4.Dec.1933 15. Jan., 34

No. From to 19

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

$\varphi = 34^\circ\ 39'$ N. $\lambda = 135^\circ\ 32'$ E. Gr. h = 3.4m Sub-Soil : Sandy Loam (Oldquaternary)

Instrument : Omori's Seismograph (Horizontal & Vertical)

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	30	-	0.003	20
A_N:	30	-	0.003	20
A_Z:	15	-	0.004	20

Wiechert Seismograph (Horizontal & Vertical)

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4	3.2	0.003	80
A_N:	4	3.2	0.003	80
A_Z:	6	2.0	0.005	80

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
283	Dec. 4	P	19 36 57.7					1402	
		i	37 24.9						
		S	39 25.5						
		ME	39 39.3	5.3	-371				
		MN	39 36.9	4.9		+409			
		F	58 50.0						
284	" 7								
		P	18 36 8.7					291	
		S	36 47.9						
		ME	37 7.6	2.0	- 72				
		MN	37 27.8	2.5		- 64			
		MZ	37 52.5	2.2			- 44		
		F	47 30.0						
1	Jan. 3	P	9 46 53.2					3202	
		i	47 45.3						
		i	48 34.6						
		S	50 49.9						
		ME	51 41.9	4.5	- 51				
		MN	51 52.3	4.2		- 80			
		MZ	52 52.4	4.6			± 14		
		F	10 04 40.0						
2	" 8	P	23 07 29.9					132	Felt
		i	07 35.2						
		i	07 39.1						
		S	07 47.7						
		ME	08 29.2	3.0	+333				
		MN	08 43.7	2.6		+331			
		MZ	08 38.4	2.6			±173		
		F	28 20.0						
3	" 12	P	13 43 13.5					3217	
		S	48 11.6						
		ME	49 18.4	4.9	- 18				
		MN	49 18.9	5.6		± 14			
		MZ	48 55.9	3.6			+ 6		
		F	14 00 50.0						
4	" 15	P	8 51 14.9					4735	
		i	51 30.3						
		i	53 11.0						
		S	57 43.1						
		L	9 00 58.1						
		ME	10 44.4	9.9	+ 95				
		MN	11 2.0	7.7		+131			
		MZ	11 38.8	17.1			+ 44		
		F	10 11 20.0						

No. 143 From 20. January to 4. February 19 34

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
5	Jan. 20	eP	18 05 24.1						
		eL	09 59.3						
		ME	11 19.0	8.6	± 33				
		MN	11 48.7	10.0		+ 50			
		F	24 10.0						
6	" 20	eP	22 57 22.5						
		eL	23 01 19.0						
		ME	23 03 27.8	7.9	± 30				
		MN	03 28.7	12.4		± 53			
		F	15 10.0						
7	" 21	P	6 59 14.4					3430	
		S	7 04 27.3						
		MN	05 21.0	12.4		± 30			
		F	29 10.0						
8	" 23	P	2 02 40.5					79	
		S	02 51.1						
		ME	03 19.5	2.0	- 14				
		MN	03 16.5	2.0		+ 16			
		F	05 20.0						
9	" 29	P	1 39 51.5					519	
		i	40 11.6						
		S	41 1.3						
		ME	41 43.5	3.6	+101				
		MN	41 53.1	3.6		- 64			
		MZ	41 36.3	3.0			+ 30		
		F	54 20.0						
10	" 29	P	12 36 35.5					785	
		S	38 21.3						
		ME	40 57.4	5.5	+ 13				
		MN	40 50.5	4.2		- 8			
		F	49 20.0						
11	Feb. 1	P	0 16 47.1					273	
		S	17 23.9						
		ME	17 55.0	2.0	+ 9				
		MN	17 57.5	2.0		+ 8			
		MZ	18 17.9	2.2			- 5		
		F	22 30.0						
12	" 1	P	15 29 4.4					488	
		S	30 10.2						
		ME	30 21.9	2.6	+ 9				
		MN	30 26.6	2.6		+ 11			
		MZ	31 37.1	2.4			± 6		
		F	34 50.0						
13	" 1	P	16 37 24.5					19	
		S	37 27.0						
		F	38 50.0						
14	" 2	eP	15 14 48.2					5105	
		S	21 36.3						
		L	24 7.1						
		MN	28 31.5	21.4		± 30			
		F	43 20.0						
15	" 4	P	16 09 19.0					143	
		S	09 38.3						
		MN	10 20.0	2.4		+ 56			
		MZ	10 10.7	2.0			+ 19		
		F	15 30.0						

No. 144

From 4. February, to 17. February, 19 34

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
16	Feb. 4	P	22 08 43.7					3447	
		S	13 57.3						
		F	30 0.0						
17	" 7	P	22 31 55.0					154	
		S	32 15.8						
		ME	33 20.0	2.4	- 13				
		MN	33 14.8	2.6		- 13			
		MZ	33 25.6	1.9			- 5		
		F	38 20.0						
18	" 8	P	6 02 13.8					85	
		S	02 25.2						
		ME	02 25.2	0.2	+ 4				
		MN	02 25.2	0.2		+ 5			
		MZ	02 50.9	0.2			± 1		
		F	04 10.0						
19	" 10	P	22 03 20.9					491	
		S	04 27.0						
		i	04 44.7						
		ME	05 27.1	4.0	+118				
		MN	05 34.3	3.8		+110			
		MZ	05 30.9	2.4			+ 63		
		F	14 20.0						
20	" 12	eP	11 46 47.1					3355	
		S	51 55.0						
		F	12 05 20.0						
21	" 12	P	21 45 24.4					267	
		S	46 0.3						
		ME	46 32.4	3.2	- 25				
		MN	46 32.9	3.5		- 27			
		MZ	46 36.8	2.4			- 9		
		F	53 20.0						
22	" 14	P	4 04 41.2					2550	
		i	06 48.4						
		i	08 0.0						
		S	08 49.8						
		i	15 16.0						
		F	55 20.0						
23	" 16	P	6 43 58.2					1720	
		S	46 56.2						
		ME	49 36.2	.4	± 6				
		MN	49 43.8	4.4		± 6			
		F	55 0.0						
24	" 17	P	3 11 31.2					519	
		S	12 41.2						
		ME	13 22.7	2.4	+ 30				
		MN	13 25.4	2.6		± 34			
		MZ	13 16.4	2.1			- 13		
		i	15 56.9						
		F	20 0.0						
25	" 17	P	6 16 31.4					397	
		S	17 24.9						
		ME	17 56.9	2.2	- 6				
		MN	17 54.9	2.4		- 6			
		MZ	17 54.4	1.7			- 3		
		F	20 50.0						

