

Register of earthquakes—Continued.

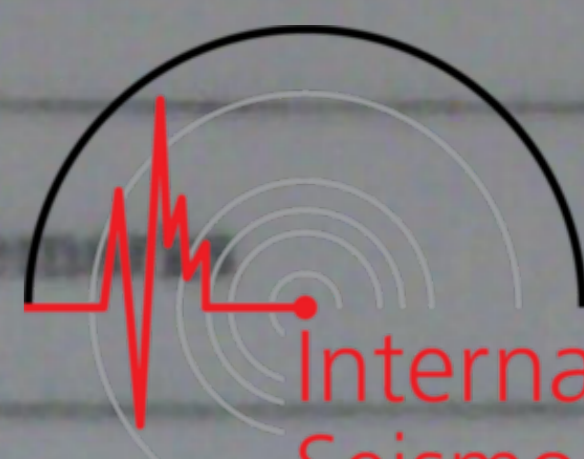
No.	Date	First P. T. begin	Large waves begin	Maximum	End	Maximum amplitude	Remarks
		<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>mm.</i>	
949	1911 Oct. 15	12 04.7	12 11.0	12 17.5	12 45	0.9	
950	15	.. .. .	23 51.2	23 57.0	24 05	0.4	
951	17	9 29.0	9 46.2	9 51.8	10 48	2.5	Second P. T. 9:37.2.
952	17	12 08.0	12 15.1	12 20.0	13 17	1.0	
953	20	.. .. .	18 01.0	18 14.6	.. ..	1.2	
954	24	0 31.8	0 47.0	0 57.7	1 28	0.3	
955	26	14 35.8	14 51.0	14 57.0	15 06	0.2	Tremor.
956	27	23 08.0	23 12.0	23 14.0	23 20	0.1	Do.
957	29	18 27.0	18 33.5	18 37.2	?	1.0	End obscured by air tremors.
958	Nov. 1	.. .. .	4 14.0	4 16.0	4 19	0.2	Possibly artificial.
959	1	9 46.6	9 57.9	10 02.0	11 05	0.4	
960	8	14 29.8	14 44.0	15 01.0	15 30	0.4	Series of small tremors.
961	9	4 32.0	4 50.7	4 54.2	5 35	1.0	
962	9	9 34.0	9 39.5	9 44.5	9 57	0.2	Broadening of trace.
963	13	16 20.0	16 28.5	17 05.0	18 00	1.1	
964	16	11 48.2	11 57.0	12 00.7	12 31	1.0	
965	18	.. .. .	3 35.0	3 39.0	4 02	0.3	Tremor.
966	18	7 50.6	7 59.3	8 02.0	8 43	0.8	
967	19	.. .. .	13 42.7	13 46.0	13 51	0.2	Do.
968	20	14 08.3	14 20.0	14 27.0	14 55	0.2	Series of small tremors.
969	22	23 14.4	23 20.9	23 25.9	24 30	1.0	
970	25	.. .. .	19 52.0	19 55.0	19 59	0.1	Broadening of line.
971	28	16 01.8	16 13.4	16 19.2	.. ..	2.3	End obscured by air tremors.
972	29	.. .. .	5 11.7	5 18.5	5 37	0.6	
973	Dec. 6	23 25.5	23 43.6	23 48.5	25 15	0.5	
974	10	.. .. .	3 46.8	3 49.5	4 04	0.1	Broadening of line.
975	11	11 34.7	11 54.5	12 04.2	12 53	0.6	Second P. T. 11:46.9.
976	13	22 50.5	23 02.2	23 07.3	24 10	0.9	
977	16	19 23.8	19 39.5	19 42.1	23 22	11.7	Second P. T. 19:31.7.
978	20	5 48.4	6 04.9	6 10.3	7 47	5.0	Second P. T. 5:58.0.
979	20	.. .. .	14 50.0	14 55.0	15 03	0.2	Tremor.
