	17 8 8	0.7	Medium and marked.
212	" 19	Lost, clock	stopped	—	—	—	—
213	" 22	20 48 1	—	20 50 1	20 56 abt.	0.5	Medium.
214	" 28	0 27 1	0 44 6	0 52 1	1 18 0	1.2	Medium, long intervals from P. T. to max.
215	" 28	11 25 5	—	11 28 0	11 45 5	1.1	Medium, well marked.
216	" 29	No P.T.s	2 50 8	2 56 0	3 49 0	0.8	Medium, prolonged.
217	Sept. 1	8 8 6	—	8 25 3	8 52 0	1.2	Moderate, decided.
218	" 3	16 10 4	—	16 14 6	14 26 4	0.5	Small started gradually.
219	" 4	9 28 9	—	9 38 6	9 47 7	0.3	Number of small shocks
220	" 8	2 45 4	—	2 58 8	3 22 9	1.1	Medium; number of well marked shocks.
221	" 17	22 17 3	22 34 0	22 45 7	25 30 abt.	12.7	Large quake continued for some time.
222	" 19	3 55 7	—	—	4 27 7	—	Series minute vibrations.
223	" 19	10 40 7	—	—	10 57 7	0.2	Small.
224	" 20	19 25 2	—	19 56 9	Uncertain	0.1	Small series of sharp vibrations followed by larger oscillations.

## The Register from Victoria, B.C.—continued.

No.	Date	Commencement of P.T.s			Beginning of Large Waves			Maximum	Ending	Amp.	Remarks	
		H.	M.	S.	H.	M.	S.					
225	Oct. 7	21	26	4	21	55	5	22 0 5	23 49 5	5.0	Large, preceded for some time by minute vibrations.	
226	" 8	9	23	3	—	—	—	9 40 8	10 21 6	0.7	Small, prolonged.	
227	" 8	11	23	8	—	—	—	—	11 51 8	0.1	Very small vibration.	
228	" 9	No P.T.s; began suddenly			12	32	8	Vibration off paper		16 50 4	Off paper	Very large. No P.T.s. Maximum at beginning (Alaska).
229	" 10	4	1	9	—	—	—	4 18 abt.	—	0.3	Small.	
230	" 10	4	53	4	—	—	—	4 55 6	—	0.1	Small.	
231	" 10	10	34	0	—	—	—	10 35 0	—	0.05	Very small.	
232	" 10	10	40	2	—	—	—	10 42 5	—	0.10	Very small.	
233	" 16	10	8	3	—	—	—	10 13 5	—	0.2	Small vibrations.	
234	" 17	No P.T.s			11	4	5	11 6 6	11 49 9	3.1	Medium, well marked.	
235	" 20	19	23	0	—	—	—	19 35 5	—	0.2	Small, extended.	
236	" 29	9	20	7	9	25	8	9 58 8	13 37 0	Off paper	Very large (Caracas)	
237	Nov. 5	8	22	7	—	—	—	8 47 4	—	0.2	Number of small vibrations.	
238	" 9	16	19	3	16	21	1	16 33 1	18 43 0	6.7	Medium, prolonged.	
239	" 12	1	22	9	1	55	2	1 59 4	3 50 2	8.2	Large, well defined.	
240	" 18	14	25	9	14	27	2	14 28 2	14 36 0	2.5	Medium, sharp shock.	
241	" 18	15	47	3	—	—	—	14 51 0	14 57 0	0.3	Two sudden little vibrations; boom gradually came to rest.	
242	" 22	2	8	8	—	—	—	2 15 2	2 23 8	0.3	Small, marked thickening.	
243	" 24	8	5	4	8	12	4	8 37 3	10 13 9	1.5	Medium, continuous quakes.	
244	" 30	15	1	1	—	—	—	15 6 6	—	0.1	Mere thickening.	
245	Dec. 4	23	51	5	—	—	—	23 57 abt.	—	0.1	Thickening.	
246	" 7	7	44	5	—	—	—	8 16 3	—	0.1	"	
247	" 8	6	47	1	—	—	—	6 54 3	—	0.1	Marked thickening.	
248	" 12	1	9	4	—	—	—	1 17 4	1 30 4	0.8	Medium, gradual commencement and ending.	
249	" 13	17	33	9	—	—	—	17 47 4	—	0.2	Two small vibrations.	

## The Register from Victoria, B.C.—continued.

No.	Date	Commencement of P.T.s			Beginning of Large Waves			Maximum	Ending	Amp.	Remarks
		H.	M.	S.	H.	M.	S.				
250	Dec. 17	8	33	7	—	—	—	8 50 7	—	0.3	Small; commenced and ended gradually.
251	" 18	17	4	6	—	—	—	17 11 6	—	0.1	Very small; gradual commencement and ending.
252	" 18	18	57	1	—	—	—	19 4 1	—	0.15	Smaller; gradual commencement and ending.
253	" 18	23	17	1	—	—	—	23 27 3	24 1 1 (about)	1.1	Medium, marked.
254	" 24	18	30	5	—	—	—	—	—	0.1	Small vibration.
255	" 24	18	41	7	—	—	—	—	—	0.05	Slight thickening.
256	" 25	5	13	2	5	20	3	5 24 3	8 14 3	2.2	Medium; continuous and well marked.

Register from San Fernando, Spain.  
Instituto y Observatorio de Marina. Director, Commodore J. VINIÉGRA.

No.	Date	Commencement	Maxima	Amplitude	Duration	Remarks
<b>1900.</b>						
73	July 29	H. M. 7 22.1	H. M. 9 0.6	3.01	H. M. 3 5.8	—
74	Aug. 5	5 13.2	5 22.8	0.43	0 35.0	—
75	" 28	11 16.2	11 17.2	0.64	0 32.5	Time is approximate.
76	" 29	2 31.2	3 14.2	0.64	1 14.0	—
77	Sept. 15	7 33.8	—	0.64	0 3.0	Very small in the pendulum, but registered in the magnetographs.
78	" 17	22 15.8	—	—	2 3.0	Very small.
79	Oct. 7	21 26.9	22 18.4	0.64	2 19.3	—
80	" 9	12 37.8	13 41.1	12.00	3 8.2	—
81	" 10	3 28.8	3 48.8	0.34	0 51.2	—
82	" 17	11 41.7	—	—	0 40.0	Very small.
83	" 29	9 21.1	from 9 38.6 to 10 1.1	—	3 46.5	The boom displaced to the west during the maximum, owing to the large movement.
84	Nov. 5	8 28.3	8 43.7	0.49	0 31.0	—
85	" 9	16 30.9	{ 17 34.8 19 25.8	{ 0.57 0.43	3 10.5	—
86	" 12	1 25.8	2 25.3	0.30	2 4.	—

## The Register from San Fernando, Spain—continued.

No.	Date	Commencement	Maxima	Amplitude	Duration	Remarks
87	Nov. 24	H. M. 8 20·3	H. M. 8 55·6	" 1·6	H. M. 1 35·9	Registered in the magnetographs. Time is approximate.
88	Dec. 18	28 11·8	23 57·8	0·17	1 29·0	
89	" 25	4 7·8	4 55·8	1·4	2 31·0	

## Register from Abbassia Observatory, Cairo, Egypt. Director-General, Captain H. G. LYONS, R.E.; Superintendent, E. B. H. WADE, M.A.

