

Department of Geology  
University of California

SEISMOGRAPHIC STATION

BERKELEY, CALIFORNIA

# ANNUAL REPORT

OF THE

## METEOROLOGICAL

AND THE

## SEISMOLOGICAL OBSERVATIONS

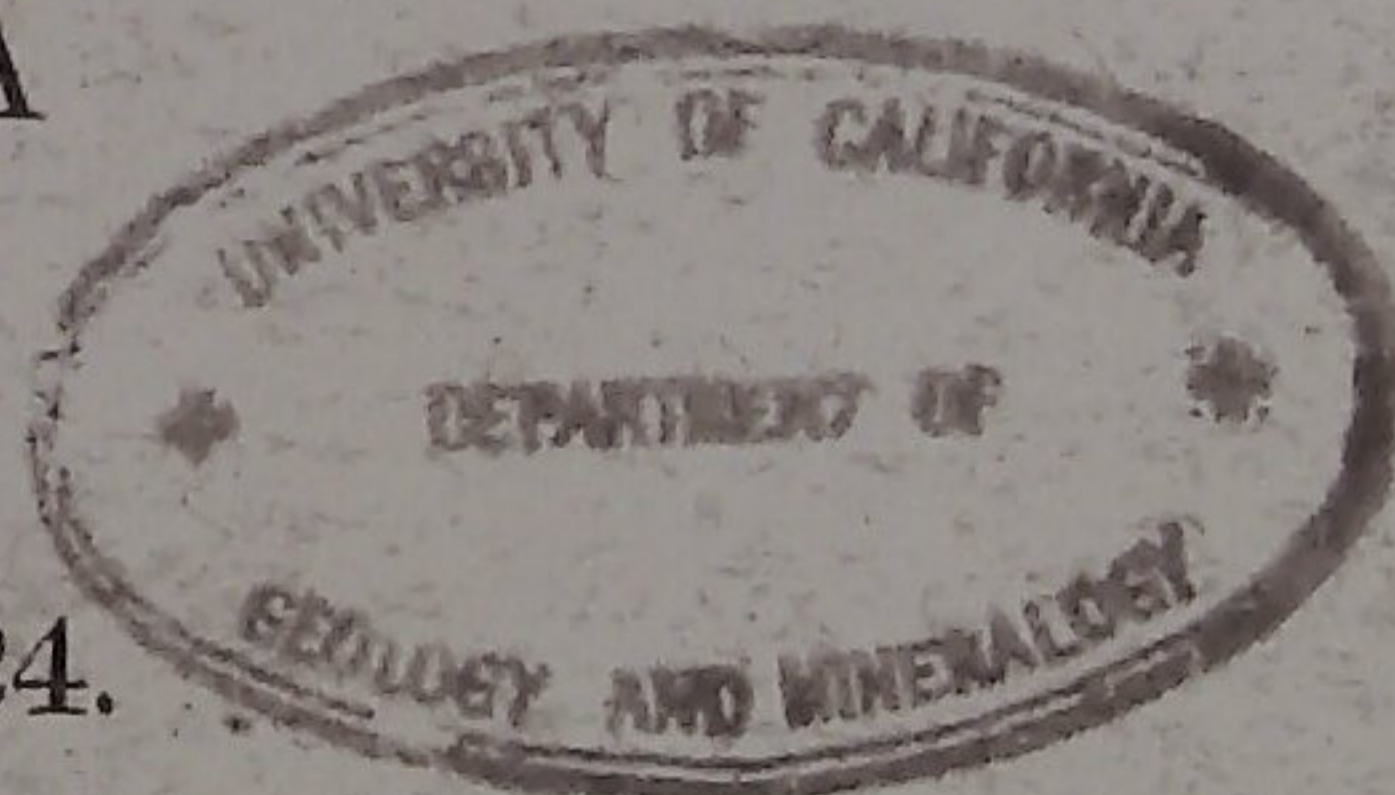
MADE AT THE

## INTERNATIONAL LATITUDE OBSERVATORY

## OF MIZUSAWA

FOR

## THE YEAR 1924.



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LATITUDE 39° 8' N., LONGITUDE 141° 8' E.,

HEIGHT ABOVE MEAN SEA LEVEL 61 METRES,

---

PUBLISHED BY THE INTERNATIONAL LATITUDE OBSERVATORY  
OF MIZUSAWA.