980	23	.. .. .	21 37.4	21 41.0	22 30	0.9	Beginning obscured by air tremors.
981	25	7 22.3	7 25.5	7 26.3	7 50	0.2	
982	25	.. .. .	15 55.0	16 00.0	16 24	0.1	Broadening of line.
983	29	15 42.5	15 46.5	15 51.0	16 56	1.5	Second P. T. 15:45.5.
984	30	9 27.0	9 40.0	9 47.8	10 11	0.4	Tremor.
985	31	6 28.0	6 39.0	6 46.7	9 10	1.6	
986	31	14 35.6	14 39.0	14 41.0	14 48	0.2	Do.
987	1912 Jan. 4	15 55.5	16 00.8	16 06.6	.. ..	5.0	Second P. T. at 15:59.3?
988	16	0 09.6	0 15.2	0 17.0	0 50	0.1	Very small tremors.
989	18	.. .. .	5 57.7	5 58.6	6 00	.. ..
990	20	4 10.1	4 27.5	4 33.7	5 30	2.5	Second P. T. at 4:18.2.
991	20	.. .. .	8 49.7	8 56.3	9 10	0.4	
992	23	.. .. .	19 28.8	19 32.0	20 08	0.3	
993	30	.. .. .	23 40.0	23 44.5	23 55	0.1	
994	31	20 25.7	20 28.6	20 30.5	22 00	4.2	
995	Feb. 3	.. .. .	7 44.5	7 45.7	7 49	0.1	
996	11	23 21.0	23 30.2	23 32.4	23 38	0.3	
997	16	9 43.7	9 52.9	10 00.9	10 57	1.5	
998	25	2 56.9	3 03.8	3 07.4	3 26	0.4	Second P. T. at 3:00.0.
999	25	.. .. .	21 16.0	21 23.6	21 33	0.3	
1000	29	.. .. .	1 24.0	1 29.4	1 33	0.2	
1001	29	3 32.0	3 42.9	3 44.0	3 51	0.2	Second P. T. at 3:36.4.
1002	Mar. 11	10 30.6	10 32.7	10 34.6	11 47	1.0	Not far distant.
1003	13	19 26.5	19 35.5	19 39.8	20 04	0.5	Second P. T. at 19:31.5.
1004	14	6 45.7	7 04.1	7 07.2	7 23	0.1	
1005	16	13 28.8	13 31.4	13 32.4	14 23	1.0	
1006	16	.. .. .	15 05.9	15 06.7	15 18	0.4	
1007	20	.. .. .	20 03.7	.. .. .	20 16	0.1	Merely a widening of line.
1008	22	.. .. .	5 07.0	5 13.0	5 28	0.3	
1009	24	.. .. .	13 13.0	13 19.0	13 28	0.1	
1010	25	4 57.9	5 10.8	5 11.4	5 59	0.6	Second P. T. at 5:06.8.
1011	29	.. .. .	14 12.0	.. .. .	14 18	0.1	Very slight tremors.
1012	30	8 04.2	8 14.4	8 20.4	8 40	0.2	
1013	Apr. 14	.. .. .	13 45.5	13 48.4	13 56	0.2	Very slight. Phases not well marked.
1014	14	22 48.8	22 58.6	23 02.7	23 40	1.4	
1015	15	16 11.0	16 32.8	16 37.0	17 00	0.5	Second P. T. at 16:21.8.



