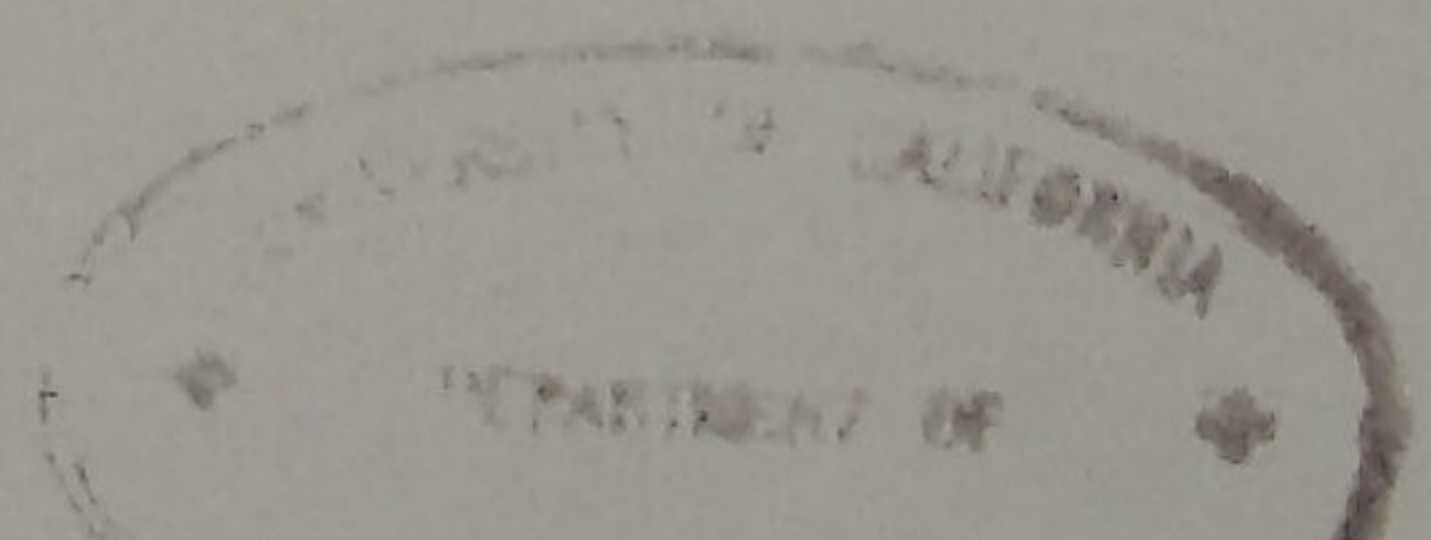


ANNUAL REPORT
OF THE
METEOROLOGICAL
AND THE
SEISMOLOGICAL OBSERVATIONS
MADE AT THE
INTERNATIONAL LATITUDE OBSERVATORY
OF MIZUSAWA
FOR
THE YEAR 1923.

LATITUDE 39° 8' N., LONGITUDE 141° 8' E.,
HEIGHT ABOVE MEAN SEA LEVEL 61 METRES.

PUBLISHED BY THE INTERNATIONAL LATITUDE OBSERVATORY
OF MIZUSAWA.

1924



The present report gives the results of the meteorological and seismological observations made at this observatory during the year 1923. No alteration has been made in the nature and methods of observation. The observations and the calculations were made by Messrs. K. Torihata, S. Satô and I. Kumagai under the superintendence of Dr. T. Ikeda.

The followings are to be noted with respect to the meteorological observations:

Hours of observations.—*Japanese Central Standard Time* (i. e. mean time of the meridian 9h east from Greenwich) is adopted.

Air Pressure.—The barometric readings in millimetres are reduced to the freezing point of water; the corrections to sea level and to standard gravity are given at the bottom of the page for each month.

Air and Earth Temperatures.—The degrees are given in Centigrade.

Wind.—The velocity is expressed in metres per second. The direction was observed relative to the sixteen points of the compass.

Cloud.—The amount is estimated by the scale 0-10, the forms are those of the *International classification*, and the direction of motion is indicated relative to the sixteen points of the compass.

Tension of Water Vapour.—is given in millimetres.

Relative Humidity.—is given in percentages.

Precipitation.—The amount is given in millimetres. In the total number of days only those, on which the amount is 0.1mm or more in the day, are reckoned. But all the days, on which snow, hail, or graupel fell, are included without reference to the amount.

Clear and Cloudy Days.—The amount of cloud is less than 2, 2 exclusive, for the former; and more than 8, 8 inclusive, for the latter.

Duration of Sunshine.—is recorded by a Jordan sunshine-recorder.

Amount of Evaporation.—is given in millimetres, for each day,—that is from 10h of the preceding day to 10h of the day in question, according to the instruction of the Central Meteorological Observatory in Tôkyô.

The heights of the meteorological instruments are as follows,

Barometer.—63.1m above sea level,

Air temperature thermometer.—1.7m above the ground,

Anemometer.—15.4m above the ground,

Wind vane.—16.6m above the ground.

In recording meteorological phenomena the following symbols are used:—

●	Rain	→	Snow drift	C	Cirrus
*	Snow	←	Ice crystals	CS	Cirro-stratus
⚡	Thunder storm	⊙	Solar corona	CK	Cirro-cumulus
⚡	Thunder without lightning	⊕	Solar halo	KC	Cumulo-cirrus
⚡	Lightning without thunder	☉	Lunar corona	SC	Strato-cirrus
△	Graupel	☾	Lunar halo	SK	Strato-cumulus
▲	Hail	↙	Gales	N	Nimbus
≡	Mist, fog	∩	Rainbow	K	Cumulus
⊥	Hoar frost	☽	Aurora	KN	Cumulo-nimbus
∩	Dew	∞	Dust haze	S	Stratus
∨	Silver thaw	⊠	Snow lying	~	Wave cloud
~	Glazed frost	⊥	Ice Column in the ground	☾	Zodiacal light

The descriptions of the meteorological instruments are found in the annual reports for the years 1902, 1904, 1905, 1910, and 1916.

The seismological instruments in use are two Omori's horizontal pendulums, of the same type as that described in p. 8 of No. 5, "Publication of the Earthquake Investigation Committee in Foreign Language," one serving to register the EW component, and the other the NS component, of seismological movements.

The time adopted in the Seismological observations is *Greenwich Local Time*.

	EW Component		NS Component
	Apparatus		Apparatus
Period of free oscillation	16 seconds		37 seconds
Multiplication of the pointer	100 times		20 times
Weight of heavy cylinder	45.0 kilograms		17.6 kilograms
Horizontal distance of the centre of the cylinder from the point of support	20 Centimetres		75 Centimetres
Vertical distance between the points of support and of suspension	104 Centimetres		104 Centimetres

November, 1924.

H. Kimura, *Rigakuhakushi*

Director of the International Latitude Observatory
in Mizusawa.

SEISMOLOGICAL OBSERVATIONS.



TABLE A.

