



Department of Geology  
University of California

SEISMOGRAPHIC STATION

University of California  
Department of Geology

EAST BAY, CALIFORNIA

ANNUAL REPORT  
OF THE  
METEOROLOGICAL  
AND THE  
SEISMOLOGICAL OBSERVATIONS  
MADE AT THE  
INTERNATIONAL LATITUDE OBSERVATORY  
OF MIZUSAWA  
FOR  
THE YEAR 1925.

Department of Geology  
University of California

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LATITUDE  $39^{\circ} 8'$  N., LONGITUDE  $141^{\circ} 8'$  E.,

HEIGHT ABOVE MEAN SEA LEVEL 61 METRES.

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PUBLISHED BY THE INTERNATIONAL LATITUDE OBSERVATORY  
OF MIZUSAWA.

The present report gives the results of the meteorological and seismological observations made at this observatory during the year 1925. 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.

\* Note: The wind velocity is measured by the Robinson anemometer. Since January first of this year a new factor for this instrument has been used. The ratio of new factor to the old one is 0.7/1.0

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	ψ	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	36 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

September, 1926.

H .Kimura, Rigakuhakushi

Director of the International Latitude Observatory  
in Mizusawa,

# SEISMOLOGICAL OBSERVATIONS.

## SEISMOLOGICAL OBSERVATIONS AT MIZUSAWA.

TABLE A.

(Earthquakes)



No.	Date 1925	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. 3	h 8	m 20	s 11		m 20	s 12	m 54		m 20	s 52	m —	s —	14.7	mm	0.07	0.06		Slow	Feeble	Felt
2	5	15	02	46	02	46		03	08	03	06	—	—	8.5	0.12	0.10	—	Quick	Weak		
3	6	14	37	02	—	—	37	51	—	—	—	—	—	4.5	0.00	—	—	Slow	Feeble		
4	8	20	52	54	52	53		53	28	53	30	—	—	5.7	0.04	0.05	—	"	"		
5	9	4	36	13	?		36	49	36	49	—	—	—	4.9	0.02	0.02	—	"	"		
6	9	7	02	25	02	24		03	05	03	02	—	—	6.4	0.04	0.04	—	"	"		
7	9	9	09.9	—	—	10	20	—	—	—	—	—	—	4.9	0.01	—	—	"	"		
8	10	12	22	23	22	22		22	33	22	33	—	—	3.6	0.11	0.11	—	Quick	Weak	Felt	
9	11	23	44	44	?		45	13	45	11	—	—	—	3.9	0.01	0.02	—	Slow	Feeble		
10	14	20	?	?	?		39	03	39	04	—	—	—	?	0.01	0.01	—	"	"		