Register of earthquakes—Continued.

No.	Date	First P. T. begin	Large waves begin	Maximum	End	Maximum amplitude	Remarks
	1912	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>mm.</i>	
1016	Apr. 17	3 49.0	4 25.1	4 28.0	4 50	0.8	Second P. T. at 4:11.2.
1017	20	1 41.4	1 58.2	2 04.7	4 22	3.9	Second P. T. at 1:49.3.
1018	24	2 32.8	2 43.4	2 46.9	3 00	0.3	
1019	26	.. ..	14 55.6	14 59.5	15 26	0.1	
1020	29	.. ..	1 17.6	1 19.3	1 26	0.8	See remarks.
1021	May 3	19 22.4	19 37.8	19 43.6	20 35	0.5	
1022	5	.. ..	19 28.4	19 31.0	19 37	0.1	
1023	6	19 23.9	19 37.5	19 48.0	21 49	1.0	Second P. T. at 19:29.8.
1024	10	.. ..	3 03.4	3 10.9	3 20	0.5	
1025	11	.. ..	5 34.3	5 38.0	5 49	0.4	
1026	11	.. ..	23 51.3	24 00.0	25 18	0.2	Series of slight tremors.
1027	15	0 13.7	0 20.8	0 23.3	1 30	0.3	Very slight.
1028	21	.. ..	9 01.7	9 51.4	10 48	0.3	See remarks.
1029	23	2 40.2	2 59.8	3 20.8	6 10	5.4	Second P. T. at 2:50.3.
1030	26	2 38.9	2 55.5	2 58.3	3 15	0.2	Second P. T. at 2:46.0.
1031	28	12 44.3	13 08.3	13 14.6	14 29	4.3	
1032	31	.. ..	20 43.9	20 51.6	21 02	0.1	Merely a broadening of trace.
1033	June 2	12 11.3	.. ..	12 48.3	13 19	0.3	Second P. T. at 12:22.0.
1034	3	.. ..	11 51.7	12 06.0	12 13	0.2	
1035	3	12 37.8	12 47.5	12 54.7	14 10	0.5	Series of slight tremors.
1036	5	11 36.4	11 51.6	11 54.8	12 39	0.6	Second P. T. at 11:44.8.
1037	7	1 12.0	1 15.8	1 17.0	1 25	0.4	See remarks.
1038	7	2 43.6	2 48.6	2 49.9	2 55	0.4	Do.
1039	7	.. ..	3 55.4	4 09.6	4 26	0.2	
1040	7	.. ..	6 48.3	6 51.7	6 59	0.2	
1041	7	.. ..	7 07.2	7 17.5	7 20	0.1	
1042	7	.. ..	7 29.7	7 31.0	7 37	0.1	
1043	7	.. ..	8 15.0	8 18.5	8 25	0.1	
1044	7	.. ..	9 09.2	9 10.6	9 17	0.2	
1045	7	.. ..	10 11.8	10 14.2	10 20	1.2	
1046	7	.. ..	10 50.1	10 52.4	10 58	1.0	
1047	7	.. ..	12 33.0	12 42.0	12 51	0.2	