(Earthquakes)

No.	Date 1923	P				S				L				Duration of Total Earthquake (mean)	Maximum Range of Motion			Character of Motion	Intensity	Remarks	
		E	W	N	S	E	W	N	S	E	W	N	S		E	W	N				S
1	Jan. 1	h	m	s	m	s	m	s	m	s	m	s	m	s	m	mm	mm	mm	Slow	Feeble	
2	5	20	26	52	—	—	27	05	—	—	—	—	—	—	3.0	0.01	—	"	"		
3	9	6	00	44	—	—	01	16	—	—	—	—	—	—	3.0	0.01	—	"	"		
4	9	13	32	16	32	33	32	38	32	53	—	—	—	—	3.9	0.02	0.03	"	"		
5	14	22	06	15	06	04	06	51	06	50	—	—	—	—	4.9	0.02	0.04	"	"		
		5	52	22	52	21	52	59	52	59	—	—	—	—	14.6	0.41	0.73	"	"		
6	15	6	43	21	43	19	?	?	—	—	—	—	—	3.0	0.01	0.01	"	"			
7	16	8	?	?	?	?	34	14	34	15	—	—	—	?	0.03	0.03	"	"			
8	26	3	27	12	?	?	27	29	?	?	—	—	—	?	0.01	0.01	"	"			
9	26	3	?	?	?	?	?	?	?	?	—	—	—	?	0.02	0.04	"	"			
10	26	12	36	19	36	20	36	35	?	?	36	54	36	55	5.3	0.03	0.05	"	"		
11	26	21	31	49	31	50	32	10	32	08	—	—	—	—	?	0.01	0.03	"	"		
12	26	21	?	?	?	?	?	?	?	?	—	—	—	—	?	0.03	0.04	"	"		
13	27	4	12	45	13	01	13	10	13	12	—	—	—	—	4.8	0.07	0.11	"	"		
14	27	5	04	06	04	07	04	29	04	31	—	—	—	—	10.8	?	0.90	Quick	"	Felt	
15	27	8	47	18	—	—	47	30	—	—	—	—	—	—	2.0	?	—	Slow	"		
16	29	12	18	29	18	30	18	45	18	49	19	09	19	09	5.2	0.01	0.01	"	"		
17	29	9	54	22	—	—	54	56	—	—	—	—	—	—	3.7	0.03	0.05	"	"		
18	31	20	45	50	45	51	46	15	46	20	—	—	—	—	6.4	0.10	0.20	"	"		
19	Feb. 1	0	20	59	—	—	21	18	—	—	—	—	—	—	3.1	0.01	—	"	"		
20	1	4	32	35	32	36	32	53	32	58	—	—	—	—	3.8	0.03	0.02	"	"		
21	1	13	01	06	—	—	01	13	—	—	—	—	—	—	1.5	0.00	—	"	"		
22	1	19	35	43	35	46	?	?	44	29	44	21	44	21	32.5	?	?	"	"		
23	2	1	10	53	10	54	14	44	?	?	17	19	17	19	72.6	?	?	"	"		
24	2	5	12	11	12	11	?	?	16	09	16	13	16	13	111.9	?	2.85	"	"		
25	2	6	59	02	—	—	59	17	—	—	—	—	—	—	2.4	0.01	—	"	"		
26	2	17	43	42	—	—	43	54	—	—	—	—	—	—	2.1	0.02	—	"	"		
27	3	16	06	16	06	17	10	18	10	32	—	—	—	—	11.0	?	?	"	"		
28	3	18	47	26	47	26	51	04	51	12	—	—	—	—	105.7	?	?	"	"		
29	4	2	53	08	—	—	57	06	—	—	—	—	—	—	?	?	—	"	"		
30	4	13	44	24	—	—	44	40	—	—	—	—	—	—	5.3	0.01	—	"	"		
31	5	21	27	39	27	42	28	01	28	05	—	—	—	—	6.6	0.15	0.28	"	"		
32	5	21	?	?	—	—	?	?	—	—	—	—	—	—	?	0.01	—	"	"		
33	10	19	42	25	—	—	42	33	—	—	—	—	—	—	2.8	0.01	—	"	"		
34	11	18	27	04	27	06	27	32	27	49	—	—	—	—	6.7	0.11	0.12	"	"		
35	11	22	50	34	50	31	54	32	54	30	57	06	?	?	43.8	?	0.06	"	"		
36	12	2	03	21	03	23	07	11	07	10	09	44	09	35	42.5	?	?	"	"		
37	12	12	31	23	?	?	32	29	32	30	—	—	—	—	6.9	0.04	?	"	"		
38	16	9	?	?	—	—	21	54	—	—	—	—	—	—	?	0.03	—	"	"		
39	19	6	24	55	?	?	?	?	24	57	—	—	—	—	?	?	0.04	"	"		
40	20	18	?	?	—	—	24	57	—	—	—	—	—	—	?	?	—	"	"		
41	22	9	23	25	23	26	24	02	24	00	—	—	—	—	5.9	0.15	0.18	"	"		
42	23	5	59	45	59	45	65	51	65	52	?	?	68	53	32.2	?	?	"	"		
43	Mar. 1	11	11	01	—	—	11	18	—	—	—	—	—	—	2.1	0.01	—	"	"		
44	2	9	51	04	—	—	51	12	—	—	—	—	—	—	2.2	0.02	—	"	"		
45	2	16	55	57	55	56	61	40	61	38	64	49	65	15	54.4	0.01	0.65	"	"		
46	3	10	26	29	26	29	28	00	27	58	—	—	—	—	5.9	0.03	0.04	"	"		
47	3	16	07	01	07	00	07	22	07	23	—	—	—	—	9.3	0.01	0.01	"	"		
48	4	5	40	02	40	02	40	15	40	13	—	—	—	—	2.5	0.01	0.01	"	"		
49	7	18	40	03	46	11	47	48	47	50	—	—	—	—	7.5	0.04	0.04	"	"		
50	8	5	13	35	13	33	13	43	13	48	—	—	—	—	4.8	0.08	0.08	"	"		
51	8	15	19	13	19	11	19	20	19	28	—	—	—	—	3.5	0.01	0.01	"	"		
52	9	17	31	01	31	02	31	35	31	36	—	—	—	—	6.1	0.01	0.03	"	"		
53	10	22	23	42	—	—	24	04	—	—	—	—	—	—	3.6	0.00	—	"	"		
54	11	10	14	19	14	19	15	05	15	03	—	—	—	—	4.5	0.01	0.02	"	"		
55	12	9	43	04	43	06	?	?	43	37	—	—	—	—	14.7	?	1.92	Quick	Weak	Felt	

TABLE A.