No. 145

From 17. February, 28.February, 34 to 19

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
26	Feb. 17	P	9 17 36.6					515	
		S	18 45.8						
		ME	19 27.4	3.0	+ 30				
		MN	19 23.2	3.6		+ 35			
		MZ	19 21.0	2.4			- 14		
		F	28 0.0						
27	" 17	P	12 07 43.1					542	
		S	08 56.1						
		ME	09 39.4	2.8	± 13				
		MN	09 25.0	2.8		+ 15			
		MZ	09 22.9	2.2			- 6		
		F	15 20.0						
28	" 22	P	1 51 24.0					398	
		i	51 38.0						
		S	52 17.6						
		ME	52 40.0	3.2	- 12				
		MN	52 23.0	3.4		+ 16			
		F	57 20.0						
29	" 24	P	6 26 51.9					1588	
		S	29 37.1						
		i	31 21.3						
		i	34 15.7						
		ME	44 52.2	12.8	- 25				
		MN	44 41.5	11.9		+ 26			
		MZ	35 11.8	13.8			± 19		
		F	7 48 20.0						
30	" 25	P	16 27 53.1					2155	
		S	31 29.6						
		ME	33 5.6	5.0	± 6				
		MN	32 53.6	4.4		± 6			
		F	43 0.0						
31	" 28	P	7 48 21.2					61	N to S
		S	48 29.4						W to E
		ME	48 30.0	0.2	- 7				U to D
		MN	48 30.0	0.2		- 11			
		MZ	48 29.4	0.2			- 5		
		i	48 41.3						
		i	50 37.3						
		F	54 20.0						
32	" 28	P	14 29 36.0					5141	
		S	36 25.8						
		L	41 55.3						
		MN	45 17.2	19.7		± 8			
		MZ	45 22.9	18.8			± 4		
		F	58 20.0						

8 th. March, 1934

No. 146 From 2. March, to 17. March, 1934

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

$\varphi = 34^\circ\ 39'$ N. $\lambda = 135^\circ\ 32'$ E. Gr. h = 3.4m Sub-Soil : Sandy Loam (Oldquaternary)

Instrument : Omori's Seismograph
(Horizontal & Vertical)

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	30	-	0.003	20
A_N:	30	-	0.003	20
A_Z:	15	-	0.004	20

Wiechert Seismograph
(Horizontal & Vertical)

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4	3.2	0.003	80
A_N:	4	3.2	0.003	80
A_Z:	6	2.0	0.005	80

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
33	Mar. 2	P	12 41 28.1					989	
		S	43 41.4						
		ME	45 24.5	4.0	±4				
		MN	45 50.2	3.8		±5			
		F	51 0.0						
34	" 5	P	11 58 35.6					9032	
		S	12 08 47.7						
		L	18 28.1						
		MN	32 59.6	17.6		±100			
		MZ	31 26.9	19.0			±5		
35	" 5	P	-- -- -- -						
		eS	12 48 38.0						
		L	58 23.8						
		MN	13 04 19.4	21.4		±75			
		F	37 0.0						
36	" 9	P	9 33 51.3					37	
		S	33 56.8						
		ME	33 57.0	0.3	-5				
		MN	33 57.1	0.3		+6			
		F	36 20.0						
37	" 11	P	10 44 35.4					200	
		S	45 3.4						
		i	48 44.6						
		F	54 0.0						
38	" 13	P	13 21 5.2					5770	
		i	22 28.3						
		S	28 29.2						
		L	34 47.0						
		MN	39 32.6	11.1		-30			
		F	14 35 20.0						
39	" 13	P	16 59 4.1					170	
		i	59 9.0						
		S	59 27.0						
		MN	59 31.0	2.4		-13			
		F	17 03 20.0						
40	" 17	P	8 45 33.0					45	
		S	45 39.0						
		ME	45 39.4	0.3	-3				
		MN	45 39.4	0.3		±3			
		F	48 15.0						

No. 147

From 17. March, to 30. March, 1934

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
41	Mar.17	P	18 38 25.5					473	
		S	39 29.2						
		ME	39 58.8	2.6	±14				
		MN	40 4.8	2.6		-10			
		MZ	40 7.5	2.4			±6		
		F	44 40.0						
42	" 18	P	4 38 1.4					2137	
		S	41 36.5						
		ME	43 26.8	4.4	-20				
		MN	43 4.1	4.3		+19			
		MZ	42 26.3	4.0			+8		
		F	49 10.0						
43	" 20	P	2 31 2.4					45	
		i	31 4.0						
		S	31 8.4						
		ME	31 16.0	0.4	±5				
		MN	31 16.0	0.4		±5			
		MZ	31 16.0	0.3			±1		
		F	33 0.0						
44	" 20	P	2 46 4.0					4015	
		S	51 52.0						
		L	55 31.8						
		F	3 06 10.0						
45	" 21	P	3 40 35.1					330	
		S	41 19.5						
		ME	42 29.5	4.0	+88				
		MN	42 15.0	4.2		+100			
		MZ	41 47.7	2.3			±50		
		F	53 10.0						
46	" 24	P	12 13 29.9					5513	
		S	20 40.1						
		L	27 3.6						
		F	54 10.0						
47	" 26	P	20 10 49.3					45	
		S	10 55.4						
		ME	10 55.8	0.4	+1				
		MN	10 55.8	0.4		+1			
		F	15 0.0						
48	" 30	P	14 55 15.8					375	
		S	56 6.3						
		ME	57 16.9	2.0	±11				
		MN	57 20.1	2.2		-11			
		F	15 03 10.0						