1048	7	.. ..	14 35.2	14 36.5	14 45	0.2	
1049	7	18 36.1	18 40.9	18 42.8	18 53	1.3	Second P. T. at 18:38.0.
1050	7	.. ..	19 48.2	19 51.0	19 59	0.5	
1051	8	.. ..	0 10.8	.. ..	0 20	0.1	
1052	8	.. ..	0 34.5	0 36.0	0 48	0.2	
1053	8	.. ..	1 11.6	1 12.8	1 16	0.3	
1054	8	.. ..	2 28.8	2 33.1	2 38	0.2	
1055	8	.. ..	3 12.2	3 15.6	3 21	0.2	
1056	8	.. ..	7 03.7	7 09.8	7 12	0.6	
1057	8	.. ..	7 51.2	7 54.0	8 15	2.8	
1058	8	.. ..	9 01.0	9 04.8	10 05	4.0	
1059	8	.. ..	10 49.0	10 50.8	10 54	0.7	
1060	8	13 12.9	13 15.2	13 16.4	15 01	2.3	
1061	9	2 51.5	3 14.0	3 17.5	3 24	0.5	Second P. T. at 3:07.8.
1062	9	.. ..	7 10.4	7 11.5	7 18	0.1	
1063	9	.. ..	8 42.2	8 43.0	8 56	0.1	
1064	9	21 58.8	22 28.0	22 36.2	23 30	0.1	Very slight tremors.
1065	10	16 15.2	16 21.5	16 27.6	19 27	2.4	Second P. T. at 16:19.3.
1066	12	7 17.5	7 20.0	7 21.8	8 43	1.5	
1067	12	12 55.3	13 14.3	13 17.1	15 44	0.5	Second P. T. at 13:03.6.
1068	14	16 17.2	16 33.8	16 37.8	17 04	0.3	
1069	15	0 12.6	0 35.4	0 39.0	1 00	0.4	
1070	17	11 28.5	11 30.7	11 34.6	12 36	0.6	
1071	18	.. ..	12 10.8	12 55.0	14 40	0.4	
1072	27	21 37.1	21 55.8	21 59.1	22 18	0.3	Second P. T. at 21:47.1.
1073	29	.. ..	3 13.8	3 19.2	3 30	0.1	
1074	29	8 14.4	8 35.3	8 39.7	9 21	1.0	
1075	July 1	7 42.5	7 51.7	7 53.8	8 04	0.2	Second P. T. at 7:48.2.
1076	7	8 05.9	8 15.5	8 18.0	11 54	17.6	Second P. T. at 8:12.2.
1077	7	23 02.0	23 11.3	23 12.2	23 45	0.2	Second P. T. at 23:07.2.
1078	8	17 00.4	17 16.5	17 19.0	17 30	0.1	Second P. T. at 17:09.6.
1079	8	22 08.4	22 11.7	22 14.4	23 54	1.0	
1080	17	12 40.0	12 52.1	12 55.0	13 18	0.4	Second P. T. at 12:47.6.
1081	18	21 35.8	22 02.7	22 25.0	23 00	0.1	Second P. T. at 21:47.2.
1082	24	12 12.1	12 21.7	12 23.3	15 01	1.2	
1083	25	.. ..	1 13.4	1 16.0	1 21	0.1	
1084	25	23 17.3	23 32.7	23 41.0	25 00	2.0	Second P. T. at 23:24.2.