(Earthquakes)

No.	Date 1923	P				S				L				Duration of Total Earthquake (mean)	Maximum Range of Motion			Character of Motion	Intensity	Remarks
		E	W	N	S	E	W	N	S	E	W	N	S		E	W	N			
56	Mar. 16	h	m	s	m	s	m	s	m	s	m	s	m	s	m	mm	mm	Slow	Feeble	
57	19	22	08	33	08	33	14	06	14	06	18	46	18	46	50.9	0.01	0.15	"	"	
58	20	8	49	31	?		19	50	19	52	—	—	—	—	8.0	0.01	0.03	"	"	
59	21	1	30	39	49	33	50	34	50	37	—	—	—	—	6.4	0.05	0.05	"	"	
60	21	8	31	11	30	40	31	05	31	06	—	—	—	—	7.3	0.03	0.04	"	"	
					31	10	33	07	33	07	—	—	—	—	8.5	0.02	0.04	"	"	
61	22	7	51	08	?		?		?		—	—	—	—	?	0.03	0.06	"	"	
62	22	7	54.8		?		?		?		—	—	—	—	6.2	0.02	0.02	"	"	
63	22	13	55	58	54.7		56	03	56	07	—	—	—	—	2.9	0.03	0.05	Quick	"	Felt
64	22	14	03	01	?		?		?		—	—	—	—	3.3	0.01	0.02	Slow	"	
65	24	12	46	58	46	57	52	18	52	15	58	00	56	09	68.1	?	4.28	"	"	
66	25	2	01	40	?		?		?		—	—	—	—	2.8	?	—	"	"	
67	26	6	26	39	26	40	26	54	26	52	—	—	—	—	5.2	0.07	0.07	"	"	
68	30	13	51	02	51	01	51	29	51	28	—	—	—	—	9.7	0.09	0.10	"	"	
69	31	7	29	36	?		30	07	30	10	—	—	—	—	3.8	0.01	0.01	"	"	
70	Apr. 2	10	28	36	28	37	29	51	29	51	—	—	—	—	6.3	0.01	0.02	"	"	
71	4	5	33	31	33	29	33	52	33	54	—	—	—	—	3.8	0.01	0.01	"	"	
72	5	21	55	30	—	—	55	44	—	—	—	—	—	—	2.1	0.00	—	"	"	
73	7	6	27	35	27	35	27	36	27	38	—	—	—	—	1.3	0.01	0.02	"	"	
74	11	12	29	57	29	58	30	06	30	08	—	—	—	—	2.5	0.08	0.06	Quick	"	Felt
75	13	15	35	51	35	51	39	56	39	56	41	46	41	54	47.2	0.17	3.50	Slow	"	
76	14	11	19	14	?		19	25	19	23	—	—	—	—	3.1	0.02	0.02	"	"	
77	14	22	15	30	?		15	40	15	41	—	—	—	—	2.1	0.01	0.01	"	"	
78	16	15	09	38	09	38	10	19	10	13	—	—	—	—	6.0	0.04	0.07	"	"	
79	23	2	21	52	—	—	22	14	—	—	—	—	—	—	2.0	0.00	—	"	"	
80	23	2	24	03	—	—	25	18	—	—	—	—	—	—	2.7	0.01	—	"	"	
81	23	3	20	57	20	57	24	43	24	22	28	21	27	40	35.9	0.03	0.59	"	"	
82	27	7	16	25	16	26	16	49	16	48	—	—	—	—	13.5	0.48	0.51	"	"	
83	29	12	22	03	22	04	22	24	22	23	—	—	—	—	5.4	0.07	0.09	"	"	
84	May 2	14	35	46	35	47	36	10	36	11	—	—	—	—	3.9	0.01	0.01	"	"	
85	3	14	09	28	09	28	09	47	09	48	—	—	—	—	3.4	0.01	0.01	"	"	
86	4	16	34	51	34	48	41	16	41	18	?		46.6	?	?	0.46	—	"	"	
87	4	17	31	12	?		31	50	31	49	—	—	—	—	?	0.05	0.05	"	"	
88	5	19	30	35	?		31	17	31	19	—	—	—	—	3.9	0.01	0.01	"	"	
89	6	11	26	29	26	29	27	13	27	15	—	—	—	—	5.0	0.02	0.04	"	"	
90	7	3	03	05	03	06	03	38	03	38	—	—	—	—	7.8	0.05	0.05	"	"	
91	7	13	11	21	11	21	11	47	11	47	—	—	—	—	11.5	0.41	0.45	Quick	"	Felt
92	10	13	35	50	35	47	36	21	36	21	—	—	—	—	6.0	0.03	0.04	Slow	"	
93	15	15	11	36	?		12	07	12	06	—	—	—	—	5.4	0.01	0.01	"	"	
94	19	16	18	14	?		18	26	18	28	—	—	—	—	3.6	0.01	0.01	"	"	
95	21	13	48	38	48	40	49	01	49	05	—	—	—	—	3.9	0.03	0.03	"	"	
96	22	11	51	14	—	—	51	25	—	—	—	—	—	—	1.6	0.01	—	"	"	
97	22	12	49	43	—	—	49	54	—	—	—	—	—	—	3.5	0.00	—	"	"	
98	23	20	08	50	—	—	08	58	—	—	—	—	—	—	2.1	0.01	—	"	"	
99	23	22	41	47	41	47	45	42	45	44	49	44	49	42	90.0	0.01	0.33	"	"	
100	24	10	33	34	33	37	34	05	34	10	—	—	—	—	4.8	0.02	0.02	"	"	
101	26	1	13	04	13	05	13	36	13	35	—	—	—	—	4.3	0.01	0.01	"	"	
102	26	3	14	16	14	15	14	50	14	50	—	—	—	—	25.0	0.75	0.94	"	"	
103	26	4	05	13	05.4		05	54	05	53	—	—	—	—	5.2	0.03	0.04	"	"	
104	26	5	30	10	30	09	30	45	30	45	—	—	—	—	7.4	0.12	0.11	"	"	
105	26	5	44	08	44	07	44	30	44	32	—	—	—	—	3.7	0.01	0.01	"	"	
106	26	10	24	13	24	19	24	49	24	49	—	—	—	—	4.3	0.01	0.04	"	"	
107	26	17	05	26	05	27	05	41	?		—	—	—	—	3.3	0.00	0.01	"	"	
108	26	20	23	11	23.3		28	39	28	40	—	—	—	—	4.4	0.01	0.02	"	"	
109	28	4	45	30	—	—	45	41	—	—	—	—	—	—	2.4	0.01	—	"	"	
110	31	5	56	37	56	37	57	00	57	01	—	—	—	—	?	0.34	0.55	"	"	

TABLE A.

(Earthquakes)