No.	Date	Commencement	D.P.T.	Maxima	Amp.	Duration	Remarks
<b>1900.</b>							
36	July 20	H. M. —	M. —	H. M. 17 49·8	" —	H. M. —	Minute thickenings.
37	" 20	—	—	20 5·3	—	—	" "
38	" 23	19 54·8	2	19 50·8	0·3	0 6	" "
39	" 23	7 22·3	?	0 23·8	—	3 2	
				0 26·8			
				0 36·8			
				0 42·3			
				0 49·8			
				8 34·8			
				0 39·8			
				0 58·8			
				9 8·8	3·0		
				0 18·8			
				0 22·8			
40	Aug. 1	—	—	11 22·8	—	—	Minute thickenings, doubtful nature.
41	" 2	—	—	17 59·8	—	—	" "
42	" 3	—	—	3 23·8	—	—	" "
43	" 6	—	—	0 34·8	—	—	" "
44	" 6	11 10·8 or 21·8	? 11	11 21·8	—	—	Moment of commencement not clear.
				0 25·8	0·7		
				0 27·8			
45	" 21	19 57·8	13	20 17·8	0·3	—	
				0 29·8			
				0 36·8			
				22 9·8			
46	Sept. 16	—	—	22 30·0	—	—	Very doubtful tremor, smoothness all Sept remarkable.
47	Oct. 16	—	—	9 23·0	—	—	Small isolated district, tremor.
				19 30·1	—	—	? tremor (very small).
48	Nov. 6	11 50·0	—	—	—	—	? tremor, badly recorded.
49	" 19	9 30·0	—	—	—	0 40	Minute thickenings.
50	" 27	—	—	5 53·0	—	—	" "
				7 25·0	—	—	" "
				7 33·0	—	—	" "
51	" 27	8 30·0	—	10 21·0	1·0	abt. 3 30	Trace tremulous all this time.

## Register from Abbassia, Cairo, Egypt—continued.

No.	Date	Commencement	D.P.T.	Maxima	Amp.	Duration	Remarks
52	Nov. 27	H. M. 20 0·0	M. —	H. M. 20 2·0 0 7·0 0 15·0 0 25·0	" — — 0·3	H. M. 0 35	—
53	Dec. 8	—	—	21 20·5	—	—	Minute thickening.
54	" 10	—	—	12 15·0	—	—	" "
55	" 12	—	—	6 25·0 0 35·0	— —	—	" "
56	Dec. 26	?	?	8 15·0 0 23·5 0 29·0 0 38·5 0 40·0	— — 0·6 — —	—	This tremour was proceeding when the instrument was started on the 26th. It has a different appearance from those caused by the starting of the instrument, and is perhaps seismic.
57	"	18 50·0	—	19 25·0 20 28·0 21 8·0 22 40·0	0·7	15 00	Trace tremulous, Maxima numerous, only chief inserted.
58	" 27	4 13	—	4 38·0 0 50·0 5 22·0 0 27·0 0 41·0 0 43·0	— — — — — } 1·3	2 51	Fine tremor.

## Register from the Royal Observatory, Cape of Good Hope. Director, Sir DAVID GILL, K.C.B., F.R.S.

No.	Date	Commencement	D. 1st P.T.s	Maxima	Semi-amplitude	Duration	Remarks
<b>1900.</b>							
79	July 29	H. M. 7 17·8	M. 44·6	H. M. 8 3·9 8 8·9	" 0·56	H. M. 2 50	July 1-16 instrument not recording. Driving-clock under repair.
80	Aug. 5	5 30·9	—	—	—	0 50	Very slight thickenings of trace.
81	" 13	21 18	—	—	—	0 90	" "
82	" 28	0 57	—	—	—	0 30	" "
83	Sept. 1	7 22	—	8 5	0·10	—	Times only roughly recorded, owing to failure of occultation watch.
84	" 8	3 30	—	3 33·6	0·10	0 12	—
85	" 9	23 27	—	—	—	0 5	Thickening of trace.
86	" 17	22 14·2	30·2	22 52 22 58 23 0 23 52 23 58	0·60 — 0·51 0·26 0·34	2 45	—



## Register from the Royal Observatory, Cape of Good Hope—continued.

No.	Date	Commencement		D. 1st P.T.s	Maxima		Semi-amplitude	Duration	Remarks
		H. M.	M.		H. M.	M.			
87	Sept. 20	H. M. 19h.	M. 23m.		H. M. to 20h.	M. 23m.			Several thickenings of trace. ? Air tremors.
88	" 25	—	—		22 49.0	—	0 5		Thickening of trace.
89	Oct. 7	21 29.5	10		21 39.5	0.14	—		—
					22 3.0	—	—		—
					22 6.5	0.24	2 0		—
					23 7.8	0.10	—		—
					23 11.1	—	—		—
90	" 9	12 49	22.8		13 21.7	0.76	—		—
					13 48.6	2.28	—		—
					13 53.3	2.28	3 30		—
					13 56.3	2.66	—		—
					14 0.2	2.28	—		—
					14 3.6	2.85	—		—
91	" 10	3 25.5	13.5		3 44.1	0.19	1 0		—
92	" 29	9 25	10		9 24.1	1.45	—		—
					9 57.4	1.70	4 0		—
					9 58.8	2.89	—		—
93	Nov. 9	16 30	—		17 45	—	3 0		Slight thickenings of trace.
94	" 12	1 26	17		1 43	0.19	—		—
					2 6	0.19	2 0		—
					3 10	0.13	—		—
95	" 16	21 41	8		21 52	0.15	0 40		—
96	" 30	—	—		13 35	0.11	0 10		—
97	Dec. 18	22 42.3	—		22 55.3	—	0 30		Very slight tremor.
					6 18.6	0.3	—		—
					0 23.1	0.4	—		—
					0 25.8	0.4	—		—
98	" 25	5 24.1	21		0 30.6	1.0	2 30		—

Register from the Royal Alfred Observatory, Mauritius.  
 Director, T. F. CLAXTON, F.R.A.S. Assistant, A. WALTER.

No. in Register	Date	Commencement of P.T.s		Duration of P.T.s	Time of Maximum	Amplitude of Maximum	End of Disturbance	Remarks
<b>1899.</b>								
29	Oct. 19	H. M. 9 34.1	M. 10.4		H. M. 10 15.8	1.08	—	Small tremors visible up to 12h. 30m.
30	" 24	4 5.9	32.2		10 19.6	1.13	—	—
31	Nov. 23	10 8.4	38.8		4 41.4	0.80	5.30±	Final tremors; faint.
					10 54.3	0.91	—	—
					11 0.8	0.78	13.30±	" "
					11 4.9	0.78	—	—
32	" 24	10 17.1	22.1		10 44.4	0.25	—	End doubtful.
33	" 24				19 35.1	0.84	—	Commencement and end masked by tremors.
34	Dec. 31				19 39.2	0.73	—	Commencement? Apparently 1h. 9.6m.
					11 26.9	0.25	—	—