---

1925

The present report gives the results of the meteorological and seismological observations made at this observatory during the year 1924. 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,

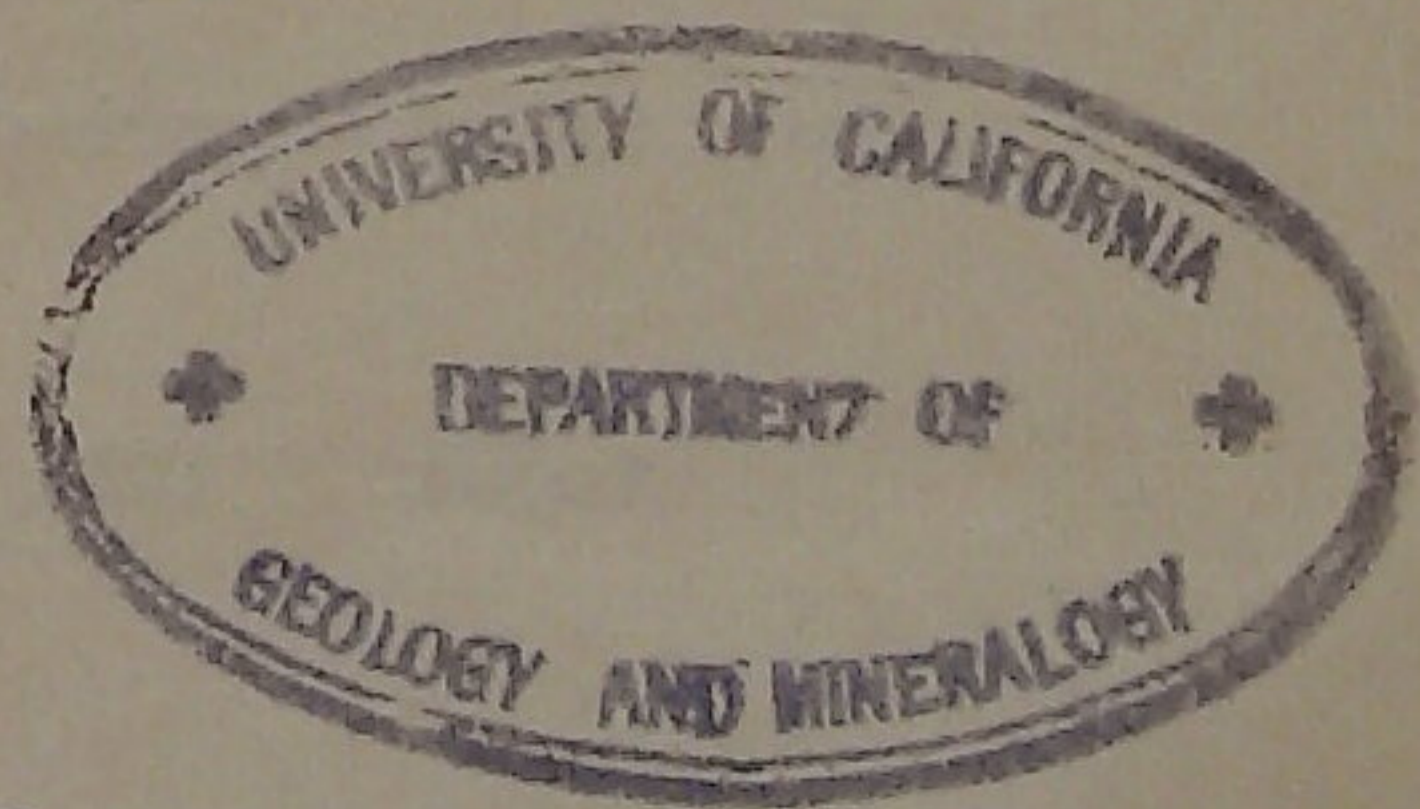
*Barometer*.—63.1m above sea level,

*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

August, 1925.

H. Kimura, *Rigakuhakushi*

Director of the International Latitude Observatory  
in Mizusawa.

# SEISMOLOGICAL OBSERVATIONS.

TABLE A.  
(Earthquakes)



