

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$   $\lambda = 138^{\circ}51'E$   $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)

January 1950

International  
Seismological  
Centre

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:	4.6	10.0	0.017	89
AE:	4.6	10.0	0.017	89
AZ:	5.3	3.1	0.016	53

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				

No.	Date	Phase.	Time. 135°E			Period s	Amplitude			$\Delta$ km	Remarks
			h	m	s		$A_E$	$A_N$	$A_Z$		
			$\mu$	$\mu$	$\mu$						
1	Jan 5	eP	10	23	57.4				1860		
		eL	10	27	22.4						
		F	10	39	28.8						
2.	6	eP	3	55	4.4				1649		
		eS	3	57	26.6						
		F	4	05	5.8						
3	6	eP	8	07	29.9				256		
		eS	8	08	4.1						
		F	8	14	14.1						
4	11	eP	3	17	15.0						
		F	3	23	55.0						
5	11	eP	16	14	12.8				163		
		eS	16	17	41.8						
		F	16	20	55.0						
6	12	e	6	22	20.6				460		
		eS	6	23	22.6						
		F	6	31	56.8						
7	19	e	15	50	12.8						
		F	15	53	8.8						
8	21	e	13	28	56.5						
		F	13	33	28.9						

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(Horizontal Pendulum)

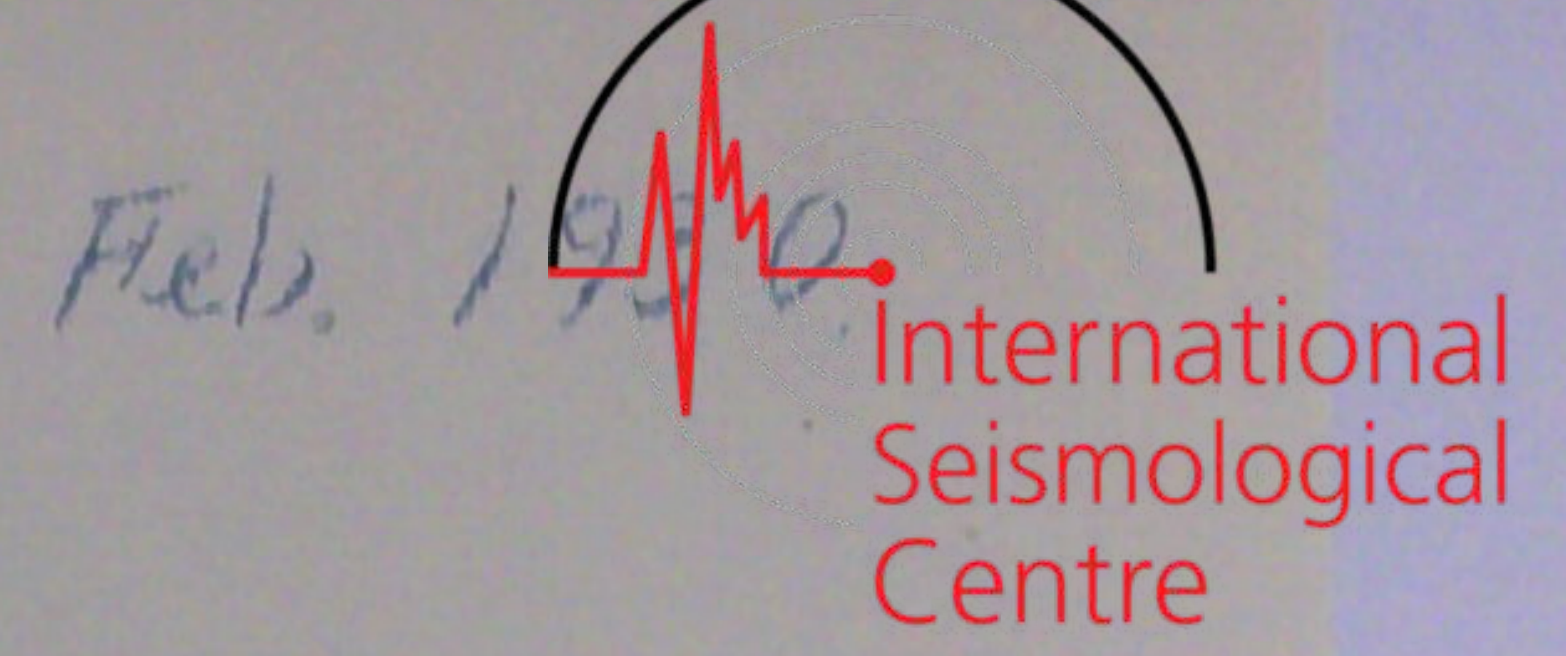


	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

No.	Date.	Phase.	Time. 135°E			Period s	Amplitude			$\Delta$ km	Remarks
			h	m	s		$A_E$	$A_N$	$A_z$		
							$\mu$	$\mu$	$\mu$		
9	21	e	22	10	16.7						
		H	22	13	32.8						
10	21	e	23	01	52.3						
		H	23	07	3.2						
11	23	eP	7	49	21.8	1.2			1825		
		eS	7	49	46.4	1.6					
		M <sub>E</sub>	7	49	48.3		+ 21.8				
		H	7	53	42.4		- 43.5				
12	25	eP	8	41	21.0				243.9		
		eS	8	41	53.8						
		H	8	44	30.7						
13	25	eP	20	43	2.4				277.		
		eS	20	43	39.7						
		H	20	47	27.3						
14	26	eP	21	24	26.4				1215		
		eS	21	27	32.2						
		H	21	31	45.7						
15	31	e?	3	21	38.5						
		H	3	25	1.3						

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(Horizontal Pendulum)

	$T_0$	$\epsilon$	$\frac{r}{T_0^2}$	V
AN:	4.6	10.0	0.017	89
AE:	4.6	10.0	0.017	89
AZ:	3.9	3.1	0.016	53

	$T_0$	$\epsilon$	$\frac{r}{T_0^2}$	V
AN:	15.9	4.2	0.005	20
AE:	16.0	3.0	0.018	20

No.	Date.	Phase.	Time. 135°E	Period	Amplitude			$\Delta$ km	Remarks
					$A_E$ $\mu$	$A_N$ $\mu$	$A_Z$ $\mu$		
16	1 Feb	E	73 35 11.8	s					
		F	13 40 47.5					indistinct.	
17	2 "	eP	8 08 1.5				192		
		eL	8 08 27.3						
		F	8 14 2.7						
18	3 "	e?	0 02 39.4					indistinct.	
		F	1 13 ±						
19	3 "	E	6 02 5.3				121		
		eL	6 02 21.5						
		F	6 05 50.4						
20	4 "	E	15 06 39.6					indistinct.	
		F	17 08 55.7						
21	4 "	e	13 00 8.1				247	indistinct	
		eL	13 00 41.3						
		F	13 05 26.7						
22	5 "	e	26 32 2.9						
		F	22 36 23.2						
23	7 "	e	17 43 4.0				251		
		eL	17 43 22.8						
		F	17 51 21.8						
24	9 "	e	20 38 14.0						
		F	20 39 49.0						
25	11 "	e	9 13 4.1						
		eL	9 13 47.4						
		M <sub>N</sub>	9 14 14.1	2.8	-	± 77			
		M <sub>E</sub>	9 14 15.4	2.8	± 58	-			
		F	9 22 8.0						
26	12 "	e	9 07 44.3						
		F	9 08 54.2						
27	14 "	e	2 19 57.0				45		
		eL	2 20 3.0						
		F	2 24 27.9						
28	15 "	e	1 13 21.2						
		F	1 15 0.7						

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(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	T <sub>0</sub>	ε	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				
AZ:				

	T <sub>0</sub>	ε	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				

No.	Date.	Phase.	Time. 135°E			Period	Amplitude			Δ	Remarks
							A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
							μ	μ	μ	km	
29	15, Fri	ε?	10	26	29.7						
		F <sub>1</sub>	10	32	1.6						
30	17, Sun	εP	22	02	2.5				29.7	The epicenter was on Ito, which is situated in lat. 34° 58' N and long 139° 06' E.	
		εS	22	02	7.5						
		F <sub>1</sub>	22	04	4.2						
31	17 "	ε	22	04	35.1				29.7	ditto	
		εS	22	04	34.1						
		F <sub>1</sub>	22	05	42.2						
32	17 "	ε	22	20	53.4				29.7	ditto	
		εS	22	20	57.6						
		F <sub>1</sub>	22	22	38.2						
33	18 "	ε	16	11	45.7				28.2	ditto	
		εS	16	11	49.5						
		F <sub>1</sub>	16	13	14.0						
34	19 "	ε	10	49	1.9						
		F <sub>1</sub>	10	51	11.3						
										ditto	
35	19 "	εP	16	46	43.3						
		εS	16	46	47.3						
		F <sub>1</sub>	16	49	50.3						
36	19 "	εP	23	16	6.4					ditto	
		εS	23	16	10.3						
		F <sub>1</sub>	23	18	6.7						
37	19 "	P	23	26	24.9					distinct, ditto	
		S	23	26	28.8						
		F <sub>1</sub>	23	29	9.9						
38	20 "	iP	11	28	54.4	+ 6.8	- 3.4	= ?		distinct, ditto	
		S	11	28	58.4						
		F <sub>1</sub>	11	33	27.0						
39	20 "	iP	13	46	15.5				32.7	ditto	
		εS	13	46	19.9						
		F <sub>1</sub>	13	50	18.6						
40	20 "	εP	13	59	33.3				28.3	ditto	
		εS	13	59	37.1						
		F <sub>1</sub>	14	01	9.2						
41	20 "	iP	14	30	4.3				40.0	ditto	
		εS	14	30	6.7						
		F <sub>1</sub>	14	31	31.6						