## Register from the Royal Alfred Observatory, Mauritius

Mauritius Number	Date	Preliminary Tremors		Maximum Phase				Repetition of Maximum		End of Disturbance
		Beginning	Duration	Beginning	End	Time of Maximum	Amp.	Time of Maximum	Amp.	
<b>1900.</b>										
35	1900 Jan. 5	H. M. —	M. —	H. M. 19 25.68	H. M. 19 30.25	H. M. 19 26.79	SEC. 0.74	H. M. 19 28.93	SEC. 0.96	H. M. —
36	" 11	9 20.52	12.08	10 2.79	10 10.21	10 5.47	0.73	—	—	10 20.8
37	" 20	6 57.68	68.14	—	—	Nos. 2, 6, 8	0.45	—	—	8 49.8
38	Feb. 3	4 28.92	7.18	4 34.10	4 39.23	4 37.28	0.42	—	—	4 44.8
39	" 5	10 28.48	24.62	10 55.86	11 0.68	10 58.73	0.20	—	—	11 13.8
40	" 7	22 7.2	—	—	—	22 8.6	0.06	—	—	22 10.4
41	" 20	21 44.38	2.88	—	—	21 49.00	0.40	—	—	22 27.0
42	Mar. 12	23 58.16	—	—	—	—	—	—	—	—
	" 13	—	—	—	—	0 56.07	0.24	—	—	2 48.8
43	" 17	21 6.55	—	—	—	21 19.14	0.10	—	—	21 35.8
44	" 21	0 39.36	—	—	—	0 33.30	0.04	—	—	1 28.8
45	" 21	2 22.99	—	—	—	2 58.37	0.14	—	—	3 9.8
46	April 1	7 42.10	8.06	7 50.16	7 56.31	7 53.71	0.12	—	—	8 17.8
47	" 13	6 42.24	—	—	—	6 49.89	0.08	—	—	6 53.8

N.B.—A remarkable instance of the effect of lamps on air tremors occurred on March 24. A.T.s commenced lighted. The tremors ceased instantly, and were not noticed again until the lamps were put out at 3.30 and somewhat cooler than usual, and a thunderstorm had occurred. Where the number of vibrations is given they have been carefully counted under a magnifier.



## Observatory, Mauritius—continued.

Other Maxima							Remarks
No.	Beginning	End	Time of Maximum	Half Ampl.	Time of Repetition	Ampl.	
H. M.	H. M.	H. M.	SEC.	H. M.	SEC.		
1	23 36:00	23 37:53	23 36:01	0:23	23 37:12	0:26	A sudden shock to maximum. Maxima Nos. 1 and 2 were minute repetitions of the principal movement. No. 5 has a slight indication of a shock with echo, but not very pronounced; the approximate times are given.
2	37:58	39:05	39:24	0:26	38:56	0:28	
3	—	—	39:25	0:23	—	—	
4	—	—	40:98	0:26	—	—	
5	—	—	41:59	0:10	23 42:20	0:13	
6	—	—	43:02	0:21	—	—	
1	—	—	20 6:54	0:05	20 7:56	0:08	Simple thickenings of the trace.
2	—	—	14:66	0:04	—	—	
3	—	—	17:20	0:08	—	—	
4	—	—	19:13	0:03	20 20:95	0:07	
1	—	—	14 33:02	0:76	—	—	Thickening of the trace. Probably not seismic. No tremors. ? insect. Detached irregular tremors throughout. Similar to Nos. 43, 44, and 45. Pencil trimming lamp at 13h. 14:51m.; all other movement consequently uncertain.
2	—	—	—	—	—	—	
1	—	—	—	—	—	—	
1	—	—	—	—	—	—	
1	—	—	11 34:16	0:04	—	—	
2	—	—	37:92	0:03	—	—	
1	—	—	21 33:45	0:08	—	—	
2	—	—	38:11	0:07	—	—	
1	22 47:58	22 57:97	22 49:08	0:76	22 53:08	0:39	The P.T.s increased gradually. Numerous small movements occurred between the two maxima given, and generally had the same form and character.
1	—	—	20 3:5	—	—	—	Mere thickenings of the trace.
2	—	—	20 14:7	—	—	—	
1	7 37:5	7 39:3	7 38:3	0:08	—	—	*After-tremors lasted until about 11h., dying away very gradually. Continuous vibrations occurred during the main disturbance from 7h. 37:5m. to 7h. 54:2m., the half-amplitude of the smallest vibration during this time being 0:06s.
2	44:4	48:0	47:0	0:15	—	—	
3	48:3	54:2	51:0	0:16	—	—	
1	—	—	7 54:1	1:57	—	—	This disturbance is too large for detailed description. A tracing will be published in the 'Mauritius Magnetical and Meteorological Results, 1900.' The characteristics of the disturbance were (1) the five large shocks succeeding each other rapidly; (2) the large amplitude (smallest half-amplitude being 0:65s.) and persistent nature of the vibrations during the maximum phase from 7h. 54:9m. to 8h. 8:6m.; (3) the marked decrease of activity at 8h. 50m.±—when the boom almost came to rest for several minutes—and the subsequent increase by 9h. 30m.
2	—	—	8 2:5	1:69	—	—	
3	—	—	8 4:1	1:53	—	—	
4	—	—	8 5:4	1:69	—	—	
1	9 6:8	9 12:3	9 8:3	0:09	—	—	Several small movements between 20h. 35:0m. and 21h. 39:1m.
—	—	—	9 10:0	0:07	—	—	
—	—	—	18 37:3	—	—	—	Mere thickenings of the trace. Numerous small movements.
—	—	—	—	—	—	—	Mere thickening of the trace.
1	0 32:0	0 39:1	0 33:0	—	—	—	Mere thickenings of the trace.
2	1 4:3	1 3:4	1 6:7	—	—	—	
3	1 8:4	1 14:5	1 13:4	—	—	—	
1	9 37:1	9 42:1	9 39:5	—	—	—	Frequent slight movements, which may be due to air tremors.
—	—	—	—	—	—	—	Mere thickenings of the trace.
—	—	—	—	—	—	—	Tremors all night; one at time given looks seismic.
—	—	—	—	—	—	—	Lamp trimmed at 3h. 50m. Exact duration of P.T.s uncertain.
1	—	—	23 9:2	—	—	—	Mere thickenings of the trace. After-tremors occasionally until 23h. 43m. * End of main disturbance.
2	—	—	23 13:4	—	—	—	
3	23 24:4	23 26:4	23 26:4	—	—	—	Small tremors occurred from 13d. 22h. 40m. to 14d. 3h. 5m.; one at time given appears to be seismic.

## Register from the Royal Airs 0

Mauritius Number	Date	Preliminary tremors			Maximum Phase				Repetition of Maximum		End of Disturbance
		Beginning	Duration		Beginning	End	Time of Maximum	Amp.	Time of Maximum	Amp.	
		H. M.	M.	SEC.	H. M.	H. M.	H. M.	SEC.	H. M.	SEC.	H. M.
73	Sept. 17	22 9:7	9:6	—	—	—	22 51:0	0:41	—	—	0 49!
74	" 19	10 6:5	—	—	10 26:2	10 40:1	10 32:9	0:20	10 35:6	0:17	11 28!
75	" 20	13 20:7	—	—	13 44:3	13 54:2	13 52:2	—	—	—	20 0!
76	Oct. 19	0 48:7	—	—	—	—	0 51:5	0:05	—	—	—
77	" 20	18 48:1	20:4	—	19 8:5	19 11:8	19 10:0	0:10	—	—	1 36
78	" 26	—	—	—	8 10:3	8 15:8	8 12:7	0:28	—	—	—
79	Nov. 9	16 47:3	55:9	—	17 43:2	17 56:3	17 48:4	0:15	17 49:8	0:14	19 3!
80	" 12	1 31:0	—	—	1 46:0	2 7:5	2 0:3	0:42	2 2:5	0:17	2 27!
81	" 16	—	—	—	—	—	21 47:5	0:24	—	—	—
82	" 24	—	—	—	—	—	1 51:9	0:19	—	—	—
83	" 29	9 33:8	38:8	—	—	—	1 53:3	0:18	—	—	—
84	" 30	?	?	—	—	—	1 54:3	0:21	—	—	—
85	Dec. 9	—	—	—	—	—	1 56:5	0:19	—	—	—
86	" 13	—	—	—	—	—	2 6:5	0:08	—	—	—
87	" 18	22 41:5	17:9	—	22 59:4	23 2:4	23 0:8	0:09	—	—	23 52!
88	" 25	5 23:5	?	—	6 5:4	6 15:7	6 6:7	0:33	6 10:9	0:23	7 16!