No.	Date 1923	P				S				L				Duration of Total Earthquake (mean)	Maximum Range of Motion				Character of Motion	Intensity	Remarks
		E	W	N	S	E	W	N	S	E	W	N	S		E	W	N	S			
111	May 31	h	m	s	m	s	m	s	m	s	m	s	m	s	m	mm	mm	Slow	Feeble		
112	31	6	11	28	11	28	11	58	12	02	—	—	—	—	?	0.27	0.35	"	"		
113	31	6	20	02	20	02	20	27	20	28	—	—	—	—	5.9	0.05	0.06	"	"		
114	June 1	8	23	46	23.9	—	—	24	15	24	17	—	—	—	4.0	0.01	0.02	"	"		
115	1	17	25	36	—	—	25	48	—	—	—	—	—	—	?	?	—	Quick	Weak	Felt	
	1	21	00	58	09	58	01	24	01	26	—	—	—	—	7.3	0.05	0.06	Slow	Feeble		
116	1	22	29	04	—	—	29	41	—	—	—	—	—	—	3.4	0.00	—	"	"		
117	2	0	30	08	30.3	—	30	27	30	28	—	—	—	—	10.6	0.05	0.06	"	"		
118	2	0	47	53	47	52	48	19	?	—	—	—	—	—	5.3	0.01	0.02	"	"		
119	2	1	12	18	?	—	13	01	?	—	—	—	—	—	4.2	0.01	0.01	"	"		
120	2	1	?	—	42	28	42.7	—	43	14	—	—	—	—	3.7	0.02	0.04	"	"		
121	2	2	26	38	—	—	?	—	—	—	—	—	—	—	2.7	0.01	—	"	"		
122	2	2	53	35	?	—	53	55	53	55	—	—	—	—	3.6	0.01	0.01	"	"		
123	2	3	13	26	13	27	14	07	14	05	—	—	—	—	8.6	0.15	0.20	"	"		
124	2	3	55	46	55	47	56	24	56	26	—	—	—	—	5.7	0.02	0.02	"	"		
125	2	4	54	39	—	—	55	00	—	—	—	—	—	—	4.4	0.00	—	"	"		
126	2	7	52	18	52	20	?	—	?	—	—	—	—	—	3.5	0.01	0.01	"	"		
127	2	21	59	29	59	32	60	07	60	08	—	—	—	—	6.7	0.07	0.10	"	"		
128	3	2	03.3	—	—	—	?	—	—	—	—	—	—	—	2.6?	0.01	—	"	"		
129	3	3	50	16	50	15	50	33	50	32	—	—	—	—	7.5	0.03	0.04	"	"		
130	4	0	14	48	14	48	15	11	15	12	—	—	—	—	5.9	0.05	0.05	"	"		
131	4	4	?	—	40	50	41	13	41	11	—	—	—	—	7.6	0.05	0.11	"	"		
132	4	7	07	51	07	56	08	16	08	22	—	—	—	—	5.1	0.02	0.02	"	"		
133	4	11	29	08	29	10	29	30	29	32	—	—	—	—	5.7	0.01	0.01	"	"		
134	4	12	53	20	53.5	—	53	51	53	55	—	—	—	—	6.7	0.01	0.04	"	"		
135	4	18	53	14	53	15	53	51	53	49	—	—	—	—	6.0	0.04	0.05	"	"		
136	4	19	00	18	00	20	00	41	00	41	—	—	—	—	4.8	0.04	0.05	"	"		
137	4	23	15	40	15	42	15	54	?	—	—	—	—	—	5.2	0.02	0.03	"	"		
138	5	2	07	51	07	49	08	32	08	30	—	—	—	—	12.2	0.12	0.16	"	"		
139	6	17	37	21	37	21	37	55	?	—	—	—	—	—	38.7	0.41	0.42	"	"		
140	9	8	58	57	58	59	60	15	60	14	—	—	—	—	4.7	0.02	0.02	"	"		
141	10	13	14	36	—	—	15	07	—	—	—	—	—	—	6.6	0.02	—	"	"		
142	12	16	50	30	50	29	51	21	51	22	—	—	—	—	7.7	0.07	0.11	"	"		
143	13	11	32	41	?	—	33	15	33	18	—	—	—	—	3.4	0.02	0.01	"	"		
144	15	11	09	51	09	51	10	24	10	23	—	—	—	—	7.8	0.14	0.15	"	"		
145	16	13	06	28	06	27	07	20	07	21	—	—	—	—	10.4	0.06	0.09	"	"		
146	18	8	27	10	27	07	?	—	?	—	36	11	36	11	33.9	0.01	0.05	"	"		
147	18	11	28	56	23	56	29	28	29	27	—	—	—	—	8.0	0.09	0.11	"	"		
148	19	7	03	33	03	32	?	—	?	—	—	—	—	—	5.0	0.01	0.01	"	"		
149	19	20	48	47	?	—	49	16	49	17	—	—	—	—	4.4	0.02	0.03	"	"		
150	20	1	50	11	?	—	50	32	50	32	—	—	—	—	3.8	0.02	0.02	"	"		
151	20	4	56	05	?	—	56	30	?	—	—	—	—	—	5.7	0.02	0.01	"	"		
152	21	21	36	50	—	—	37	13	—	—	—	—	—	—	3.2	0.01	—	"	"		
153	22	6	52	12	52	13	58	13	58	14	64	15	64	16	51.0	0.53	3.14	"	"		
154	26	11	10	40	10	41	11	07	11	08	—	—	—	—	4.3	0.01	0.01	"	"		
155	28	7	48	54	48	54	49	21	49	21	—	—	—	—	4.7	0.03	0.04	"	"		
156	28	10	27	11	27.3	—	27	34	27	35	—	—	—	—	3.3	0.01	0.02	"	"		
157	29	10	50	15	50	14	52	22	52	23	—	—	—	—	?	0.06	0.08	"	"		
158	29	10	55	59	55	59	58	03	58	04	—	—	—	—	6.7	0.11	0.16	"	"		
159	29	11	41	10	?	—	41	34	41	36	—	—	—	—	2.6	0.01	0.01	"	"		
160	30	0	19	23	—	—	19	38	—	—	—	—	—	—	2.7	0.01	—	"	"		
161	July 30	23	18	50	18	52	19	16	19	15	—	—	—	—	3.9	0.03	0.04	"	"		
162	1	7	25	13	25	12	25	51	25	52	—	—	—	—	4.2	0.01	0.02	"	"		
163	2	2	36	51	36	51	40	53	40	54	44	33	44	39	27.5	0.00	0.10	"	"		
164	2	18	12	49	—	—	13	00	—	—	—	—	—	—	1.7	0.00	—	"	"		
165	7	14	30	03	?	—	30	34	30	36	—	—	—	—	2.8	0.01	0.01	"	"		

TABLE A.

(Earthquakes)