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(Horizontal Pendulum)



	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

No.	Date	Phase.	Time. 135°E	Period	Amplitude			$\Delta$	Remarks
					$A_E$	$A_N$	$A_Z$		
42	20, Feb	$\bar{eP}$ $\bar{iS}$ F	16 39 18.8 16 39 16.2 16 40 29.1	s	$\mu$	$\mu$	$\mu$	km	near Ito,
43	20.	e es? F	21 29 47.5 21 29 31.7 21 31 11.7						
44	20	e	23 00 35.1						
45	20	$\bar{iP}$ $\bar{eS}$ F	23 19 22.2 23 19 25.0 23 20 56.2	....	E 4.5	S 4.5	...	20.7	Near Ito,
46	21	$\bar{iP}$ $\bar{iS}$ F	1 51 40.6 1 51 44.5 1 53 11.4	..	..	..	..	29.0	ditto
47	21	e es F	4 16 54.6 4 17 3.9 4 19 18.4						ditto
48	21	$\bar{iP}$ $\bar{iS}$ $M_N$ $M_E$ F	8 37 9.1 8 37 5.1 8 37 17.3 8 37 40.1 8 43 3.6	0.2 .. 1.2 "	E 7.9 E 10.5	S 3.4 S 4.5	Z ? D 18.9 + 37.8 - 41.0		ditto, distinct.
49	21.	$\bar{iP}$ $\bar{iS}$ F	10 00 56.1 10 00 59.5 10 03 23.3		E 22.3	N 27.8			ditto
50	21.	eP es F	10 35 43.2 10 35 48.5 10 37 24.2		E 4.5	S 3.3			ditto
51	21	eP es F	10 51 19.9 10 51 23.9 10 52 48.2						ditto
52	21	eP es F	11 05 55.2 11 06 0.7 11 07 24.5					41	ditto
53	21	eP	17 25 22.0						
54	21	eP	22 02 39.0						indistinct

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	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				

No.	Date.	Phase.	Time. 135°E	Period	Amplitude			$\Delta$	Remarks
					$A_E$	$A_N$	$A_Z$		
55	21 Feb	iP	22 04 48.9	s	$\mu$	$\mu$	$\mu$	km	near Ito,
		F	22 06 36.2						
56	21 "	eP	22 08 29.9						ditto
57	21 "	eP	22 09 50.1						ditto
		iS	22 09 54.1						
58	21 "	iP	22 12 37.2						ditto
		iS	22 12 40.6						
		F	22 15 59.4						
59	21	e	22 22 0.8						ditto
		F	22 24 14.8						
60	21	iP	22 44 39.5						distinct, ditto
		iS	22 44 43.9						
		F	22 48 38.9						
61	21.	iP	23 09 54.5	0.5					ditto
		iS	23 09 58.8	0.5					
		F	23 11 50.4						
62	22	e	1 56 49.5						ditto
		F	1 58 28.6						
63	22	iP	2 32 20.2					26	ditto
		iS	2 32 23.7						
		F	2 33 58.6						
64	22	e	4 15 5.1						
		F	4 17 22.7						
65	22,	e	6 34 34.5						
		F	6 36 35.3						
66	22	iP	6 55 8.9						
		iS	6 55 12.7	0.5	E 10.6	N 24.5	W 14.4		
		F	6 59 9.1						
67	22	e	7 07 31.7						
		F	7 09 23.9						
68	22	iP	8 29 52.3						
		iS	8 29 56.3						
		F	8 32 23.7						

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	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

No.	Date.	Phase.	Time. 135°E			Period	Amplitude			$\Delta$ km	Remarks
							$A_E$ $\mu$	$A_N$ $\mu$	$A_Z$ $\mu$		
69	22, Feb	e	8 <sup>h</sup>	52 <sup>m</sup>	43.1 <sup>s</sup>						
		F	8	55	35.0						
70	22,	iP	9	08	23.2					near Ito,	
		iS	9	08	27.6						
		F	9	12	31.1						
71	22 "	e	9	36	8.5					ditto	
72	22 "	iP	12	49	46.3						
		iS	12	49	50.5						
		F									
73	22	iP	12	51	34.7					ditto	
		F	12	54	34.9						
74	22	iP	14	48	11.5					ditto	
		iS	14	48	15.0						
		$M_E$	14	48	25.9	1.1	$\pm 78$	$\pm 68$			
		$M_N$	14	48	23.6						
		F	14	53	35.3						
75	22	eP	18	08	43.7					ditto	
		eS	18	08	46.7						
		F	-	-	-						
76	22	eP	18	09	53.8				28	ditto	
		eS	18	09	57.5						
		F	18	11	14.1						
77	22	eP	18	21	47.2				30	ditto	
		iS	18	21	51.2						
		F	18	24	33.3						
78	22	eP	18	25	11.9					ditto	
		S	18	25	16.2						
		F	18	27	3.2						
79	22	P	18	36	7.4					ditto	
		iS	18	36	11.3						
		F	18	38	18.2						
80	22,	eP	19	43	25.6					ditto	
		eS	19	43	29.2						
		F	19	45	22.1						

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(Horizontal Pendulum)

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				



International  
Seismological  
Centre

No.	Date.	Phase.	Time. 135°E			Period	Amplitude			$\Delta$ km	Remarks
			h	m	s		$A_E$ $\mu$	$A_N$ $\mu$	$A_Z$ $\mu$		
81	22, Feb	$\bar{P}$	20	22	2.4	0.5	E 58.3	S 22.5	D 75.3	29	Near Ito, very distinct, felt moderately at Numad
		$\bar{S}$	20	22	6.3	-	-	-	-		
		$M_E$	20	22	6.8	2.2	+ 34	-	-		
		$M_N$	20	22	11.9	2.2	- 22	$\pm 39$	-		
		$F$	20	31	34.8						
82	22.	$\bar{P}$	22	04	33.3				25		
		$\bar{S}$	22	04	36.6						
		$F$	22	06	29.5						
83	22.	$e\bar{P}$	22	52	38.4						
		$\bar{S}$	22	52	42.0						
		$F$	22	54	14.9						
84	23.	$\bar{P}$	7	09	25.4				25	ditto	
		$\bar{S}$	7	09	28.8						
		$F$	7	11	6.8						
85	23	$e$	7	44	41.8						
		$F$	7	46	21.6						
86	23.	$e\bar{P}$	8	14	56.1				35	ditto	
		$\bar{S}$	8	15	0.8						
		$F$	8	17	24.9						
87	23	$e\bar{P}$	10	21	50.9				E	ditto	
		$\bar{S}$	10	21	55.1						
		$F$	10	25	32.4						
88	23	$e$	11	25	50.1				37		
		$eS$	11	25	55.0						
		$F$	11	27	28.5						
89	23	$e$	19	16	39.7						
		$F$	19	23	35.0						
90	23	$eP$	19	36	37.4					ditto	
		$iS$	19	36	41.3						
		$F$	19	38	33.8						
91	24	$eP$	5	12	32.8					ditto	
		$iS$	5	12	36.8						
		$F$	5	15	36.7						
92	24	$e$	5	18	32.2						



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Omori's Seismograph.  
(Horizontal Pendulum)

	T <sub>0</sub>	ε	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				
AZ:				

	T <sub>0</sub>	ε	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				



No.	Date.	Phase.	Time. 135°E		Period.	Amplitude			Δ	Remarks
						A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
92	24.	e	5	78	32.2					
		F	5	22	25.8					
93	24	eP	5	53	12.0					
		F	5	56	21.0					
94	24	P	19	14	47.7			29.7		Near Ito.
		S	19	14	51.7					
		F	19	17	47.0					
95	25	e	6	00	55.3					
		F	6	02	40.2					
96	26	eP	4	41	41.2					ditto
		iS	4	41	45.4			31		
		F	4	44	32.6					
97	28	iP	18	28	54.7	E 8.0	S 4.0	D 10.9	25	distinct
		iS	18	28	58.6					
98	28	iP	18	31	1.7	E 56.2	S 24.7	D 53.0	25	Very distinct, felt moderately at Numadu, Near Ito
		iS	18	31	5.1					
		M <sub>N</sub>	18	31	21.7					
		M <sub>E</sub>	18	31	10.8	+200 -350				
99	28	P	18	32	42.6				26	
		S	18	32	46.1					
		F	18	38	0.5					
100	28	eP	19	10	14.9				28	Near Ito,
		S	19	10	18.6					
		F	19	12	±					
101	28	P	19	19	41.9				28	ditto
		S	19	19	45.5					
		F	19	21	7.4					
102	28	P	19	58	51.1				31	ditto
		iS	19	58	55.3					
		F	20	01	±					
103	28	P	21	10	33.9				24	ditto
		S	21	10	37.1					
		F	21	14	±					
104	28	eP	22	59	32.8				27	ditto
		S	22	59	36.4					

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(Horizontal and Vertical)

Omori's Seismograph.