No.	Date 1924		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			
1	Jan.	4	h	m	s	m	s	m	s	m	s	m	s	m	mm	mm	mm	Slow	Feeble		
2		6	13	24	58	24	58	25	27	25	26	—	—	6.6	0.02	0.01	"	"			
3		9	15	26	54	—	—	27	11	—	—	—	—	3.1	0.00	—	"	"			
4		10	18	52	52	52	51	53	07	53	06	—	—	3.0	0.10	0.10	"	"			
5		11	23	44	40	44	39	45	10	45	22	—	—	13.3	0.49	0.50	Quick	Weak	Felt		
			13	54	45	54	47	55	46	55	47	—	—	8.0	0.07	0.10	Slow	Feeble			
6		12	13	?	—	—	—	59	28	—	—	—	—	?	0.01	—	"	"			
7		14	20	51	22	—	—	52	08	—	—	—	—	?	?	—	Quick	Weak	Felt		
8		15	7	47	56	?	—	48	31	48	29	—	—	6.2	0.03	0.02	Slow	Feeble			
9		15	19	24	29	24	29	24	57	24	57	—	—	14.7	0.51	0.79	"	"			
10		17	14	16	11	16	11	16	43	16	43	—	—	4.7	0.01	0.02	"	"			
11		19	0	38	22	38	22	38	34	28	33	—	—	4.1	0.04	0.06	Quick	Weak	Felt		
12		20	11	11	40	—	—	12	09	—	—	—	—	3.8 <sup>3</sup>	0.01	—	Slow	Feeble			
13		20	15	34	49	34	48	35	31	35	31	—	—	5.5	0.01	0.02	"	"			
14		21	1	57	01	57	00	60	16	60	16	—	—	20.9	?	0.37	"	"			
15		22	10	38	26	38	25	39	01	39	01	—	—	15.6	0.72	0.79	Quick	Weak	Felt		
16		26	19	31	56	31	57	32	22	32	21	—	—	5.8	0.03	0.01	Slow	Feeble			
17		26	22	32	00	—	—	32	31	—	—	—	—	6.6	0.01	—	"	"			
18		27	1	45	53	?	—	46	15	46	20	—	—	3.7	0.03	0.02	"	"			
19		27	4	26	54	—	—	27	26	—	—	—	—	4.5	0.01	—	"	"			
20		27	8	39	00	39	00	39	14	39	14	—	—	9.0	0.42	0.36	Quick	Weak	Felt		
21		29	2	14	26	?	—	14	48	14	46	—	—	6.9	0.02	0.01	Slow	Feeble			
22		29	19	50	21	—	—	50	43	—	—	—	—	2.6	0.01	—	"	"			
23		30	4	53	19	53	20	54	00	53	59	—	—	?	0.03	0.05	"	"			
24		30	4	?	—	?	—	58	00	58	03	—	—	?	0.01	0.01	"	"			
25		30	13	12	48	—	—	13	36	—	—	—	—	5.3	0.01	—	"	"			
26		30	13	42	32	—	—	43	09	—	—	—	—	4.5	0.00	—	"	"			
27		30	17	?	—	—	—	36	06	—	—	—	—	?	0.00	—	"	"			
28		31	1	22	56	22	57	23	13	23	13	—	—	2.4	0.01	0.01	"	"			
29		31	2	51	16	51	16	52	03	52	03	—	—	32.4	0.02	0.01	"	"			
30		31	13	28	43	28	44	29	41	29	43	—	—	3.6	0.01	0.01	"	"			
31	Feb.	1	7	24	55	24	54	25	40	25	39	—	—	6.0	0.04	0.06	"	"			
32		2	5	50	00	50	00	50	22	50	22	—	—	4.8	0.04	0.02	"	"			
33		2	7	?	—	?	—	57	13	57	11	—	—	?	0.01	0.01	"	"			
34		2	22	26	00	26	00	26	37	26	43	—	—	14.6	?	0.69	"	"			
35		4	12	36	15	?	—	37	01	37	03	—	—	3.2	0.00	0.01	"	"			
36		10	7	39	03	39	02	39	43	39	43	—	—	4.4	0.01	0.01	"	"			
37		11	17	50	11	?	—	50	53	51	02	—	—	5.4	0.02	0.01	"	"			
38		11	22	?	—	—	—	05	31	—	—	—	—	?	0.01	—	"	"			
39		11	22	44	53	44	50	45	31	45	31	—	—	4.0	0.04	0.04	"	"			
40		15	0	?	—	?	—	00	40	00	40	—	—	?	0.01	0.01	"	"			
41		16	15	22	17	—	—	22	54	—	—	—	—	3.8	0.00	—	"	"			
42		17	5	00	04	?	—	00	59	00	59	—	—	4.2	0.01	0.01	"	"			
43		17	11	00	54	?	—	01	05	01	04	—	—	4.3	0.02	0.02	"	"			
44		21	22	44	00	44	02	44	45	44	44	—	—	4.6	0.06	0.06	"	"			
45		22	1	43	15	?	—	43	47	43	46	—	—	3.9	0.03	0.02	"	"			
46		24	16	47	31	47	32	48	39	48	39	—	—	6.1	0.07	0.06	"	"			
47		25	2	32	49	32	50	33	11	33	11	—	—	6.4	0.03	0.09	"	"			
48		29	15	59	29	—	—	59	53	—	—	—	—	3.7	0.01	—	"	"			
49	Mar.	2	14	34	51	—	—	35	06	—	—	—	—	2.7	0.00	—	"	"			
50		2	16	31	07	31.4	—	31	36	31	39	—	—	4.6	0.02	0.02	"	"			
51		3	18	59	50	59	50	60	33	60	33	—	—	7.2	0.05	0.05	"	"			
52		8	9	07	46	07	45	08	01	08	00	—	—	7.1	0.37	0.33	Quick	Weak	Felt		
53		11	4	07	03	—	—	07	10	—	—	—	—	1.4	0.01	—	Slow	Feeble			
54		11	14	41	45	41	45	43	23	43	23	—	—	7.0	0.04	0.05	"	"			
55		12	23	05	02	05	02	05	59	06	00	—	—	8.5	0.06	0.09	"	"			

TABLE A.  
(Earthquakes)