Observatory, Mauritius—continued.

Other Maxima							Remarks
No.	Beginning	End	Time of Maximum	Half Amp.	Time of Repetition	Amp.	
	H. M.	H. M.	H. M.	SEC.	H. M.	SEC.	
1	—	—	22 20.1	0.34	—	—	Numerous small and irregular movements. Register faint. Beginning and end doubtful, owing to air tremors.
2	—	—	22 22.7	0.31	—	—	
3	—	—	22 31.8	0.21	—	—	
4	—	—	22 52.5	0.54	—	—	
1	10 7.0	10 10.5	10 7.5	—	—	—	Maximum No. 1 an isolated thickening. Mere thickening of the trace. Several small movements, of which maxima only are given.
1	—	—	19 41.0	—	—	—	
2	—	—	19 47.5	—	—	—	
2	—	—	19 55.3	—	—	—	
1	—	—	19 7.3	0.06	—	—	Beginning and end uncertain. Small tremors all day. Instrument very sensitive.
2	—	—	19 13.8	0.07	—	—	
1	18 54.3	16 58.8	16 55.5	0.05	—	—	Maximum No. 1. Isolated thickening. Maximum No. 2. "
2	18 58.8	17 7.6	17 2.0	0.05	—	—	
3	17 81.0	17 37.6	17 35.1	0.07	—	—	
4	—	—	17 40.9	0.05	—	—	
5	—	—	17 41.8	0.06	—	—	
6	—	—	17 44.2	0.08	—	—	
7	—	—	17 58.3	0.07	—	—	
8	—	—	18 1.2	0.05	—	—	
9	—	—	18 2.7	0.05	—	—	
10	18 45.6	18 53.4	18 50.3	0.05	—	—	
1	1 31.0	1 37.6	1 34.1	0.30	—	—	Maximum No. 10. Isolated thickening. * The maxima given under time of maximum all occurred during the continuous vibrations of the maximum phase. Rain fell during this disturbance; the times of beginning and end are consequently doubtful owing to tremors—probably 11d. 23h. 18m. to 12d. 2h. 27m.
2	1 37.6	1 45.3	1 40.0	0.12	—	—	
3	—	—	1 42.1	0.11	—	—	
—	—	—	—	—	—	—	21h. 35.4m. to 22h. 1.4m. several small movements (maximum of which is given) which appear to be of seismic origin. Tremors all day; beginning and end uncertain.
1	—	—	8 54.2	0.08	—	—	
2	—	—	9 1.6	0.13	—	—	
3	—	—	9 4.3	0.12	—	—	
4	—	—	9 7.7	0.09	—	—	
5	—	—	9 9.3	0.06	—	—	
6	—	—	9 10.6	0.08	—	—	
7	—	—	9 15.4	0.06	—	—	
8	—	—	9 17.0	0.08	—	—	
—	—	—	—	—	—	—	Too large for detailed description. Tracing will be published in the 'Mauritius Magnetical and Meteorological Results for 1900.' The movements after 12h. 33.5m. were small and spasmodic.
—	—	—	—	—	—	—	
—	—	—	—	—	—	—	
—	—	—	—	—	—	—	Small tremors all day.
—	—	—	—	—	—	—	" " "
—	—	—	—	—	—	—	" " "
—	—	—	—	—	—	—	Tremors nearly all day. Sheet changed during disturbance. Beginning and end?

Errata for 1899, p. 17.

Earthquake of July 12—for 2h. 17.0m. 0<sup>u</sup>.77. read 2h. 17.0m. 0<sup>u</sup>.43.  
 2 24.6 0.43 2 24.6 0.77

Register of Displacements recorded at the Alipore Observatory, Calcutta.  
G. W. KÜGLER, Assistant Meteorological Reporter.

Date	Greenwich Mean Time	Remarks
1900.		
July	7 .	H. M. S. 9 14 53 The instrument does not seem to be sensitive enough.
"	12 .	23 3 53 Thickening of line. Doubtful.
"	14 .	0 39 38 2 28 29 Thickening of line. 5 6 54 " "
"	17 .	23 0 2 " "
"	19 .	16 35 45 " "
"	21 .	11 50 11 " "
"	26 .	23 52 22 " "
"	29 .	7 11 42 Well defined. Began suddenly with almost no preliminary tremor.
"	30 .	19 50 30 Thickening of line.
"	31 .	22 25 22 " "
"	31 .	20 51 18 " "
August	4 .	19 50 26 " "
"	5 .	4 37 9 " "
"	13 .	20 20 27 " "
"	15 .	7 32 36 " "
"	16 .	8 44 0 " "
"	17 .	6 42 7 " "
"	18 .	12 29 41 " "
"	21 .	18 35 51 " "
"	22 .	2 24 10 " "
"	22 .	0 48 19 " "
"	23 .	21 8 49 " "
"	23 .	2 45 40 " "
"	23 .	6 35 23 The instrument does not seem to be sufficiently sensitive.
"	29 .	2 40 41 5 42 13 6 43 45 10 24 8 Small displacement. Thickening of line. " "
September	4 .	19 5 6 " "
"	6 .	22 4 43 " "
"	7 .	23 57 58 " "
"	9 .	22 59 7 Small displacement; almost abrupt.
"	11 .	2 38 29 Thickening of line.
"	13 .	1 33 59 Doubtful. 11 48 55 Thickening of line. " "
"	15 .	22 44 40 " "
"	16 .	23 31 27 " "
"	17 .	22 4 57 " "
"	20 .	11 11 18 " "
October	1 .	21 45 32 " "
"	2 .	9 35 46 " "
"	7 .	21 12 45 " "
"	8 .	11 55 0 " "
"	20 .	18 47 28 " "
October 23 to November 6 instrument out of order.		

Register of Displacements recorded at the Alipore Observatory, Calcutta—continued.

Date	Greenwich Mean Time			Remarks
	H.	M.	S.	
December 18	22	20	34	Thickening of line.
" 20	22	37	46	" "
" 21	21	59	3	" "
" 22	17	56	29	" "
" 25	5	13	4	" "
" 26	21	17	23	" "
" 28	7	44	39	" "
" 29	20	30	35	" "
" 30	20	53	16	" "
" 31	23	38	18	" "

Register from Colaba, Bombay. Director, N. A. F. Moos.