No.	Date 1923	P				S				L				Duration of Total Earthquake (mean)	Maximum Range of Motion				Character of Motion	Intensity	Remarks	
		E	W	N	S	E	W	N	S	E	W	N	S		E	W	N	S				
166	July 9	h	m	s	m	s	m	s	m	s	m	s	m	s	m	mm	mm	mm	mm	Slow	Feeble	
167	10	22	13	54	13	56	14	27	14	25	—	—	—	—	5.6	0.09	0.15	—	"	"		
168	12	2	22	19	—	—	22	46	—	—	—	—	—	?	0.01	—	—	—	"	"		
169	13	16	32	16	32	17	32	20	32	21	—	—	—	1.6	0.02	0.01	—	—	"	"		
170	13	11	16	27	16	25	20	47	20	50	—	—	—	63.6	?	4.79	—	—	"	"		
	13	17	03	22	?	?	03	30	03	29	—	—	—	2.0	0.07	0.05	—	—	"	"		
171	13	23	59	09	59	09	61	36	61	34	64	15	64	15	24.9	0.01	0.12	—	"	"		
172	20	16	51	28	51	27	52	44	52	44	—	—	—	7.6	0.08	0.11	—	—	"	"		
173	20	19	01	23	—	—	01	50	—	—	—	—	—	3.2	0.01	—	—	—	"	"		
174	20	21	41	30	41	30	41	56	41	59	—	—	—	6.0	0.05	0.05	—	—	"	"		
175	21	8	31	32	31	30	32	13	32	11	—	—	—	10.3	0.07	0.06	—	—	"	"		
176	22	14	23	37	23	37	?	?	?	?	27	57	27	57	30.7	0.01	0.57	—	"	"		
177	23	4	03	09	03	09	03	32	03	32	—	—	—	2.9	0.02	0.05	—	—	"	"		
178	25	21	57	17	—	—	57	47	—	—	—	—	—	4.9	0.00	—	—	—	"	"		
179	26	3	13	05	13	07	14	18	14	18	—	—	—	14.2	0.02	0.03	—	—	"	"		
180	26	23	39	09	39	10	40	46	40	45	—	—	—	7.3	0.07	0.07	—	—	"	"		
181	Aug. 28	10	49	52	?	?	51	05	51	06	—	—	—	5.0	0.01	0.01	—	—	"	"		
182	1	5	09	49	?	?	13	14	13	15	—	—	—	9.2	0.02	0.02	—	—	"	"		
183	1	6	15	14	?	?	15	31	15	31	—	—	—	3.5	0.03	0.05	—	—	"	"		
184	6	15	25	01	25	01	25	23	25	24	—	—	—	7.6	0.13	0.15	—	—	"	"		
185	8	8	34	41	34	41	?	?	?	?	—	—	—	3.4	0.01	0.01	—	—	"	"		
186	10	0	59	24	?	?	59	51	59	53	—	—	—	2.3	0.05	0.01	—	—	"	"		
187	12	0	39	02	39	00	39	15	39	15	—	—	—	2.4	0.03	0.02	—	—	"	"		
188	12	8	06	40	06	40	06	44	06	43	—	—	—	3.1	0.11	0.19	—	—	Quick	Weak	Felt	
189	12	10	10	16	10	13	13	33	13	28	16	31	16	32	30.8	?	0.08	—	Slow	Feeble		
190	14	21	24	54	24	59	25	29	25	35	—	—	—	4.3	0.03	0.02	—	—	"	"		
191	15	10	35	48	?	?	36	00	35	59	—	—	—	2.2	0.01	0.01	—	—	"	"		
192	16	6	?	?	—	—	10	33	—	—	—	—	—	?	0.01	—	—	—	"	"		
193	16	20	24	57	24	55	26	42	26	43	—	—	—	23.3	0.03	0.04	—	—	"	"		
194	17	3	47.9	?	50	41	49.6	?	52	28	—	—	—	12.8	0.02	0.01	—	—	"	"		
195	17	11	24	34	—	—	24	59	—	—	—	—	—	3.8	0.01	—	—	—	"	"		
196	18	1	07	41	—	—	07	51	—	—	—	—	—	3.0	0.01	—	—	—	"	"		
197	19	?	?	?	—	—	?	?	—	—	—	—	—	?	0.01	—	—	—	"	"		
198	19	22	23	46	23	44	24	10	24	10	—	—	—	3.9	0.01	0.11	—	—	"	"		
199	22	14	47	55	47	55	49	40	49	40	—	—	—	6.8	0.03	0.04	—	—	"	"		
200	24	1	15	43	15	44	16	07	16	08	—	—	—	11.7	0.42	0.68	—	—	Quick	Weak	Felt	
201	25	15	02.9	?	—	—	03.1	?	—	—	—	—	—	3.6?	0.01	—	—	—	Slow	Feeble		
202	25	18	?	?	?	?	?	?	?	?	—	—	—	?	?	0.01	—	—	"	"		
203	27	15	?	?	10	41	?	?	10	44	—	—	—	1.2	?	0.01	—	—	"	"		
204	31	20	35	34	35	35	35	53	35	57	—	—	—	7.9	0.16	0.19	—	—	"	"		
205	Sept. 1	2	59	38	59	39	?	?	?	?	—	—	—	?	?	?	?	?	Quick	Weak	Felt	
206	1	4	21	32	—	—	22	22	—	—	—	—	—	?	0.04	—	—	—	Slow	Feeble		
207	1	4	27	24	—	—	28	16	—	—	—	—	—	?	0.05	—	—	—	"	"		
208	1	4	31	53	31	55	32	48	32	45	—	—	—	?	?	—	—	—	"	"		
209	1	5	?	?	?	?	?	?	15	03	—	—	—	?	?	0.05	—	—	"	"		
210	1	5	?	?	23	43	?	?	24	34	—	—	—	?	?	1.10	—	—	"	"		
211	1	5	?	?	?	?	?	?	55	43	—	—	—	?	?	0.06	—	—	"	"		
212	1	6	?	?	06	15	?	?	07	05	—	—	—	?	?	0.18	—	—	"	"		
213	1	6	?	?	?	?	?	?	15	09	—	—	—	?	?	0.09	—	—	"	"		
214	1	6	?	?	20	20.2	?	?	20	52	—	—	—	?	?	0.40	—	—	"	"		
215	1	6	?	?	?	?	?	?	41	00	—	—	—	?	?	0.02	—	—	"	"		
216	1	6	?	?	57	33	58	44	58	30	—	—	—	?	?	0.03	—	—	"	"		
217	1	7	24	48	25	05	25	52	25	49	—	—	—	6.5	0.02	0.05	—	—	"	"		
218	1	7	39	13	39	12	?	?	40	12	—	—	—	?	—	1.71	—	—	"	"		
219	1	8	12	09	—	—	13	04	—	—	—	—	—	?	0.03	—	—	—	"	"		
220	1	11	43	01	—	—	43	56	—	—	—	—	—	?	0.01	—	—	—	"	"		

18 more feeble earthquakes were recorded on Sept. 1st, but owing to the confusion of the lines on the Seismogram the times could not be read.

TABLE A.

(Earthquakes)

