

1933



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AITIKEN METEOROLOGICAL OBSERVATORY

NAGOYA JAPAN

VOL. IV. NO. 1,

FROM JANUARY TO JUNE,

1933

NAGOYA

OCTOBER 1933

CONSTANTS

Latitude and longitude of the center of the Seismographic room

$$\varphi = 35^{\circ}10' \text{ N}$$

$$\lambda = 136^{\circ}50' \text{ E from Greenwich}$$

Altitude, 51.7^m above mean sea level.

Lithologic foundation, Schottered clay (Tertiary)

Time. All determinations are reduced to Greenwich mean civil time.

Constants of the Seismographs

Apparatus	Component	T ^o	ξ	r T ²	V	
Wiechert 200kg	I {	N	5.2	8	0.01	73
		E	5.2	9	0.02	72
	II {	N	5.0	10	0.01	75
		E	5.0	9	0.01	73
	III {	N	5.0	9	0.01	77
		E	5.0	8	0.02	75
	IV {	N	5.1	7	0.01	78
		E	5.1	7	0.01	78
" 80kg	I	Z	4.3	5	0.02	64
	II ... IV	Z	3.2	10	0.02	90
Omori	{	N	18.0	4	0.02	30
		E	18.0	4	0.01	30

Note. I, Jan. 1, to Feb. 23

II, Feb. 24 to Mar. 22

III, Mar. 23 to Jun. 14

IV, Jun. 15 to Jun. 30

Symbols and Notations

I. Phases of the Seismogram.

P = First preliminary tremors (Longitudinal)

\bar{P} = Individual or upperfirst preliminary tremors.

S = Second preliminary tremors (Transverse)

L = Long waves at the beginning of the surface phase.

M = Greatest motion in the surface phase.

F = End of discernible movements.

II. Nature of the motion.

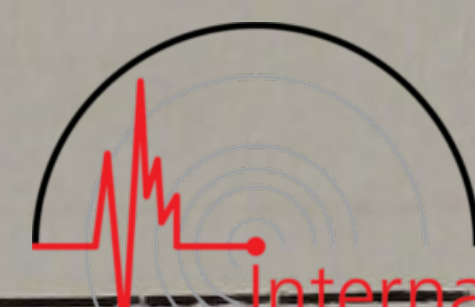
i = Sudden beginning of the motion.

e = Gradual beginning of the motion.

III. Remarkes.

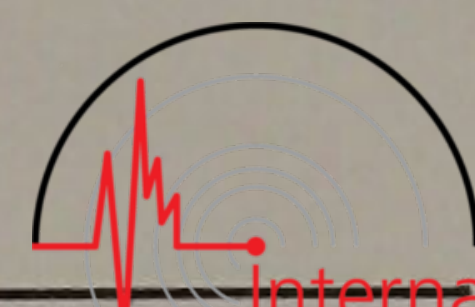
Covered = Covered by following shock.

Is. = Island. Pref. = Prefecture. Str. = Strait.

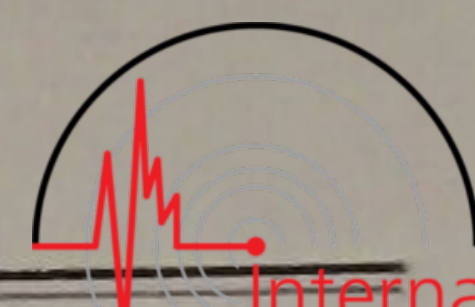


No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			△ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
1	Jan. 1	P L? F	8 58 53.4 9 06 42.7 9 19 04—					A distant earthquake.	
2	" 3	eP S ME F	15 29 12.2 15 31 07.9 15 31 13.2 15 47 06—	3.1	+60		1080	ψ=144°0E, λ=40°4N. ENE. sea off Miyako in Iwate pref. Slight shock was felt NE. part of Japan.	
3	" 3	eP S F	22 42 01.7 22 43 28.4 22 50 37—				800	A deep focus in the Japan sea.	
4	" 4	e F	0 56 24.4 1 00 15—				—	Epicenter unknown. (ENE. sea off Miyako?)	
5	" 4	eP S F	1 27 32.3 1 29 21.5 1 59 30—				1010	ψ=145.°0E, λ=25.°8N. SE. sea of Ogasawara Is.	
6	" 4	e F	4 08 59.2 4 14 10—				—	A distant earthquake.	
7	" 6	e F	16 02 23.7 16 03 58—				—	ψ=141°E, λ=38°N. Mouth of the river Abukuma.	
8	" 6	P S F	18 38 22.7 18 38 28.1 18 39 35—				40	Near Takase in Gihu pref.	
9	" 7	eP S MN ME Mz F	4 08 35.2 4 10 28.3 4 11 03.8 4 11 04.0 4 11 25.7 4 48 01—	3.2 3.2 2.3	+263	—238	1050	ψ=144°0E, λ=40°3N. ENE. sea off Miyako. Slight shock were felt at S. part of Hokkaido, all Tohoku and N. part of Kwanto district.	
10	" 7	eP S F	4 55 49.2 4 57 42.3 5 04 23—				1050	ψ=143°4E, λ=40°2E. Ditto.(after shocks of No. 9)	
11	" 7	eP S F	5 33 00.6 5 34 46.7 5 39 08—				920	Ditto.	

No.	Date	Phase	Time G. M. C T	Period s	Amplitude			Δ Epicentre distance km.	Remarks		
					ΛE μ	ΛN μ	ΛZ μ				
12	Jan. 7	eP	6 26 02.2					930	$\psi = 143^{\circ}7E$, $\lambda = 40^{\circ}3N$. Ditto.		
		S	6 27 43.2								
		F	6 32 32-								
13	" 7	e	8 22 23.6					—	Ditto.		
		F	8 23 —								
14	" 7	eP	10 42 16.0					373	Near Miyosi in Hiroshima pref.		
		S	10 43 06.3								
		F	10 46 15-								
15	" 7	eP	20 09 59.8					850	$\psi = 143^{\circ}9E$, $\lambda = 40^{\circ}6N$. E. off mouth of the river Mabuti.		
		S	20 11 31.9								
		F	20 19 53-								
16	" 8	eP	6 30 57.6					780	$\psi = 142^{\circ}9E$, $\lambda = 41^{\circ}2N$. Ditto.		
		S	6 32 22.1								
		ME	6 32 50.8							3.5	± 60
		MN	6 33 03.6							3.0	-89
		F	6 42 48-								
17	" 8	eP	18 30 42.0					650	ENE. sea off Miyako.		
		S	18 31 53.4								
		F	18 39 19-								
18	" 8	eP	20 57 13.0					790	Ditto.		
		S	20 58 39.2								
		F	21 04 06-								
19	" 9	eP	2 10 37.9					750	Ditto.		
		eS	2 12 00.2								
		F	Covered								
20	" 9	eP	2 18 33.2					560	Near Kumagaya in Saitama pref. (Deep focus.)		
		eS	2 19 35.0								
		F	2 22 35-								
21	" 9	eP	12 05 57.0					158	Near mouth of the river Kii.		
		S	12 06 18.2								
		F	12 08 36-								
22	" 9	eP	13 57 25.7					48	Near mouth of the river Kiso.		
		S	13 57 32.1								
		F	13 57 53-								