No.	Date 1924	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			
56	Mar. 13	h	m	s	m	s	m	s	m	s	m	s	m	s	m	mm	mm	Slow	Feeble		
57	13	10	34	22	34	23	36	15	36	13	—	—	—	—	10.4	0.10	0.06	"	"		
58	14	23	?	?	46	05	47	03	47	03	—	—	—	—	7.7	0.09	0.07	"	"		
59	14	0	?	?	—	—	50	51	—	—	—	—	—	—	?	0.00	—	"	"		
60	14	1	?	?	—	—	28	28	—	—	—	—	—	—	?	0.02	—	"	"		
		2	?	?	—	—	56	49	—	—	—	—	—	—	?	0.01	—	"	"		
61	15	10	33	48	33	48	36	32	36	30	—	—	—	—	40.5	?	0.61	"	"		
62	16	6	52	09	52	09	52	33	52	30	—	—	—	—	5.9	0.02	0.02	"	"		
63	20	10	05	19	05	19	06	18	06	16	—	—	—	—	4.8	0.02	0.01	"	"		
64	20	10	52	08	52	08	53	03	53	05	—	—	—	—	7.0	0.04	0.04	"	"		
65	20	14	05	27	—	—	05	46	—	—	—	—	—	—	2.1	0.01	—	"	"		
66	21	11	52	03	—	—	52	20	—	—	—	—	—	—	3.1	0.01	—	"	"		
67	22	2	?	?	?	?	55	51	55	52	—	—	—	—	?	0.03	0.03	"	"		
68	22	23	?	?	?	?	10	00	09	59	—	—	—	—	?	0.03	0.03	"	"		
69	23	13	47	09	47.2		48	02	48	00	—	—	—	—	9.0	0.05	0.05	"	"		
70	25	10	31	04	31	06	31	48	31	48	—	—	—	—	5.0	0.04	0.04	"	"		
71	25	21	03	49	?	?	10	20	10	22	—	—	—	—	6.2	0.03	0.03	"	"		
72	28	13	55	31	?	?	56	35	56	36	—	—	—	—	7.9	0.01	0.01	"	"		
73	28	22	35	53	35	53	36	04	36	04	—	—	—	—	4.6	0.05	0.03	"	"		
74	31	14	20	27	20	27	20	38	20	38	—	—	—	—	3.1	0.04	0.02	"	"		
75	Apr. 3	2	32	20	32	19	33	46	33	46	—	—	—	—	7.3	0.05	0.05	"	"		
76	6	19	42	09	42	11	42	33	42	34	—	—	—	—	4.2	0.06	0.05	"	"		
77	10	14	57	40	57	40	58	02	58	01	—	—	—	—	6.9	0.10	0.11	"	"		
78	11	17	17	08	17	09	17	43	17	41	—	—	—	—	7.2	0.02	0.02	"	"		
79	12	19	09	44	?	?	10	44	10	46	—	—	—	—	4.3	0.02	0.02	"	"		
80	13	13	?	?	?	?	56	10	56	10	—	—	—	—	?	0.01	0.02	"	"		
81	14	16	27	29	27	29	32	56	32	57	—	—	—	—	97.8	?	?	"	"		
82	19	16	13	59	13	58	14	18	14	20	—	—	—	—	5.6	0.03	0.04	"	"		