No. 148 From 3. April, to 9. April, 1934

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

$\varphi = 34°\ 39'$ N. $\lambda = 135°\ 32'$ E. Gr. $h = 3.4$m Sub-Soil : Sandy. Loam (Oldquaternary)

Instrument : Omori's Seismograph (Horizontal & Vertical)

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	30	-	0.003	20
A_N:	30	-	0.003	20
A_Z:	15	-	0.004	20

Wiechert Seismograph (Horizontal & Vertical)

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4	3.2	0.003	80
A_N:	4	3.2	0.003	80
A_Z:	6	2.0	0.005	80

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
49	Apr. 3	P	1 11 38.9					384	
		S	12 30.7						
		ME	13 19.0	3.0	+18				
		MN	13 11.5	3.0		+18			
		MZ	13 33.6	2.8			+5		
		F	18 20.0						
50	" 3	P	22 33 55.5					3364	
		i	34 12.8						
		i	34 31.2						
		S	39 4.1						
		L	44 9.5						
		F	23 01 10.0						
51	" 5	P	8 58 24.9					394	
		S	59 18.0						
		ME	9 00 2.2	3.0	+16				
		MN	8 59 52.3	3.5		+19			
		MZ	9 00 10.3	3.8			±12		
		F	06 0.0						
52	" 6	P	19 10 59.0					553	
		i	11 17.9						
		i	11 29.5						
		S	12 13.5						
		i	12 29.5						
		ME	13 5.5	3.2	-256				
		MN	13 7.4	3.5		-288			
		MZ	14 1.1				+114		
		F	31 0.0						
53	" 8	P	2 53 50.3					59	
		S	53 58.3						
		ME	53 59.8	0.3	+8				
		MN	53 59.8	0.3		-8			
		MZ	53 58.3	0.2			+1		
		F	57 50.0						
54	" 8	P	3 22 55.5					59	
		S	23 3.5						
		ME	23 4.5	0.3	+5				
		MN	23 4.9	0.3		-5			
		MZ	23 25.5	0.2			±1		
		F	27 10.0						
55	" 9	P	15 40 3.5					86	
		i	40 9.3						
		S	40 16.4						
		ME	40 16.4	0.3	-13				
		MN	40 16.4	0.3		-10			
		MZ	40 21.6	0.3			-3		

No. 149

From 9. April, to 18. April, 1934

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
		i	15 40 29.6						
		F	43 0.0						
56	Apr. 10	P	10 31 21.2					3871	
		i	31 47.2						
		i	33 35.2						
		S	37 1.0						
		i	40 48.0						
		F	51 40.0						
57	" 11	P	10 54 48.6					367	
		S	55 38.0						
		ME	56 47.0	2.5	+6				
		MN	56 42.0	3.0		+8			
		MZ	56 17.9	2.8			±4		
		F	11 00 50.0						
58	" 11	P	21 21 6.0					7560	
		S	30 4.0						
		F	38 30.0						
59	" 14	P	17 45 40.8					77	
		S	45 51.2						
		ME	45 51.2	0.3	-1				
		MN	45 51.2	0.3		±1			
		F	46 50.0						
60	" 14	P	18 50 18.6					63	
		S	50 27.1						
		ME	50 29.1	0.3	-5				
		MN	50 29.1	0.3		-8			
		i	50 48.1						
		F	53 0.0						
61	" 14	P	20 36 11.0					76	
		S	36 21.2						
		ME	36 21.2	0.3	±1				
		MN	36 21.2	0.3		-1			
		F	37 50.0						
62	" 15	P	10 34 10.4					528	
		S	35 21.6						
		ME	36 24.4	3.4	+151				
		MN	36 30.9	4.0		+163			
		MZ	35 46.2	2.4			-50		
		F	53 0.0						
63	" 15	P	22 21 3.5					3345	
		S	26 10.8						
		L	28 45.4						
		F	40 0.0						
64	" 18	P	1 54 45.5					2025	
		S	58 11.0						
		F	2 10 30.0						
65	" 18	P	11 01 19.9					2001	
		S	04 43.0						
		F	08 0.0						
66	" 18	P	11 57 40.9					2001	
		S	12 01 4.0						
		F	06 40.0						

No. 150

From 19. April, to 27. April, 19 34.

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	A_N μ	A_Z μ	△ k.m.	Remarks
67	Apr. 19	P	2 38 32.1					3132	
		S	42 6.9						
		F	48 30.0					..	
68	" 19	P	7 55 4.3					2487	
		S	59 8.4						
		F	8 10 0.0						
69	" 19	P	16 15 2.4					532	
		i	15 4.0						
		i	16 4.8						
		S	16 14.0						
		MN	16 35.4	3.8		-456			
		MZ	16 36.9	?.4			+194		
		F	35 0.0						
70	" 22	P	19 10 19.7					96	
		S	10 32.6						
		ME	10 56.2	0.6	-6				
		MN	10 42.4	0.8		-10			
		F	13 10.0						
71	" 25	P	5 07 5.1					1466	
		S	09 38.7						
		L	12 26.9						
		F	21 20.0						
72	" 26	P	21 10 0.5					2924	
		S	14 37.9						
		L	18 5.8						
		F	25 50.0						
73	" 26	P	22 48 28.1					519	
		i	48 30.1						
		i	48 38.1						
		i	49 22.2						
		S	49 37.9						
		ME	50 39.9	3.6	-18				
		MN	50 25.3	3.6		-20			
		i	51 53.6						
		F	57 50.0						
74	" 27	P	3 18 34.2					3906	
		i	20 18.0						
		S	24 15.9						
		F	33 30.0						
75	" 27	P	6 12 56.8					690	
		S	14 29.8						
		F	18 0.0						
76	" 27	P	8 14 36.2					1618	
		S	17 24.0						
		F	22 0.0						
77	" 27	P	8 47 44.5					67	
		S	47 53.8						
		F	49 30.0						
78	" 27	P	9 18 32.2					315	
		S	19 14.6						
		ME	22 1.3	5.0	-12				
		MN	21 42.6	4.4		+13			
		F	29 0.0						