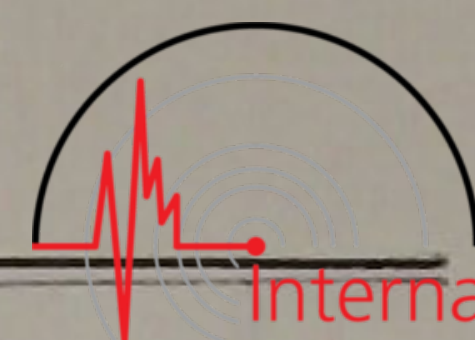
No	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE μ	AN μ	AZ μ		
23	Jan. 9	eP	16 57 12.5					336	SE. sea off Inubo cape.
		S	16 57 57.7						
		F	17 00 50—						
24	" 10	eP	3 10 02.2					266	NW. sea off Amami Osima.
		eS	3 10 38.0						
		F	3 16 —						
25	" 10	eP	5 02 35.9					432	ENE. sea off Miyako in Iwate pref
		eS	5 03 34.1						
		F	5 07 33—						
26	" 11	P	15 51 06.2					93	Upper basin of the river Abe in Sizuoka pref.
		S	15 51 18.7						
		F	15 52 58—						
27	" 12	eP	14 11 37.9					630	SE. sea off Kinkwasan.
		S	14 12 46.5						
		F	14 17 24—						
28	" 14	eP	2 11 53.5					860	Near Mt. Aso.
		eS?	2 13 27.8						
		F	2 18 25—						
29	" 15	P	18 09 43.1					—	A distant earthquake. Sea off New-genia.
		L?	18 15 53.5						
		F	18 25 11—						
30	" 15	P	23 46 21.7					55	$\psi = 137^{\circ}6E$, $\lambda = 34^{\circ}0N$. Middle course of the river Toyo in Aiti pref. Slight shock were felt at S. part of Nagano, Gihu pref. and all Aiti, E. part of Mie, Siga pref.
		S	23 46 29.1						
		MN	23 46 29.7						
		ME	23 46 29.8						
		F	23 52 17—						
31	" 16	P	4 32 27.3					66	Near Iida in Nagano pref.
		S	4 32 36.2						
		F	4 33 34—						
32	" 17	eP	5 17 45.2					790	ENE. sea off Miyako.
		S	5 19 11.2						
		F	5 23 31—						
33	" 19	e	19 56 47.1					—	Upper course of the river Kogai.
		F	19 58 34—						



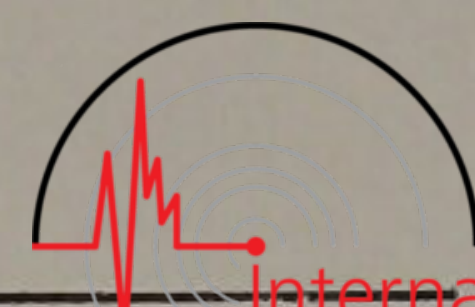
No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
			h m s						
34	Jan. 20	eP	6 33 05.4				94	A local shock.	
		S	6 33 18.0						
		F	6 33 32—						
35	" 20	eP	17 44 37.9			162	Near Tadono in Wakayama pref.		
		S	17 44 59.7						
		F	17 46 49—						
36	" 20	eP	23 50 29.7			378	Sea off Sioya cape.		
		S	23 51 20.6						
		F	23 53 56—						
37	" 21	eP	13 14 32.8			19	A local shock.		
		S	13 14 35.4						
		F	13 15 04—						
38	" 24	eP	21 11 25.5			382	SE. sea off Sioya cape.		
		S	21 12 17.0						
		F	21 15 50—						
39	" 24	eP	23 56 45.7			9	A local shock.		
		S	23 56 46.9						
		F	23 56 59—						
40	" 29	eP	11 10 27.5			430	ENE. sea off Sioya cape.		
		S	11 11 25.5						
		F	11 13 43—						
41	" 29	eP	14 35 18.6			233	Sea off Kujukuri-hama.		
		S	14 35 50.0						
		F	14 37 25—						
42	" 31	eP	2 50 41.1			337	NE. sea off Inubo cape.		
		eS	2 51 26.5						
		F	2 53 01—						
43	Feb. 1	eP	16 39 35.7			121	Valley of the river Dosi in Yamanasi pref.		
		S	16 39 52.0						
		F	16 41 04—						
44	" 3	P	22 15 31.8			1810	N. sea off Etrou Is.		
		\bar{P}	22 15 46.2						
		S	22 18 38.0						
		F	22 26 26—						



No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km	Remarks		
					AE μ	AN μ	AZ μ				
45	Feb. 4	eP	6 19 47.3					780	WNW. sea off Ogasawara Is.		
		S	6 21 11.8								
		F	6 28 28-								
46	" 4	e	7 04 17.5					-	Upper course of the river Nogami.		
		F	7 05 50-								
47	" 4	e	9 32 04.3					-	Sea off Katuura in Tiba pref.		
		F	9 33 32-								
48	" 5	eP?	20 29 38.3					-	A local shock. (The record covered by Micro- Seismic waves.)		
		S	20 29 52.3								
		F	20 30 03-								
49	" 6	eP?	7 18 28.1					-	Near Mt. Aso. (Ditto.)		
		S	7 20 12.5								
		F	7 25 14-								
50	" 7	eP	0 13 33.8					221	Near Simoduma in Ibaragi pref. Slight shock was felt at all Kwanto.		
		S	0 14 03.6								
		F	0 17 22-								
51	" 7	eP	1 29 02.4					740	Mt. Aso.		
		S	1 30 23.5								
		F	1 35 52-								
52	" 9	P	3 58 01.9					381	SW. sea off Hatijyo Is. Slight shock was felt at Kwanto district		
		S	3 58 53.3								
		ME	3 58 57.5							3.5	-95
		MN	3 59 11.2							2.6	± 25
		F	4 10 50-								
53	" 10	eP	0 47 45.3					23	In the Ensyu nada.		
		S	0 47 48.4								
		F	0 48 28-								
54	" 10	e	7 01 52.1					-	Near Takada city in Niigata pref.		
		F	7 02 26								
55	" 10	eP	13 00 09.3					23	A local shock.		
		S	13 00 12.4								
		F	13 00 40-								



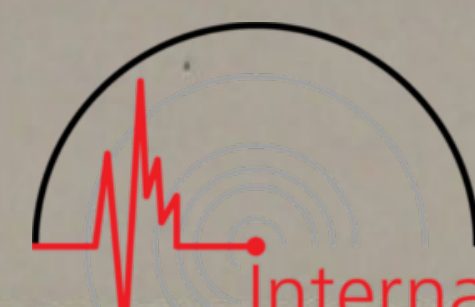
No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					A _E μ	A _N μ	A _Z μ		
56	Feb. 13	iP	6 51 52.5					351 $\psi=140^{\circ}09E, \lambda=36^{\circ}2N$. In the Kasima-nada. Slight shock were felt at all Kwanto, SE. part of Tohoku district.	
		S	6 52 39.8						
		Mz	6 52 58.7	1.2		+46			
		ME	6 53 04.4	1.6	+89				
		MN	6 53 07.6	2.4		-189			
		F	7 03 13-						
57	" 13	eP	17 30 08.9				700 Far E. sea off Miyako.		
		S	17 31 25.4						
		F	17 35 26-						
58	" 16	e	5 00 18.7				-- A local shock?		
		F	5 00 34-						
59	" 18	P	8 18 18.7				182 $\psi=134^{\circ}4E, \lambda=35^{\circ}0N$. Upper course of the river Tikusa in Hyogo pref. Slight shock was felt at w. part of Japan and strong was felt near the center.		
		\bar{P}	8 18 21.1						
		S	8 18 43.2						
		Mz	8 18 54.6	0.7		+18			
		ME	8 18 50.9	1.2	-41				
		MN	8 19 00.0	1.2		-39			
60	" 19	P	12 08 41.7				217 In Saitama pref.		
		eS	12 09 10.9						
		F	12 10 08-						
60	" 20	eP	9 52 21.8				417 $\psi=142^{\circ}3E, \lambda=37^{\circ}0N$. Far E. off the Sioya cape. Slight shock were felt at SE. part of Tohoku and NE. part of Kwanto district.		
		S	9 53 17.9						
		ME	9 54 05.5	2.4	-37				
		MN	9 54 05.6	2.8		+55			
		F	10 03 48-						
62	" 20	e	11 06 49.4				- E. sea off Miyako.		
		F	11 09 36-						
63	" 20	eP	11 59 03.3				250 Near the Inubanuma.		
		eS	11 59 36.9						
		F	12 01 46-						
64	" 20	eP	14 18 50.6				420 $\psi=143^{\circ}3E, \lambda=37^{\circ}0N$. E. sea off Sioya cape		
		S	14 19 47.1						
		F	14 26 30--						