Observatory Number	Date	Time of Disturbance in G.M.T.			Amplitude in mm. and in Arc of Maximum Movement	Remarks
		Beginning	Maximum	End		
<b>1900.</b>						
186	July 29	H. M. S. 7 25 14	H. M. S. —	H. M. S. 7 26 3	MM. —	—
192	" 31	10 45 4	—	10 49 56	—	—
212	Sept. 1	18 50 2	—	19 46 40	—	—
213	" 1-2	23 34 54	—	0 46 25	—	—
214	" 2	2 9 25	—	2 37 7	—	—
215	" 2	5 9 8	—	5 51 15	—	—
217	" 2	11 33 51	—	11 55 0	—	—
225	" 9	22 55 44	23 2 51	23 30 24	0.8=0.58	—
234	" 17-18	22 7 5	22 23 23	0 54 33	1.9=1.33	—
237	" 20	19 16 26	19 32 44	19 55 31	0.5=0.56	—
260	Oct. 7	21 14 37	21 37 35	22 49 13	0.7=0.51	—
264	" 9	12 52 10	13 20 42	15 40 37	6.0=4.38	—
265	" 10	3 5 38	3 9 26	3 42 45	5.0=3.65	—
284	" 29	9 32 32	10 56 7	12 26 54	2.2=1.61	—
295	Nov. 5	8 6 41	8 19 41	8 45 52	0.9=0.66	—
300	" 9	18 20 39	18 35 11	18 55 25	1.0=0.73	—
304	" 11	4 23 48	4 26 26	4 31 19	0.6=0.44	—
306	" 12	1 20 6	1 31 14	2 37 46	1.0=0.73	—
313	" 16	21 27 5	21 36 6	22 2 2	2.7=1.97	—
321	" 24	8 14 51	8 40 5	9 27 4	1.6=1.17	—
334	" 30	13 41 56	—	14 5 7	—	—
378	Dec. 25	5 14 2	5 45 9	6 20 39	5.1=3.72	After-tremors ended at 6h. 56m. 18s.

Supplementary List of Movements of Milne's Seismograph at Colaba, Bombay.

Observatory Number	Date	Time in G.M.T.			Remarks
<b>1900.</b>					
149	June 4	H. M. S. 11 30 37			Dislocation E.
150	" 5	4 31 31			Small dislocation W.
151	" 6	7 56 7			Dislocation W.
152	" 7	2 49 14			" W.
153	" 7	3 49 11			" W.
154	" 7	4 50 56			" W.
155	" 7	10 35 6			" W.
156	" 7	11 36 47			" W.
157	" 7	12 33 49			" E.
158	" 8	11 29 12			" E.
159	" 10	6 31 17			" W.
160	" 11	15 58 18			" W.
161	" 11	16 27 37			" W.
162	" 12	4 53 14			" W.
163	" 12	6 2 15			" W.
164	" 12	11 37 21			" W.
165	" 15	11 58 16			" E.
166	" 15	12 25 4			Small dislocation W.
167	" 17	6 0 43			Dislocation W.
168	" 17	11 44 3			" E.
169	" 19	13 15 46			Small dislocation E.
170	" 20	11 19 45			Dislocation W.
171	" 22	4 43 45			" W.
172	" 22	6 38 31			" W.
173	" 22	11 45 45			" E.
174	" 22	12 57 44			" E.
175	" 23	11 47 58			" W.
176	" 23	12 43 57			" E.
177	July 2	15 51 53			" W.
178	" 2	15 55 3			" E.
179	" 2	15 58 51			Small dislocation W.
180	" 3	4 20 25			" " E.
181	" 3	12 46 9			" " W.
182	" 3	12 46 33			Dislocation E.
183	" 17	2 48 54			Small dislocation E.
184	" 19	5 7 18			Dislocation W.
185	" 26	12 2 40			" E.

Sometimes accompanied by thickening of line.

Register from the Kodaikanal Observatory, Southern India. Director, C. MICHIE SMITH.

No.	Date	Begins G.M.T.	Maxima G.M.T.	Amplitude		Duration	Remarks
				Mm.	Sec.		
<b>1900.</b>							
45	July 12	H. M. 15 10.4	H. M. 15 10.4	0.5	0.36	0.2	No P.T.s.
49	" 14	4 07.0	4 20.6	0.25	0.18	0.54	
			54.2	0.4	0.29		
			5 3.0	0.25	0.18		
			8.7	0.2	0.15		
			12.3	0.2	0.15		

## Register from Kodaikānal Observatory, Southern India, 1900—continued.

No.	Date	Begins G.M.T.	Maxima G.M.T.	Amplitude		Duration	Remarks
				Mm.	Sec.		
50	July 15	H. M. 2 51.4	H. M. 2 51.4	0.6	0.44	—	
51	" 16	7 19.8	7 30.0	0.3	0.22	0 17	
53	" 16	14 20.0	14 20.2	—	—	6 40	Many small but well marked movements.
59	" 18	14 45.2	14 53.7	0.5	0.36	0 11	
60	" 18	18 59.6	19 2.4	0.5	0.36	0 10	
64	" 21	4 54.4	5 59.0	1.0	0.63	1 22	
69	Aug. 3	5 34.8	—	—	—	—	Boom swing off scale, apparently large oscillations for 8m.
70	" 11	10 39.0	—	—	—	—	Very slight.
71	" 14	5 0.2	—	—	—	1 0	Several small movements.
78	Sept. 17	22 6.9	22 17.6	1.0	0.54	1 31	
			46.2	0.75	0.41		
			51.4	0.75	0.41		
80	Oct. 7	21 21.2	21 43.0	0.5	0.31	1 1	{ Well marked though small.
			54.4	0.5	—		
			22 06.6	0.5	—		
81	" 8	9 16.5	10 13.0	1	0.63	0 57	
82	" 9	12 44.6	13 22.3	6	3.77	2 35	P.T.s 32m.
			33.2	4	2.61		
83	" 10	3 23.0	3 29.0	4	2.51	0 50	Time slightly uncertain, clock driving badly.
84	" 18	16 46.2	16 46.2	0.5	0.27	0 2 $\frac{1}{2}$	
85	" 18	18 48.3	18 49.0	1	0.54	0 3	
86	" 22	23 56.0	23 58.5	0.5	—	0 4	
88	" 25	23 59.0	—	—	—	1 0	D'splacements with oscillation, total displacement 11 mm.
89	" 26	4 23.8	4 23.8	0.5	—	0 2	
91	" 29	6 41.0	7 17	1.0	0.48	0 24	Venezuela earthquake.
92	" 29	9 34.0	10 23.6	0.5	0.24	—	
			26.7	0.5	—	1 11	"
			32.8	0.5	—		
			36.0	0.5	—		
92A	" 29	14 34.0	—	—	—	1 5	Irregular disturbances.
93	" 30	8 20.4	9 6.9	2.0	1.08	1 2	P.T.s 36m.
			5.2	1.0	0.54		
94	" 30	10 58.7	—	—	—	0 6	Very slight.
95	" 30	11 45.2	—	0.5	—	0 8	
96	" 30	13 28.6	13 31.8	1.5	0.81	0 16	
98	Nov. 3	14 14.2	—	—	—	1 12	? Irregular movements.
100	" 9	18 14.2	18 15.2	0.5	0.31	0 35	
			46.0	0.5	—		
102	" 11	4 29.3	4 32.9	1.0	0.68	0 10	P.T.s 2m.
103	" 12	1 18.3	1 29.7	1.5	1.02	1 5	P.T.s 9 $\frac{1}{2}$ m.
			36.0	0.5	0.34		
104	" 16	21 23.0	21 29.7	4.0	2.51	1 9	P.T.s 10m.
			38.0	1.0	0.63		
			46.8	1.0	0.63		
105	" 18	1 15.5	1 15.5	0.2	—	0 21	
			34.1	0.5	0.34		
107	" 18	19 4.4	19 5.4	0.5	—	0 6	
108	" 18	22 19.0	22 21.6	0.5	—	0 9	