11	15	3	?	44	—	—	29	13	—	—	—	—	—	?	0.01	—	—	"	"		
12	16	22	10	44	10	45		11	16	11	16	—	—	4.4	0.05	0.05	—	"	"		
13	17	8	06	54	06	55		07	24	07	27	—	—	6.8	0.03	0.03	—	"	"		
14	18	12	08	51	08	52		10	58	10	56	—	—	24.8	1.73	0.60	—	"	"		
15	18	19	50	11	?		50	41	?	—	—	—	—	3.1	0.01	0.01	—	"	"		
16	18	20	22	41	?		23	06	23	11	—	—	—	5.5	0.01	0.01	—	"	"		
17	19	2	12	54	12	54		13	17	13	17	—	—	3.2	0.02	0.02	—	"	"		
18	22	10	18	21	18	21		18	51	18	51	—	—	7.6	0.09	0.10	—	"	"		
19	22	12	35	32	—	—	35	43	—	—	—	—	—	3.2	0.00	—	—	"	"		
20	24	8	27	34	?		28	14	28	14	—	—	—	7.8	0.06	0.06	—	"	"		
21	24	20	12	14	—	—	12	59	—	—	—	—	—	3.7	0.01	—	—	"	"		
22	24	21	38	59	—	—	39	40	—	—	—	—	—	4.1	0.01	—	—	"	"		
23	25	16	30	00	?		31	09	31	14	—	—	—	6.1	0.01	0.01	—	"	"		
24	27	6	54	22	54	22		54	34	54	34	—	—	2.6	0.05	0.04	—	"	"		
25	28	4	07	09	07	10		08	18	08	19	—	—	?	0.72	0.74	—	"	"		
26	28	4	?	39	?		28	15	28	18	—	—	—	?	0.03	0.06	—	"	"		
27	28	4	41	39	?		42	48	42	49	—	—	—	11.1	0.03	0.03	—	"	"		
28	28	11	45	33	—	—	46	33	—	—	—	—	—	6.1	0.01	—	—	"	"		
29	30	7	?	?	—	—	05	54	—	—	—	—	—	?	0.01	—	—	"	"		
30	30	7	?	?	—	—	26	20	—	—	—	—	—	?	0.00	—	—	"	"		
31	30	17	?	—	—	—	34	04	—	—	—	—	—	?	0.02	—	—	"	"		
32	31	5	12	26	?		12	53	12	52	—	—	—	3.4	0.01	0.01	—	"	"		
33	31	17	—	—	02	17	—	—	03	23	—	—	—	14.3	—	0.10	—	"	"		
34	31	20	—	—	?		—	—	25	11	—	—	—	?	—	0.04	—	"	"		
35	Feb. 1	0	20	39	?		21	43	21	42	—	—	—	8.2	0.02	0.02	—	"	"		
36	1	5	25	39	25	40		26	40	26	43	29	16	29	16	?	0.46	0.50	"	"	
37	1	6	?	—	—	—	25	20	—	—	—	—	—	?	0.01	—	—	"	"		
38	1	9	?	—	—	—	14	00	—	—	—	—	—	?	0.00	—	—	"	"		
39	1	9	?	—	—	—	34	11	34	12	—	—	—	?	0.01	?	—	"	"		
40	1	9	?	—	—	—	37	44	37	45	—	—	—	?	0.02	?	—	"	"		
41	1	12	?	—	—	—	27	51	—	—	—	—	—	?	0.01	—	—	"	"		
42	1	15	?	—	—	—	37	43	—	—	—	—	—	?	0.00	—	—	"	"		
43	1	15	?	—	—	—	56	51	—	—	—	—	—	?	0.01	—	—	"	"		
44	1	16	?	—	—	—	35	51	—	—	—	—	—	?	0.01	—	—	"	"		
45	1	17	16	18	?		17	28	17	27	—	—	—	7.4	0.03	0.02	—	"	"		
46	1	17	?	—	—	—	25	52	25	53	—	—	—	?	0.01	0.01	—	"	"		
47	1	20	?	—	—	—	47	45	47	47	—	—	—	?	0.01	0.01	—	"	"		
48	1	20	58	49	?		59	55	59	54	—	—	—	?	0.01	0.01	—	"	"		
49	2	10	?	—	—	—	22	44	—	—	—	—	—	5.5	0.01	0.01	—	"	"</		