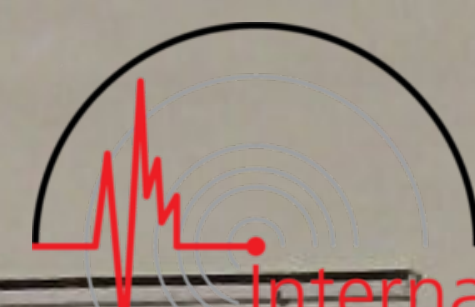
No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre distance km-	Remarks
					ΔE μ	ΔN μ	ΔZ μ		
65	Feb. 21	eP	2 54 14.7	2.4	μ	μ	μ	319	Near Sawara in Tiba pref.
		S	2 54 57.7						
		MN	2 55 16.2						
		F	3 01 02—						
66	" 23	P	8 29 16.1				—	A distant earthquake. Epicenter Chile.	
		\bar{P}	8 29 32.6						
		L	8 32 43.0						
		F	8 47 54—						
67	" 25	eP	13 19 38.1				388	In the Kasimanada. Slight shock were felt at NE. part of Kwanto and SE. part of Tohoku district.	
		eS	13 20 30.3						
		F	13 25 06—						
68	" 27	iP	16 15 06.5	1.0	-4	+5	-5	130	Off mouth of the river Kuzuryu. Slight shock was felt at coast of Japan sea.
		S	16 15 24.0						
		MN	16 15 25.1						
		ME	16 15 29.7						
		F	16 22 20—						
69	" 28	e	6 22 15.6				—	Spart of the Kasima-nada.	
		F	6 25 20—						
70	" 28	eP	8 02 20.3				179	S.sea off Idu Osima.	
		S	8 02 44.4						
		F	8 04 13—						
71	" 28	iPz	8 46 44.3			-3	188	Ditto.	
		S	8 47 09.6						
		F	8 55 24—						
72	" 28	eP	8 58 52.0				156	Ditto.	
		S	8 59 13.0						
		F	9 00 10—						
73	" 28	eP	12 37 27.8				154	Ditto.	
		S	12 37 48.6						
		F	12 38 52—						
74	Mar. 1	eP	12 28 20.9				121	Near Oota in Gihu pref.	
		eS	12 28 37.2						
		F	12 29 51—						



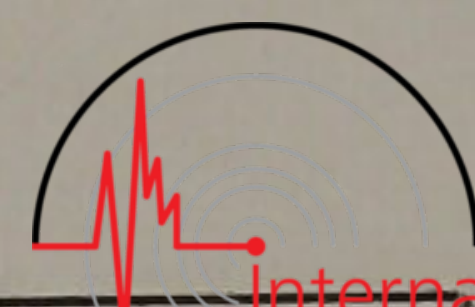
No.	Date	Phase	Time G. M. C. T	Period	Amplitude			Δ Epicentre- distance	Remarks
					AE	AN	Az		
			h m s	s	μ	μ	μ	km	
75	Mar. 2	P	17 32 49.9		-14	-7	+3	860	$\psi=144^{\circ}7E, \lambda=39^{\circ}1N$. (Sea off Miyako.) A violent earthquake shock Strong shock were felt at all Tohoku and S. part of Hokkaido, slight over E Japan. The coastline from Isinomaki to Muroran were swept by seismic waves and losed lives 3000, demaged houses 10196
		\bar{P}	17 33 03.0						
		S	17 34 22.6						
		ME	17 34 31.8	2.7	+8181				
		Mz	17 34 37.0	2.3			+1440		
		MN	17 34 42.2	3.2		+17714			
		F	17 54 37-						
76	" 2	P	Unknown				-	Ditto. (after shock.)	
		eS	18 20 11.8						
		F	Covered						
77	" 2	eP	18 28 17.2				910	Ditto. $\psi=144^{\circ}E, \lambda=39^{\circ}N$	
		S	18 29 56.6						
		MN	18 30 12.8	2.3		-152			
		ME	18 30 15.0	2.1	-255				
		F	18 43 47-						
78	" 2	eP	18 45 26.5				840	Ditto.	
		eS	18 46 57.5						
		F	Covered						
79	" 2	eP	18 50 18.1				830	Ditto.	
		eS	18 51 47.6						
		F	18 58 44-						
80	" 2	eP	19 12 01.3				560	Ditto.	
		eS	19 13 03.4						
		F	Covered						
81	" 2	eP	19 16 14.1				710	Ditto.	
		S	19 17 31.6						
		F	Covered						
82	" 2	eP	19 29 45.6				730	Ditto.	
		S	19 31 05.3						
		F	Covered						
83	" 2	eP	19 34 09.8				680	Ditto.	
		eS	19 35 23.3						
		F	Covered						



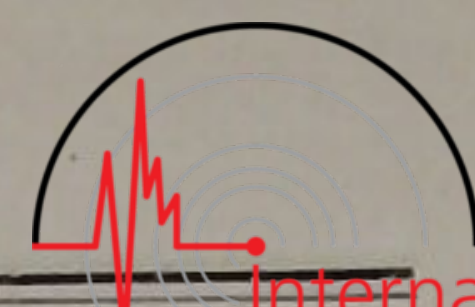
No.	Date	Phase	Time G. M. C. T h m s	Period s	Amplitude			Δ Epicentre- distance km.	Remarks	
					AE μ	AN μ	AZ μ			
84	Mar. 2	P	19 43 26.3	2.8	+112			860	After shock of sea off Miyako. ($\psi = 143^{\circ}2E$, $\lambda = 39^{\circ}4N$.)	
		\bar{P}	19 43 37.7							
		S	19 45 00.5							
		M _E	19 45 46.9							
		F	Covered							
85	" 2	e	20 09 10.7				—	Ditto.		
		F	20 11 55—							
86	" 2	P	20 16 49.6				760	Ditto.		
		S	20 18 12.4							
		F	Covered							
87	" 2	eP	20 24 54.8				810	Ditto.		
		eS	20 26 22.9							
		F	Covered							
88	" 2	P	20 44 36.3	3.3			810	($\psi = 144^{\circ}6E$, $\lambda = 39^{\circ}3N$.) Ditto.		
		S	20 46 04.1							
		M _N	20 46 29.4						+156	
		M _E	20 47 09.6							2.6
		F	Covered							
89	" 2	eP	21 07 25.1				820	Ditto.		
		S	21 08 53.8							
		F	21 13 03—							
90	" 2	eP	21 23 25.7				580	Ditto.		
		eS	21 24 29.2							
		F	21 31 57—							
91	" 2	eP	21 50 09.6				660	Ditto.		
		eS	21 51 21.5							
		F	21 57 44—							
92	" 2	eP	22 01 53.6				330	Ditto.		
		S?	22 02 38.0							
		F	Covered							
93	" 2	eP	22 03 39.4				630	Ditto.		
		S	22 04 48.3							
		F	22 18 59—							