No. 151

From 28. April, to 11. May, 19 34

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h.	m.	s.	Period s	Amplitude A_E μ	A_N μ	A_Z μ	△ k.m.	Remarks
79	Apr. 28	P	15	15	28.2					712	
		S		17	4.2						
		F		24	50.0						
80	" 28	P	17	01	59.8					205	
		S		02	27.4						
		F		04	0.0						
81	" 28	P	21	16	12.3					818	
		S		18	2.6						
		i		18	26.7						
		F		22	50.0						
82	" 28	P	23	27	35.6					1443	
		S		30	6.9						
		F		39	50.0						
83	" 30	P	15	21	44.1					457	
		S		22	45.6						
		F		33	10.7						
84	May, 1	P	7	13	10.7					3493	
		i		13	13.2						
		S		18	27.2						
		i		21	0.7						
		i		23	18.6						
		F		28	50.0						
85	" 3	P	1	33	27.3					1011	
		S		35	43.5						
		i		40	2.4						
		i		42	37.7						
		i		46	51.5						
		F	2	05	50.0						
86	" 4	P	4	45	31.8					6080	
		S		53	9.8						
		L	5	03	42.0						
		ME		09	39.4	17.8	±5				
		MN		08	55.4	17.8		±6			
		MZ		09	7.2	19.7			±2		
		F		16	40.0						
87	" 5	P	14	44	21.0					8414	
		S		54	2.2						
		F	15	04	50.0						
88	" 5	P	16	50	30.2					3843	
		S		56	8.5						
		F	17	03	50.0						
89	" 9	P	16	17	38.7					4091	
		S		21	31.0						
		L		24	43.5						
		F		32	50.0						
90	" 11	P	18	42	55.7					128	
		1		42	57.7						
		S		43	13.0						
		ME		43	13.4	0.4	-6				
		MN		43	13.6	0.3		-5			
		F		45	20.0						

No. 152

From 12. May, to 14. May, 19 34

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
91	May, 12	P	3 50 56.1					57	
		i	50 58.0						
		S	51 3.7						
		ME	51 3.7	0.6	+11				
		MN	51 ~~03~~3.7	0.6		- 9			
		MZ	51 37.0	0.3			±1		
		i	51 40.4						
		i	52 29.4						
		F	55 30.0						
92	" 12	P	4 16 2.4					74	
		i	16 6.4						
		S	16 12.4						
		ME	16 12.4	0.3	+2				
		MN	16 12.4	0.3		+3			
		i	16 55.0						
		F	19 40 19 40.0						
93	" 13	P	9 09 52.8					4165	
		i	12 23.4						
		S	15 49.3						
		L	20 0.4						
		F	27 40.0						
94	" 13	P	14 19 41.4					23	
		i	19 41.9						
		S	19 44.5						
		ME	19 44.9	0.3	-1				
		MN	19 44.9	0.3		-1			
		F	20 30.0						
95	" 13	P	17 07 40.7					2298	
		S	11 29.2						
		F	19 40.0						
96	" 13	P	19 07 15.0					1440	
		S	09 46.0						
		F	15 10.0						
97	" 13	P	19 57 58.9					856	
		S	59 54.3						
		F	20 05 30.0						
98	" 13	P	19 59 31.2					65	
		S	59 40.0						
		F	20 01 10.0						
99	" 13	P	23 09 56.6					718	
		S	11 33.4						
		ME	11 44.6	3.0	+13				
		MN	11 55.2	3.0		-15			
		MZ	12 12.8	3.6			-8		
		F	20 0.0						
100	" 14	P	22 21 50.2					1776	
		i	22 0.5						
		S	24 52.8						
		L	29 23.7						
		ME	30 9.2	6.0	-8				
		MN	29 44.9	6.3		-10			
		F	38 40.0						

No. 158 From 17. May, to 31. May, 19 54

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

$\varphi = 34^\circ\ 39'$ N. $\lambda = 135^\circ\ 32'$ E. Gr. h = 3.4m Sub-Soil : Sandy Loam (Oldquaternary)

Instrument : Omori's Seismograph (Horizontal & Vertical)

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:		-	0.003	20
A_N:		-	0.003	20
A_Z:		-	0.004	20

Wiechert Seismograph (Horizontal & Vertical)

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4	3.2	0.003	80
A_N:	4	3.2	0.003	80
A_Z:	6	2.0	0.005	80

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	A_N μ	A_Z μ	△ k.m.	Remarks
101	May,17	P	21 54 34.3					377	
		S	55 25.1						
		MN	56 34.4	3.0		±8			
		MZ	56 25.0	2.5			±2		
		F	12 03 40.0						
102	" 19	P	1 35 30.8					1853	
		S	38 41.1						
		F	46 40.0						
103	" 19	P	10 46 42.5					2485	
		S	50 46.5						
		F	11 05 40.0						
104	" 20	P	7 03 58.6					608	
		S	05 20.6						
		ME	07 6.2	3.0	±8				
		MN	07 14.2	3.6		±8			
		F	13 40.0						
105	" 25	P	16 20 54.2					645	
		S	22 21.1						
		ME	22 35.9	3.0	±22				
		MN	22 49.2	3.0		±25			
		MZ	22 36.5	2.6			±11		
		F	28 40.0						
106	" 28	P	5 36 34.0					1508	
		S	39 11.8						
		L	42 1.4						
		F	49 0.0						
107	" 30	P	23 05 3.2					511	
		S	06 12.0						
		ME	07 7.4	4.0	-164				
		MN	07 19.9	4.0		±163			
		MZ	06 45.5	3.9			-81		
		F	20 0.0						