(Horizontal Pendulum)

	T <sub>0</sub>	ε	r T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				
AZ:				

	T <sub>0</sub>	ε	r T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				

No.	Date.	Phase.	Time. 135°E	Period	Amplitude			Δ km	Remarks
					A <sub>E</sub> μ	A <sub>N</sub> μ	A <sub>Z</sub> μ		
120	1 March	P	23 <sup>h</sup> 09 <sup>m</sup> 36.9	s	μ	μ	μ		Near Ito,
		S	23 09 39.7						
		F	23 11 ±						
121	1 "	P	23 41 15.3						
		F	23 42 52.3						
122	1 "	P	23 45 55.9						ditto
		S	23 46 10.0				30.5		
		F	23 47 ±						
123	1 "	P	23 51 21.9						ditto
		S	23 51 25.7				28.3		
		F	23 53 51.8						
124	1 "	P	23 56 33.0						ditto
		S	23 56 37.0				29.7		
125	1 "	P	23 59 15.3						ditto
		S	23 59 18.8						
126	1 "	P	2 42 45.8						ditto
		S	2 43 9.9				105.		
		F	2 47 54.8						
127	2 "	P	12 26 55.4						distinct
		S	12 26 59.4						
		F	12 31 ±						
128	2 "	P	13 36 14.1						ditto
		S	13 36 18.7				34.		Near, Ito,
		F	13 37 ±						
129	2 "	P	17 43 34.7						
		F	17 45 58.6						
130	2 "	P	18 57 14.7						ditto
		F	18 00 55.3						
131	3 "	P	3 04 7.7						ditto
		S	3 04 11.0				24.5		
		F	3 06 5.8						
132	3 "	P	14 51 14.8						ditto
		S	14 51 18.2				25.3		
		F	14 54 16.4						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$   $\lambda = 138^{\circ}51'E$   $h = 6.0m$

Wiechert Seismograph.

(Horizontal and Vertical)

Omori's Seismograph.

(Horizontal Pendulum)

March. 1930.

International  
Seismological  
Centre

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:	4.6	10.0	0.017	89
AE:	4.6	10.0	0.017	89
AZ:	3.9	3.1	0.016	53

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:	15.9	4.2	0.005	20
AE:	16.0	3.0	0.018	20

No.	Date.	Phase.	Time. 135°E	Period	Amplitude			$\Delta$	Remarks
					$A_E$	$A_N$	$A_Z$		
105	1. March	P	5 <sup>h</sup> 01 <sup>m</sup> 45 <sup>s</sup> .6	s	"	"	"	26.7 <sup>km</sup>	Near Ito.
		S	5 01 49.2						
		F	5 04 3.8						
106	1 "	P	21 10 24.9					31.3	ditto
		S	21 10 29.1						
		F	21 11 ±						
107	1 "	P	21 20 34.3						ditto
108	1 "	P	21 22 53.1					24.5	ditto
		S	21 22 56.4						
		F	21 24 ±						
109	1 "	P	21 28 37.6						
		S?	21 28 49.4						
110	1 "	P	21 33 48.8						ditto
		S	21 33 52.7						
		F	21 36 10.3						
111	1 "	P	21 37 21.0						
112	1 "	P	21 37 59.2						
		F	22 00 7.2						
113	1 "	E	22 10 2.9						
		F	22 12 1.1						ditto
114	1 "	P	22 17 37.7						
		S	22 17 41.2						
115	1 "	P	22 20 30.7					26.0	ditto
		S	22 20 34.2						
		F	22 21 33.7						
116	1 "	P	22 23 40.1					26.8	
		S	22 23 43.7						
		F	22 25 1.2						
117	1 "	P	22 37 47.1						ditto
		S	22 37 50.7						
		F	22 41 38.6						
118	1 "	P	22 46 48.8						ditto
119	1 "	P	22 58 59.7						
		F	22 00 I						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

No.	Date.	Phase.	Time. 135°E			Period s	Amplitude			$\Delta$ km	Remarks
			h	m	s		$A_E$ $\mu$	$A_N$ $\mu$	$A_Z$ $\mu$		
127	Mar. 2	iP	12	26	55.4				30	felt slightly.	
		S	12	26	58.4						
		F	12	31	±						
128	Mar. 2	P	13	36	14.1				34		
		S	13	36	18.7						
		F	13	37	±						
129	"	E	17	43	34.7						
		F	17	45	58.6						
130	"	E	18	57	14.7						
		F	19	00	55.3						
131	" 3	P	3	04	7.7						
		S	3	04	11.0						
		F	3	06	5.8						
132	"	P	14	51	14.8				45		
		S	14	51	18.2						
		F	14	54	16.4						
133	"	P	21	11	1.6				31		
		S	21	11	5.7						
		F	21	12	±						
134	"	E	21	14	24.1				33	felt moderately.	
		S	21	14	28.5						
		NW	21	14	35.8	2.3		± 160			
		NE	21	14	37.5		± 170				
		F	21	20	±						
135	"	V	21	26	14.3						
		S	21	26	14.2						
136	"	P	21	28	23.1						
		S?	21	28	28.4						
137	"	V?	21	29	57.2						
138	"	P	21	34	41.4						
139	"	P	21	45	±				25		
		S	21	45	3.4						
		F	21	46	17.5						
140	"	P	21	51	44.9						
		S	21	51	45.9						
		F	21	53	21.8						
141	"	F	21	55	12.8						
		F	21	57	5.3						
142	"	P	22	04	5.7					felt slightly.	
		S	22	04	8.7						
		NW	22	04	24.1	1.3		± 90			
		NE	22	04	10.0		± 40				
		F	22	08	3.3						
143	"	V	22	58	13.5				33		
		S	22	55	18.8						
		F	22	59	0.5						
144	"	P	23	15	10.0				30		
		S	23	15	10.0						
		F	23	16	±						
145	"	P	0	29	49.9						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$   $\lambda = 138^{\circ}51'E$   $h = 6.0m$



Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				

No.	Date.	Phase.	Time. 135°E		Period	Amplitude			$\Delta$	Remarks	
						$A_E$	$A_N$	$A_Z$			
146	Mar, 4	P	2	06	35.1	s	$\mu$	$\mu$	$\mu$	35m	
		S	2	06	39.4						
		F	2	09	12.1						
147	"	P	2	24	49.5					34	
		S	2	24	59.1						
		F	2	26	±						
148	"	P	3	50	37.3					33	felt moderately.
		S	3	50	42.1						
		M <sub>N</sub>	3	50	49.5			+26.5			
		M <sub>S</sub>	3	50	48.0			-34.0			
		F	3	56	56.9			+20.			
								-24.			
149	"	P	5	11	28					31	
		S <sub>Z</sub>	5	11	8.0						
		M <sub>N</sub>	5	11	17.4	1.8		+300			
		M <sub>E</sub>	5	11	17.4	1.8		-350			
		M <sub>Z</sub>	5	11	9.3	1.8		+300			
		F	5	18	23.8			-430			
								+360			
								-240			
150	"	P	5	11	40.3					31	
		S	5	11	44.4						
		F	5	53	±						
151	"	P	23	02	44.1						
152	"	P	23	10	8.7					28	
		S	23	10	11.5						
		F	23	11	±						
153	"	P	23	17	19.0					29	
		S	23	17	22.9						
		F	23	19	38.2						
154	"	P	23	20	52.1					30	
		S	23	20	56.1						
155	"	P	23	22	45.2					31	
		S	23	22	49.4						
156	"	P	23	25	8.6					30	
157	"	P	23	29	32.0					25	
		S	23	29	35.3						
		F	23	31	18.1						
158	"	P	23	39	40.0						
159	"	P	23	40	58.6						
160	"	P	23	42	53.8					28	
		S	23	42	57.1						
		F	23	43	±						
161	"	P	23	45	54.8					28	
		S	23	45	58.1						
		F	23	47	27.9						
162	"	P	23	48	37.7						felt slightly.
	"	S	23	48	41.8						
	"	F	23	51	28.7						
113	"	P	23	54	21.9						
	"	P	23	54	52.7						felt slightly.
		F	23	55	55.8						
164	"	P	23	58	41.9						felt slightly.
		S	23	58	45.8						
		F	24	00	1.8						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\psi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				