TABLE A.

(Earthquakes)

No.	Date 1925	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	Feb. 2	h 12	m ?	s	m —	m 18	s 42	m —	s	m —	s	m —	s	m ?	mm 0,00	mm —	Slow	Feeble			
57	2	12	37	11	?	38	24	38	21	—	—	—	—	6.7	0,01	0,01	"	"			
58	2	12	51	56	?	53	07	53	07	—	—	—	—	6.4	0,02	0,01	"	"			
59	2	13	30	48	30	47	31	55	31	54	34	21	?	30,3	0,37	0,49	"	"			
60	2	13	?	—	—	48	36	—	—	—	—	—	—	?	0,00	—	"	"			
61	2	14	13	23	13	25	14	34	14	32	—	—	—	19,6	0,06	0,07	"	"			
62	2	14	40	54	41,0	42	03	42	01	—	—	—	—	16,8	0,05	0,04	"	"			
63	2	15	?	—	—	01	20	—	—	—	—	—	—	?	0,00	—	"	"			
64	2	17	21	35	—	—	22	40	—	—	—	—	—	6,1	0,01	—	"	"			
65	2	19	19	29	?	20	38	20	38	—	—	—	—	5,7	0,01	0,01	"	"			
66	2	19	26	28	26	28	27	37	27	38	—	—	—	16,2	0,15	0,15	"	"			
67	2	19	48	26	48	26	49	35	49	34	51	50	?	?	1,75	1,15	"	"			
68	2	19	—	—	?	—	—	59	58	—	—	—	—	?	—	0,09	"	"			
69	2	20	?	?	?	09	34	09	33	—	—	—	—	?	0,02	?	"	"			
70	2	20	?	—	—	23	26	—	—	—	—	—	—	?	0,00	—	"	"			
71	2	20	30	33	?	31	43	31	44	—	—	—	—	6,1	0,02	0,01	"	"			
72	2	20	?	?	?	39	28	39	28	—	—	—	—	?	0,04	0,02	"	"			
73	2	21	30	23	?	31	36	31	36	—	—	—	—	6,4	0,04	0,03	"	"			
74	2	22	14	26	14	27	15	31	15	32	—	—	—	13,6	0,10	0,07	"	"			
75	2	23	38	14	—	—	39	22	—	—	—	—	—	5,3	0,01	—	"	"			
76	3	1	54,5	29	?	55	14	?	—	56	03	56	01	6,9?	0,03	0,02	"	"			
77	3	2	29	29	?	30	38	30	38	—	—	—	—	11,2	0,05	0,06	"	"			
78	3	4	?	—	—	33	56	—	—	—	—	—	—	?	0,00	—	"	"			
79	3	6	?	—	—	37	46	—	—	—	—	—	—	?	0,01	—	"	"			
80	4	10	?	—	—	11	08	—	—	—	—	—	—	?	0,01	—	"	"			
81	5	6	09	15	—	—	09	37	—	—	—	—	—	3,3	0,01	—	"	"			
82	5	18	?	?	?	43	41	43	42	—	—	—	—	?	0,04	0,04	"	"			
83	5	19	59	50	—	—	60	29	—	—	—	—	—	3,5	0,00	—	"	"			
84	6	17	12	13	12	14	13	01	13	03	—	—	—	11,6	0,43	0,31	"	"			
85	7	12	?	—	—	13	44	—	—	—	—	—	—	?	0,01	—	"	"			
86	8	9	34	52	—	—	35	50	—	—	—	—	—	4,1	0,01	—	"	"			
87	9	3	06	42	?	07	44	07	41	—	—	—	—	6,3	0,04	0,05	"	"			
88	10	4	?	?	?	42	00	41	59	—	—	—	—	?	0,02	0,02	"	"			
89	13	7	13	53	13	52	14	40	14	36	—	—	—	4,3	0,03	0,02	"	"			
90	13	18	16	09	?	16	22	16	23	—	—	—	—	2,7	0,02	0,02	"	"			
91	14	0	43	02	43	01	43	35	43	35	—	—	—	4,6	0,06	0,05	"	"			
92	14	9	?	—	—	41	14	—	—	—	—	—	—	?	0,00	—	"	"			
93	15	11	36	17	36	19	36	48	36	47	—	—	—	7,5	0,10	0,11	"	"			
94	18	8	10	20	10	18	10	30	10	28	—	—	—	4,2	0,33	0,23	Quick	Weak			
95	18	12	?	—	—	08	25	—	—	—	—	—	—	?	0,01	—	Slow	Feeble	Felt		
96	19	15	06	08	—	—	06	37	—	—	—	—	—	5,4	0,01	—	"	"			
97	19	23	23	27	23	27	23	45	23	48	—	—	—	5,4	0,10	0,13	"	"			
98	20	1	04	35	04	37	06	12	06	11	—	—	—	54,4	?	0,60	"	"			
99	23	23	?	—	—	25	14	—	—	—	—	—	—	?	0,01	—	"	"			
100	24	0	?	?	?	02	39	02	40	—	—	—	—	?	0,02	0,02	"	"			
101	24	17	47	03	47	01	47	28	47	29	—	—	—	7,2	0,08	0,05	"	"			
102	25	22	?	—	—	09	50	—	—	—	—	—	—	?	0,01	—	"	"			
103	Mar. 1	3	59	15	?	60	36	60	40	—	—	—	—	8,8	0,04	0,02	"	"			
104	1	6	?	—	—	38	16	—	—	—	—	—	—	?	0,01	—	"	"			
105	2	9	02	06	—</td																