No. 154 From 1. June, to 13. June, 1934

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
108	June, 1	P	1 36 36.2					515	
		S	37 45.4						
		ME	38 44.0	3.4	+26				
		MN	38 45.7	4.0		-30			
		MZ	38 59.0	2.6			-13		
		F	51 20.0						
109	" 1	P	6 01 56.8					3270	
		S	06 58.8						
		F	16 20.0						
110	" 2	P	21 30 26.6					521	
		S	31 36.9						
		ME	32 25.4	2.6	-41				
		MN	32 11.8	2.6		-33			
		MZ	32 21.8	2.7			+13		
		F	43 40.0						
111	" 3	P	7 18 26.9					475	
		S	19 30.8						
		ME	20 18.9	3.2	-48				
		MN	20 22.3	3.0		±56			
		MZ	20 12.4	2.7			±28		
		F	27 20.0						
112	" 5	P	12 37 53.9					58	
		S	38 1.6						
		ME	38 9.6	0.6	+3				
		MN	38 5.4	0.4		- 3			
		i	38 54.8						
		F	40 50.0						
113	" 5	P	18 46 25.3					631	
		S	47 52.3						
		ME	48 47.9	4.0	+19				
		MN	48 26.0	4.0		-13			
		F	57 20.0						
114	" 10	P	13 06 19.0					4382	
		i	07 28.2						
		i	08 47.3						
		S	12 28.1						
		L	20 12.0						
		F	27 10.0						
115	" 13	P	1 53 55.7					12281	
		i	56 44.5						
		i	2 02 30.2						
		S	06 27.4						
		F	23 20.0						
116	" 13	P	2 17 57.4					213	
		S	18 16.0						
		ME	18 17.6	0.4	+5				
		MN	18 17.6	0.4		+5			
		F	20 50.9						
117	" 13	P	22 20 30.2					6942	
		i	23 7.1						
		i	25 19.1						
		S	28 56.3						
		i	31 20.9						
		F	41 40.0						

No. 155

From 15. June, to 29. June, 34

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
118	June, 15	P	5 32 40.9					377	
		i	32 51.3						
		i	33 0.9						
		S	33 31.7						
		ME	33 43.3	2.0	-34				
		MN	33 25.3	2.4		-34			
		MZ	34 21.3	2.4			-19		
		F	42 10.0						
119	" 15	P	21 34 9.7					2289	
		S	37 57.6						
		F	45 50.0						
120	" 19	P	3 54 32.9					2080	
		S	58 2.9						
		L	4 00 21.6						
		F	06 50.0						
121	" 19	P	15 48 36.0					473	
		S	49 39.7						
		ME	50 40.3	5.1	-50				
		MN	50 36.2	5.0		-70			
		MZ	50 30.2	2.9			+31		
		F	16 04 30.0						
122	" 21	P	23 51 15.3					68	
		S	51 24.4						
		F	53 40.0						
123	" 23	P	5 32 32.0					5644	
		S	39 49.2						
		F	6 02 0.0						
124	" 24	P	6 19 11.7					3502	
		i	19 48.5						
		i	21 11.3						
		S	24 28.8						
		L	27 40.2						
		F	41 50.0						
125	" 26	P	20 35 24.2					267	
		S	36 0.1						
		ME	36 16.9	2.1	+8				
		MN	36 50.2	2.5		-13			
		F	42 50.0						
126	" 26	P	20 40 33.0					456	
		i	41 2.4						
		S	41 34.4						
		ME	43 29.2	4.3	-43				
		MN	42 38.6	4.0		+50			
		MZ	42 25.3	3.6			+16		
		F	54 20.0						
127	" 29	P	8 32 21.6					3877	
		S	38 1.7						
		ME	38 35.5	4.4	-164				
		MN	38 33.4	4.4		-185			
		MZ	38 12.8	3.2			+94		
		F	57 50.0						
128	" 29	P	12 41 50.1					3713	
		S	47 20.5						
		ME	47 53.7	5.3	+9				
		MN	47 50.9	4.9		-9			
		F	55 50.0						

No. 162

From 1st. Septem to 12th. Sept. 1934

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

$\varphi = 34^\circ\ 39'$ N. $\lambda = 135^\circ\ 32'$ E. Gr. h = 3.4m Sub-Soil : Sandy Loam (Oldquaternary)

Instrument : Omori's Seismograph (Horizontal & Vertical)

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:				
	30	-	0.003	20
A_N:				
	30	-	0.003	20
A_Z:				
	15	-	0.004	20

Wiechert Seismograph (Horizontal & Vertical)

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:				
	4	3.2	0.003	80
A_N:				
	4	3.2	0.003	80
A_Z:				
	4	2.0	0.015	80

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
176	Aug. 31	P	15 06 29.5					6138	
		i	07 4.1						
		i	08 13.1						
		i	10 0.6						
		S	14 13.4						
		L	25 54.4						
		F	43 20.0						
177	" 31	P	23 06 19.1					497	
		S	07 26.1						
		ME	08 22.1	2.2	-8				
		MN	08 33.7	2.6		-11			
		MZ	08 26.1	2.4			±5		
		F	13 20.0						
178	Sept. 1	P	2 46 0.0					507	
		i	46 17.9						
		S	47 0.2						
		ME	48 4.5	2.4	-6				
		MN	48 13.3	2.4		-2			
		F	51 50.0						
179	" 1	P	6 57 45.3					582	
		S	59 3.7						
		ME	7 03 8.1	4.0	-13				
		MN	00 18.7	4.4		-9			
		F	06 20.0						
180	" 1	P	11 18 34.1					458	
		i	18 44.5						
		S	19 35.7						
		ME	19 57.5	2.6	+39				
		MN	19 58.5	2.8		+58			
		MZ	20 15.8	2.5			-20		
		F	26 30.0						
181	" 8	P	0 16 58.5					74	
		S	17 0.4						
		ME	17 19.0	0.2	+26				
		MN	17 9.0	0.2		+14			
		MZ	17 12.2	0.2			-8		
		F	22 10.0						
182	" 11	P	23 34 4.8					79	
		S	34 55.4						
		ME	35 16.8	3.6	+10				
		MN	35 17.0	3.6		+19			
		MZ	35 49.2	3.0			±4		
		F	41 20.0						
183	" 12	P	14 23 8.3					698	
		S	24 42.3						
		ME	26 0.9	3.0	-5				
		MN	25 59.9	3.0		-2			