No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			△ Epicentre- distance km.	Remarks	
					AE μ	AN μ	Az μ			
94	Mar. 2	eP	22 36 43.6	2.6				770	(ψ=143°7E, λ=39°6.N.) After shock of sea off Miyako.	
		S	22 38 07.9							
		MN	22 39 24.0							
		F	22 50 51—							
95	" 2	eP	23 59 48.9				640	Ditto.		
		eS	0 00 58.8							
		F	Covered							
96	" 3	eP	0 04 49.5				720	Ditto.		
		eS	0 06 08.4							
		F	0 11 57—							
97	" 3	eP	0 20 05.7				760	Ditto.		
		S	0 21 28.2							
		F	Covered							
98	" 3	eP	0 27 38.9				730	Ditto.		
		S	0 28 58.8							
		F	Covered							
99	" 3	P	Unknown				—	Ditto.		
		eS	0 31 16.6							
		F	0 41 14—							
100	" 3	eP	0 45 24.2				790	Ditto.		
		eS	0 46 50.2							
		F	0 51 10—							
101	" 3	P	2 23 39.1				780	Ditto.		
		S	2 25 04.2							
		F	2 34 15—							
102	" 3	eP	3 35 44.8				650	Ditto.		
		eS	3 36 55.3							
		F	3 43 22—							
103	" 3	eP	4 33 49.1				--	Ditto.		
		eS	4 34 49.0							
		F	Covered							
104	" 3	P	4 39 36.1	3.2			690	(ψ=143°6E, λ=39°N.) Ditto.		
		S	4 40 52.2							
		ME	4 41 00.6						+35	
		MN	4 41 24.1						3.2	-31
		F	4 54 17—							



No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					A_E μ	A_N μ	A_Z μ		
105	Mar. 3	eP	8 16 43.8					740	After shock of sea off Miyako.
		eS	8 18 04.7						
		F	8 31 00—						
106	" 3	P	9 14 38.7					870	Ditto. ($\psi = 143^\circ E, \lambda = 39^\circ N.$)
		S	9 16 14.0						
		M _N	9 16 40.6	3.3		+169			
		M _E	9 16 50.8	3.4	-132				
		F	9 35 01—						
107	" 3	P	9 40 12.0					950	Ditto. ($\psi = 143^\circ E, \lambda = 39^\circ N.$)
		S	9 41 55.3						
		M _E	9 42 48.9	2.9	+101				
		M _N	9 42 52.8	2.9		-85			
		M _Z	9 42 50.2	1.7			+37		
		F	Covered						
108	" 3	eP	9 54 40.7					840	Ditto.
		S	9 56 11.6						
		F	10 02 00—						
109	" 3	eP	10 05 46.1					680	Ditto. ($\psi = 144^\circ E, \lambda = 39^\circ N.$)
		S	10 07 00.4						
		M _E	10 08 13.5	2.5	+37				
		M _N	10 08 55.4	2.6		+32			
		F	10 22 51—						
110	" 3	P	10 33 59.6					850	Ditto.
		S	10 35 31.9						
		M _N	10 36 08.6	2.7		-28			
		F	10 43 48—						
111	" 3	P	11 47 33.4					354	In the Kasima-nada.
		S	11 48 21.0						
		M _E	11 48 40.3	2.7	+40				
		M _N	11 48 56.5	1.8		+37			
		F	Covered						
112	" 3	P	11 58 23.2					840	After shock of sea off Miyako.
		eS	11 59 54.0						
		M _N	12 00 39.4	2.4		-26			
		F	12 08 26—						



No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE μ	AN μ	AZ μ		
113	Mar. 3	P	12 15 36.4					760	After shock of sea off Miyako.
		S	12 16 59.1						
		ME	12 17 00.4	2.7	+25				
		MN	12 17 21.0	2.7		-20			
		F	Covered						
114	" 3	eP	12 22 51.2				600	Ditto.	
		S	12 23 57.0						
		F	12 31 02-						
115	" 3	eP	15 04 02.2				680	Ditto.	
		S	15 05 16.0						
		MN	15 06 15.8	2.2		+24			
		F	Covered						
116	" 3	eP	15 09 03.8				680	Ditto.	
		S	15 10 18.5						
		MN	15 11 09.8	2.6		-42			
		ME	15 11 10.1	2.8	+43				
		F	15 21 23-						
117	" 3	eP	15 52 36.9				750	Ditto.	
		S	15 53 59.1						
		F	16 02 00-						
118	" 3	eP	16 13 45.7				710	Ditto.	
		S	16 15 03.9						
		F	16 23 46-						
119	" 3	eP	18 49 16.9				770	Ditto.	
		S	18 50 41.3						
		F	18 58 12-						
120	" 3	P	19 09 12.0				830	($\psi=144^{\circ}4E$, $\lambda=39^{\circ}N$.) Ditto.	
		\bar{P}	19 09 22.5						
		S	19 10 41.7						
		ME	19 10 48.4	2.4	± 34				
		MN	19 10 57.6	2.6		+35			
		F	19 19 59-						
121	" 3	eP	19 52 19.9				810	Ditto.	
		S	19 53 47.7						
		F	20 00 26-						

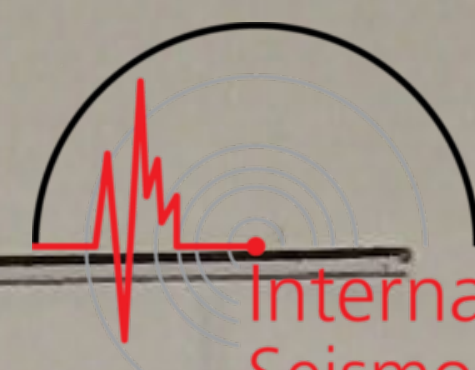


No	Date	Phase	Time G. M. C. T	Period s	Amplitude			△ Epicentre distance km.	Remarks
					AE μ	AN μ	Az μ		
122	Mar. 3	eP	20 22 17.5					860	After shock of sea off Miyako
		S	20 23 51.3						
		F	20 31 09—						
123	" 3	eP	21 56 41.7					700	Ditto
		eS	21 57 58.9						
		F	22 04 25—						
124	" 3	eP	22 32 44.1					830	Ditto.
		S	22 34 14.5						
		F	22 41 —						
125	" 3	eP	23 13 12.7					600	Ditto.
		S	23 14 18.7						
		F	Covered						
126	" 3	eP	23 15 17.8					60	A local shock?
		S	23 15 25.9						
		F	Covered						
127	" 3	eP	23 19 54.7					810	After shock of sea off Miyako.
		eS	23 21 22.8						
		F	23 29 19—						
128	" 3	eP	23 47 42.7					550	Ditto.
		S	23 48 44.1						
		F	23 55 33—						
129	" 4	eP	0 25 03.8					—	Ditto. (P. S: uncertain.)
		eS	0 25 56.7						
		F	0 31 52—						
130	" 4	P	6 46 42.3					840	Ditto.
		S	6 48 12.9						
		F	6 55 05—						
131	" 4	eP	7 08 05.7					—	Ditto. (P. S: uncertain.)
		eS	7 09 04.7						
		F	7 10 58—						
132	" 4	eP	8 23 40.3					660	Ditto.
		S	8 24 52.7						
		F	8 28 26—						