## SEISMOLOGICAL OBSERVATIONS AT MIZUSAWA.

# TABLE A.

*(Earthquakes)*



No.	Date 1925	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	E	W	N	S		
111	Mar. 16	14 49 21	—	49 23	—	55 05	55 02	59 25	59 22	—	—	53.7	mm 0.02	mm 0.37	Slow	Feeble	
112	21	1 17 27	—	—	—	18 04	—	—	—	—	—	3.4	0.02	—	“	“	
113	22	2 39 03	?	—	—	39 16	39 17	—	—	—	—	3.2	0.02	0.02	“	“	
114	22	6 51 01	—	—	—	51 40	—	—	—	—	—	3.4	0.01	—	“	“	
115	22	8 52 23	52 23	—	—	60 46	60 46	68 17	68 15	—	—	100.5	?	0.02	“	“	
116	April 26	11 14 29	—	—	14 53	—	—	—	—	—	—	2.6	0.01	—	“	“	
117	27	4 19 00	19 01	—	—	20 45	20 46	—	—	—	—	7.7	0.19	0.08	“	“	
118	31	1 07 21	07 23	—	—	07 58	07 58	—	—	—	—	4.6	0.05	0.02	“	“	
119	4 22	?	—	—	—	41 32	—	—	—	—	—	?	0.01	—	“	“	
120	6 0	?	—	—	—	20 14	—	—	—	—	—	?	0.00	—	“	“	
121	7	18 12 19	12 19	—	—	17 29	17 31	22 38	22 39	—	—	36.1	?	0.05	“	“	
122	11	22 28 12	?	—	—	29 03	29 02	—	—	—	—	12.2	0.02	0.02	“	“	
123	12	7 00 35	?	—	—	00 59	01 00	—	—	—	—	3.5	0.01	0.01	“	“	
124	13	19 56 53	—	—	—	58 16	—	59 43	—	—	—	10.0	0.01	—	“	“	
125	14	3 59 13	—	—	—	59 31	—	—	—	—	—	2.9	0.01	—	“	“	
126	16	19 57 57	57 56	—	—	62 12	62 12	66 21	66 14	—	—	54.6	0.03	0.70	“	“	
127	16	21 57 46	—	—	—	58 18	—	—	—	—	—	4.7	0.01	—	“	“	
128	19	15 48 16	48 15	—	—	49 29	49 29	—	—	—	—	15.1	0.76	0.65	“	“	
129	19	20 42 13	42 16	—	—	42 26	42 32	—	—	—	—	16.8	?	0.95	Quick	Weak	Felt
130	20	2 00 49	00 49	—	—	01 03	01 02	—	—	—	—	9.9	0.49	0.66	“	“	“
131	May 22	22 12 33	—	—	—	12 49	—	—	—	—	—	3.2	0.01	—	Slow	Feeble	
132	28	0 13 46	?	—	—	15 13	15 15	—	—	—	—	6.6	0.03	0.02	“	“	
133	28	12 ?	—	—	—	35 38	—	—	—	—	—	?	0.01	—	“	“	
134	3 17	—	—	—	29 23	—	—	35 21	—	40 57	—	46.1	—	0.22	“	“	
135	5 10	12 53	12 54	—	—	18 15	18 14	23 23	23 23	—	—	57.3	?	0.17	“	“	