83	19	19	27	29	?	?	28	12	28	11	—	—	—	—	4.7	0.02	0.03	"	"		
84	22	19	51	39	—	—	51	54	—	—	—	—	—	—	1.9	0.01	—	"	"		
85	27	0	15	34	15	33	16	32	16	33	—	—	—	—	6.1	0.05	0.05	"	"		
86	29	10	23	39	23	38	23	55	23	55	—	—	—	—	3.0	0.04	0.02	"	"		
87	29	16	17	16	—	—	17	31	—	—	—	—	—	—	2.4	0.01	—	"	"		
88	May 2	16	36	32	—	—	37	30	—	—	—	—	—	—	4.8	0.00	—	"	"		
89	3	9	59	23	59	22	59	32	59	31	—	—	—	—	1.6	0.05	0.03	"	"		
90	4	17	02	12	02	13	?	?	10	45	10	45	—	—	40.7	?	0.03	"	"		
91	6	16	15	36	15	37	20	34	20	33	—	—	—	—	?	0.01	0.06	"	"		
92	6	18	57	47	57	46	57	56	57	56	—	—	—	—	2.8	0.03	0.05	"	"		
93	10	3	?	?	?	?	26	28	26	32	—	—	—	—	?	0.05	0.05	"	"		
94	11	15	54	16	54	17	55	08	55	09	56	16	56	09	13.3	0.06	0.06	"	"		
95	15	7	44	40	44	38	44	58	44	56	—	—	—	—	4.3	0.06	0.04	"	"		
96	17	5	?	?	—	—	23	51	—	—	—	—	—	—	?	0.01	—	"	"		
97	20	9	53	07	53	06	53	22	53	22	—	—	—	—	6.2	0.17	0.21	"	"	Felt	
98	20	19	?	?	—	—	56	46	—	—	—	—	—	—	?	0.01	—	Quick	Weak	Felt	
99	22	18	10	20	10	21	11	03	11	03	—	—	—	—	15.2	0.32	0.33	Slow	Weak	Felt	
100	23	6	45	21	45	20	45	46	45	45	—	—	—	—	5.0	0.06	0.06	Quick	Feeble		
101	28	9	54	16	54	16	55	59	55	59	—	—	—	—	32.0	1.16	1.30	"	"		
102	29	23	45.8	?	?	?	46.1	?	46	09	—	—	—	—	4.2?	0.02	0.01	"	"		
103	31	12	03	22	03	23	04	04	04	02	—	—	—	—	19.5	0.44	0.45	Quick	Weak	Felt	
104	31	12	23	38	23	37	29	19	29	18	—	—	—	—	20.3	0.49	0.30	"	"	Felt	
105	31	14	06	39	06	40	07	04	07	03	—	—	—	—	2.9	0.02	0.02	Slow	Feeble		
106	June 1	15	40	39	40	38	41	04	41	04	—	—	—	—	4.5	0.01	0.02	"	"		
107	3	2	43	07	43	07	44	05	44	08	—	—	—	—	5.8	0.14	0.20	"	"		
108	3	3	?	?	?	?	57	23	57	23	—	—	—	—	?	0.03	0.02	"	"		
109	4	8	14	35	14	36	14	58	14	59	—	—	—	—	3.8	0.02	0.01	"	"		
110	6	3	35	34	—	—	35	52	—	—	—	—	—	—	2.3	0.01	—	"	"		