No.	Date 1923	P				S				L				Duration of Total Earthquake (mean)	Maximum Range of Motion				Character of Motion	Intensity	Remarks
		E	W	N	S	E	W	N	S	E	W	N	S		E	W	N	S			
221	Sept. 1	h	m	s	m	s	m	s	m	s	m	s	m	s	m	mm	mm	Slow	Feeble		
222	1	12	?												?	0.01	—	"	"		
223	1	13	?			04	42	—	—	—	—	—	—	?	0.01	—	"	"			
224	1	13	—	—	23	18	—	—	24	26	—	—	—	8.5	—	0.11	"	"			
225	1	13	—	—	—	—	34	45	—	—	—	—	—	?	0.01	—	"	"			
226	1	13	?		—	—	40	33	—	—	—	—	—	?	0.01	—	"	"			
226	1	13	53	37	53	36	54	42	54	39	—	—	—	?	?	0.03	"	"			
227	1	14	?		—	—	32	13	—	—	—	—	—	?	0.01	—	"	"			
228	1	15	42	01	?		42	49	42	48	—	—	—	?	0.03	0.04	"	"			
229	1	16	13	03	—	—	14	06	—	—	—	—	—	?	0.01	—	"	"			
230	1	16	36	57	—	—	37	53	—	—	—	—	—	4.2	0.01	—	"	"			
231	1	17	?		—	—	01	46	—	—	—	—	—	?	0.02	—	"	"			
232	1	17	03	49	—	—	04	47	—	—	—	—	—	8.6	0.10	—	"	"			
233	1	17	14	32	—	—	15	22	—	—	—	—	—	4.3	0.01	—	"	"			
234	1	18	01	40	—	—	02	27	—	—	—	—	—	?	0.01	—	"	"			
235	1	18	?		—	—	38	02	—	—	—	—	—	?	0.01	—	"	"			
236	1	19	09	33	—	—	10	26	—	—	—	—	—	?	0.07	—	"	"			
237	1	19	?		—	—	15	21	—	—	—	—	—	?	0.02	—	"	"			
238	1	20	16	00	—	—	16	52	—	—	—	—	—	?	0.01	—	"	"			
239	1	21	09	43	?		10	37	10	37	—	—	—	?	0.00	0.02	"	"			
240	1	21	13	13	?		13	57	13	57	—	—	—	4.6	0.01	0.01	"	"			
241	1	21	49	34	49	35	50	28	50	27	—	—	—	8.3	0.03	0.10	"	"			
242	1	22	11	53	11	49	12	47	12	50	—	—	—	6.9	0.04	0.05	"	"			
243	1	22	51	45	?		52	33	52	34	—	—	—	5.2	0.02	0.01	"	"			
244	1	23	?		—	—	02	24	—	—	—	—	—	?	0.01	—	"	"			
245	2	0	35	13	?		36	07	?		—	—	—	?	0.01	0.02	"	"			
246	2	1	00	58	?		01	59	01	55	—	—	—	6.1	0.03	0.06	"	"			
247	2	1	?		—	—	?		—	—	—	—	—	?	0.01	—	"	"			
248	2	2	20	03	—	—	?		—	—	—	—	—	?	0.02	—	"	"			
249	2	2	47	47	47	46	?		?		—	—	—	?	?	?	"	"			
250	2	4	48	59	49	03	50	01	50	03	—	—	—	6.5	0.13	0.10	"	"			
251	2	5	?		?		07	22	07	23	—	—	—	?	0.01	0.01	"	"			
252	2	5	11	16	11	15	12	06	12	04	—	—	—	8.7	0.18	0.20	"	"			
253	2	5	25	10	?		25	55	25	57	—	—	—	5.3	0.03	0.03	"	"			
254	2	6	33	33	?		34	36	34	36	—	—	—	5.6	0.01	0.02	"	"			
255	2	9	27	55	27	55	?		23	53	—	—	—	?	?	5.02	Quick	Weak	Felt		
256	2	9	49	53	49	53	50	57	50	57	—	—	—	?	0.28	0.55	Slow	Feeble			
257	2	10	?		—	—	03	29	—	—	—	—	—	?	0.01	—	"	"			
258	2	10	14	18	?		15	11	15	10	—	—	—	4.4	0.01	—	"	"			
259	2	10	?		?		23	03	23	04	—	—	—	?	0.01	0.01	"	"			
260	2	11	?		—	—	?		—	—	—	—	—	?	0.00	—	"	"			
261	2	11	?		—	—	45	33	—	—	—	—	—	?	0.01	—	"	"			
262	2	13	10	18	10	18	11	15	11	15	—	—	—	18.9	1.03	0.56	"	"			
263	2	13	54	12	?		55	03	55	00	—	—	—	5.2	0.01	0.02	"	"			
264	2	14	17	37	17	36	18	29	18	28	—	—	—	10.9	0.29	0.31	"	"			
265	2	15	?		?		38	37	38	38	—	—	—	?	0.01	0.01	"	"			
266	2	16	08	03	—	—	09	05	—	—	—	—	—	8.3	0.00	—	"	"			
267	2	17	16	42	?		17	36	17	33	—	—	—	5.1	0.02	0.01	"	"			
268	2	18	?		—	—	02	12	—	—	—	—	—	?	0.01	—	"	"			
269	2	18	23	38	—	—	24	34	—	—	—	—	—	4.0	0.01	—	"	"			
270	2	18	38	20	?		39	24	?		—	—	—	6.3	0.01	0.01	"	"			
271	2	21	02	43	?		03	39	03	40	—	—	—	8.2	0.03	0.05	"	"			
272	2	21	33	47	?		39	47	39	44	—	—	—	4.1	0.01	0.01	"	"			
273	2	21	?		—	—	46	32	—	—	—	—	—	?	0.01	—	"	"			
274	2	22	57	29	57	31	?		?		—	—	—	4.3	0.01	0.01	"	"			
275	3	0	10	27	10	27	11	16	11	17	—	—	—	7.1	0.08	0.10	"	"			

TABLE A.

(Earthquakes)

No.	Date 1923	P				S				L				Duration of Total Earthquake (mean)	Maximum Range of Motion			Character of Motion	Intensity	Remarks	
		E	W	N	S	E	W	N	S	E	W	N	S		E	W	N				S
276	Sept. 3	h	m	s	m	s	m	s	m	s	m	s	m	s	m	mm	mm	mm	Slow	Feeble	
277	3	0	41	22	?		42	14	42	13	—	—	—	—	7.1	0.03	0.05	"	"		
278	3	1	48	14	48	13	49	13	49	12	—	—	—	—	8.7	0.13	0.15	"	"		
279	3	5	22	40	?		23	38	23	44	—	—	—	—	4.9	0.01	0.01	"	"		
280	3	6	03	04	?		04	55	?		—	—	—	—	14.2	0.01	0.01	"	"		
281	3	8	14	49	14	50	15	35	15	35	—	—	—	—	3.8	0.02	0.02	"	"		
282	3	9	25	02	?		25	52	25	48	—	—	—	—	3.7	0.01	0.01	"	"		
283	3	14	—	—	?		—	—	00	50	—	—	—	—	?	—	0.01	"	"		
284	3	14	—	—	31	43	—	—	32	31	—	—	—	—	7.2	—	0.10	"	"		
285	3	?	—	—	?		?	—	—	—	—	—	—	—	?	0.01	—	"	"		
286	4	4	01	39	01	39	02	30	02	30	—	—	—	—	9.9	0.04	0.05	"	"		
287	4	5	58	41	?		59	26	59	31	—	—	—	—	5.7	0.01	0.01	"	"		
288	4	10	11	43	?		12	30	12	32	—	—	—	—	3.7	0.00	0.01	"	"		
289	4	15	25	52	?		26	40	26	38	—	—	—	—	3.0	0.01	0.01	"	"		
290	4	17	27	09	—	—	28	01	—	—	—	—	—	—	4.5	0.01	—	"	"		
291	4	18	16	41	16	41	17	38	17	38	—	—	—	—	3.9	0.02	0.01	"	"		
292	4	20	55	03	—	—	56	01	—	—	—	—	—	—	5.1	0.01	—	"	"		
293	4	22	24	03	24	01	24	40	24	41	—	—	—	—	9.3	0.15	0.21	"	"		
294	5	0	31	51	?		32	01	32	01	—	—	—	—	1.3	0.01	0.01	"	"		
295	5	9	35	42	?		36	31	36	29	—	—	—	—	5.1	0.02	0.02	"	"		
296	5	11	13	42	13	42	14	41	14	41	—	—	—	—	6.7	0.04	0.05	"	"		
297	5	18	30	46	30	45	31	41	31	40	—	—	—	—	10.9	0.23	0.31	"	"		
298	5	18	47	10	?		48	02	48	03	—	—	—	—	5.4	0.04	0.04	"	"		
299	6	11	38	31	?		38	56	38	58	—	—	—	—	3.2	0.01	0.01	"	"		
300	7	14	31	26	31	26	32	10	32	07	—	—	—	—	6.3	0.03	0.05	"	"		
301	7	14	47	39	?		48	19	48	23	—	—	—	—	5.6	0.01	0.01	"	"		
302	7	15	18	05	18	05	18	47	18	47	—	—	—	—	10.3	0.09	0.12	"	"		
303	7	17	33	42	33	43	34	54	34	53	—	—	—	—	17.4	0.37	0.37	"	"		
304	7	23	40	40	40	40	41	30	41	32	—	—	—	—	6.1	0.03	0.04	"	"		
305	8	4	06	33	—	—	07	28	—	—	—	—	—	—	4.3	0.01	—	"	"		
306	8	4	?		—	—	47	50	—	—	—	—	—	—	?	0.00	—	"	"		
307	8	9	09	51	09	50	10	38	10	38	—	—	—	—	10.6	0.20	0.17	"	"		
308	8	19	12	24	?		13	24	13	22	—	—	—	—	12.6	0.07	0.06	"	"		
309	8	19	41	41	—	—	42	15	—	—	—	—	—	—	4.9	0.01	—	"	"		
310	9	3	03	42	?		04	28	04	30	—	—	—	—	7.4	0.02	0.02	"	"		
311	9	7	52	44	52	44	53	25	53	26	—	—	—	—	4.9	0.02	0.03	"	"		
312	9	13	?		—	—	39	03	—	—	—	—	—	—	?	0.01	—	"	"		
313	9	14	06	05	?		06	44	06	47	—	—	—	—	9.0	0.01	0.02	"	"		
314	9	17	12	05	12	05	13	00	12	59	—	—	—	—	12.5	0.05	0.07	"	"		
315	9	22	11	57	11	56	17	33	17	28	23	07	23	06	41.1	0.03	0.26	"	"		
316	10	2	28	15	28	14	29	10	29	09	—	—	—	—	5.4	0.03	0.02	"	"		
317	12	8	51	51	51	51	52	37	52	38	—	—	—	—	4.3	0.02	0.02	"	"		
318	12	14	56	47	56	46	57	35	57	33	—	—	—	—	4.9	0.02	0.02	"	"		
319	14	6	34	17	34	18	34	55	34	54	—	—	—	—	8.1	0.07	0.10	"	"		
320	14	7	42	52	42	52	43	39	43	41	—	—	—	—	6.5	0.03	0.02	"	"		
321	15	2	?		—	—	32	41	—	—	—	—	—	—	—	0.01	—	"	"		
322	15	12	58	52	—	—	39	07	—	—	—	—	—	—	2.2	0.01	—	"	"		
323	15	15	26.5		—	—	27	07	—	—	—	—	—	—	4.2?	0.01	—	"	"		
324	16	8	20.2		?		21	05	21	06	—	—	—	—	5.2?	0.03	0.02	"	"		
325	16	9	?		?		00	26	00	28	—	—	—	—	?	0.01	0.01	"	"		
326	17	1	03	17	03	19	04	12	?		—	—	—	—	6.8	0.03	0.02	"	"		
327	17	3	41	35	41	36	43	07	43	09	—	—	—	—	11.1	0.14	0.11	"	"		
328	20	23	22	36	22	37	23	36	23	36	—	—	—	—	7.5	0.06	0.08	"	"		
329	22	2	54	12	54	13	54	57	54	57	—	—	—	—	5.6	0.07	0.10	"	"		
330	22	20	53	45	53	47	67	34	67	39	—	—	—	—	64.2	?	0.09	"	"		