136	10	6 — —	56 41	—	—	56 50	—	—	—	—	—	2.6	—	0.10	Quick	Weak	Felt
137	11	8 52 01	?	—	—	52 31	52 31	—	—	—	—	6.8	0.03	0.02	Slow	Feeble	
138	14	5 38 43	—	—	—	39 14	—	—	—	—	—	3.3	0.01	—	“	“	
139	15	12 ?	—	—	—	16 55	—	—	—	—	—	?	0.01	—	“	“	
140	15	18 27 50	27 51	—	—	29 29	29 29	—	—	—	—	7.7	0.12	0.15	“	“	
141	16	6 55.7	—	—	—	56 57	—	—	—	—	—	4.3?	0.01	—	“	“	
142	16	13 ?	—	—	—	34 51	—	—	—	—	—	?	0.01	—	“	“	
143	18	16 04 52	?	—	—	05 27	05 32	—	—	—	—	5.2	0.01	0.01	“	“	
144	20	11 06 52	06 54	—	—	09 12	09 10	11 40	11 39	—	—	35.3	?	0.10	“	“	
145	22	9 42 08	?	—	—	43 35	43 36	?	—	45 25	—	?	?	0.15	“	“	
146	23	2 11 17	11 18	—	—	12 43	12 43	—	—	—	—	33.1	?	1.07	“	“	
147	23	3 04 11	—	—	—	05 37	—	—	—	—	—	6.9	0.00	—	“	“	
148	23	14 — —	?	—	—	—	45 50	—	—	—	—	?	—	0.06	“	“	
149	25	16 23 49	?	—	—	24 51	24.9	—	—	—	—	7.0	0.02	0.03	“	“	
150	26	15 41 57	?	—	—	45 53	45 54	—	—	—	—	9.1	0.05	0.02	“	“	
151	27	2 31 24	31 24	—	—	31 28	31 28	—	—	—	—	17.1	0.54	0.61	“	“	
152	29	17 50 34	?	—	—	50 49	50 47	—	—	—	—	2.5	0.02	0.01	“	“	
153	29	22 05 05	—	—	—	05 19	—	—	—	—	—	2.1	0.01	—	“	“	
154	June 2	3 44 39	44 39	—	—	45 07	45 08	—	—	—	—	8.9	0.35	0.35	“	“	
155	2	5 18 59	18 58	—	—	19 29	19 29	—	—	—	—	19.3	?	1.42	“	“	
156	3	4 41 33	41 32	—	—	47 31	47 33	53 19	53 17	—	—	48.3	?	0.10	“	“	
157	4	0 02 25	—	—	—	02 55	—	—	—	—	—	4.3	0.00	—	“	“	
158	5	15 ?	—	—	—	59 20	—	—	—	—	—	?	0.01	—	“	“	
159	6	1 05 04	—	—	—	05 44	—	—	—	—	—	3.7	0.02	—	“	“	
160	6	5 ?	—	—	—	07 53	—	—	—	—	—	?	0.00	—	“	“	
161	7	4 41 24	—	—	—	42 03	—	—	—	—	—	2.6	0.01	—	“	“	
162	7	6 ?	—	—	—	07 07	—	—	—	—	—	?	0.00	—	“	“	
163	9	12 ?	—	—	—	45 02	—	—	—	—	—	?	0.01	—	“	“	
164	9	13 48 42	48.8	—	—	54 59	54 59	?	—	61 06	—	?	?	0.3			