No.	Date.	Phase.	Time. 135°E	Period	Amplitude			$\Delta$	Remarks
					$A_E$	$A_N$	$A_Z$		
165	Mar. 4.	P	23 58 41.9	3.9	$\mu$	$\mu$	$\mu$	29	
		S	23 58 45.8						
		F	24 00 1.8						
166	Mar. 5.	P	0 03 25.2						
167	"	P	0 05 38.2						
168	"	P	0 08 32.8					32	
		S	0 08 37.1						
		M <sub>N</sub>	0 08 43.7	1.4		$\pm 106$			
		M <sub>E</sub>	0 08 46.3		$\pm 78$				
		F	0 13 10.1						
169	"	P	0 28 54.3	-	-	-	-	-	
170	"	P	0 29 20.4	-	-	-	-	-	
171	"	P	0 30 44.3	-	-	-	-	-	
172	"	P	0 43 14.5	-	-	-	-	-	
		F	0 44 8.7	-	-	-	-	-	
173	"	P	0 51 57.9	-	-	-	-	-	
		S	0 52 1.2	-	-	-	-	-	
		F	0 53 ±	-	-	-	-	-	
174	"	P	1 09 28.5	-	-	-	-	-	
175	"	P	1 36 41.4	-	-	-	-	-	
		S	1 36 45.2	-	-	-	-	28	
176	"	P	2 20 36.7	-	-	-	-	33	
		S	2 20 41.1	-	-	-	-		
		F	2 21 ±	-	-	-	-		
177	"	P	0 56 34.2	-	-	-	-		
178	"	P	1 00 03.4	-	-	-	-	31	
		S	1 00 07.5	-	-	-	-		
179	"	P	1 04 36.5	-	-	-	-		
		F	1 05 11.7	-	-	-	-		
180	"	P	1 06 06.9	-	-	-	-		
181	"	P	1 12 36.5	-	-	-	-		
		F	1 12 50.9	-	-	-	-		
182	"	P	1 13 22.4	-	-	-	-		
		F	1 14 07.9	-	-	-	-		
183	"	P	1 16 21.9	-	-	-	-		
184	"	P	1 17 15.9	-	-	-	-		
		S	1 17 19.5	-	-	-	-		
		F	1 19 29.9	-	-	-	-		
185	"	P	1 20 47.9	-	-	-	-		
		S	1 20 52.5	-	-	-	-		
186	"	P	1 21 56.1	-	-	-	-		
		S	1 22 00.4	-	-	-	-		
		F	1 23 31.9	-	-	-	-		
187	"	P	1 27 31.4	-	-	-	-		
		S	1 27 35.8	-	-	-	-		
		F	1 28 49.7	-	-	-	-		
188	"	P	1 34 42.8	-	-	-	-		
189	"	P	1 35 25.0	-	-	-	-		
		S	1 35 29.6	-	-	-	-		
		F	1 38 23.6	-	-	-	-		
190	"	P	1 40 06.0	-	-	-	-		

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0^m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				



No.	Date.	Phase.	Time. 135°E		Period	Amplitude			$\Delta$	Remarks
						$A_E$	$A_N$	$A_Z$		
191	Mar. 6	P	43	18.0	s	$\mu$	$\mu$	$\mu$	km	
		S	43	20.6						
		F	44	10.0						
192	"	P	51	45.4						
193	"	P	52	46.7					27	
		S	52	50.3						
		F	55	37.1						
194	"	P	22	41.6						
		S	22	46.3						
195	"	F	23	37.2						
		P	40	13.7						
196	"	P	51	40.0						
197	"	P	00	04.1						
		F	01	16.5						
198	"	P	46	52.5						
199	"	P	00	36.8					26	
		S	00	40.3						
		F	02	38.8						
200	"	P	48	36.8						
201	"	ep	33	34.2					601	
		es	34	55.2						
		F	41	18.2						
202	"	P	40	30.9						
		F	41	45.6						
203	Mar. 7	P	18	05.2						
204	"	P	20	05.9						
205	"	P	27	14.2						
		F	28	34.8						
206	"	P	33	23.4						
		F	34	30.5						
207	"	P	51	42.3						
		S	51	46.0						
		F	53	41.1						
208	"	P	00	39.2						
		S	00	32.8						
209	"	P	01	39.4						
		F	03	16.5						
210	"	P	07	18.4					33	
		S	07	22.8						
		F	10	41.2						
211	"	P	17	37.0						
		F	18	27.0						
212	"	P	46	18.2						
		F	47	29.3						
213	"	P	49	13.8						
		F	50	28.5						
214	"	P	58	01.7						
215	"	P	01	50.7						
216	"	P	09	18.2						
		F	10	41.2						
217	"	P	18	50.7						
		F	2	18	41.5					

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\psi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0^m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

No.	Date.	Phase.	Time. 135°E	Period	Amplitude			$\Delta$ km	Remarks
					$A_E$ $\mu$	$A_N$ $\mu$	$A_Z$ $\mu$		
218	Mar. 7	P	13 43 49.3	s					
		S	13 43 45.4						
		F	13 45 22.7						
219	Mar. 7	P	14 06 07.8						
		F	14 07 25.5						
220	"	P	14 53 51.9						
221	"	P	17 41 37.4						
		F	17 43 31.9						
222	"	P	19 55 32.8						
		F	19 58 36.0						
223	Mar 8	P	5 45 36.5						
		S	5 45 40.6						
		F	5 48 39.3						
224	"	P	20 08 18.8						
225	"	P	20 11 20.2						
		S	20 11 24.2						
226	"	P	20 13 07.8						
		F	20 13 48.8						
227	"	P	20 23 48.2						
		F	20 24 41.3						
228	"	P	20 32 24.6						
229	"	P	20 35 24.4						
		S	20 35 28.4						
		F	20 37 05.9						
230	"	P	20 38 29.9						
		S	20 38 33.9						
		F	20 40 48.9						
231	"	P	20 51 54.1						
		S?	20 51 58.3						
232	"	iP	20 53 12.9				29		
		iS	20 53 16.8						
		F	20 53 21.5						
233	"	P	21 22 10.3						
234	"	iP	22 18 38.7				31		
		iS	22 18 42.9						
		F	22 20 11.6						
235	"	P	22 24 27.7				31		
		S	22 24 31.8						
		F	22 25 49.2						
236	"	P	22 46 43.2				26		
		S	22 46 46.7						
		F	22 48 12.7						
237	"	P	0 13 48.3						
238	"	P	0 42 59.5						
239	Mar. 9.	P	0 55 39.3						
		F	0 56 07.3						
240	"	P	1 27 24.7						
		S	1 27 28.9						
		M <sub>N</sub>	1 27 32.7						
		M <sub>E</sub>	1 27 35.4						
		F	1 30 24.4		$\pm 78.0$	$\pm 27.8$			



# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0^m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				



No.	Date.	Phase.	Time. 135°E		Period	Amplitude			$\Delta$	Remarks
						$A_E$	$A_N$	$A_Z$		
241	Mar. 9	P	3	37	36.5					
		S	3	37	40.5					
		F	3	39	121.5					
242	"	P	4	09	48.9					
		S	4	09	52.9					
		F	4	10	0.0					
243	"	P	4	31	14.2				31	
		S	4	31	18.3					
244	"	P	4	33	46.2					
		F	4	34	47.6					
245	"	P	4	39	05.8					
246	"	P	4	39	46.0	+ 7.2	- 3.0	- 5.5	32	felt moderately.
		S	4	37	44.3					
		M <sub>N</sub>	4	39	49.4		± 27.8			
		M <sub>S</sub>	4	39	54.6	± 42.3				
		F	4	46	69.0					
247	"	P	5	55	52.3					
		F	5	56	49.8					
248	"	P	7	00	33.8					
		F	7	01	29.0					
249	"	P	7	23	45.1					
250	"	iP	9	50	32.0					
		iS	9	50	36.1					
		F	9	52	23.0					
251	"	P	16	56	29.5					
		S	16	56	33.4					
		F	16	56	50.6					
252	"	P	17	04	43.4					
		S	17	04	47.3					
		F	17	18	42.6					
253	"	P	17	13	47.3					
		S	17	13	52.6					
		F	17	15	±					
254	"	P	17	36	50.7					
255	"	P	17	39	41.8				27	
		S	17	39	45.4					
256	"	P	17	46	43.7					
257	"	P	17	47	21.8					
258	"	P	17	50	55.8					
259	"	P	18	00	15.8					
260	"	P	18	13	19.2					
		S	18	13	22.9					
261	"	P	18	17	14.1					
262	"	P	18	18	27.9					
		S	18	18	31.9					
		F	18	22	40.8					
263	"	P	18	42	29.6					
264	"	E	18	51	45.6				28	
265	"	P	18	56	28.3					
		S	18	56	32.0					
266	"	P	19	01	34.3					

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\psi = 35^{\circ}06'N$   $\lambda = 138^{\circ}51'E$   $h = 6.0^m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				

No.	Date.	Phase.	Time. 135°E	Period	Amplitude			$\Delta$	Remarks
					$A_E$	$A_N$	$A_Z$		
267	Mar. 9	P	17 02 41.0	s	$\mu$	$\mu$	$\mu$	28	
		S	17 02 44.8						
268	"	P	17 06 54.5					30	
		S	17 06 58.6						
		F	17 08 ±						
269	"	S	17 18 41.6						
270	"	P	17 22 22.8						
271	"	iP	17 54 36.5		+160	-50	-104	30	felt moderately.
		S	17 54 40.6						
		M <sub>2</sub>	17 54 41.9				+240		
		F <sub>1</sub>	20 12 29.3				-280		
272	"	P	20 14 49.3						
		F <sub>1</sub>	20 18 30.4						
273	Mar. 10	P	5 23 05.9					30	
		S	5 23 09.4						
		F <sub>1</sub>	5 27 43.9						
274	"	P	6 50 16.7						
275	"	P	6 48 37.1						
		F <sub>1</sub>	6 49 51.7						
276	"	P	7 48 46.5						
		S	7 48 50.6						
		F <sub>1</sub>	7 51 44.4						
277	"	P	8 47 50.3						
		S	8 47 54.5						
		F <sub>1</sub>	8 49 12.0						
278	"	P	9 14 40.8						
		S	9 14 44.6						
		F <sub>1</sub>	9 16 51.9						
279	"	P	9 20 05.1						
280	"	P	9 49 35.5						
281	"	P	9 50 01.7						
282	"	P	14 54 00.0						
		S	14 54 05.0						
283	"	P	14 56 41.8						
		F <sub>1</sub>	14 58 23.1						
284	"	P	17 11 07.4					29	
		S	17 11 11.3						
		F <sub>1</sub>	17 12 0.5						
285	"	P	22 10 54.4						
		F <sub>1</sub>	22 12 54.4						
286	"	P	22 46 07.5						
		S	22 46 11.9						
		F <sub>1</sub>	22 47 47.3						
287	"	P	23 16 39.5						
		F <sub>1</sub>	23 17 33.8						
288	"	E	23 42 56.9						
289	"	P	23 57 54.7					32	
		S	23 57 59.0						
		F <sub>1</sub>	23 59 31.7						
290	Mar. 11	P	0 44 22.7						
		S	0 44 26.5						
		F <sub>1</sub>	0 47 49.5						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi=35^{\circ}06'N$   $\lambda=138^{\circ}51'E$   $h=6.0m$

Wiechert Seismograph.