## Register from Kodaikānal Observatory, Southern India, 1900—continued.

No.	Date	Begins G.M.T.	Maxima G.M.T.	Amplitude		Duration	Remarks
				Mm.	Sec.		
109	Nov. 18	H. M. 23 21.6	H. M. 23 21.6	0.5	—	0 13	
			32.5	0.5	—		
110	" 20	8 12.0	—	—	—	—	Displacement W.
	" 20	8 45.1	—	—	—	—	Displacement E.
112	" 21	5 20.2	5 21.0	0.25	—	0 10	
			24.2	0.25	—		
116	" 23	4 11.1	4 13.3	0.5	—	0 14	
117	" 23	20 13.6	20 40.0	0.5	0.31	0 57	
			45.2	1.0	0.63		
124	Dec. 3	22 23.5	22 35.3	0.5	0.24	0 55	
			53.5	0.5	0.24		
129	" 4	6 12.1	6 17.3	0.5	0.24	0 36	
			28.6	1.0	0.48		
			43.0	0.5	0.24		
130	" 4	8 13.1	8 17.3	0.5	0.24	0 6	
137	" 7	11 13.1	11 13.1	0.5	0.24	0 5	?
152	" 21	16 25.6	16 26.0	0.5	0.24	0 12	
153	" 21	17 2.8	17 06.9	0.25	—	0 8	
155	" 21	18 21.4	18 29.7	0.5	—	0 12	
157	" 23	23 7.0	—	—	—	0 5	Very slight.
160	" 24	14 24.2	14 28.2	0.5	0.27	0 7	
161	" 24	17 36.4	17 36.4	0.5	—	—	
			46.5	0.5	—	0 13	
162	" 25	5 15.5	5 31.9	3	1.62	1 49	P.T.s 9m.
			37.0	4	2.16		
165	" 29	19 26.2	19 27.2	0.5	0.27	—	
			20 00.2	0.25	—	0 38	
166	" 30	15 31.4	15 32.0	0.5	0.27	—	
			57.2	0.5	—	0 36	
			16 4.4	0.5	—		

Register from Batavia, R. Magn. and Met. Observatory.  
Director, DR. S. FIEBE.

No.	Date	Commence- ment	Durat. P.T.	Times of Maxima	Ampli- tude	Direc- tion	Remarks
1900.							
223	July 8	H. M. 2 18.2	—	H. M. 2 24.7	MM. " 0.7	MIN. 0.2	10 Very small.
224	" 12	8 55.2	—	8 56.3	3.3	1.7	4 Small.
225	" 20	5 37.4	—	5 37.9	0.7	0.3	10 Very small.
226	" 21	6 50.7	—	6 59.2	1.0	0.5	60 Small.
227	" 22	8 45.2	—	8 46.2	1.0	0.5	2 Very small.
228	" 29	7 9.7	—	7 42.2	10.0	5.0	190 Strong.
				44.2	—	—	
229	Aug. 1	8 5.7	—	8 38.2	1.0	0.5	96 Very small.
				39.2	0.9	0.3	
230	" 2	18 40.7	—	18 42.0	1.6	0.8	7 Very small.
231	" 4	4 45.0	—	4 45.1	1.0	0.5	10 Very small.
232	" 5	4 37.2	—	4 37.7	1.2	0.6	45 Small.
				5 4.2	1.2	0.6	
233	" 6	15 39.3	—	15 44.9	1.2	0.6	20 Small.
234	" 11	16 6.4	—	16 12.1	0.7	0.3	14 Very small.

## Register from Batavia—continued.

No.	Dat	Commence- ment	Durat. P.T.	Times of Maxima		Ampli- tude	Dura- tion	Remarks
				H. M.	MM. "			
235	Aug. 13	H. M. 20 18.8	40	H. M. 20 33.1	MM. " 5.4 2.7	MIN. 95	Moderate.	
236	" 15	12 46.4	—	34.0	5.4 2.7	—	Very small.	
237	" 19	20 32.8	—	41.6	5.0 2.5	5	Mod. rate	
238	" 20	14 56.0	—	12 47.5	1.0 0.3	18	Very small.	
239	" 20	18 14.8	5.7	20 35.1	5.0 2.3	3	Small.	
240	" 24	18 0.9	0.3	14 57.4	1.2 0.5	60	Moderate.	
241	" 28	0 17.7	?	18 32.2	1.6 0.6	10	Very small.	
242	" 28	17 29.9	0.9	3.3	1.0 0.4	60	Small.	
243	" 29	2 42.7	7.1	0 25.8	1.0 0.4	30	Moderate.	
244	Sept. 9	22 57.9	4.5	27.4	1.0 0.4	70	Moderate.	
245	" 14	11 20.7	—	17 81.2	3.4 2.1	60	Very small.	
246	" 17	22 2.8	4.8	2 55.7	2.0 1.2	15	Strong.	
247	" 19	10 1.7	0.5?	23 4.2	2.1 0.9	223	Moderate.	
248	" 19	13 54.7	—	11 26.7	0.7 0.3	62	Very small.	
249	" 20	19 5.8	4.1	22 27.7	1.0 4.8	18	Strong.	
250	" 30	3 3.9	—	10 22.7	1.0 0.4	43	Very small (dubious).	
251	Oct. 2	11 59.6	4.1	31.4	1.2 0.5	12	Moderate.	
252	" 6	3 33.0	—	33.9	1.1 0.5	34	Very small.	
253	" 7	21 9.7	5.0	14 7.6	0.7 0.2	6	Strong.	
254	" 8	9 3.7	8.6	19 10.5	5.0 2.0	107	Moderate.	
255	" 9	12 46.5	7.5	16.5	7.5 3.0	37	Strong.	
256	" 10	3 24.1	11.0	20.1	6.2 2.5	160	Moderate.	
257	" 11	2 19.7	—	23.1	4.0 1.6	190	Strong.	
258	" 15	5 41.7	—	3 16.0	0.6 0.3	52	Small.	
259	" 17	11 59.7	—	12 5.2	2.0 1.0	6	Very small.	
260	" 20	8 31.7	—	13.2	2.3 1.2	24	Small.	
261	" 20	18 27.7	—	3 34.2	1.0 0.5	3	Very small.	
262	" 29	9 32.4	8.5	21 10.9	1.8 0.9	20	Moderate.	
263	Nov. 5	7 57.5	—	15.5	9.0 4.7	37	Commencement second period of vibration 10h. 44 Om. Strong.	
264	" 6	5 52.5	—	16.7	10.0 5.2	190	Moderate.	
265	" 9	17 22.7	—	9 12.8	2.5 1.3	2	Very small.	
266	" 12	1 15.7	—	13.6	2.0 1.0	120	Moderate.	
267	" 12	21 24.9	—	13 41.2	5.5 2.3	100	Small.	
268	" 14	21 51.0	—	42.7	5.5 2.3	30	"	

## Register from Batavia—continued.

No.	Date	Commence- ment	Durat. P.T.	Times of Maxima		Ampli- tude	Dura- tion	Remarks
				H. M.	MM. "			
269	Nov. 16	H. M. 21 39.8	10.5	H. M. 21 52.5	MM. " 2.7 1.3	MIN. 60	Moderate.	
270	" 22	3 42.0	0.5	3 42.8	2.0 0.9	5	Small.	
271	" 24	8 6.7	8.0	8 15.8	2.2 0.9	82	"	
272	" 30	13 30.2	—	48.1	1.3 0.6	25	"	
273	Dec. 3	18 24.1	1.2	13 32.9	1.1 0.5	35	Moderate.	
274	" 18	22 38.0	—	18 25.9	6.0 2.6	80	"	
275	" 20	9 11.3	0.3	23 24.0	1.8 0.7	31	"	
276	" 23	7 22.5	—	9 12.5	4.0 1.0	3	Very small.	
277	" 25	5 15.0	8.6	13.3	6.0 2.3	135	Moderate.	
278	" 28	7 59.6	—	7 23.5	1.1 0.4	12	Small.	