## TABLE A.

(Earthquakes)

No.	Date 1925	P			S			L			Duration of Total Earthquake (mean)	Maximum Range of Motion		Character of Motion	Intensity	Remark			
		E	W	N	S	E	W	N	S	E	W	E	W	N	S				
166	June 16	h 17	m 10	s 29	m 10	s 30	m 11	s 26	m 11	s 27	m —	s —	m —	s —	m 7.8	mm 0.06	mm 0.03	Slow	Feeble
167	19	0	?	—	—	56	09	—	—	—	—	—	—	?	0.01	—	"	"	
168	19	17	20	39	—	—	21	49	—	—	—	—	—	3.8	0.01	—	"	"	
169	22	13	43	07	43	08	45	05	45	06	—	—	—	8.6	0.03	0.02	"	"	
170	23	4	44	50	44	49	45	29	45	27	—	—	—	11.1	0.68	0.81	Quick	Weak	
																	Felt		
171	July 24	2	13	04	—	—	13	21	—	—	—	—	—	4.8	0.01	—	Slow	Feeble	
172	25	18	?	—	—	24	33	—	—	—	—	—	—	?	0.01	—	"	"	
173	25	21	25	23	25	22	26	12	26	13	—	—	—	7.1	0.12	0.12	"	"	
174	4	10	?	—	?	19	02	19	01	—	—	—	—	?	?	?	"	"	
175	6	16	48	10	48	15	49	14	49	13	—	—	—	8.4	0.05	0.07	"	"	
176	7	10	12	51	—	—	13	36	—	—	—	—	—	3.7	0.01	—	"	"	
177	15	9	00	31	?	—	03	04	03	06	—	—	—	7.8	0.04	0.02	"	"	
178	18	19	48	51	—	—	49	16	—	—	—	—	—	2.2	0.00	—	"	"	
179	22	?	—	—	?	—	—	—	—	—	—	—	—	?	0.01	—	"	"	
180	22	?	—	—	?	—	—	—	—	—	—	—	—	?	0.01	—	"	"	
181	22	?	—	—	?	—	—	—	—	—	—	—	—	?	0.01	—	"	"	
182	26	12	46	26	46	27	46	50	46	51	—	—	—	8.3	0.19	0.16	"	"	
183	28	20	49	02	49	04	49	14	49	18	—	—	—	4.8	0.19	0.21	Quick	Weak	
184	29	3	27	53	27	53	28	17	28	20	—	—	—	2.8	0.02	0.01	Slow	Feeble	
185	29	17	53	22	53	27	53	48	53	52	—	—	—	5.5	0.08	0.06	"	"	
186	Aug. 30	2	17	42	—	—	18	04	—	—	—	—	—	2.2	0.01	—	"	"	
187	7	2	53	33	—	—	54	09	—	—	—	—	—	4.3	0.01	—	"	"	
188	10	20	40	52	40	55	41	14	41	17	—	—	—	5.1	0.04	0.04	"	"	
189	19	12	12	44	12	44	17	01	17	00	21	12	21	09	40.5	0.06	0.63	"	"
190	19	12	?	—	—	54	26	—	—	—	—	—	—	?	0.01	—	"	"	
191	19	18	?	—	—	21	10	—	—	—	—	—	—	?	0.01	—	"	"	
192	20	11	36	33	—	—	36	45	—	—	—	—	—	3.0	0.02	—	"	"	
193	22	7	23	36	—	—	24	21	—	—	—	—	—	3.8	0.00	—	"	"	
194	24	18	23	25	?	—	23	37	23	38	—	—	—	2.9	0.02	?	"	"	
195	31	19	47	20	47	22	47	44	47	47	—	—	—	15.6	0.22	0.29	"	"	
196	Sept. 1	19	30	05	—	—	30	22	—	—	—	—	—	2.7	0.01	—	"	"	
197	2	8	56	15	—	—	56	21	—	—	—	—	—	1.3	0.01	—	"	"	
198	5	16	35	38	35	36	40	12	40	10	?	?	?	—	—	—	"	"	
199	8	0	12	05	—	—	12	27	—	—	—	—	—	2.3	0.00	—	"	"	
200	10	22	?	—	58	01	?	—	58	22	—	—	—	5.4	0.21	0.31	"	"	
201	12	10	56.2	—	—	56	44	—	—	—	—	—	—	?	0.03	—	"	"	
202	14	8	44	34	44	34	44	51	44	50	—	—	—	3.7	0.01	0.01	"	"	
203	21	1	56	30	—	—	57	09	—	—	—	—	—	3.7	0.02	—	"	"	
204	24	23	57	27	57.5	—	57	41	57	42	—	—	—	3.0	0.04	0.03	Quick	Weak	
205	25	13	54.1	—	—	54	42	—	—	—	—	—	—	6.0	0.01	—	Slow	Feeble	
206	Oct. 29	1	03	46	?	—	04	25	04.5	—	—	—	—	3.8	0.01	0.01	"	"	
207	4	7	—	—	33	23	—	—	34	27	—	—	—	6.7	—	0.04	"	"	
208	5	11	10	28	10	28	11	12	11	12	—	—	—	8.7	0.20	0.20	"	"	
209	8	18	24	42	—	—	25	03	—	—	—	—	—	2.3	0.01	—	"	"	
210	9	18	39	57	—	—	40	16	—	—	—	—	—	3.8	0.01	—	"	"	
211	11	13	?	—	—	12	00	—	—	—	—	—	—	?	0.01	—	"	"	
212	13	3	10	35	—	—	10	45	—	—	—	—	—	3.1	0.01	—	"	"	
213	18	8	32	59	33	00	33	07	33	07	—	—	—	8.8	0.02	0.01	"	"	
214	20	9	—	—	44	27	—	—	?	—	—	—	—	9.3	—	0.14	"	"	
215	22	12	57	56	—	—	?	—	60	43	—	—	—	7.9	0.02	—	"	"	
216	Nov. 22	?	—	—	—	—	?	—	—	—	—	—	—	?	0.01	—	"	"	
217	25	0	28	20	—	—	28	41	—	—</td									

## SEISMOLOGICAL OBSERVATIONS AT MIZUSAWA.

TABLE A.