(Horizontal and Vertical)

Omori's Seismograph.

(Horizontal Pendulum)

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

No.	Date.	Phase.	Time. 135°E		Period	Amplitude			$\Delta$	Remarks	
						A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>			
291	11. March	P	1 <sup>h</sup>	00	14.5	s	$\mu$	$\mu$	$\mu$	2 <sup>4</sup>	
		S	1	00	23.4						
		F <sub>1</sub>	1	01	47.5						
292	"	P	1	30	53.0						
		S	1	33	35.0						
		M <sub>1N</sub>	1	33	42.3		$\pm 78$				
		M <sub>1E</sub>	1	33	36.5	+89					
		M <sub>2N</sub>	1	34	12.2	-116					
		M <sub>2E</sub>	1	34	1.9	+119					
		F <sub>1</sub>	1	40	41.9	-111					
293		P	2	01	31.4	-					
294		P	10	57	39.3						
		S	10	57	43.0						
		F <sub>1</sub>	10	59	37.3						
295		P	11	22	31.1						
		F <sub>1</sub>	11	23	56.8						
296		E	12	28	26.6						
		F <sub>1</sub>	12	28	53.6						
297	"	E	13	37	54.2						
		F <sub>1</sub>	13	39	21.2						
298	"	P	13	53	41.7						
		S	13	53	56.1						
		F <sub>1</sub>	13	55	16.7						
299	"	E	14	35	20.3						
		F <sub>1</sub>	14	36	34.8						
300	"	P	16	59	15.2						
		S	16	59	19.2						
		F <sub>1</sub>	17	02	$\pm$						
301	"	P	18	49	29.4						
		S	18	49	32.6						
		F <sub>1</sub>	18	52	$\pm$						
302	"	P	22	42	18.8						
		F <sub>1</sub>	22	43	55.4						
304	"	P	23	52	42.4						
		F <sub>1</sub>	23	54	$\pm$						
303	"	E	23	17	38.5						
		F <sub>1</sub>	23	22	$\pm$						
305	12 March	E	1	41	30.5						
		F <sub>1</sub>	1	46	59.0						
306	"	E	4	53	34.3						
		F <sub>1</sub>	4	59	58.8						
307	"	P	8	50	6.7						
		F <sub>1</sub>	8	53	0.4						
308	"	P	10	47	7.7						
		S	10	47	12.0						
		F <sub>1</sub>	10	49	0.9						
309	"	4P	12	46	23.2						
		ES	12	46	27.9						
		M <sub>1N</sub>	12	46	26.5		$\pm 9.0$				
		M <sub>1E</sub>	12	46	28.0	+ 10.0					
		F <sub>1</sub>	12	52	$\pm$	- 18.0					



# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$   $\lambda = 138^{\circ}51'E$   $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	T <sub>0</sub>	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	T <sub>0</sub>	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

No.	Date.	Phase.	Time. 135°E			Period s	Amplitude			$\Delta$ km	Remarks
			h	m	s		A <sub>E</sub> $\mu$	A <sub>N</sub> $\mu$	A <sub>Z</sub> $\mu$		
310	12. March	$\epsilon P$	13	16	48.8				31		
		S	13	16	52.9						
		F	13	18	31.2						
311	"	P	17	14	10.2				25		
		S	19	14	13.8						
		F	19	16	1.8						
312	"	P	19	43	12.5						
		is	19	43	16.0						
		F	19	45	1.8						
313	"	P	19	54	2.6						
		F	19	55	4.3						
314	"	e	20	00	35.8						
		F	20	03	1.8						
315	"	P	20	09	32.5						
		S	20	09	36.4						
		F	20	11	1.8						
316	"	P	20	22	5.0						
		is	20	22	8.5	W33	V11			felt moderately	
		F	20	25	1.9						
317	"	P	21	09	26.5				31		
		F	21	10	32.0						
318	"	P	21	14	36.3						
		S	21	14	40.4						
		F	21	17	2.0						
319	"	P	21	17	36.0						
		F	21	20	2.0						
320	"	P	21	29	41.7				32		
		S	21	29	46.0						
		F	21	22	2.0						
321	"	P	21	39	2.0						
		S	21	39	6.0						
		F	21	41	32.0						
322	"	e	21	45	35.3						
		F	21	47	2.0						
323	"	P	21	47	20.7						
		S	21	47	23.6						
		M <sub>N</sub>	21	47	29.7	1.3		+50	1		
		M <sub>E</sub>	21	47	30.6	1.3	+45	-67			
		F	21	51	2.1						
324	"	e	22	31	9.0						
		F	22	34	2.1						
325	"	P	22	37	26.6						
		F	22	38	32.1						
326	"	P	22	43	27.6				29		
		S	22	43	51.5						
		F	22	47	2.1						
327	"	e	23	02	7.5						
		F	23	04	2.1						
328	"	P	23	26	16.8				31		
		S	23	26	20.9						
		F	23	27	2.1						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.

(Horizontal and Vertical)

Omori's Seismograph.

(Horizontal Pendulum)

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

No.	Date.	Phase.	Time. 135°E			Period	Amplitude			$\Delta$	Remarks
							$A_E$	$A_N$	$A_Z$		
329	12. Mar.	e	23 <sup>h</sup>	29 <sup>m</sup>	2.2	s	$\mu$	$\mu$	$\mu$	km	
		F	23	30	2.2					.	
330	"	e	23	35	27.2						
		F	23	37	0.0						
331	"	C	23	44	25.8						
		S	23	44	31.2						
		F	23	46	2.2						
332	"	e	23	47	48.8						
		F	23	49	2.2						
333	"	P	23	54	30.7					34	
		S	23	54	35.2						
		F	23	57	2.2						
334	"	P	0	01	37.5						
		F	0	03	2.2						
335	13. Mar.	P	0	17	13.3						
		F	0	18	32.3						
336	"	P	0	20	46.3						
		F	0	22	2.3						
337	"	e	0	29	27.0						
		F	0	31	2.3						
338	"	e	0	34	43.9						
		F	0	36	2.3						
339	"	P	0	41	32.6					32	
		S	0	41	36.9						
		F	0	44	2.3						
340	"	e	0	44	40.9						
341	"	e	0	55	10.3						
		F	0	56	32.3						
342	"	e	1	02	42.7						
		F	1	04	2.3						
343	"	P	1	05	31.3						
		F	1	07	2.3						
344	"	P	1	09	43.3						
		F	1	11	2.3						
345	"	P	1	12	50.3						
		F	1	14	2.3						
346	"	P	1	30	42.3						
		S	1	30	46.4						
		F	1	33	2.3						
347	"	P	1	43	15.7						
		F	1	44	32.3						
348	"	P	1	53	56.4						
		F	1	55	2.4						
349	"	P	2	01	7.5						
		S	2	01	13.2						
		F	2	03	51.4						
350	"	e	2	09	38.1						
		F	2	11	2.4						
351	"	P	2	34	51.4						
		F	2	37	2.4						
352	"	e	2	52	2.4						
		F	2	55	32.4						



# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

No.	Date.	Phase.	Time. 135°E		Period	Amplitude			$\Delta$ km	Remarks
						$A_E$	$A_N$	$A_Z$		
353	13, Mar.	S	3	02	23.7					
		F	3	05	2.4					
354	"	P	3	19	26.7	E 10	S 45			
		S	3	19	30.5					
		M <sub>N</sub>	3	19	37.4			±42		
		M <sub>S</sub>	3	19	37.4	±37				
		F	3	24	2.4					
355	"	P	3	26	7.6					
		F	3	27	2.4					
356	"	P	4	12	29.5					
		F	4	14	2.5					
357	"	P	4	29	34.4	E 56	S 23		28	
		S	4	29	38.2		S 35			
		M <sub>N</sub>	4	30	10.4					
		M <sub>S</sub>	4	30	12.6	W 32.5				
		F	4	36	2.6					
358	"	e	4	42	21.4					
		F	4	43	32.6					
359	"	e	4	47	2.6					
		F	4	49	2.6					
360	"	P	6	33	17.3					
		S	6	33	21.6					
361	"	P	7	32	43.9					
		F	9	33	32.8					
362	"	P	19	10	25.5	W 100	N 22			
		S	17	10	28.6					
		F	17	12	4.6					
363	14, Mar.	eP	3	17	12.4			28		
		S	3	17	16.2					
		F	3	19	5.4					
364	"	P	11	27	9.6					
		eS	11	27	14.0					
		F	11	28	6.1					
365	"	eP	11	55	29.7			33		
		eS	11	55	34.2					
		F	11	57	0.0					
366	"	P	14	16	26.0					
		iS	14	16	30.0	W 50	N 72			
		M <sub>E</sub>	14	16	38.4	E 61				
		F				W 45				
367	"	F	14	19	27.0	E 50	S 13		0 57	
		S	14	19	32.9					
		M <sub>N</sub>	14	19	47.1			+154		
		M <sub>S</sub>	14	19	42.8	+195	-157			
		F	14	25	6.7	-133				
368	"	P	15	21	24.8					
		F	15	24	35.9					
369	"	P	15	43	26.1					
		F	15	46	25.3					
370	"	iP	16	48	28.2					
		S	16	48	32.2					
		F	16	51	22.7					