No. 163

From 1oth. Sept. to 13th. Sept. 1934

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
								765	
184	Sept. 12	P	14 27 25.2						
		S	29 8.3						
		ME	32 20.8	4.4	-56				
		MN	33 8.4	4.4		±44			
		MZ	31 24.5	5.1			-10		
		F	53 0.0						
								792	
185	" 12	P	15 37 38.5						
		S	39 13.9						
		ME	41 48.5	4.4	±13				
		MN	40 55.7	4.4		±11			
		MZ	39 59.3	4.0			±3		
		F	16 09 20.0						
								762	
186	" 12	P	17 44 7.9						
		S	45 50.6						
		ME	47 2.0	4.5	±39				
		MN	47 4.1	5.0		-56			
		MZ	46 49.5	3.8			+15		
		F	18 09 10.0						
								684	
187	" 13	P	19 43 7.7						
		S	44 39.8						
		ME	47 19.3	4.9	±5				
		MN	47 19.9	4.6		±2			
		MZ	44 47.7	4.0			±1		
		F	53 10.0						
188	" 12	P	21 28 28.0						
		S	30 7.8						
		ME	31 34.2	4.0	±2				
		MN	31 27.4	4.0		±2			
		F	38 30.0						
								663	
189	" 12	P	22 39 57.4						
		S	41 26.7						
		ME	43 1.7	4.4	±3				
		MN	42 30.1	4.4		±3			
		MZ	41 41.7	4.0			±1		
		F	50 0.0						
								665	
190	" 13	P	3 06 17.6						
		S	07 47.2						
		ME	11 0.4	4.4	-11				
		MN	11 25.4	5.6		±3			
		MZ	09 35.2	4.0			±5		
		F	21 30.0						
								779	
191	" 13	P	10 17 36.2						
		S	19 21.1						
		ME	22 20.2	4.0	-5				
		MN	22 20.9	4.0		-3			
		MZ	20 42.5	3.8			-2		
		F	31 0.0						
								613	
192	" 13	P	14 20 12.3						
		S	21 35.1						
		i	23 34.8						
		i	26 46.9						
		F	35 10.0						
								148	
193	" 13	P	14 22 13.3						
		S	22 33.3						
		ME	22 35.0	0.5	+13				
		MN	22 33.3	0.5		+13			
		MZ	22 33.3	0.2			+3		
		F	25 0.0						

No. 164

From 15th. Sept. to 17th. Sept. 1934

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
194	Sept. 15	P	13 10 19.8					668	
		S	11 49.8						
		MN	14 25.5	4.4		±5			
		ME	14 25.9	4.5	-5				
		F	27 30.0						
195	" 15	P	16 42 14.7					784	
		S	44 0.3						
		ME	44 20.1	4.4	±1				
		MN	44 20.1	4.4		±1			
		F	53 0.0						
196	" 15	P	17 31 57.4					680	
		S	33 29.0						
		ME	34 6.6	3.0	±3				
		MN	34 14.0	3.6		±3			
		F	44 10.0						
197	" 15	P	20 04 30.4					684	
		S	06 2.5						
		ME	06 59.9	3.0	±5				
		MN	07 17.9	3.4		+3			
		F	16 10.0						
198	" 16	P	13 16 47.3					726	
		S	18 25.1						
		ME	19 16.9	4.0	+39				
		MN	20 14.7	4.1		+41			
		MZ	19 20.3	4.0			-26		
		F	38 20.0						
199	" 16	P	15 11 3.6					692	
		S	12 38.8						
		ME	13 15.1	2.4	±1				
		MN	12 49.0	2.6		±1			
		F	21 10.6						
200	" 16	P	19 13 16.8					725	
		S	14 54.4						
		ME	16 32.8	4.6	±5				
		MN	16 29.4	4.3		±3			
		MZ	15 30.0	3.6			±2		
		F	27 40.0						
201	" 16	P	21 09 38.9					645	
		S	10 5.8						
		ME	10 40.8	4.5	±1				
		MN	10 35.4	4.5		±1			
		F	18 50.0						
202	" 16	P	22 13 11.0					677	
		S	14 42.2						
		F	24 0.0						
203	" 17	P	0 31 36.7					413	
		i	32 4.7						
		S	32 32.3						
		ME	32 33.6	2.4	+22				
		MN	32 43.7	2.4		-20			
		MZ	32 51.0	2.0			-6		
		F	38 10.0						

No. 165

From 17th.Sept. to 25th.Sept. 19 34

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
204	Sept.17	P	1 28 29.3					133	
		i	28 32.4						
		S	28 47.2						
		ME	28 47.4	0.3	+6				
		MN	28 47.3	0.3		-9			
		MZ	28 55.7	0.2			+1		
		i	29 30.1						
		F	32 20.0						
205	" 17	P	1 38 36.7					716	
		S	40 13.2						
		ME	41 16.1	4.1	±2				
		MN	41 25.4	4.6		±3			
		MZ	41 10.0	4.0			±1		
		F	40 40.0						
206	" 17	P	13 41 57.5					712	
		S	43 33.4						
		ME	45 51.4	4.0	-5				
		MN	46 31.4	4.0		-5			
		MZ	45 34.8	3.8			-2		
		F	53 0.0						
207	" 17	P	18 30 58.0					678	
		S	32 29.4						
		F	41 0.0						
208	" 17	P	20 48 12.6					685	
		S	49 44.8						
		ME	51 49.1	4.1	±1				
		MN	51 40.8	4.4		±1			
		F	55 50.0						
209	" 17	P	22 53 16.4					700	
		S	54 50.7						
		F	23 02 0.0						
210	" 23	P	21 42 49.7					749	
		S	44 30.7						
		ME	46 1.7	4.0	+18				
		MN	46 22.1	4.4		+13			
		F	53 10.0						
211	" 24	P	4 54 25.1					287	
		S	55 3.8						
		ME	55 27.0	1.4	-26				
		MN	55 28.6	1.6		-45			
		F	5 04 0.0						
212	" 24	P	17 15 45.5					89	
		S	15 57.5						
		ME	16 22.9	1.8	-13				
		MN	16 13.7	2.0		-19			
		F	21 30.0						
213	" 25	P	1 54 32.7					45	
		S	54 38.8						
		ME	54 38.8	0.4	+2				
		MN	54 38.8	0.4		+1			
		F	56 10.0						
214	" 25	P	18 53 44.8					38	
		S	53 49.9						
		ME	53 49.9	0.2	+1				
		MN	53 50.9	0.2		+1			
		F	55 0.0						