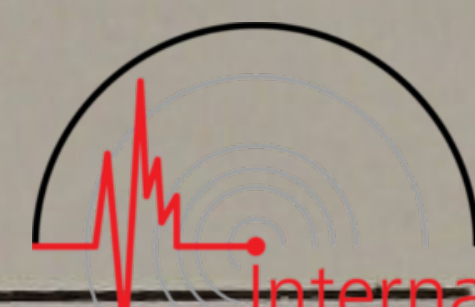


No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			△ Epicentre- distance km.	Remarks
					AE μ	AN μ	AZ μ		
133	Mar. 4	eP	10 20 26.5					750	After shock of sea off Miyako.
		eS	10 21 48.8						
		F	10 24 58-						
134	" 4	eP	10 47 38.9					620	Ditto.
		eS	10 48 46.8						
		F	10 53 07-						
135	" 4	P	12 41 54.3					800	Ditto.
		P̄	12 42 07.8						
		S	12 43 20.8						
		F	12 49 09-						
136	" 4	e	17 29 55.1					—	Ditto.
		F	17 31 54-						
137	" 4	eP	20 29 28.3					770	Ditto.
		eS	20 30 52.3						
		F	20 35 24-						
138	" 4	eP	22 16 06.8					590	Ditto.
		eS	22 17 11.4						
		F	22 21 58-						
139	" 5	P	1 27 38.3					690	Ditto.
		S?	1 28 54.6						
		F	1 32 23-						
140	" 5	e	8 26 42.1					—	Ditto.
		F	8 30 48-						
141	" 5	eP	20 48 56.5					670	Ditto.
		S	20 50 09.1						
		F	20 54 13-						
142	" 6	eP	7 54 36.0					—	Ditto.
		eS?	7 55 34.0						
		F	7 59 15-						
143	" 6	eP?	8 59 43.4					—	Ditto.
		eS	9 00 34.0						
		F	9 04 14-						
144	" 6	e	13 13 26.9					—	Sea off Tosa province.
		F	13 21 04-						

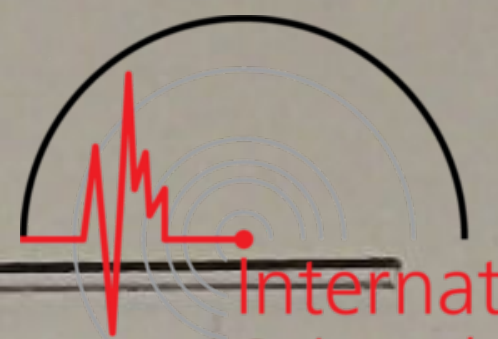
No.	Date	Phase	Time G. M. C. T			Period s	Amplitude			Δ Epicentre- distance km.	Remarks
							AE μ	AN μ	Az μ		
145	Mar. 6	P	22	45	29.9				192	The bay of Wakanoura.	
		S	22	45	55.7						
		ME	22	45	58.9	2.8	-40				
		MN	22	46	00.1	2.7		-26			
		F	22	54	22-						
146	" 7	eP	17	41	57.4				710	After shock of sea off Miyako.	
		sS	17	43	15.5						
		F	17	48	08-						
147	" 7	eP	22	23	23.4				740	Ditto.	
		S	22	24	44.1						
		F	22	32	10-						
148	" 8	P	1	37	28.5				760	Ditto. $\phi=144^{\circ}\text{E}$, $\lambda=39^{\circ}\text{N}$.	
		\bar{P}	1	37	37.1						
		S	1	38	51.7						
		ME	1	39	12.5	2.7	+54				
		Mz	1	39	15.3	2.4		-29			
		MN	1	39	21.1	3.4		+56			
149	" 8	eP	3	32	13.7				860	Ditto.	
		S	3	33	47.5						
		F	3	40	26-						
150	" 8	P	10	28	26.5				890	In the Iyo nada.	
		S	10	30	03.9						
		F	10	34	22-						
151	" 8	eP	12	44	03.6				580	After shock of sea off Miyako.	
		S	12	45	07.8						
		F	12	49	11-						
152	" 8	eP	13	49	55.9				620	Ditto.	
		S	13	51	04.1						
		F	13	56	29-						
153	" 9	P	4	23	35.8				193	In the Kumano-nada.	
		S	4	24	01.7						
		F	4	33	24-						
154	" 9	eP	5	36	18.3				640	After shock of sea off Miyako.	
		S	5	37	28.4						
		F	5	43	24-						



No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			△ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
155	Mar. 9	eP	6 41 25.1				351	Coast of Kujuukuri hama.	
		S	6 42 12.3						
		F	6 47 07—						
156	" 9	eP	9 57 08.5				560	After shock of sea off Miyako.	
		S	9 58 10.6						
		F	10 02 12—						
157	" 9	iP	19 37 14.5		+1	-1	138	Mouth of the river Kuzuryu.	
		S	19 37 33.0						
		F	19 44 08—						
158	" 10	eP	7 36 31.9				780	After shock of sea off Miyako.	
		S	7 37 56.7						
		F	7 45 54—						
159	" 11	eP	7 00 43.4				—	Epicenter unknown.	
		F	7 05 42—						
160	" 11	eP	14 25 25.1				—	A distant earthquake.	
		L?	14 30 32.7						
		F	14 52 —						
161	" 11	iP	19 34 51.0		+3	+1	910	ψ = 140°E, λ = 28°N. WNW. off Ogasawara Is. Slight shock. was felt at Kwan- to district.	
		S	19 36 29.7						
		MN	19 36 39.1	2.9		-139			
		Mz	19 36 41.8	1.7		+16			
		ME	19 36 57.2	3.6	+151				
		F	19 56 08—						
162	" 12	eP	5 07 46.3				800	After shock of sea off Miyako.	
		S	5 09 13.4						
		MN	5 09 49.9	2.9		+25			
		ME	5 10 03.7	2.7	+16				
		F	5 19 22—						
163	" 12	eP?	7 39 04.9				580	In the Aki-nada.	
		S	7 40 08.7						
		F	7 44 07—						
164	" 12	P	22 25 12.0				267	SSW. off Hatijyo Is.	
		S	22 25 47.9						
		F	22 29 12—						