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi=35^{\circ}06'N$   $\lambda=138^{\circ}51'E$   $h=6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

No.	Date.	Phase.	Time. 135°E			Period	Amplitude			$\Delta$	Remarks
							$A_E$	$A_N$	$A_Z$		
370	14. Mar	iP	16	48	28.2	s	$\mu$	$\mu$	$\mu$	km	
		S	16	48	22.2		15.8	12.1			
		F	16	51	22.7						
371	14. Mar	e	17	13	36.5						
		F	17	16	19.1						
372	"	eP	20	17	20.8						
373	"	E	20	18	1.9						
		F	20	17	23.2						
374	"	P	20	42	50.0						
		F	20	44	25.7						
375	"	P	21	05	6.0				29		
		S	21	05	9.9						
		F	21	07	50.1						
376	"	P	22	18	12.8				35		
		S	22	18	18.5						
		F	22	21	54.2						
377	"	iP	18	33	49.8						
		iS	18	33	54.0						
		MN	18	33	59.1						
		ME	18	34	3.9						
		F	18	39	50.4		E 290 N 217	N 217 S 159			
378	"	P	18	56	40.8						
		F	18	57	37.5						
379	"	P	22	57	5.4						
		F	22	59	40.5						
380	"	iP	1	08	22.5				29		
		S	1	08	31.4						
		F	1	11	38.7						
381	16. Mar	P	11	29	30.9						
382	"	P	11	30	29.8				32		
		S	11	30	34.1						
		F	11	33	1.1						
383	"	P	11	39	50.1						
		F	11	40	56.1						
384	17. Mar	eP	1	23	0.9				24		
		S	1	23	4.1						
		F	1	24	59.5						
385	"	eP	1	31	5.0				21		
		iS	1	31	53.5						
		F	1	33	48.1						
386	"	eP	1	39	31.8						
		iS	1	39	31.5						
		F	1	40	54.0						
387	"	P	1	44	5.8						
388	"	P	1	45	24.2						
		F	1	46	10.6						
389	"	P	1	49	13.7						
390	"	P	1	50	47.1				31		
		S	1	50	51.3						
		F	1	51	56.0						

*felt heavy shock*

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				

No.	Date.	Phase.	Time. 135°E	Period	Amplitude			$\Delta$ km	Remarks
					$A_E$ $\mu$	$A_N$ $\mu$	$A_Z$ $\mu$		
391	17, Mar.	P	1 <sup>h</sup> 5 <sup>m</sup> 28.7	s					
		F	1 56 24.2						
392	"	ep	1 58 14.3				33		
		S	1 58 18.7						
393	"	e	1 59 35.1						
394	"	P	2 01 2.7						
		F	2 02 3.6						
395	"	ep	1 03 29.5						
396	"	ep	2 03 57.7				31		
		is	2 04 1.8						
		F	2 05 9.3						
397	"	P	2 09 29.8				34		
		S	2 09 34.4						
		F	2 13 10.6						
398	"	ip	2 55 41.6						
		S	2 55 50.6						
		F	2 56 51.0						
399	"	P	3 04 33.9				27		
		S	3 04 37.5						
		F	3 05 40.9						
400	"	E	3 22 34.6						
401	"	P	19 07 26.9				34		
		S	19 07 31.5						
		F	19 11 10.3						
402	"	P	19 27 37.3						
		F	19 28 52.4						
403	"	ep	2 11 32.5				33	felt moderate	
		S	2 11 36.9						
		F	2 16 9.8						
404	18, Mar.	P	2 34 1.3						
		F	2 35 56.8						
405	"	P	2 41 38.3						
		F	2 42 53.4						
406	"	ip	2 46 39.3				34		
		e	2 46 43.9						
		F	2 50 1.3						
407	"	P	7 50 39.1				35		
		S	7 50 43.8						
		F	7 52 31.9						
408	"	P	22 54 56.4				31		
		S	22 55 0.5						
409	19, Mar.	P	7 29 15.1				28		
		S	7 29 18.8						
		F	7 31 24.2						
410	"	P	7 34 42.2				36		
		S	7 34 47.0						
		F	7 36 24.2						
411	"	P	7 44 54.2				67		
		S	7 45 3.2						
		F	7 46 54.2						
412	"	e	7 48 34.2						
		F	7 49 57.3						



# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	T <sub>0</sub>	ξ	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				
AZ:				

	T <sub>0</sub>	ξ	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				

No.	Date	Phase.	Time. 135°E	Period	Amplitude			Δ	Remarks
					A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
413	19 Mar	P	7 45 8.7	s	μ	μ	μ	34	
		Fi	7 45 13.3						
414	19 "	L	7 53 24.4						
415	"	P	7 55 30.4						
416	"	L	7 56 31.4						
417	"	P	8 00 56.9					29	
		S	8 01 0.8						
		Fi	8 03 24.4						
418	"	P	8 07 31.8						
		iS	8 07 36.3		-12	+10			
		Fi	8 09 24.4						
419	"	P	8 27 10.0						
		iS	8 27 14.1		-22.7	+12.2			
		Fi	8 29 45.4						
420	"	P	8 38 54.4						
421	"	P	8 49 23.2						
		S	8 49 28.1		-22.2	+11.6			
		Fi	8 51 53.4					36	
422	"	iP	10 16 45.2	1.3	E 445	516.6	0.170	33	
		iS	10 16 49.8						
		M <sub>1N</sub>	10 16 56.3			N266			
		M <sub>1E</sub>	10 16 59.9		+166	525.0			
		M <sub>2</sub>	10 16 54.5		-216				
		Fi	10 22 21.5						
423	20 Mar	P	2 12 52.1						
		S	2 12 56.7					34	
		Fi							
424	20 Mar	P	2 15 11.8						
		S	2 15 11.2						
		Fi	2 16 51.8						
425	20 Mar	P	2 17 22.8						
		Fi	2 37 3.8						
426	20 Mar	P	2 41 6.8						
		S	2 41 10.4					27	
		Fi	2 41 33.4						
427	20 Mar	P	10 04 29.1						
		S	10 04 32.2					31	
		M <sub>1N</sub>	10 04 37.7						
		Fi	10 07 43.7						
428	20 "	P	10 10 9.3						
		S	10 10 13.7					33	
		Fi	10 10 31.6						
429	"	P	10 22 31.3						
		S	10 22 35.4						
		Fi	10 24 17.9						
430	"	P	10 30 4.4						
		S	10 30 5.2					28	
		Fi	10 31 34.4						
431	"	P	11 03 41.5						
		iS	11 03 41.1						
		Fi	11 05 27.0						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$   $\lambda = 138^{\circ}51'E$   $h = 6.0m$

Wiechert Seismograph.

Omori's Seismograph.

(Horizontal and Vertical)

(Horizontal Pendulum)

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				



No.	Date.	Phase.	Time. 135°E	Period	Amplitude			$\Delta$	Remarks
					$A_E$	$A_N$	$A_Z$		
432	20. Mar	P	14 48 50.1	s	$\mu$	$\mu$	$\mu$	34	
		iPz	16 48 49.3						
		iS	16 48 55.1		N 32.3	N 12.1			
		iSz	16 48 54.2						
		F1	16 51 27.6						
433	20.	P	22 21 0.3					34	
		iS	22 21 4.9						
		F1	22 23 28.3						
434	20.	P	5 33 54.3					34	
		iS	5 33 58.9						
		F1	5 35 30.0						
435	21	E	8 16 22.2						
		F1	8 16 31.4						
436	21	P	8 39 7.0					28	
		iPz	8 39 7.0						
		iS	8 39 10.7						
		iSz	8 39 11.8		- 116.0	+ 13.2	34.0		
		MN	8 39 16.3		- 69.0	+ 67.0			
		ME1	8 39 21.5		83.5				
		ME2	8 39 27.5		+ 72.1				
		Mz	8 39 29.5		- 51.1		+ 47.5		
		F1	8 43 22.5				- 277		
437	21 "	E	19 10 31.0						
		F1	19 13 31.8						
438	21 "	C	20 54 50.3						
		F1	20 57 31.9						
439	21 "	P	22 47 35.9					34	
		iPz	22 47 35.8						
		iS	22 47 41.4		N 31.7	N 2.2			
		F1	22 50 32.3						
440	21 "	iP	23 24 11.8		E 91.0	S 25.5			full cover.
		iPz	23 24 10.8						
		iS	23 24 11.5						
		iSz	23 24 15.5						
		MN1	23 24 21.1				N 21.1		
		MN2	23 24 29.1		S 233				
		ME1	23 24 25.9		+ 200				
		ME2	23 25 18.5		- 144				
		Mz	23 24 16.3		+ 211		+ 115		
		F1	23 31 32.3		- 228		- 132		
441	21 "	P	23 34 47.1						
		iS	23 34 51.4		- 23.4	+ 14.4			
		F1	23 34 32.3						
442	22 " "	E	15 57 1.0						
443	" "	E	15 58 5.5						
		F1	15 58 58.5						
444	22 "	P	16 08 07.0						
		S	16 08 11.3						
		F1	16 09 7.5						
445	22 "	S	16 10 55.1						
		F1	16 11 34.5						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				