TABLE A.  
(Earthquakes)

No.	Date 1924	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	June 6	h	m	s	m	s	m	s	m	s	m	s	m	s	m	mm	mm	Slow	Feeble		
112	11	4	56	40	?		57	36	57	36	—	—	—	—	6.7	0.03	0.02	"	"		
113	12	9	41	38	41	35	41	54	41	57	—	—	—	—	3.0	0.01	0.01	"	"		
114	12	7	29	27	29	29	29	42	29	39	—	—	—	—	2.5	0.02	0.02	"	"		
115	12	13	12	32	12	31	12	45	12	44	—	—	—	—	4.5	0.12	0.14	Quick	Weak	Felt	
	17	10	34	24	—	—	34	59	—	—	—	—	—	—	3.3	0.01	—	Slow	Feeble		
116	19	12	31	12	—	—	31	23	—	—	—	—	—	—	1.6	0.01	—	"	"		
117	19	15	53	30	—	—	58	39	—	—	—	—	—	—	1.2	0.01	—	"	"		
118	22	13	25	57	26.1		27	18	27	19	—	—	—	—	12.6	0.07	0.03	"	"		
119	26	1	51	06	51	06	54	05	54	08	61	35	61	33	67.3	0.02	0.12	"	"		
120	26	3	28	42	28	43	29	16	29	17	—	—	—	—	6.1	0.08	0.06	"	"		
121	29	0	38	58	?		39	21	39	19	—	—	—	—	3.3	0.02	0.02	"	"		
122	30	15	46	12	46	12	47	30	47	30	—	—	—	—	61.0	?	3.47	Quick	Weak	Felt	
123	July 3	4	43	22	48	23	54	56	54	55	60	57	60	55	63.7	0.19	0.30	Slow	Feeble		
124	3	21	32	43	?		33	35	?		—	—	—	—	5.2	0.01	0.01	"	"		
125	5	20	40	14	?		40	40	40	37	—	—	—	—	3.8	0.02	0.01	"	"		
126	5	22	52	13	52	14	52	43	52	41	—	—	—	—	16.6	0.40	?	"	"		
127	5	23	11	25	—	—	11	50	—	—	—	—	—	—	6.4	0.03	—	"	"		
128	6	9	29	02	?		29	36	29	40	—	—	—	—	4.3	0.02	0.03	"	"		
129	7	1	?		—	—	10	46	—	—	—	—	—	—	?	0.00	—	"	"		
130	7	1	40	47	40.9		41	23	41	24	—	—	—	—	5.3	0.03	0.03	"	"		
131	7	2	47	34	47	48	48	15	48	15	—	—	—	—	6.8	0.09	0.15	"	"		
132	7	3	12	07	12	09	12	39	12	39	—	—	—	—	8.7	0.04	0.06	"	"		
133	7	15	54	03	—	—	54	13	—	—	—	—	—	—	1.9	0.04	—	"	"		
134	8	9	06	31	06	31	07	20	07	23	—	—	—	—	4.4	0.08	0.06	"	"		
135	9	20	24	55	24	56	25	23	25	23	—	—	—	—	10.1	0.18	0.18	"	"		
136	10	6	57	33	?		58	12	58	14	—	—	—	—	3.9	0.03	0.02	"	"		
137	10	9	33	29	—	—	33	53	—	—	—	—	—	—	2.6	0.00	—	"	"		
138	11	20	22	51	22	50	29	27	29	28	38	55	?		56.9	0.12	0.25	"	"		
139	12	1	42	54	—	—	43	27	—	—	—	—	—	—	3.8	0.01	—	"	"		
140	12	8	17	23	?		17	59	18	00	—	—	—	—	4.6	0.02	0.01	"	"		
141	13	17	?		?		50	42	50	42	—	—	—	—	?	0.05	0.04	"	"		
142	14	13	59	19	—	—	60	03	—	—	—	—	—	—	3.0	0.01	—	"	"		
143	17	8	23	11	—	—	23	32	—	—	—	—	—	—	2.4	0.02	—	"	"		
144	17	20	00	49	—	—	01	17	—	—	—	—	—	—	3.4	0.02	—	"	"		
145	22	14	28	50	?		?		?		32	51	?		?	?	0.15	"	"		
146	Aug. 28	1	07	55	—	—	08	21	—	—	—	—	—	—	3.1	0.01	—	"	"		
147	1	9	16	20	16	20	16	44	16	44	—	—	—	—	8.1	0.28	0.26	"	"		
148	6	14	23	30	23	29	24	07	24	08	—	—	—	—	17.2	0.43	0.66	"	"		
149	9	11	47	50	—	—	48	37	—	—	—	—	—	—	6.2	0.01	—	"	"		
150	10	19	03	16	?		03	47	03	47	—	—	—	—	7.3	0.04	0.05	"	"		
151	10	22	43	16	?		44	03	44	04	—	—	—	—	4.9	0.02	0.01	"	"		
152	12	18	20	46	?		22	28	22	28	—	—	—	—	8.1	0.03	0.04	"	"		
153	14	17	54	17	54.4		54	56	54	55	—	—	—	—	8.3	0.15	0.20	"	"		
154	14	18	03	26	03	26	04	00	04	00	—	—	—	—	?	?	68.40	Quick	Weak	Felt	
155	14	18	54.0		—	—	?		—	—	—	—	—	—	?	?	—	Slow	Feeble		
156	14	19	00		—	—	?		—	—	—	—	—	—	?	?	—	"	"		
157	14	19	05		—	—	?		—	—	—	—	—	—	?	?	—	"	"		
158	14	19	18		—	—	?		—	—	—	—	—	—	?	?	—	"	"		
159	14	20	31	33	?		32	05	32	05	—	—	—	—	5.0	0.03	0.02	"	"		
160	14	20	48		—	—	?		—	—	—	—	—	—	?	?	—	"	"		
161	14	21	13	57	—	—	14	26	—	—	—	—	—	—	?	0.01	—	"	"		
162	14	21	24	24	—	—	24	55	—	—	—	—	—	—	4.0	0.01	—	"	"		
163	14	22	07	47	—	—	08	16	—	—	—	—	—	—	5.0	0.01	—	"	"		
164	14	22	13	36	—	—	14	05	—	—	—	—	—	—	2.1	0.01	—	"	"		
165	14	23	23	16	23	18	23	49	28	45	—	—	—	—	?	?	1.30	"	"		