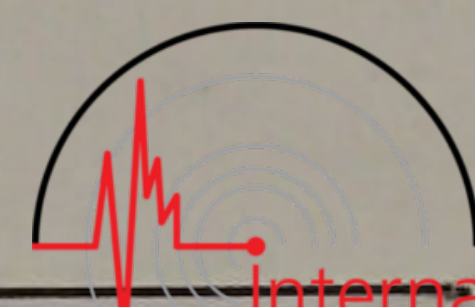
No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE μ	AN μ	AZ μ		
165	Mar. 13	eP	7 16 23.0					418	In the Kasima-nada.
		S	7 17 19.3						
		Mz	7 18 02.9	1.7		-8			
		ME	7 18 03.4	1.9	-23				
		MN	7 18 04.6	1.9		-26			
		F	7 29 56-						
166	" 13	e	11 19 50.7				-	A local shock.	
		F	11 20 24-						
167	" 13	eP	15 58 57.5				1020	After shock of sea off Miyako.	
		eS	16 00 47.9						
		F	16 07 03-						
168	" 14	eP	13 00 37.7				700	Ditto.	
		S	13 01 54.3						
		F	13 09 26-						
169	" 14	eP	16 06 47.0				860	Ditto.	
		eS	16 08 19.6						
		F	16 13 51-						
170	" 15	eP	17 33 17.2				820	Ditto.	
		eS	17 34 46.3						
		F	17 38 56-						
171	" 15	eP	19 06 44.5				153	In the Kasima-nada.	
		eS	19 07 05.2						
		F	19 08 10-						
172	" 16	eP	9 06 45.8				820	After shock of sea off Miyako.	
		S	9 08 15.2						
		F	9 17 54-						
173	" 17	P	16 01 00.2				359	Near Watatu in Simane pref.	
		S	16 01 48.6						
		F	16 22 55-						
174	" 17	P	19 38 39.0				-	A distant earthquake.	
		eL	19 49 31.8						
		F	20 09 18-						
175	" 18	e	2 25 24.4				-	A local shock.	
		F	2 30 26-						



No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km	Remarks
					ΔE μ	ΔN μ	ΔZ μ		
176	Mar. 18	eP	11 46 40.0					820	After shock of sea off Miyako.
		S	11 48 09.3						
		F	11 52 13—						
177	" 18	iP	15 52 28.6		+32	-35	-19	321	$\psi = 139^{\circ}7E$, $\lambda = 32^{\circ}4N$. S sea off Hatijyo Is. Slight shock was felt at Kwanto district.
		S	15 53 11.8						
		Mz	15 53 14.6	3.7			-44		
		ME	15 53 15.5	3.3	-158				
		MN	15 53 23.1	2.7		-140			
		F	16 10 10—						
178	" 18	eP	21 27 02.8					940	After shock of sea off Miyako.
		S	21 28 45.1						
		F	21 33 44—						
179	" 18	e	22 23 01.1					—	Upper course of the river Katura in Yamanasi pref.
		F	22 24 03—						
180	" 18	eP	22 50 59.4					790	After shock of sea off Miyako.
		S	22 52 25.5						
		F	22 55 19—						
181	" 18	e	23 24 40.8					—	Mt. Asama. (volcano.)
		F	23 27 43—						
182	" 19	eP	8 58 25.4					78	Near Hamamatu city.
		S	8 58 35.9						
		ME	8 58 37.0	—	+15				
		F	9 01 12—						
183	" 19	iPz	16 42 01.6				+3	36	Middle course of the river Ibi in Gihu pref.
		S	16 42 06.5						
		ME	16 42 06.9	—	-20				
		F	16 43 43—						
184	" 20	e	12 35 24.6					—	After shock of sea off Miyako.
		F	12 38 05—						
185	" 21	eP	15 55 16.0					720	Lower course of the river Kitakami.
		S	15 56 35.0						
		F	16 01 30—						
186	" 21	eP	17 12 09.2					368	Sea off Sioya cape.
		S	17 12 58.7						
		F	17 17 47—						

No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
			h m s						
187	Mar. 21	eP	23 19 43.6				820	Near Mt. Aso.	
		S	23 21 12.6						
		F	23 26 20—						
188	" 22	eP	16 58 12.7				365	In the Kasima nada.	
		S	16 59 01.8						
		F	17 04 10—						
189	" 23	eP	12 44 51.4				376	After shock of sea off Miyako.	
		S	12 45 42.1						
		F	Covered						
190	" 23	eP	12 51 23.3				162	Lower course of the river Oota in Wakayama pref.	
		S	12 51 45.1						
		F	12 55 03—						
191	" 23	e	23 58 22.9				—	After shock of sea off Miyako.	
		F	0 03 23—						
192	" 25	eP	0 50 59.3				234	Sea off Inubo cape.	
		S	0 51 30.8						
		F	0 55 04—						
193	" 25	eP	4 37 20.8				258	Near Miyake-sima.	
		eS	4 37 55.6						
		F	4 40 27—						
194	" 25	eP	9 05 15.2				143	S. part of Idu Is.	
		S	9 05 34.5						
		F	9 06 50						
195	" 25	eP	12 51 43.7				800	Mt. Aso.	
		eS	12 53 10.3						
		F	13 00 57—						
196	" 26	P	1 53 39.3				46	Middle course of the river Ibi.	
		S	1 53 45.5						
		F	1 54 46—						
197	" 28	P	13 48 22.2				132	Mouth of the river Kuzuryu.	
		S	13 48 40.0						
		F	13 49 45—						

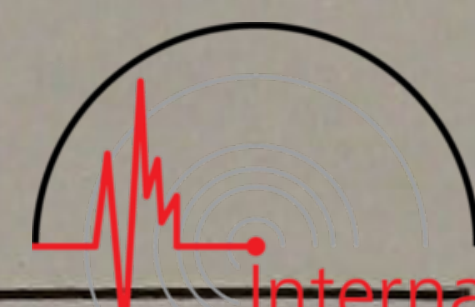
No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE	AN	Az		
					μ	μ	μ		
198	Mar. 29	eP	13 15 01.0				272	Near Itinomiya in Tiba pref.	
		S	13 15 37.7						
		F	13 17 42—						
199	" 30	eP	6 50 15.9				—	Near Gihu?	
		eS	6 50 42.3						
		F	6 51 43—						
200	" 31	eP	9 04 25.6				268	Mouth of the river Kuji in Ibaragi pref.	
		S	9 05 01.7						
		F	9 07 47—						
201	April 1	eP	16 00 47.9				750	$\psi = 143^{\circ}5E$, $\lambda = 39^{\circ}5N$. After shock of sea off Miyako. Slight shock was felt Tohoku district.	
		S	16 02 09.6						
		ME	16 02 28.0	4.0	+64				
		F	16 13 56—						
202	" 1	eP	22 42 50.9				820	$\psi = 144^{\circ}8E$, $\lambda = 38^{\circ}6N$. Ditto.	
		S	22 44 19.6						
		ME	22 44 46.6	2.7	+23				
		F	22 52 22—						
203	" 2	eP	9 53 33.7				279	$\psi = 140^{\circ}7E$, $\lambda = 36^{\circ}4N$. Mouth of the river Kuji in Ibaragi pref. Slight shock were felt at all Kwanto and SE. part of Tohoku district.	
		S	9 54 11.2						
		Mz	9 54 39.0	1.4		-22			
		ME	9 54 39.7	1.8	+57				
		MN	9 54 49.8	1.8		-72			
		F	10 04 01—						
204	" 2	eP	10 12 21.5				690	$\psi = 144^{\circ}0E$, $\lambda = 39^{\circ}4N$. After shock of sea off Miyako.	
		S	10 13 37.6						
		ME	10 13 59.3	3.2	+16				
		MN	10 14 15.6	2.5		-22			
		F	10 22 14—						
205	" 2	eP	16 53 59.6				590	Ditto.	
		S	16 55 04.9						
		F	17 00 —						
206	" 3	eP	1 54 31.8				348	ESE. sea off Sioya cape.	
		eS	1 55 18.7						
		F	1 58 26—						