Register of earthquakes—Continued.

International
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Centre

No.	Date	First P. T. begin		Large waves begin		Maximum		End	Maximum amplitude	Remarks	
		<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>				<i>h</i>	m
	1912								<i>mm</i>		
1085	July 26	2	32.8	3	00.1	3	11.7	4	03	1.0	Second P. T. at 2:46.2.
1086	26	8	00.0	8	13.8	8	21.8	8	58	0.6	Second P. T. at 8:09.8.
1087	Aug. 1	18	21.2	18	29.6	18	33.6	19	10	0.1	
1083	5	..	..	18	08.2	18	14.5	18	19	0.1	
1089	6	14	03.0	14	21.0	14	25.0	15	05	0.1	Second P. T. at 14:12.8.
1090	6	..	..	16	50.0	16	55.0	17	05	0.1	
1091	6	21	19.7	21	31.0	21	32.5	22	48	2.7	Second P. T. at 21:26.3.
1092	9	1	53.0	2	18.2	2	45.6	6	14	4.8	Second P. T. at 2:05.9.
1093	15	..	..	14	16.0	14	20.8	14	36	0.1	
1094	17	19	23.7	19	48.1	19	58.6	23	07	4.0	Second P. T. at 19:33.3.
1095	18	8	02.8	8	15.0	8	20.5	8	52	0.1	
1096	18	..	..	20	40.8	22	12.6	23	01	0.4	
1097	19	16	30.6	16	45.2	16	52.3	17	29	0.5	Second P. T. at 16:37.6.
1098	21	..	..	10	27.7	10	40.6	11	15	0.3	
1099	21	17	47.4	18	03.0	18	12.8	18	35	0.3	
1100	23	..	..	14	33.5	14	54.3	15	16	0.2	
1101	25	..	..	0	00.6	0	08.0	0	20	0.1	
1102	30	..	..	18	31.4	19	00.0	19	22	0.1	
1103	31	22	32.9	22	45.0	22	53.3	23	56	0.8	Second P. T. at 22:38.5.
1104	Sept. 1	4	14.5	4	25.9	4	26.5	5	52	0.9	Second P. T. at 4:19.2.
1105	4	..	..	2	43.2	3	02.0	3	31	0.1	
1106	5	18	11.8	18	41.6	18	50.0	19	32	0.2	
1107	10	..	..	16	14.4	16	20.0	16	23	0.1	
1108	14	..	..	0	08.0	0	50.0	2	14	0.1	
1109	17	..	..	19	05.4	19	28.0	19	39	0.1	
1110	19	..	..	4	13.3	4	28.7	4	41	0.2	
1111	20	..	..	21	36.6	21	37.6	21	44	0.2	
1112	22	..	..	5	27.5	5	39.5	6	15	0.3	
1113	26	..	..	19	52.7	20	08.0	20	18	0.1	
1114	29	21	02.5	21	20.0	21	28.3	25	04	17.3	Second P. T. at 21:11.2.
1115	Oct. 2	..	..	2	36.6	2	41.3	3	16	0.1	
1116	12	15	28.3	15	36.0	15	42.9	17	24	2.0	Second P. T. at 15:33.9.
1117	13	..	..	16	15.0	16	15.8	16	22	0.1	
1118	18	12	02.1	12	10.3	12	17.7	14	04	2.4	Second P. T. at 12:07.7.
1119	19	..	..	1	16.8	1	30.5	1	38	0.1	
1120	26	9	10.8	9	28.4	9	33.4	10	19	0.7	Second P. T. at 9:17.7.
1121	29	..	..	6	44.7	6	51.0	7	12	0.2	
1122	31	..	..	17	54.9	18	01.4	19	01	1.9	Second P. T. at 17:43.2.
1123	31	..	..	23	13.4	23	15.0	23	22	0.1	
1124	Nov. 2	..	..	13	31.2	13	50.0	14	30	0.3	
1125	3	..	..	4	34.9	4	54.2	5	08	0.1	
1126	3	6	25.2	6	39.7	6	46.4	7	12	0.2	
1127	6	..	..	14	33.1	14	38.0	14	50	0.1	
1128	7	7	47.8	7	53.2	7	56.5	11	32	16.5	
1129	7	16	56.0	17	16.2	17	23.0	..	..	0.5	Second P. T. at 17:05.4.
1130	7	..	..	18	01.3	18	08.0	20	26	0.5	Second P. T. at 17:49.9.
1131	8	..	..	7	29.0	7	33.5	8	57	0.1	
1132	17	..	..	12	03.8	12	08.5	12	26	0.1	
1133	19	14	02.5	14	18.4	14	24.1	15	50	1.0	Second P. T. at 14:13.7.
1134	25	9	18.6	9	29.3	9	32.5	9	55	0.1	
1135	27	..	..	9	33.8	..	..	10	20	0.1	
1136	29	..	..	0	17.2	0	21.0	0	26	0.1	
1137	Dec. 1	8	46.1	9	02.3	9	07.5	9	42	0.3	Second P. T. at 8:57.5.
1138	5	12	38.0	12	42.9	12	43.5	13	37	1.1	Second P. T. at 12:40.9.
1139	6	..	..	14	58.2	15	04.0	15	41	0.4	Second P. T. at 14:45.7.
1140	7	..	..	23	35.3	23	37.7	24	44	0.6	
1141	16	..	..	6	59.2	7	05.0	7	15	0.1	
1142	16	..	..	10	20.8	10	34.0	10	46	0.2	
1143	16	23	47.8	23	59.3	24	02.2	24	35	0.5	
1144	24	0	11.5	0	32.7	0	40.6	1	40	1.0	Second P. T. at 0:18.4.
1145	24	..	..	18	38.7	18	55.5	19	22	0.1	
1146	26	..	..	9	08.1	9	57.8	11	12	0.1	
1147	28	7	04.5	7	21.6	7	56.7	8	50	0.5	
1148	29	21	59.5	22	06.8	22	18.0	22	50	0.2	

REMARKS.