TABLE A.  
(Earthquakes)

No.	Date 1924	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	Aug. 15	h	m	s	m	s	m	s	m	s	m	s	m	mm	mm	Slow	Feeble				
167	15	0	13	22	13	24	14	17	14	15	—	—	4.2	0.03	0.02	"	"				
168	15	0	23	27	—	—	24	00	—	—	—	—	3.9	0.01	—	"	"				
169	15	4	?	—	—	—	20	31	—	—	—	—	?	0.01	—	"	"				
170	15	4	39	44	39	41	40	13	40	12	—	—	6.5	0.09	0.06	"	"				
	15	4	?	—	—	—	48	00	—	—	—	—	?	0.00	—	"	"				
171	15	10	41	13	—	—	41	44	—	—	—	—	3.7	0.00	—	"	"				
172	15	16	26	50	26	50	27	26	27	23	—	—	7.3	0.07	0.05	"	"				
173	15	16	41	23	?	—	41	56	41	57	—	—	7.4	0.07	0.06	"	"				
174	16	1	33	47	—	—	34	01	—	—	—	—	2.0	0.01	—	"	"				
175	16	9	58	59	—	—	59	31	—	—	—	—	3.7	0.01	—	"	"				
176	16	12	23	13	?	—	23	49	23	50	—	—	5.8	0.04	0.04	"	"				
177	16	17	21	29	—	—	21	57	—	—	—	—	4.1	0.00	—	"	"				
178	16	22	19	00	19	01	19	41	19	40	—	—	9.3	0.14	0.14	"	"				
179	17	1	46	49	46	49	47	45	47	43	—	—	?	?	0.85	"	"				
180	17	2	10	54	10	55	11	45	11	49	—	—	53.7	?	1.45	"	"				
181	17	4	51	11	?	—	52	32	52	33	—	—	4.6	0.01	0.01	"	"				
182	17	12	?	—	—	—	03	20	—	—	—	—	?	0.01	—	"	"				
183	17	12	46	58	—	—	47	54	—	—	—	—	5.1	0.01	—	"	"				
184	17	21	21	14	?	—	21	57	21	56	—	—	4.3	0.02	0.02	"	"				
185	17	21	?	—	—	—	39	41	—	—	—	—	?	0.01	—	"	"				
186	17	22	16	30	?	—	17	02	16	57	—	—	4.1	0.02	0.02	"	"				
187	19	8	12	15	12	12	12	47	12	49	—	—	6.0	0.11	0.09	"	"				
188	19	11	57	06	57	08	57	45	57	43	—	—	7.8	0.03	0.02	"	"				
189	19	20	01	53	01	53	02	31	02	33	—	—	7.6	0.08	0.08	"	"				
190	21	3	37	17	37	22	37	50	37	50	—	—	4.4	0.04	0.06	"	"				
191	22	6	42	54	—	—	43	23	—	—	—	—	2.5	0.00	—	"	"				
192	23	9	19	12	?	—	19	50	19	49	—	—	6.6	0.03	0.02	"	"				
193	23	15	00	11	00	11	00	35	00	33	—	—	7.3	0.17	0.40	Quick	Weak	Felt			
194	23	18	43	35	?	—	44	15	44	18	—	—	10.2	0.07	0.06	Slow	Feeble				
195	24	19	46	18	46	16	46	40	46	39	—	—	5.6	0.02	0.03	"	"				
196	25	0	12	14	?	—	12	45	12	46	—	—	6.4	0.03	0.01	"	"				
197	25	14	31	40	31	39	32	25	32	25	—	—	63.9	?	1.90	"	"				
198	25	17	17	32	17	32	18	02	18	04	—	—	18.0	0.35	0.25	"	"				
199	25	18	28	30	—	—	28	56	—	—	—	—	7.1	0.00	—	"	"				
200	25	19	?	—	—	—	39	53	—	—	—	—	?	0.01	—	"	"				
201	25	19	?	—	—	—	42	57	—	—	—	—	?	0.01	—	"	"				
202	25	23	11	47	11	46	15	38	15	38	19	38	29.3	?	0.06	"	"				
203	26	3	20	06	—	—	20	37	—	—	—	—	6.1	0.02	—	"	"				
204	28	5	12	19	12	21	12	53	12	54	—	—	7.0	0.05	0.06	"	"				
205	28	5	38	11	38	09	38	49	38	47	—	—	11.3	0.09	0.10	"	"				
206	29	10	33	40	33	42	34	08	34	07	—	—	6.0	0.06	0.06	"	"				
207	30	3	11	38	11	40	16	52	16	52	21	47	82.9	?	?	"	"				
208	Sept. 3	14	?	—	—	—	48	50	—	—	—	—	?	0.00	—	"	"				
209	4	6	24	54	24	55	25	34	25	34	—	—	6.3	0.11	0.09	"	"				
210	5	20	29	13	29	14	29	30	29	29	—	—	5.1	0.05	0.06	"	"				
211	6	19	45	33	—	—	46	06	—	—	—	—	4.6	0.01	—	"	"				
212	9	3	01	09	01	09	01	47	01	44	—	—	5.3	0.06	0.05	"	"				
213	9	15	43	25	—	—	43	47	—	—	—	—	3.9	0.01	—	"	"				
214	9	18	37	49	—	—	38	10	—	—	—	—	5.4	0.01	—	"	"				
215	10	6	02	02	?	—	03	05	03	06	—	—	3.9	0.02	0.01	"	"				
216	13	14	?	—	—	—	45	46	—	—	—	—	?	0.01	—	"	"				
217	13	15	?	—	—	—	?	11	15	26	15	05	?	0.02	0.15	"	"				
218	14	4	33	10	33	10	34	08	34	09	—	—	9.1	0.22	0.20	"	"				
219	14	5	00	09	00	10	01	07	01	07	—	—	6.5	0.10	0.07	"	"				
220	14	6	09.5	—	—	—	09	58	—	—	—	—	3.8?	0.00	—	"	"				



TABLE A.  
(Earthquakes)