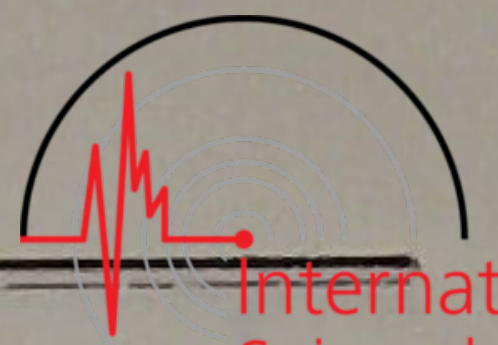
No.	Date	Phase	Time G. M. C. T			Period s	Amplitude			Δ Epicentre- distance km.	Remarks
							AE μ	AN μ	Az μ		
207	April. 3	eP	8	11	30.2				1120	Near Tayama in Iwate pref.	
		S?	8	13	30.1						
		F	8	17	50-						
208	" 3	eP	19	15	26.1				287	Near Tateno in Toyama pref.	
		S	19	16	04.8						
		F	19	18	01-						
209	" 5	eP	7	38	27.4				286	$\psi = 140^{\circ}8E$, $\lambda = 36^{\circ}6N$. Sea off Mouth of the river Kuji. Slight shock was felt at all Kwanto district.	
		S	7	39	05.9						
		F	7	41	01-						
210	" 5	eP	12	06	50.3				210	$\psi = 140^{\circ}3E$, $\lambda = 35^{\circ}6N$. Near Tiba.	
		S	12	07	18.5						
		F	12	09	59-						
211	" 6	eP	15	13	43.8				750	$\psi = 144^{\circ}3E$, $\lambda = 39^{\circ}7N$. After shock of sea off Miyako.	
		S	15	15	05.7						
		ME	15	15	42.9	1.8	+14				
		MN	15	15	45.3	1.9		± 11			
		F	15	20	28-						
212	" 7	eP	0	56	52.4				90	Lower course of the river Hidaka.	
		S	0	57	04.5						
		F	0	59	53-						
213	" 7	e	1	53	23.3				-	Mt. Hakone.	
		F	1	54	46-						
214	" 7	eP	16	14	08.4				1090	After shock of sea off Miyako.	
		eS	16	16	05.4						
		F	16	20	17-						
215	" 9	eP	2	48	18.9				890	Ditto. $\psi = 144^{\circ}0E$, $\lambda = 39^{\circ}2N$. Slight shock were felt at s. part of Hokkaido. and Tohoku district.	
		S	2	49	55.6						
		MN	2	50	36.2	2.4		-263			
		ME	2	50	48.1	2.2	+144				
		Mz	2	50	59.7	2.3		+35			
		F	Covered								
216	" 9	eP	2	59	01.0				970	$\psi = 144^{\circ}0E$, $\lambda = 39^{\circ}3N$. Ditto.	
		S	3	00	46.1						
		F	3	07	54-						



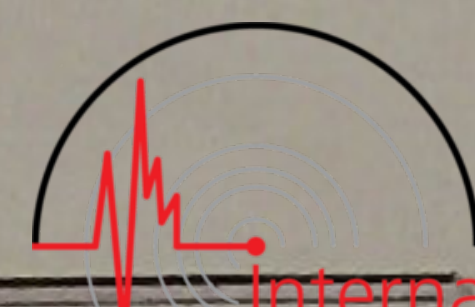
No.	Date	Phase	Time G. M. C. T	Period	Amplitude			△ Epicentre- distance	Remarks
					AE	AN	Az		
			h m s	s	μ	μ	μ	km.	
217	April. 9	eP	6 29 41.7					930	ψ=144°0E, λ=39°4N. After shock of sea off Miyako
		S	6 31 23.1						
		F	6 39 20—						
218	" 9	eP	10 32 06.5					930	Ditto. ψ=144°2E, λ=39°2N. Slight shock was felt at N. part of Tohoku district.
		S?	10 33 47.2						
		MN	10 34 22.0	2.3		-63			
		ME	10 34 30.0	2.2		-37			
		F	10 38 46—						
219	" 9	eP	23 51 31.5				640	Ditto.	
		eS	23 52 41.2						
		F	23 57 02—						
220	" 12	eP	7 37 34.9				850	Ditto.	
		S	7 39 06.9						
		F	7 46 13—						
221	" 13	eP	3 54 44.8				630	Mt. Aso.	
		S	3 55 53.7						
		F	4 03 18—						
222	" 13	eP	12 18 31.0				121	Lower course of the river Kuzuryu.	
		S	12 18 47.2						
		F	12 20 05—						
223	" 13	eP	15 55 20.3				630	After shock of sea off Miyako.	
		S	15 56 28.9						
		F	16 01 51—						
224	" 14	eP	7 01 23.0				181	Lower course of the river Kuzuryu.	
		S	7 01 47.4						
		F	7 03 02—						
225	" 14	e	22 25 22.8				—	E. sea off Sioya cape.	
		F	22 27 04—						
226	" 16	eP	16 22 43.4				560	After shock of sea off Miyako.	
		eS	16 23 45.2						
		F	16 27 16—						
227	" 18	eP	4 10 31.6				215	Near Kohu in Yamanasi pref.	
		S	4 11 00.6						
		F	4 11 46—						



No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance	Remarks
					AE μ	AN μ	Az μ		
228	April. 19	P	2 57 29.4				800	After shock of Sea off Miyako. $\psi=144^{\circ}5E$, $\lambda=39^{\circ}6N$. Slight shock was felt almost of Tohoku district.	
		P	2 57 47.2						
		eS	2 58 56.7						
		F	3 09 18-						
229	" 19	P	6 48 47.6			4610	$\psi=121^{\circ}7E$, $\lambda=24^{\circ}3N$. Near Mouth of the river Daidakusi kei in Taiwan. Slight damaged at near the center.		
		L	6 55 08.2						
		F	7 12 04-						
230	" 19	eP	21 00 16.9			710	After shock of sea off Miyako.		
		S	21 01 35.2						
		F	21 06 09-						
231	" 20	eP	3 42 46.6			367	In the Kasima-nada.		
		eS	3 43 36.0						
		F	3 45 52-						
232	" 20	eP	18 22 08.6			434	Near Mt. Aso.		
		eS	18 23 07.1						
		F	18 26 -						
233	" 20	eP?	20 51 57.8			650	S. sea off Hatijyo Is.		
		eS	20 53 08.3						
		F	20 56 02-						
234	" 21	e	2 37 36.7			-	The bay of Wakanoura.		
		F	2 39 18-						
235	" 21	eP	20 40 51.0			306	$\psi=142^{\circ}0E$, $\lambda=34^{\circ}0N$. E. sea off Miyake sima. Slight shock was felt at SE. part of Tohoku district, all Kwanto and SE. part Tyubu district.		
		S	20 41 32.2						
		MN	20 41 46.0	1.7	+47				
		ME	20 42 03.2	1.7	-54				
		Mz	20 42 15.1	1.7	± 21				
		F	20 52 05-						
236	" 22	P	8 53 08.7			1190	$\psi=143^{\circ}0E$, $\lambda=42^{\circ}1N$. Near mouth of the river Nikkapu. Slight shock was felt at S. part of Hokkaido.		
		S	8 55 15.5						
		F	9 01 17.0						
237	" 22	eP	11 54 37.1			250	Near Kumagaya city.		
		eS	11 55 10.8						
		F	11 56 32-						