- 37, 849. Beginning obscured by air tremors.
 39. In Asiatic Russia.
 41. Felt at Fairbanks, Alaska.
 58. End obscured by air tremors.



- 867. Maximum occurring during the daily care of instrument.
 - 872. Beginning and end uncertain.
 - 891. Mexican earthquake.
 - 910. Recorded by the magnetograph from 22:05 to 22:11.
 - 924. Possibly artificial.
 - 947. Ended during daily attention to instrument.
 - 953. Beginning and end obscured by air tremors.
 - 987. End obscured by air tremors.
 - 1020. Local shock, recorded on magnetograph at 1:17.4.
 - 1028. Phases not well defined; probably end of distant earthquake.
 - 1037. Recorded on magnetograph at 1:16.2.
 - 1038. Recorded on magnetograph at 2:48.7.
 - 1076. Recorded slightly by *D* variometer of magnetograph.
 - 1078. End of earthquake doubtful on account of occurring at the time of the daily adjustment of instrument.
 - 1092. Probable origin, sea of Marmora.
 - 1117. Local shock; felt on all the islands; also recorded by *D* and *H* variometers of the magnetograph beginning at 16:15.
 - 1122. First preliminary tremors obscured by oscillations of pendulum after winding up paper in the morning.
 - 1123. Merely a slight broadening of the trace.
 - 1125. Phases not distinct.
 - 1129-30. First preliminary tremors of 1130 and end phases of 1129 confused by overlapping.
 - 1135. Series of small tremors; no phases.
 - 1140. Preliminary tremors hidden by oscillations to determine period of pendulum.
- No record from December 3, 17:26, to December 4, 4:10.

MAGNETIC STORMS.

Magnetic disturbances of considerable magnitude were recorded at the times tabulated below. The relative magnitude of the disturbance is indicated by the figures 1, 2, 3, 4. When the storm began abruptly the time of beginning is given to the nearest minute.

On the succeeding pages will be found reproductions of the magnetograms showing the principal magnetic storms. A storm selected for reproduction is indicated in the table by an asterisk after the date. For convenience in comparing with similar reproductions for other observatories, the time scale has been marked for Greenwich mean time. An upward motion of the curves corresponds to decreasing east declination, increasing *H* and decreasing *Z*.

Principal magnetic disturbances.

Date	L. M. T. of beginning		Duration in hours	Relative magnitude	Date	L. M. T. of beginning		Duration in hours	Relative magnitude
	<i>h</i>	<i>m</i>				<i>h</i>	<i>m</i>		
1911					1911				
Jan. 1	15		48	1	Sept. 19*	7		67	1
8	6		68	1	Oct. 9*	22		30	1
23	22		104	1	15	23		60	1
Feb. 4	6		56	1	Nov. 8	3	11	34	1
12	8		66	2	12	4		58	1
15	17		75	1	Dec. 10*	5		34	2
20*	10		216	3					
Mar. 2	20		85	2	1912				
12	19		67	1	Jan. 12	10		22	1
19*	14	16	220	3	Feb. 25	12		26	1
Apr. 8*	0	48	27	2	Mar. 7	16		36	1
9	11	48	26	1	Apr. 9	12		19	1
15	11		184	2	14	0		58	1
27	8		44	1	May 4	12		16	1
29	19		22	1	11	8		62	1
May 6	4		44	1	30	21		30	1
14*	6		70	2	June 7	8		76	2
29	4	00	72	1	July 3	8		48	1
June 3	20		54	1	30	18		26	1
9	6		134	2	Aug. 5*	6		26	1
20	11		40	1	Sept. 17*	1		26	1
30	11	16	40	1	23	15		26	1
July 5	23		62	1	30	11		20	1
16	22		72	1	Oct. 13	19		54	1
27	12		36	1	Nov. 9	9		48	1
Aug. 22*	21		52	2	Dec. 6*	7		28	1
28	18		32	1	22	4		42	1