No.	Date 1924	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. 14	h	m	s	m	s	m	s	m	s	m	s	m	s	m	mm	mm	mm	Slow	Feeble	
222	14	8	40	33	?		41	30	41	33	—	—	—	—	5.6	0.02	0.02	"	"		
223	18	10	40	56	40	55	41	48	41	45	—	—	—	—	8.0	0.17	0.20	Quick	Weak	Felt	
224	18	1	09	32	09	32	10	08	10	08	—	—	—	—	17.0	0.85	0.86	Slow	Feeble		
225	18	2	54	46	54	44	55	21	55	18	—	—	—	—	7.0	0.23	0.20	"	"		
		19	?		—	—	03	50	—	—	—	—	—	—	?	0.01	—	"	"		
226	19	14	01	19	—	—	01	54	—	—	—	—	—	—	3.4	0.01	—	"	"		
227	20	1	42	26	42	30	43	04	43	06	—	—	—	—	7.0	0.04	0.02	"	"		
228	20	7	18	15	18	15	18	23	18	22	—	—	—	—	2.2	0.03	0.04	Quick	"	Felt	
229	24	18	14	34	14	34	14	50	14	49	—	—	—	—	5.3	0.11	0.11	"	Weak	Felt	
230	24	18	41	48	41	45	42	17	42	20	—	—	—	—	14.1	0.35	0.50	Slow	Feeble		
231	Oct. 28	14	51	41	—	—	52	47	—	—	—	—	—	—	5.1	0.02	—	"	"		
232	1	6	?		—	—	09	48	—	—	—	—	—	—	?	0.02	—	"	"		
233	1	16	50	28	50	29	50	45	50	46	—	—	—	—	6.0	0.05	0.06	"	"		
234	2	16	32	33	?		33	08	33	07	—	—	—	—	6.9	0.07	0.06	"	"		
235	2	19	08	34	—	—	09	45	—	—	—	—	—	—	4.8	0.02	—	"	"		
236	3	18	31	43	—	—	33	24	—	—	—	—	—	—	5.2	0.01	—	"	"		
237	5	13	22	38	22	39	23	31	23	31	—	—	—	—	9.1	0.14	0.20	"	"		
238	5	13	47	00	?		48	02	48	08	—	—	—	—	5.8	0.03	0.02	"	"		
239	5	15	46	55	—	—	47	50	—	—	—	—	—	—	4.9	0.01	—	"	"		
240	7	14	25	55	25	53	26	23	26	23	—	—	—	—	5.0	0.02	0.02	"	"		
241	8	14	01	57	02	00	02	32	02	34	—	—	—	—	4.2	0.04	0.05	"	"		
242	8	20	—	—	?		—	—	?		—	—	—	—	?	—	0.11	"	"		
243	13	10	07	57	—	—	08	36	—	—	—	—	—	—	2.7	0.00	—	"	"		
244	13	16	26	54	?		27	38	27	39	—	—	—	—	12.8	0.02	0.01	"	"		
245	14	0	10	03	—	—	10	33	—	—	—	—	—	—	3.9	0.01	—	"	"		
246	14	11	28	25	—	—	29	00	—	—	—	—	—	—	4.7	0.01	—	"	"		
247	15	19	?		?		21	23	21	25	—	—	—	—	?	0.01	0.03	"	"		
248	16	7	50	22	?		50	57	50	58	—	—	—	—	5.1	0.03	0.01	"	"		
249	18	6	13	42	13	43	14	12	14	12	—	—	—	—	6.1	0.06	0.06	"	"		
250	20	19	57	53	57	53	61	59	62	00	?		65	18	48.4	?	0.06	"	"		
251	21	9	30	00	?		30	28	?		—	—	—	—	5.6	0.01	0.01	"	"		
252	23	12	48	22	?		48	49	48	50	—	—	—	—	8.2	0.08	0.08	"	"		
253	23	20	30	03	—	—	31	15	—	—	—	—	—	—	6.0	0.01	—	"	"		
254	23	21	38	45	—	—	41	04	—	—	—	—	—	—	6.3	0.01	—	"	"		
255	24	20	37	55	—	—	38	04	—	—	—	—	—	—	2.4	0.02	—	"	"		
256	24	21	29	58	30	00	30	08	30	07	—	—	—	—	2.4	0.02	0.01	"	"		
257	25	15	32	26	32	26	32	38	32	35	—	—	—	—	2.6	0.01	0.01	"	"		
258	27	20	04	16	04	15	09	44	09	44	?		14	49	?	?	0.05	"	"		
259	28	14	?		?		04	21	04	24	—	—	—	—	?	0.02	0.01	"	"		
260	29	3	23	33	23	34	24	03	24	03	—	—	—	—	6.5	0.03	0.02	"	"		
261	Nov. 31	11	13	48	13	46	14	13	14	10	—	—	—	—	4.8	0.02	0.02	"	"		
262	4	8	34	55	?		35	05	35	16	—	—	—	—	2.7	0.01	0.01	"	"		
263	6	3	23	58	—	—	24	35	—	—	—	—	—	—	4.1	0.01	—	"	"		
264	8	2	57	06	57	05	57	46	57	44	—	—	—	—	7.1	0.10	0.09	"	"		
265	9	0	55	19	55	21	55	43	55	43	—	—	—	—	4.2	0.05	?	"	"		
266	9	21	18	14	?		18	29	18	30	—	—	—	—	?	0.01	?	"	"		
267	10	4	?		—	—	12	34	—	—	—	—	—	—	?	0.01	—	"	"		
268	10	6	?		?		41	26	41	26	—	—	—	—	?	0.01	0.01	"	"		
269	12	8	39	10	?		39	41	39	40	—	—	—	—	4.8	0.01	0.01	"	"		
270	24	14	15	02	15	01	15	13	15	13	—	—	—	—	4.4	0.05	?	"	"		
271	24	23	32	36	—	—	32	47	—	—	—	—	—	—	2.3	0.01	—	"	"		
272	25	17	28	28	28	28	29	39	29	38	—	—	—	—	12.6	1.03	1.12	Quick	Weak	Felt	
273	26	14	11	03	11	00	11	17	11	14	—	—	—	—	2.6	0.02	0.02	Slow	Feeble		
274	28	19	49	11	?		49	25	49	26	—	—	—	—	4.1	0.02	0.01	"	"		
275	Dec. 2	0	09	46	?		10	42	10	46	—	—	—	—	4.1	0.04	0.02	"	"		