(Earthquakes)



NO.	Date 1925	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	E	W	N	S		
221	Nov. 6	h 15	m 14	s 11		m 14	s 10	m 15	s 28	m 15	s 30	10.7	mm 0.16	mm 0.15	Slow	Feeble	Felt
222		16 ?	— —			08	16	—	—	—	—		0.01	—	"	"	
223		13 53	30	53 29		64 25	20	70 23	23	70 18	18		0.03	0.55	"	"	
224		14 44	56	44 58		45 14	15	—	—	—	—		0.56	0.39	Quick	Weak	
225		16 36	27	? 36	38	36 38	39	—	—	—	—		0.02	0.01	Slow	Feeble	
226	11	23 27	22	27 24		27 51	52	—	—	—	—	4.1	0.03	0.02	"	"	
227	12	12 24	17	— —		24 44	—	—	—	—	—	?	0.01	—	"	"	
228	13	12 20	57	20 58		25 07	06	29 16	16	29 16	16	11.4	0.10	1.30	"	"	
229	24	23 10	17	— —		10 49	—	—	—	—	—	?	0.03	—	"	"	
230	Dec. 1	20 47	18	47 21		48 03	03	—	—	—	—	6.8	0.03	0.01	"	"	
231	2	2 16	11	? 16	11	17 04	08	—	—	—	—	6.0?	0.03	0.04	"	"	
232	2	9 13	42	? 13	42	14 32	31	—	—	—	—	5.4?	0.04	0.02	"	"	
233	2	23 55	41	— —		56 06	—	—	—	—	—	2.6	0.02	—	"	"	
234	3	16 09	41	— —		09 55	—	—	—	—	—	1.6	0.01	—	"	"	
235	4	15 32	02	32 04		32 32	31	—	—	—	—	6.9	0.26	0.35	"	"	
236	8	2 10	31	— —		11 20	—	—	—	—	—	?	0.01	—	"	"	
237	8	18 49	25	— —		50 13	—	—	—	—	—	?	0.01	—	"	"	
238	8	20 19	23	— —		20 14	—	—	—	—	—	?	0.01	—	"	"	
239	11	7 20	21	? 20	21	21 01	02	—	—	—	—	5.6	0.02	0.01	"	"	
240	12	3 29	20	29 21		29 36	36	—	—	—	—	4.7	0.29	0.31	"	"	
241	13	13 34	55	— —		35 10	—	—	—	—	—	3.7	0.01	—	"	"	
242	19	5 07	39	— —		08 30	—	—	—	—	—	4.6	0.01	—	"	"	
243	29	2 ?	?	?		09 07	09	09	12 36	36	12 34	?	?	0.07	"	"	

TABLE B.  
*(Pulsatory Oscillations EW Component.)*

Beginning		Ending		Maximum		
Date 1925	Hour	Date 1925	Hour	Date 1925	Hour	Double Amplitude
January 11	12 h	January 15	14 h	January 12	8—9 h	mm 0.01
17	0	18	12	18	3—4	0.00
February 6	13	February 9	0	February 7	4—5	0.01
10	0	11	22	10	4—5	0.01
22	12	24	23	22	22—23	0.00
March 3	16	March 6	6	March 5	22—23	0.00
7	0	10	4	7	12—13	0.01
14	1	15	23	14	11—12	0.01
29	17	31	14	30	11—12	0.01
September 4	0	September 6	23	September 5	10—11	0.01
12	1	12	21	12	9—10	0.01
16	11	17	1	16	15—16	0.01
October 18	4	20	2	18	12—13	0.01
2	20	October 4	2	3	13—14	0.00
17	10	22	8	20	4—5	0.01
November 30	19	NOvember 31	18	31	4—5	0.00
5	0	5	14	5	6—7	0.00
6	23	7	11	7	3—4	0.00
11	8	12	22	11	19—20	0.01
13	0	16	17	13	16—17	0.01
December 18	16	20	14	19	13—14	0.01
20	22	22	16	22	2—3	0.01
23	17	25	14	25	3—4	0.01
28	9	December 1	0	30	4—5	0.01
1	17	4	0	December 2	16—17	0.01
5	10	7	11	5	15—16	0.01
10	0	12	3	10-11	23—0	0.00
15	4	17	1	15	22—23	0.01
16	23	20	8	19	21—22	0.00
20	19	24	9	22	1—4	0.02
27	21	31	24	28-29	23—0	0.01