Errata (see Earthquake 197): for 22 17.5, read 23 17.1.

Earthquakes of Local Origin recorded by the Gray-Milne Seismograph at the Central Meteorological Observatory, Tokio, Japan, in the year 1900. The records for 1899 are in Circular No. 1.

The time used is Tokio mean time, 9 hours in advance of Greenwich.

Max. Hm = Maximum horizontal motion.

Max. Vm = " " vertical " "

T = complete period in seconds.

2a = range of motion or double amplitude.

Intensity I. = slight.

" II. = weak.

No 'strong' earthquakes were recorded in 1900.

DR. F. OMORI.

No.	Month	Day	Time of Occurrence	Dura- tion	Direction	Max. Hm.		Max. Vm.		Inten- sity	Remarks
						T	2a	T	2a		
2246	I.	15	H. M. S. 0 33 04.8 P.M.	M. S. —	—	—	—	—	—	I.	Not felt.
2247	"	17	0 14 11.5 A.M.	2 25	ENE-WSW	0.5	0.7	0.7	0.2	I.	—
2248	"	18	4 26 23.3 P.M.	—	—	—	—	—	—	I.	—
2249	"	18	4 46 01.9 "	—	—	—	—	—	—	I.	Not felt.
2250	"	21	6 29 09.5 "	1 30	WNW-ESE	0.3	0.8	—	—	II.	—
2251	"	27	0 16 13.5 A.M.	—	—	—	—	—	—	I.	Not felt.
2252	"	31	2 37 45 "	—	—	—	—	—	—	I.	—
2253	II.	1	4 21 10.2 "	—	—	—	—	—	—	I.	—
2254	"	7	9 54 45.5 "	—	—	—	—	—	—	I.	Not felt.
2255	"	7	10 10 12 "	—	—	—	—	—	—	I.	—
2256	"	9	6 39 09.4 "	—	—	—	—	—	—	I.	—
2257	"	12	7 37 40.8 "	—	—	—	—	—	—	I.	—
2258	"	13	1 28 19.1 P.M.	—	—	—	—	—	—	I.	Not felt.
2259	"	15	8 30 36 "	—	—	—	—	—	—	I.	—
2260	"	16	9 10 28.3 A.M.	—	—	—	—	—	—	I.	—
2261	"	16	4 35 03.8 P.M.	—	—	—	—	—	—	I.	—
2262	"	17	0 54 48.1 "	1 12	WSW-ENE	0.2	0.3	0.1	0.1	I.	—
2263	"	18	2 47 01.6 A.M.	—	—	—	—	—	—	I.	Not felt.
2264	"	18	8 04 29.5 "	—	—	—	—	—	—	I.	—
2265	"	20	11 50 59.5 P.M.	—	—	—	—	—	—	I.	—
2266	"	24	9 21 08.6 "	—	—	—	—	—	—	I.	Not felt.
2267	"	26	11 34 23.9 A.M.	—	—	—	—	—	—	I.	—
2268	III.	1	7 32 06.3 "	—	—	—	—	—	—	I.	Not felt.
2269	"	1	8 19 25 "	—	—	—	—	—	—	I.	—
2270	"	1	8 25 49 "	—	—	—	—	—	—	I.	—
2271	"	1	10 08 59.9 P.M.	—	—	—	—	—	—	I.	—
2272	"	4	11 58 04 A.M.	3 23	E-W	0.4	0.4	—	—	II.	—

Earthquakes of Local Origin recorded at Central Meteorological Observatory, Tokio—cont.

No.	Month	Day	Time of Occurrence	Duration	Direction	Max. Hm.		Max. Vm.		Intensity	Remarks
						T	2a	T	2a		
2273	III.	4	H. M. S. 3 18 27 P.M.	M. 5.	—	—	—	—	I.	Not felt.	
2274	"	4	4 46 53 "	—	—	—	—	—	I.	—	
2275	"	7	7 18 12 6 "	—	—	—	—	—	I.	Not felt.	
2276	"	8	9 48 54 9 A.M.	—	—	—	—	—	I.	—	
2277	"	9	6 01 29 P.M.	—	—	—	—	—	I.	—	
2278	"	12	10 36 38 A.M.	6 50	NE-SW	—	—	—	II.	—	
2279	"	12	1 41 41 P.M.	—	—	—	—	—	I.	Not felt.	
2280	"	12	7 57 08 8 "	—	—	—	—	—	I.	—	
2281	"	13	1 10 11 8 A.M.	—	—	—	—	—	I.	—	
2282	"	13	6 53 22 "	—	—	—	—	—	I.	—	
2283	"	14	11 56 65 P.M.	—	—	—	—	—	I.	—	
2284	"	16	6 23 2 3 "	—	—	—	—	—	I.	—	
2285	"	16	10 02 20 6 "	1 45	NE-SW	0.1	0.4	—	II.	—	
2286	"	17	1 39 23 "	—	—	—	—	—	I.	Not felt.	
2287	"	22	0 56 24 8 A.M.	—	—	—	—	—	I.	—	
2288	"	23	5 32 20 6 P.M.	—	—	—	—	—	I.	—	
2289	"	26	8 52 24 6 "	—	—	—	—	—	I.	—	
2290	"	26	9 33 14 6 "	—	—	—	—	—	I.	Not felt.	
2291	IV.	15	7 50 31 9 A.M.	—	—	—	—	—	I.	—	
2292	"	20	9 09 22 6 P.M.	—	—	—	—	—	I.	—	
2293	"	25	8 19 10 A.M.	—	—	—	—	—	I.	Not felt.	
2294	V.	5	9 22 49 "	—	—	—	—	—	I.	—	
2295	"	5	11 45 44 "	—	—	—	—	—	I.	—	
2296	"	12	2 24 00 9 P.M.	4 10	NE-SW	0.8	2.4	—	II.	—	
2297	"	12	11 46 11 9 A.M.	—	—	—	—	—	I.	—	
2298	"	15	7 18 01 8 "	2 10	SW-NE	0.2	0.9	—	II.	—	
2299	"	15	9 04 04 P.M.	—	—	—	—	—	I.	—	
2300	"	21	8 29 25 5 A.M.	—	—	—	—	—	I.	—	
2301	"	24	0 13 13 "	—	—	—	—	—	I.	Not felt.	
2302	"	31	5 49 29 "	—	—	—	—	—	I.	—	
2303	"	31	5 44 47 P.M.	—	—	—	—	—	I.	—	
2304	VI.	7	1 51 12 A.M.	—	—	—	—	—	I.	—	
2305	"	8	5 27 20 P.M.	—	—	—	—	—	I.	—	
2306	"	8	8 31 03 "	—	—	—	—	—	I.	—	
2307	"	10	7 29 25 "	—	—	—	—	—	I.	—	
2308	"	16	3 14 04 9 A.M.	—	—	—	—	—	I.	Not felt.	
2309	"	20	4 32 00 4 P.M.	—	—	—	—	—	I.	—	
2310	"	24	3 59 62 "	—	—	—	—	—	I.	—	
2311	"	25	9 24 17 "	—	—	—	—	—	I.	—	
2312	"	25	11 56 19 9 A.M.	—	—	—	—	—	I.	Not felt.	
2313	"	25	2 39 14 9 P.M.	—	—	—	—	—	I.	—	
2314	"	25	3 47 15 "	—	—	—	—	—	I.	—	
2315	"	25	9 12 18 "	—	—	—	—	—	I.	—	
2316	"	25	10 28 14 "	—	—	—	—	—	I.	Not felt.	
2317	"	25	11 14 24 "	—	—	—	—	—	I.	—	
2318	"	26	5 10 13 A.M.	—	—	—	—	—	I.	—	
2319	"	26	5 24 54 "	—	—	—	—	—	I.	—	
2320	"	26	6 27 0 "	—	—	—	—	—	I.	Not felt.	
2321	"	26	10 56 49 "	—	—	—	—	—	I.	—	
2322	"	26	6 58 0 P.M.	—	—	—	—	—	I.	—	
2323	"	26	9 49 42 "	—	—	—	—	—	I.	—	
2324	"	26	10 2 49 "	—	—	—	—	—	I.	Not felt.	
2325	"	27	0 54 04 A.M.	—	—	—	—	—	I.	—	
2326	"	27	0 41 47 P.M.	—	—	—	—	—	I.	—	
2327	"	30	2 51 21 "	—	—	—	—	—	I.	—	
2328	VII.	2	5 38 35 "	—	—	—	—	—	I.	—	
2329	"	7	7 16 25 A.M.	—	—	—	—	—	I.	—	
2330	"	8	11 47 14 "	—	—	—	—	—	I.	—	
2331	"	10	11 43 43 P.M.	—	—	—	—	—	I.	Not felt.	
2332	"	13	5 00 43 "	—	—	—	—	—	I.	—	
2333	"	13	7 19 62 "	—	—	—	—	—	I.	—	
2334	"	13	10 23 29 "	—	—	—	—	—	I.	—	
2335	"	14	7 20 46 A.M.	—	—	—	—	—	I.	—	
2336	"	14	8 11 41 "	—	—	—	—	—	I.	—	
2337	"	14	8 24 14 "	—	—	—	—	—	I.	—	
2338	"	16	5 32 50 P.M.	—	—	—	—	—	I.	—	
2339	"	17	11 52 04 A.M.	—	—	—	—	—	I.	—	
2340	"	20	4 35 62 P.M.	—	—	—	—	—	I.	—	
2341	"	21	7 30 33 A.M.	—	—	—	—	—	I.	—	
2342	"	24	9 52 49 "	—	—	—	—	—	I.	—	
2343	"	25	1 08 19 "	—	—	—	—	—	I.	—	
2344	VIII.	4	1 38 13 P.M.	—	—	—	—	—	I.	—	
2345	"	5	1 21 06 "	4 00	NNE-SSW	0.7	1.1	—	II.	—	