TABLE A.
(Earthquakes)



No.	Date 1923	P				S				L				Duration of Total Earthquake (mean)	Maximum Range of Motion				Character of Motion	Intensity	Remarks
		E	W	N	S	E	W	N	S	E	W	N	S		E	W	N	S			
331	Sept. 26	h	m	s	m	s	m	s	m	s	m	s	m	s	m	mm	mm	Slow	Feeble		
332	26	4	04	08	—	—	05	23	—	—	—	—	—	—	4.0	0.01	—	"	"		
333	26	8	24	55	24	55	26	21	26	20	—	—	—	—	9.1	?	2.66	"	"		
334	26	9	40	22	40	20	40	58	40	58	—	—	—	—	5.0	0.03	0.05	"	"		
335	26	20	08	55	08	55	09	37	09	33	—	—	—	—	7.6	0.01	0.01	"	"		
336	27	21	15	15	?	—	16	03	?	—	—	—	—	—	6.5	0.01	0.01	"	"		
337	29	3	01	43	01	44	02	29	02	27	—	—	—	—	6.0	0.03	0.03	"	"		
338	30	4	57	54	?	—	58	23	58	25	—	—	—	—	2.7	0.01	0.01	"	"		
339	Oct. 30	6	27	11	?	—	27	55	27	57	—	—	—	—	4.4	0.02	0.03	"	"		
340	2	1	26	22	?	—	27	09	27	09	—	—	—	—	3.2	0.02	0.01	"	"		
341	2	2	06	56	?	—	07	39	07	36	—	—	—	—	4.0	0.01	0.01	"	"		
342	3	14	08	40	08	38	09	12	09	12	—	—	—	—	5.1	0.05	0.05	"	"		
343	3	15	55	20	55	20	56	08	56	08	—	—	—	—	16.4	0.45	0.46	"	"		
344	5	13	06	41	06	41	07	23	07	27	—	—	—	—	8.3	0.21	0.15	"	"		
345	7	3	37	31	37	32	43	44	43	44	50	36	50	35	54.0	0.05	1.33	"	"		
346	7	23	42	14	42	17	42	51	42	51	—	—	—	—	10.5	0.03	0.02	"	"		
347	9	3	01	54	01	54	02	08	02	06	—	—	—	—	3.3	0.04	0.05	"	"		
348	9	11	22	50	22	48	?	?	22	56	—	—	—	—	15.3	?	2.31	Quick	Weak	Felt	
349	9	16	11	18	?	—	12	53	12	53	—	—	—	—	6.9	0.02	0.02	Slow	Feeble		
350	9	17	12	50	?	—	14	32	14	32	—	—	—	—	4.2	0.02	0.01	"	"		
351	9	18	07	47	?	—	09	52	09	53	—	—	—	—	7.9	0.02	0.02	"	"		
352	12	20	35	39	—	—	36	24	—	—	—	—	—	—	4.1	0.01	—	"	"		
353	13	16	41	22	?	—	42	16	42	14	—	—	—	—	3.5	0.01	?	"	"		
354	16	18	05	05	05	04	05	54	05	51	—	—	—	—	7.9	0.05	0.03	"	"		
355	19	12	?	?	—	—	01	16	—	—	—	—	—	—	?	0.01	—	"	"		
356	21	20	20	02	—	—	20	32	—	—	—	—	—	—	2.7	0.01	—	"	"		
357	22	17	11	05	?	—	12	47	12	46	—	—	—	—	5.1	0.01	0.01	"	"		
358	22	19	46	51	?	—	47	37	47	37	—	—	—	—	6.2	0.02	0.02	"	"		
359	22	22	11	22	?	—	11	42	11	43	—	—	—	—	4.4	0.02	0.01	"	"		
360	23	13	22	44	?	—	23	11	23	09	—	—	—	—	3.0	0.01	0.01	"	"		
361	24	6	36	38	—	—	37	25	—	—	—	—	—	—	6.0	0.01	—	"	"		
362	28	23	00	16	?	—	00	45	00	44	—	—	—	—	5.2	0.02	0.01	"	"		
363	31	1	?	?	—	—	03	13	—	—	—	—	—	—	?	0.01	—	"	"		
364	31	11	01	42	?	—	01	59	01	58	—	—	—	—	3.3	0.01	0.01	"	"		
365	Nov. 31	17	08	04	03	04	08	43	08	44	—	—	—	—	4.5	0.05	0.06	"	"		
366	2	21	?	?	?	—	?	?	?	?	—	—	—	—	?	—	0.20	"	"		
367	2	22	18	10	18	10	18	26	18	25	—	—	—	—	?	0.06	0.09	"	"		
368	3	16	22	39	22	38	27	44	27	43	—	—	—	—	32.8	0.07	0.89	"	"		
369	4	18	37.1	?	—	—	37.5	?	—	—	—	—	—	—	9.5?	0.15	—	"	"		
370	4	18	56.7	?	—	—	57.1	?	—	—	—	—	—	—	4.1?	0.01	—	"	"		
371	4	20	07.3	?	—	—	?	?	—	—	—	—	—	—	2.7	0.00	—	"	"		
372	4	20	46.7	?	—	—	47.4	?	—	—	—	—	—	—	14.0?	0.50	0.82	"	"		
373	5	21	—	—	30	12	—	—	35	45	—	—	—	—	37.4	—	3.55	"	"		
374	6	13	37	08	37.2	—	37	57	37	59	—	—	—	—	6.9	0.02	0.02	"	"		
375	9	21	37	31	—	—	37	51	—	—	—	—	—	—	2.4	0.01	—	"	"		
376	10	0	58	10	58	10	58	34	58	34	—	—	—	—	9.4	0.23	0.30	"	"		
377	11	1	?	?	—	—	10	21	—	—	—	—	—	—	?	0.01	—	"	"		
378	11	4	?	?	?	—	03	25	03	25	—	—	—	—	?	0.01	0.01	"	"		
379	11	4	58	54	58	55	59	35	59	37	—	—	—	—	9.8	0.02	0.01	"	"		
380	11	5	12	37	12	36	13	24	13	25	—	—	—	—	11.9	0.05	0.05	"	"		
381	15	2	14	50	14	50	15	15	15	16	—	—	—	—	3.5	0.02	0.01	"	"		
382	15	21	34	27	34	23	35	31	35	33	—	—	—	—	10.3	0.05	0.04	"	"		
383	17	20	41	25	41	27	42	07	42	08	—	—	—	—	10.3	0.30	0.35	"	"		
384	18	19	20	47	—	—	21	22	—	—	—	—	—	—	4.4	0.01	—	"	"		
385	18	21	33	43	33	44	38	11	38	09	42	24	42	25	23.4	0.00	0.14	"	"		