No. 166

From 25th. Sept. to 21st. October 19 3

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
..	..		..						
			..						
215	Sept.25	P	19 21 55.9					766	
		S	23 39.1						
		ME	27 34.7	4.0	±5				
		MN	28 5.7	5.0		±5			
		MZ	25 21.8	2.7			-2		
		F	.. 37 10.0						
216	Oct. 2	P	21 05 27.3					407	
		i	05 52.0						
		S	06 22.1						
		i	06 44.0						
		ME	07 (.7	3.8	-19				
		MN	07 16.7	3.8		+26			
		MZ	07 10.5	3.0			-10		
		F	14 20.0						
217	" 5	P	16 06 6.8					109	
		S	06 21.5						
		ME	06 21.7	0.4	+6				
		MN	06 21.5	0.3		+5			
		F	.. 08 10.0						
218	" 5	P	20 28 10.9					1444	
		i	28 43.0						
		S	30 42.3						
		ME	31 43.2	5.1	-69				
		MN	32 22.7	5.6		+50			
		MZ	31 58.3	4.0			+23		
		F	44 30.0						
219	" 10	P	15 52 40.2					7164	
		S	16 01 17.9						
..		F	15 30.0						
			.. ..						
220	" 10	P	16 19 51.7					4787	
		S	20 22.4						
..		F	33 30.0						
221	" 18	P	7 57 22.6					5520	
		S	8 04 39.3						
		i	05 17.6						
		ME	05 36.0	4.7	+13				
		MN	05 38.7	4.8		-14			
		F	15 10.0						
222	" 18	P	22 54 47.0					116	
		S	55 2.6						
		i	55 8.8						
		ME	55 40.8	1.0	-6				
		MN	55 35.1	1.0		+6			
		F	56 40.0						
223	" 21	P	17 57 45.4					1843	
		S	18 00 54.7						
		ME	01 57.4	4.6	-16				
		MN	01 28.7	4.5		-13			
		MZ	01 9.9	4.5			+6		
		F	18 30.0						
224	" 21	P	18 34 22.2					606	
		S	35 43.9						
		ME	36 21.5	4.0	-11				
		MN	36 6.6	4.0		+8			
		MZ	36 5.6	2.7			-5		
		F	43 0.0						

No. 167 From 23rd. October to 8th. November 34

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
225	Oct. 23	P	22 25 57.5	..				767	
		S	27 40.8	..					
		ME	28 28.6	2.8	+9				
		MN	28 30.4	2.7		+8			
		MZ	26 4.6	2.8			-3		
		F	34 50.0						
226	" 26	P	14 51 35.0					3675	
		S	57 3.0						
		ME	57 49.4	4.2	+25				
		MN	57 43.0	5.6		-33			
		MZ	57 19.4	4.0			+9		
		F	15 10 20.0						
227	" 26	P	17 12 44.0					619	
		S	14 7.4						
		ME	15 42.0	3.2	-106				
		MN	15 33.6	4.2		+153			
		MZ	16 53.0	3.0			+95		
		F	40 20.0						
228	" 26	P	20 52 42.0					100	
		S	52 55.4						
		ME	53 15.0	1.2	-6				
		MN	53 15.4	1.2		+5			
		F	57 50.0						
229	" 29	P	17 24 48.6					584	
		S	26 7.2						
		ME	27 20.6	3.2	-8				
		MN	27 14.8	3.0		+3			
		F	34 40.0						
230	Nov. 3	P	15 05 26.2					63	
		S	05 35.0						
		ME	05 58.0	0.6	-14				
		MN	06 2.2	0.6		-13			
		MZ	05 55.3	0.6			-5		
		F	09 20.0						
231	" 5	P	23 09 33.8					4336	
		S	15 40.0						
		ME	16 51.0	4.5	+8				
		MN	16 13.0	5.5		+16			
		F	28 10.0						
232	" 6	P	8 12 33.2					399	
		S	13 27.0						
		ME	14 13.4	2.6	+6				
		MN	14 9.2	2.[illegible]		+3			
		MZ	13 45.0	2.0			+3		
		F	28 10.0						
233	" 7	P	11 31 32.8					648	
		S	33 4.0						
		ME	34 20.0	4.0	-22				
		MN	33 43.3	4.1		+25			
		MZ	33 28.9	3.2			+12		
		F	40 20.0						
234	" 8	P	3 26 40.9					359	
		S	27 29.3						
		ME	28 16.6	4.2	-150				
		MN	28 25.1	3.6		+130			
		MZ	25 1.6	3.5			-88		
		F	40 50.0						

No. 168 From 8. November, to 24. November, 19

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

$\varphi = 34°\ 39'$ N. $\lambda = 135°\ 32'$ E. Gr. h = 3.4m Sub-Soil : Sandy Loam (Oldquaternary)

Instrument : Omori's Seismograph
(Horizontal & Vertical)

	T_o	ε	$\frac{r}{T_o^2}$	V
A_E:	~~30~~	–	0.003	~~20~~
A_N:	~~30~~	–	0.003	~~20~~
A_Z:	~~15~~	–	0.004	~~20~~

Wiechert Seismograph
(Horizontal & Vertical)