No.	Date	Phase.	Time. 135°E			Period	Amplitude			$\Delta$ km	Remarks
							$A_E$	$A_N$	$A_Z$		
446	22, Mar	S	16	10	55.1						
		F	16	11	34.5						
447	"	iS	16	13	10.5						
		F	16	14	34.5						
448	"	i	16	21	29.5						
		F	16	23	34.5						
449	"	iP	17	02	17.9						
		iS	17	02	21.7	-50.0	516.6				
		iPz	17	02	17.8						
450	"	P	17	03	22.6				30		
		Pz	17	03	25.2						
		M <sub>N</sub>	17	03	38.6						
		M <sub>E</sub>	17	03	37.7	+100	+83				
		F	17	07	22.6	-700	-72				
451	"	iS	17	25	24.3						
		F	17	26	34.6						
452	"	e	17	29	27.1						
		F	17	30	34.6						
453	"	iS	17	31	47.8						
		F	17	32	34.6						
454	"	iS	17	42	45.0						
		F	17	44	34.6						
		iS	17	45	51.0						
		F	17	46	34.6						
456	"	iP	17	50	40.1					over quality	
		iS	17	50	45.1						
		M <sub>NE</sub>	17	50	52.6						
		M <sub>NE</sub>	17	50	55.1	+4560	4870				
		M <sub>NE</sub>	17	51	13.9	-3430					
		M <sub>SE</sub>	17	50	31.3	+2550	+2850				
		M <sub>SE</sub>	17	51	15.1	-2290	-2570				
		M <sub>SE</sub>	17	51	15.1	+1720					
		M <sub>SE</sub>	17	51	15.1	-2000					
		M <sub>SE</sub>	17	50	45.0			+1520			
		M <sub>SE</sub>	17	50	56.4			-1750			
		M <sub>SE</sub>	17	50	56.4			+1250			
		M <sub>SE</sub>	17	50	56.4			-1100			
457	"	F <sub>1</sub>	18	01	34.6						
		P	18	39	1.7						
		S	18	39	10.5						
		F	18	40	34.7						
458	"	e	19	09	13.0						
		F	19	10	34.8						
459	"	P	19	32	6.4						
		F	19	33	34.8						
460	"	e	19	40	23.4						
		F	19	41	34.8						
461	"	e	20	25	34.4						
		F	20	26	34.4						
462	"	P	21	08	47.6						
		S	21	08	51.5						
463	23, Mar	F	21	10	35.0						
	"	e	0	24	53.4						
	"	F	0	27	35.2						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)

	T <sub>0</sub>	ε	r T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				
AZ:				

	T <sub>0</sub>	ε	r T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				



No.	Date	Phase.	Time. 135°E			Period	Amplitude			Δ km	Remarks
							A <sub>E</sub> μ	A <sub>N</sub> μ	A <sub>Z</sub> μ		
464	23. Mar	P	3	02	0.9				25		
		S	3	02	4.2						
		FI	3	04	35.4						
465	"	P	3	46	23.9						
		S	3	46	28.1						
		FI	3	48	34.6						
466	23.	e	4	39	34.6						
		FI	4	40	34.6						
467	"	P	10	29	38.0				27		
		S	10	29	41.6						
		FI	10	31	36.0						
468	"	P	11	37	43.7				31		
		S	11	37	53.1						
		FI	11	39	36.2						
469	"	e	11	53	15.5						
		FI	11	54	36.4						
470	"	e	11	57	0.1						
		FI	11	58	36.4						
471	"	P	12	00	25.4						
		FI	12	01	36.4						
472	"	P	12	02	28.2						
		S	12	02	31.3						
		FI	-	-	-						
473	"	P	12	05	0.1				30		
		S	12	05	4.1						
		FI	12	07	34.4						
474	"	e	12	08	27.4						
		FI	12	08	36.4						
475	"	e	12	20	33.4						
		TI	12	22	36.4						
476	"	P	12	57	43.2				31		
		S	12	59	47.4						
		FI	13	02	36.6						
477	"	P	13	08	20.6				30		
		S	13	08	24.6						
		FI	13	10	36.6						
478	"	P	13	21	59.1						
		FI	13	22	36.6						
		P	19	56	21.2						
479	"	S	19	56	25.5				32		
		FI	19	59	35.7						
480	24. Mar	e	3	20	3.7						
481	"	FI	3	21	34.5						
		e	3	31	29.5						
		FI	3	37	39.4						
482	"	e	5	43	14.6						
		FI	5	44	29.6						
483	"	e	5	46	19.2						
		FI	5	47	39.6						
484	"	e	5	47	54.0						
		FI	5	49	57.6						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0^m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	T <sub>0</sub>	ξ	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				
AZ:				

	T <sub>0</sub>	ξ	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				

No.	Date.	Phase.	Time. 135°E			Period s	Amplitude			△ km	Remarks
			h	m	s		A <sub>E</sub> μ	A <sub>N</sub> μ	A <sub>Z</sub> μ		
-85	24 Mar	e	6	02	15.3						
486	"	F	6	03	39.7						
487	"	e	7	13	55.2						
488	"	F	7	15	39.8						
489	"	e	7	17	52.8						
490	"	F	7	19	39.8						
491	"	e	7	20	26.8						
492	"	F	7	20	39.8						
493	"	P	7	27	41.9						
494	"	F	7	29	39.8						
495	"	e	11	03	30.0						
496	"	F	11	04	40.1						
497	"	e	12	13	17.1						
498	"	F	12	15	40.1						
499	"	P	12	20	2.9						
500	"	S	12	20	7.4						
501	"	F	12	22	40.1						
502	"	P	12	45	20.2						
503	"	S	12	45	24.6						
504	"	F	12	47	40.2						
505	"	e	13	13	8.2						
506	"	F	13	14	40.2						
507	"	eP	13	20	31.3						
508	"	S	13	20	35.3						
509	"	F	13	-	-						
510	"	P	13	22	2.7				29		
511	"	S	13	22	6.6						
512	"	F	13	24	40.3						
513	"	P	14	07	57.4						
514	"	F	14	09	40.4						
515	"	e	14	41	59.4						
516	"	F	14	44	40.4						
517	"	P	15	02	21.1						
518	"	S	15	02	25.0						
519	"	HN	15	02	37.8						
520	"	F	15	06	40.5						
521	"	P	15	13	15.2						
522	"	F	15	14	40.4						
523	"	P	15	26	59.9				31		
524	"	S	15	27	4.1						
525	"	F	15	28	40.4						
526	"	P	15	30	34.4						
527	"	S	15	30	38.3						
528	"	F	15	32	40.4						
529	"	P	15	36	37.4						
530	"	F	15	37	40.4						
531	"	P	15	44	15.0						
532	"	S	15	44	17.3	261.2	527.2				
533	"	F	15	52	40.5						
534	"	P	15	55	38.1						
535	"	F	15	57	40.6						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)

	T <sub>0</sub>	ξ	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				
AZ:				

	T <sub>0</sub>	ξ	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				



No.	Date.	Phase.	Time. 135°E		Period	Amplitude			△ km	Remarks
						A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
506	24. Mar	P	17	07	17.7					
		F	17	09	40.6					
507	"	CS	18	12	34.8					
508	25"	P	7	58	55.6					
		CS	7	59	0.3					
		F	8	01	41.0					
509	"	e	21	08	23.7					
		F	21	09	38.7					
510		CP	21	11	8.5					
		CS	21	11	12.0					
		F	21	13	44.1					
511	"	CS	21	20	5.7					
		F	21	21	5.7					
512	"	S	21	23	53.2					
513	"	F	21	24	58.1				25	
		PH	22	10	50.2					
		CS	22	10	53.5	W 16.6	S 27.7			
		M <sub>N</sub>	22	10	59.9					
		M <sub>E</sub>	22	10	59.4	± 27.8	± 27.8			
		iP <sub>2</sub>	22	10	49.1			0.55		
		F	22	12	49.1					
514	"	e	22	15	20.4					
		F	22	17	0.4					
515	"	e	22	21	5.8					
516	"	P	22	21	54.0					
517	"	CP	22	40	01.2					
		CS	22	40	10.4	E 16.6	N 8.9			
		M <sub>N</sub>	22	40	12.6					
		M <sub>E</sub>	22	40	22.7					
		F <sub>1</sub>	-	-	-					
518	"	P	22	46	4.1				25	
		S	22	46	7.4					
		F	22	48	17.2					
519	"	CS	22	53	10.9					
		F	22	54	44.2					
520	"	P	23	11	11.5					
		S	23	11	15.8					
		F	23	12	44.2					
521	"	CS	23	20	7.7					
		F	23	21	±					
522	"	P	23	25	4.8					
		S	23	25	8.6					
		M <sub>N</sub>	23	25	13.8					
		M <sub>2</sub>	23	25	15.8					
		iP <sub>2</sub>	23	25	5.3					
		F <sub>1</sub>	23	26	44.8					
523	26. Mar	e	0	00	1.8					
		F <sub>1</sub>	0	01	15.8					
524	"	S	1	13	6.4					
		F	1	13	50.4					