SEISMOLOGICAL OBSERVATIONS AT MIZUSAWA.

TABLE A.

(Earthquakes)

No.	Date 1923	P				S				L				Duration of Total Earthquake (mean)	Maximum Range of Motion				Character of Motion	Intensity	Remarks
		E	W	N	S	E	W	N	S	E	W	N	S		E	W	N	S			
386	Nov. 21	h	m	s	m	s	m	s	m	s	m	s	m	mm	mm			Slow	Feeble		
387	21	16	33	21	33	29	34	09	34	07	—	—	5.8	0.03	0.05			"	"		
388	23	2	34	44	34	44	35	32	35	32	—	—	9.6	0.15	0.14			"	"		
389	23	9	24	33	24	40	25	03	25	05	—	—	15.2	0.35	0.55			"	"		
390	Dec. 3	8	37	03	37	08	37	45	37	43	—	—	6.0	0.04	0.05			"	"		
391	4	9	51	04	51	03	51	43	51	45	—	—	8.6	0.18	0.20			"	"		
392	4	10	02	16	—	—	03	08	—	—	—	—	5.5	0.03	0.02			"	"		
393	4	23	42	29	?	—	44	33	44	30	—	—	4.7	0.01	—			"	"		
394	10	6	26	02	26	01	26	13	26	13	—	—	11.1	0.03	0.02			Quick	Weak	Felt	
395	16	8	06	19	—	—	07	03	—	—	—	—	4.6	0.03	0.10			Slow	Feeble		
396	17	6	18.1	—	17	55	18.4	—	18	13	—	—	5.4	0.02	—			"	"		
397	17	6	?	—	?	—	21.0	—	20	49	—	—	?	0.08	0.03			"	"		
398	17	19	35	23	?	—	36	36	36	37	—	—	3.5	0.01	0.02			"	"		
399	19	6	30	24	?	—	30	41	30	40	—	—	3.1	0.02	0.01			"	"		
400	19	14	50	18	?	—	51	12	51	09	—	—	5.8	0.02	0.02			"	"		
401	19	17	00	09	?	—	00	20	00	19	—	—	2.6	0.01	0.01			"	"		
402	22	15	23	22	—	—	23	46	—	—	—	—	3.2	0.01	—			"	"		
403	24	3	41	04	41	04	41	53	41	53	—	—	9.1	0.07	0.10			"	"		
404	24	9	31	09	?	—	31	36	31	37	—	—	3.7	0.01	0.01			"	"		
405	27	7	18	12	18	14	19	10	19	09	—	—	5.9	0.03	0.02			"	"		
406	27	14	39	50	39	49	49	08	40	06	—	—	26.2	0.73	0.91			Quick	Weak	Felt	
407	27	15	39	20	—	—	29	52	—	—	—	—	3.5	0.01	—			Slow	Feeble		
408	27	16	03	07	—	—	03	30	—	—	—	—	3.1	0.00	—			"	"		
409	28	5	02	21	?	—	02	36	02	39	—	—	2.8	0.02	0.01			"	"		
410	29	13	07	00	?	—	07	33	07	32	—	—	4.7	0.01	0.01			"	"		
411	30	19	00	18	—	—	00	38	—	—	—	—	5.5	0.05	—			"	"		
412	31	1	12	42	—	—	13	00	—	—	—	—	3.2	0.01	—			"	"		
413	31	2	?	—	23	42	24	06	24	05	—	—	4.0	0.01	0.01			"	"		
414	31	5	?	—	53	09	?	—	53	36	—	—	4.3	0.02	0.04			"	"		

TABLE B.

(Pulsatory Oscillation EW Component.)

Beginning		Ending		Maximum		
Date 1923	Hour	Date 1923	Hour	Date 1923	Hour	Double Amplitude
January	1	January	5	January	2	0.01
	11		13		13	0.01
	15		17		15-16	0.01
	21		22		22	0.01
	23		23		23	0.01
February	16	February	18	February	16	0.02
March	20		21		21	0.01
	31	April	2	April	2	0.01
April	8		9		9	0.01
	12		14		12	0.04
					12	0.03
	17		18		18	0.01
May	19		20		20	0.01
June	2	May	5	May	3	0.02
	9	June	11	June	10	0.02
	22		24		23	0.01
July	6	July	7	July	6	0.01
September	8	September	10	September	9	0.00
	14		17		16	0.01
	23		26		24-25	0.05
October	2	October	3	October	2	0.00
	9		11		11	0.06
	24		25		24	0.01
November	31	November	3	November	2	0.02
	7		9		7-8	0.01
	13		14		13	0.01
	19		22		21	0.01
	24		26		25	0.01
December	23	December	30		23-29	0.01
	1		4	December	2	0.00
	8		9		8	0.00
	10		11		11	0.01
	13		14		13	0.01
	22		23		14	0.01
	25		27		22-23	0.01
	30		31		26	0.01
					31	0.01