Earthquakes of Local Origin recorded at Central Meteorological Observatory, Tokio—cont.

No.	Month	Day	Time of Occurrence	Duration	Direction	Max. Hm.		Max. Vm.		Intensity	Remarks
						T	2a	T	2a		
2346	VIII.	8	H. M. S. 7 17 20 P.M.	M. 8.	—	—	—	—	I.	—	
2347	"	17	6 58 21 A.M.	—	—	—	—	—	I.	Not felt.	
2348	"	17	5 27 56 P.M.	—	—	—	—	—	I.	—	
2349	"	25	11 49 19 "	—	—	—	—	—	I.	—	
2350	"	27	2 02 12 A.M.	—	—	—	—	—	I.	Not felt.	
2351	"	27	3 00 44 P.M.	5 0	NW-SE	0.2	2.6	0.1	0.5	II.	—
2352	"	27	4 28 56 "	—	—	—	—	—	I.	Not felt.	
2353	"	27	4 33 38 "	—	—	—	—	—	I.	—	
2354	"	29	7 09 00 A.M.	—	—	—	—	—	I.	Not felt.	
2355	"	29	11 34 41 "	—	—	—	—	—	I.	—	
2356	IX.	1	11 16 32 "	—	—	—	—	—	I.	—	
2357	"	5	6 03 32 P.M.	—	—	—	—	—	I.	Not felt.	
2358	"	9	0 31 56 "	—	—	—	—	—	I.	—	
2359	"	10	9 31 34 "	—	—	—	—	—	I.	—	
2360	"	19	4 23 03 "	—	—	—	—	—	I.	—	
2361	"	24	0 36 24 "	—	—	—	—	—	I.	—	
2362	X.	3	3 19 16 A.M.	1 1	WNW-ESE	0.7	3.0	—	—	II.	—
2363	"	3	3 59 36 "	—	—	—	—	—	I.	—	
2364	"	4	4 18 32 P.M.	—	—	—	—	—	I.	Not felt.	
2365	"	7	4 17 41 A.M.	—	—	—	—	—	I.	—	
2366	"	9	1 41 07 "	—	—	—	—	—	I.	—	
2367	"	12	4 03 53 "	—	—	—	—	—	I.	—	
2368	"	16	0 28 05 P.M.	—	—	—	—	—	I.	Not felt.	
2369	XI.	1	9 50 26 A.M.	—	—	—	—	—	I.	—	
2370	"	2	3 04 15 P.M.	—	—	—	—	—	I.	Not felt.	
2371	"	5	8 15 13 A.M.	—	—	—	—	—	I.	—	
2372	"	5	2 09 51 P.M.	—	—	—	—	—	I.	—	
2373	"	5	4 41 37 "	3 20	SSE-NNW	0.1	3.3	0.1	1.0	II.	—
2374	"	5	5 04 02 "	—	—	—	—	—	I.	Not felt.	
2375	"	5	5 19 29 "	—	—	—	—	—	I.	—	
2376	"	5	7 38 43 "	—	—	—	—	—	I.	Not felt.	
2377	"	5	9 18 10 "	—	—	—	—	—	I.	—	
2378	"	5	9 48 37 "	—	—	—	—	—	I.	—	
2379	"	6	6 13 60 "	—	—	—	—	—	I.	—	
2380	"	9	5 45 33 A.M.	—	—	—	—	—	I.	Not felt.	
2381	"	9	11 30 48 "	—	—	—	—	—	I.	—	
2382	"	10	2 55 26 "	2 40	NNE-SSW	0.9	1.6	—	—	II.	—
2383	"	13	6 15 12 "	—	—	—	—	—	I.	Not felt.	
2384	"	13	6 32 07 "	—	—	—	—	—	I.	—	
2385	"	15	6 37 54 "	—	—	—	—	—	II.	—	
2386	"	15	8 06 07 "	—	—	—	—	—	I.	—	
2387	"	15	10 53 41 P.M.	—	—	—	—	—	I.	—	
2388	"	17	7 01 07 A.M.	—	—	—	—	—	I.	Not felt.	
2389	"	19	4 56 06 P.M.	—	—	—	—	—	I.	—	
2390	"	19	10 58 40 "	—	—	—	—	—	I.	—	
2391	"	24	5 02 08 "	—	—	—	—	—	I.	Not felt.	
2392	"	28	2 43 45 A.M.	—	—	—	—	—	I.	—	
2393	XII.	1	0 33 39 P.M.	—	—	—	—	—	I.	—	
2394	"	2	5 29 13 A.M.	—	—	—	—	—	I.	—	
2395	"	4	10 11 18 "	—	—	—	—	—	I.	Not felt.	
2396	"	6	2 02 03 P.M.	—	—	—	—	—	I.	—	
2397	"	9	0 42 42 "	—	—	—	—	—			