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				

No.	Date.	Phase.	Time. 135°E		Period	Amplitude			$\Delta$	Remarks
						$A_E$	$A_N$	$A_Z$		
525	26.11.22	P	20	01	37.4					
		iS	2	01	43.6					
		iP <sub>2</sub>	2	01	37.0					
526	"	F <sub>1</sub>	2	04	44.4					
		P	3	15	15.8					
		iS	3	15	19.1					
		M <sub>N</sub>	3	15	25.7					
		M <sub>E</sub>	3	15	25.1					
		iP <sub>2</sub>	3	15	14.6					
		iS <sub>2</sub>	3	15	20.6					
		F <sub>1</sub>	3	17	35.8					
527	"	oP	3	29	1.0					
		iS	3	29	5.2					
		F <sub>1</sub>	3	31	44.2					
528	"	e	4	40	20.0					
		F <sub>1</sub>	4	41	44.6					
529	"	e	4	49	46.4					
		F <sub>1</sub>	4	51	44.6					
530	"	P	4	59	18.7					
		S	4	59	23.0					
		F <sub>1</sub>	5	00	44.6					
531	"	e	14	05	54.2					
	"	F <sub>1</sub>	14	07	±					
532	"	e	14	17	56.8					
		F <sub>1</sub>	14	17	6.8					
533	"	iP	14	22	41.5					
		iP <sub>2</sub>	14	22	51.3					
		M <sub>NE</sub>	14	23	2.9					
		M <sub>SE</sub>	14	22	59.1					
		M <sub>2</sub>	14	23	3.4					
		F <sub>1</sub>	14	35	40.5					
534	"	P	15	11	57.9					
		S	15	17	14.3					
		F <sub>1</sub>	15	17	13.1					
535	"	P	15	34	27.3					
		iS	15	34	23.9					
		F <sub>1</sub>	15	36	9.9					
536	"	P	15	38	4.4					
		iS	15	38	9.2					
		F <sub>1</sub>	15	40	13.5					
537	"	S	16	11	1.9					
538	"	P	16	20	17.6					
		S	16	26	56.8					
		L	16	33	53.2					
		F <sub>1</sub>	17	07	45.6					
539	"	P	19	48	39.7					
		S	19	48	43.8					
		F <sub>1</sub>	19	51	28.9					
540	"	e	20	59	31.6					
541	"	P	21	00	17.6					
		iS	21	00	22.4					
		F <sub>1</sub>	21	02	04.0					

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	T <sub>0</sub>	ε	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				
AZ:				

	T <sub>0</sub>	ε	r/T <sub>0</sub> <sup>2</sup>	V
AN:				
AE:				
AZ:				

No.	Date	Phase.	Time. 135°E	Period	Amplitude			Δ	Remarks
					A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
542	26. MAR	S	21 <sup>h</sup> 13	6.8					
543	"	S	21 05	27.4					
544	27 <sup>h</sup>	P	0 46	24.9					
		S	0 46	28.9					
		F <sub>1</sub>	0 49	3.7					
545	27. MAR	iPH	1 41	36.0					
		iS	1 41	40.0					
		M <sub>1</sub> NE	1 41	40.5		± 1000			
		M <sub>1</sub> E	1 41	36.3		± 1500			
		M <sub>1</sub> U	1 41	40.5		± 1000			
		M <sub>2</sub>	1 34	55.5					
		iP <sub>2</sub>	1 41	34.5					
546	27 "	F <sub>1</sub>	1 52	46.5					
		P	3 30	59.9					
		S	3 30	44.0				31	
		F <sub>1</sub>	3 33	1.7					
547	27 "	E	11 28	56.8					
		F <sub>1</sub>	11 29	38.0					
548	28 "	iS	10 01	28.1					
		P?	10 01	24.6					
		F <sub>1</sub>	10 02	28.1					
549	29 "	P	2 34	15.6					
		F <sub>1</sub>	2 35	50.6					
550	29 "	P	2 48	20.1					
		iS	2 48	14.3					
		M <sub>1</sub> N	2 48	27.4					
		iP <sub>2</sub>	2 48	19.0					
		F <sub>1</sub>	2 51	21.4					
551	29 "	P	2 55	2.5	E?	55.6	1014.1		felt strongly
		iS	2 55	7.1					
		M <sub>1</sub> U	2 55	12.2		± 44.5			
		iP <sub>2</sub>	2 55	2.6		58.8			
		F <sub>1</sub>	2 57	53.4					
552	29 "	P	3 11	36.4	E 31.1	5 11.1	1021.0		
		iP <sub>2</sub>	3 11	37.4					
		S	3 11	40.4					
		M <sub>1</sub> N	3 11	55.4		± 144			
		M <sub>1</sub> E	3 11	49.4		74.5			
		M <sub>2</sub>	3 11	45.4		± 122			
		F <sub>1</sub>	3 11	45.4		± 122			
553	29 "	P	3 14	47.5					
		iP <sub>2</sub>	3 14	47.4					
		M <sub>1</sub> N	3 14	55.4		± 55.5			
		M <sub>1</sub> E	3 14	55.4		± 33.3			
		F <sub>1</sub>	3 17	47.4					
554	29 "	P	4 04	25.5					
		iP <sub>2</sub>	4 04	23.0					
		M <sub>1</sub> N	4 04	53.7	1.7	+98.0			felt slightly
		M <sub>1</sub> E	4 04	55.0	1.7	-74.5			
		M <sub>2</sub>	4 04	29.5	1.7	-55.5			
		F <sub>1</sub>	4 07	16.5					



# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0m$

Wiechert Seismograph.  
(Horizontal and Vertical)

Omori's Seismograph.  
(Horizontal Pendulum)



	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				

No.	Date.	Phase.	Time. 135°E		Period	Amplitude			$\Delta$	Remarks	
						$A_E$	$A_N$	$A_Z$			
557	29. Nov	P	22	37	28.7	s	$\mu$	$\mu$	$\mu$	31	
		S	22	37	32.8						
		Fi	22	39	8.7						
558	29 "	S	22	39	25.5					28	
		P	22	39	21.7						
		Fi	22	40	28.7						
559		iS	22	42	6.9						
		Fi	22	43	12.9						
560		iS	22	49	48.5					29	
		P	22	49	44.6						
		Fi	22	50	44.6						
561		e	22	54	5.4						
		Fi	22	55	53.4						
562	"	e	22	59	13.4						
		Fi	23	00	13.4						
563	"	e	23	05	38.6						
		Fi	23	06	38.6						
564	"	S	23	22	10.2						
		Fi	23	23	8.2						
565		S	23	33	34.1						
		Fi	23	34	11.1						
566		iS	23	57	27.1						
567	30. Nov	iP	0	06	22.9		E 39	S 11	D 29		
		S	0	06	26.9						
		MN	0	06	32.8			$\pm 170$			
		ME	0	06	27.2			$\pm 215$			
		Mz	0	06	29.1		+		+56		
		Fi	0	11	44.6				-61		
568	"	iS	0	12	13.7						
		P	0	12	10.2						
		Fi	0	12	53.2						
569	"	S	0	27	44.7						
		Fi	0	28	44.7						
570	"	P	0	36	18.0					29	
		S	0	36	21.9						
		Fi	0	37	33.0						
571	"	e	0	47	45.0						
		Fi	0	48	50.0						
572	"	P	2	03	24.9					29	
		S	2	03	28.8						
		Fi	2	04	39.9						
573	"	PA	5	40	9.2						felt slightly
		iPz	5	40	8.2			$\pm 40$			
		MN	5	40	36.8						
		ME	5	40	19.8		$\pm 33$				
		FL	5	43	47.8						
574	"	P	5	45	9.2					34	
		iS	5	45	13.8						
		Fi	5	46	45.2						
575	"	S	6	05	2.2					31	
		iP	6	04	58.1						
		Fi	6	05	58.1						

# NUMAZU JAPAN

## SEISMOLOGICAL BULLETIN

of the Numazu Meteorological Observatory of Japan

$\phi = 35^{\circ}06'N$      $\lambda = 138^{\circ}51'E$      $h = 6.0^m$

Wiechert Seismograph.

(Horizontal and Vertical)

Omori's Seismograph.

(Horizontal Pendulum)

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				
AZ:				

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN:				
AE:				

No.	Date.	Phase.	Time. 135°E			Period	Amplitude			$\Delta$ km	Remarks
							$A_E$	$A_N$	$A_Z$		
576	30, May	e <sup>2</sup>	14	08	58.8						
		F	14	10	30.8						
577	"	iS	14	18	28.4						
		P	14	18	33.3						
578	"	P	17	28	29.3				31		
		S	17	28	33.5						
		F	17	28	54.9						
579	31, May	P	9	38	35.8						
		iS	9	38	39.6						
		F	9	39	59.8						
580	"	P	4	49	15.6						
		F	4	50	15.6						
581	"	P	4	59	42.2				29		
		S	7	59	51.1						
		MN	10	00	8.9						
		ME	10	00	3.5						
		F	10	03							
582	"	e	10	56	43.0				26		
		S	10	56	46.5						
		F	10	57	43.0						
583	"	e	11	13	55.0						
		F	11	15	42.0						
584	"	e <sup>2</sup>	16	07	26.4				31		
		S	16	07	30.6						
		F	16	30	1.6						
585	"	P	16	40	4.4						
		F	16	41	0.6						
586	"	P	16	44	13.4						
		F	16	45	6.6						
587	"	P	17	05	32.7				31		
		S	17	05	35.9						
		F	17	07	0.6						
588	"	P	19	20	49.8				31		
		F	19	22	0.8						

(The end)