	T_o	ε	$\frac{r}{T_o^2}$	V
A_E:	~~4~~	~~3.0~~	~~0.003~~	~~80~~
A_N:	~~4~~	~~3.0~~	~~0.003~~	~~80~~
A_Z:	~~4~~	~~2.0~~	~~0.015~~	~~80~~

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
235	Nov. 16	P	13 50 38.1					1604	
		i	51 25.0						
		i	52 00.6						
		S	53 24.5						
		L	56 11.8						
		i	57 44.5						
		i	14 00 53.6						
		F	11 40.0						
236	" 17	P	19 49 20.6					89	
		i	49 26.6						
		S	49 32.6						
		ME	49 32.6	0.4	-2				
		MN	49 32.7	0.4		±3			
		MZ	49 32.6	0.2			±1		
		F	51 00.0						
237	" 17	P	22 27 13.3					111	
		S	27 28.2						
		ME	27 32.6	0.4	±1				
		MN	27 28.2	0.4		±1			
		F	29 00.0						
238	" 18	P	3 30 13.6					1964	
		i	31 04.7						
		S	33 33.2						
		L	38 07.5						
		ME	39 34.2	4.1	±6				
		MN	38 56.1	4.5		±6			
		MZ	39 58.4	4.0			-2		
		F	47 30.0						
239	" 18	P	9 23 29.6					3414	
		i	23 41.6						
		i	25 36.7						
		S	28 42.2						
		i	30 12.5						
		F	39 00.0						
240	" 18	P	22 48 14.5					3114	
		i	49 44.8						
		S	53 05.7						
		L	58 06.2						
		ME	58 57.5	4.4	-11				
		MN	58 33.0	4.5		+13			
		MZ	58 [illegible].5	4.3			+5		
	...	F	23 05 50.0						
241	" 22	P	19 19 19.3					53	
		S	19 26.4						
		ME	19 28.5	0.2	±1				
		MN	19 28.0	0.2		±1			
		F	21 00.0						

No.169 From 24. November to 15. December 1934

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
242	Nov. 24	P	8 22 18.6					65	
		S	22 27.3						
		ME	22 27.3	0.4	-6				
		MN	22 27.6	0.3		±4			
		F	24 20.0						
243	" 26	P	12 14 30.0					1831	
		i	14 52.0						
		S	17 38.1						
		F	27 30.0						
244	" 27	P	5 51 00.2					447	
		i	51 22.9						
		S	52 03.2						
		ME	52 55.6	3.8	+50				
		MN	52 44.2	4.1		-81			
		MZ	53 11.9	3.6			+30		
		F	6 03 30.0						
245	" 27	P	6 20 50.5					855	
		i	21 09.9						
		S	22 45.8						
		ME	23 10.1	4.4	+50				
		MN	23 28.1	4.0		+51			
		MZ	23 36.4	3.8			+38		
		i	26 32.4						
		F	37 30.0						
246	" 27	P	15 57 37.7					423	
		S	58 34.7						
		MN	59 01.6	2.6	-23				
		ME	59 01.0	2.6		-29			
		MZ	59 02.0	2.0			-8		
		F	16 02 30.0						
247	" 29	P	12 56 07.3					536	
		S	57 19.5						
		ME	57 54.9	2.6	+19				
		MN	57 48.4	2.4		+18			
		MZ	57 53.8	2.0			+5		
		F	13 03 00.0						
248	Dec. 7	P	1 07 11.2					115	
		i	07 26.1						
		S	07 26.7						
		MN	07 26.7	0.4		±38			
		MZ	07 26.7	0.2			-6		
		F	11 30.0						
249	" 9	P	3 16 22.4					85	
		S	16 33.9						
		ME	16 44.0	0.6	+12				
		MN	16 41.4	0.6		+9			
		MZ	16 40.4	0.2			±1		
		F	19 10.0						
250	" 15	P	2 04 52.0					4675	
		S	11 16.6						
		L	16 29.8						
		ME	19 41.6	20.2	+25				
		MN	18 49.1	19.3		-47			
		MZ	20 59.9	16.5			-19		
		F	49 40.0						

No. 170

From 15. December to 31. December 19 34

OSAKA JAPAN

SEISMOLOGICAL BULLETIN
of the Osaka Meteorological Observatory

No.	Date	Phase	G.M.T. h. m. s.	Period s	Amplitude A_E μ	Amplitude A_N μ	Amplitude A_Z μ	△ k.m.	Remarks
251	Dec. 15	P	19 19 38.7					98	
		S	19 51.9						
		ME	20 00.5	0.4	±5				
		MN	19 56.6	0.4		±3			
		MZ	20 19.1	0.3			-1		
		F	21 30.0						
252	" 15	P	19 25 00.5					3535	
		i	27 47.8						
		S	30 19.8						
		L	33 36.6						
		ME	34 27.4	3.6	+13				
		MN	34 28.8	4.1		-16			
		MZ	34 19.6	3.6			+8		
		F	44 40.0						
253	" 17	P	15 59 45.0					4542	
		i	16 01 09.2						
		i	02 30.5						
		S	06 02.1						
		F	22 00.0						
254	" 21	P	1 08 35.7					295	
		S	09 15.5						
		ME	09 28.8	2.1	-3				
		MN	09 29.4	2.6		-5			
		F	15 20.0						
255	" 21	P	2 39 08.6					314	
		S	39 50.9						
		ME	39 51.3	1.1	+6				
		MN	39 52.4	1.1		-6			
		MZ	40 21.5	1.0			-3		
		F	42 30.0						
256	" 21	P	6 44 58.6					136	
		S	45 16.8						
		ME	45 19.6	0.4	-5				
		MN	45 20.4	0.4		+3			
		MZ	45 23.4	0.2			-1		
		F	47 10.0						
257	" 26	P	22 55 37.6					119	
		S	55 53.6						
		ME	55 55.8	1.7	-8				
		MN	55 55.1	1.7		-14			
		F	59 30.0						

Seismological Service,
Meteorological Observatory,
Oosaka, Nippon.