No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre distance km.	Remarks
					AE μ	AN μ	Az μ		
238	April. 23	P	6 09 59.9					A distant earthquake.	
		eS?	6 11 45.6						
		F	6 18 15—						
239	" 23	P	7 15 28.0	3.6	+189		810	After shock of sea off Miyako.	
		\bar{P}	7 15 38.9						
		S	7 16 56.4						
		M _E	7 17 49.7						
		F	7 52 06—						
240	" 23	P	8 27 45.2				890	Ditto.	
		\bar{P}	8 27 56.7						
		S	8 29 22.1						
		F	8 39 18—						
241	" 23	eP	12 21 42.1				780	Ditto.	
		S	12 23 07.5						
		F	12 30 16—						
242	" 23	eP	13 05 20.6				28	A local shock.	
		S	13 05 24.4						
		F	13 06 16—						
243	" 24	eP	4 36 32.6				410	SE. off Bosc peninsula.	
		eS	4 37 27.8						
		F	4 39 41—						
244	" 24	e	17 54 54.6				—	A local shock.	
		F	17 55 47—						
245	" 25	eP	1 59 10.2				790	After shock of sea off Miyako.	
		eS	2 00 35.9						
		F	2 09 54—						
246	" 25	e	2 57 05.0				—	Ditto.	
		F	3 01 14—						
247	" 25	eP	4 04 52.3				810	Ditto.	
		eS	4 06 20.6						
		F	4 09 33—						
248	" 25	eP	11 38 38.4				68	Near Sekigahara in Gihu pref.	
		S	11 38 47.5						
		F	11 41 34—						



No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			△ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
249	April. 27	P	2 45 18.7					—	A distant earthquake.
		eL?	2 54 48.5						
		F	3 22 47—						
250	" 28	eP	7 32 02.4					161	ψ = 139°4E, λ = 36°1N. Near Kumagaya.
		S	7 32 24.0						
		F	7 35 04—						
251	" 29	eP	17 19 25.0					46	Near Gihu city.
		eS	17 19 31.2						
		F	17 20 16—						
252	May. 1	eP	5 45 45.5					—	Near Kwarenko
		S?	5 46 12.3						
		F	5 48 51—						
253	" 1	P	18 33 28.6					—	Near Etrou Is.
		S?	18 36 28.7						
		F	18 42 13—						
254	" 1	eP	18 57 47.4					—	Ditto.
		S?	18 58 51.1						
		F	19 01 18—						
255	" 1	P	19 54 23.4					2245	ψ = 148°5E, λ = 43°4N. S. sea off Etrou Is. Slight shock was felt E. part of Hokkaido.
		eS	19 58 06.9						
		F	20 11 48—						
256	" 1	eP	23 18 34.6					1930	Ditto.
		eS	23 21 51.6						
		F	23 30 36—						
257	" 2	eP	2 19 54.3					395	N. part of the Kasima-nada.
		S	2 20 47.5						
		F	2 23 16—						
258	" 2	e	5 10 52.3					—	A local shock.
		F	5 14 20—						
259	" 2	eP	12 07 31.5					113	Near the Onmae cape.
		S	12 07 46.8						
		F	12 08 34—						

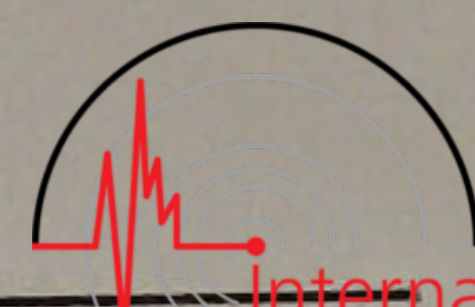
No.	Date	Phase	Time G. M. C. T			Period	Amplitude			Δ Epicentre- distance	Remarks
							AE	AN	Az		
			h	m	s	s	μ	μ	μ	km,	
260	May. 4	eP	16	37	51.0					25	A local shock.
		S	16	37	54.4						
		F	16	38	20-						
261	" 4	eP	18	14	45.1					740	ENE. sea off Kinkwasan.
		S	18	16	05.8						
		F	18	20	56-						
262	" 6	e	4	57	26.2					—	A local shock.
		F	5	00	04-						
263	" 6	e	5	25	12.4					—	Ditto.
		F	5	31	14-						
264	" 7	P	1	45	08.4					67	Near Hamamatu in Sizuoka pref.
		S	1	45	17.4						
		F	1	47	05-						
265	" 8	e	1	30	20.8					—	Near mouth of the river Rokugo.
		F	1	31	09-						
266	" 11	eP	6	49	51.0	—	—			150	Near Mt. Obako-dake. in Nara pref.
		S	6	50	11.2						
		ME	6	50	14.2	—	--12				
		F	6	54	43-						
267	" 11	e	11	59	34.0					—	Near Toyosato in Hukusima pref.
		S	12	00	53.4						
		F	12	04	03-						
268	" 11	e	18	30	40.8					—	After shock of sea off Miyako.
		eS	18	31	44.2						
		F	18	37	44-						
269	" 13	e	14	43	37.4					—	A local shock.
		F	14	46	11-						
270	" 14	e	1	11	41.6					—	Ditto.
		F	1	15	59-						
271	" 14	eP	2	22	53.5					161	N. part of Tango province.
		S	2	23	15.2						
		F	2	26	20-						

No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre distance km.	Remarks
					ΔE μ	ΔN μ	ΔZ μ		
272	May 14	e	5 17 46.7					—	A local shock.
		eS?	5 17 53.6						
		F	5 18 29—						
273	" 14	eP	6 27 53.7					338	S. sea off Nozima-zaki.
		eS	6 28 39.2						
		F	6 31 44—						
274	" 14	e	15 24 32.9					—	Near. Edozaki in Ibaragi pref.
		F	15 25 58—						
275	" 14	e	16 44 31.1					—	A local shock.
		F	16 46 11—						
276	" 15	e	8 47 16.0					—	Near Mt. Asama.
		F	8 48 40.0						
277	" 15	e	13 30 13.3					—	A local shock.
		F	13 31 28—						
278	" 15	eP	23 48 57.2					265	Near Takahama in Ibaragi pref.
		S	23 49 32.8						
		F	23 52 05—						
279	" 16	eP	1 21 13.5					—	A distant earthquake.
		F	1 23 56—						
280	" 16	eP	3 42 50.4					680	Near Miyosi in Hiroshima pref.
		eS	3 44 05.0						
		F	3 45 49—						
281	" 16	eP	18 26 55.1					—	After shock of sea off Miyako.
		eS	18 27 52.9						
		F	18 30 37—						
282	" 18	P	0 00 52.8					—	A distant earthquake.
		F	0 07 58—						
283	" 18	eP	14 13 06.9					85	A local shock?
		S	14 13 18.3						
		F	14 14 42—						
284	" 19	eP	7 38 35.9					—	Near Sionomisaki
		S	7 38 39.7						
		F	7 39 49—						



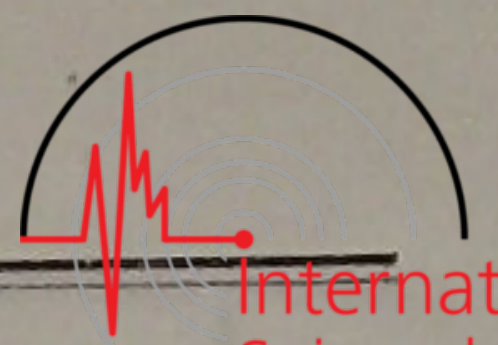
No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			△ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
285	May. 20	eP	3 59 59.8					—	After shock of sea off Miyako.
		eS?	4 00 59.1						
		F	4 02 56—						
286	" 20	P	7 49 53.1					153	Near Tadotu city.
		S	7 50 13.7						
		F	7 52 47—						
287	" 20	P	13 54 52.8					81	Near Hatiman in Siga pref.
		S	13 55 03.7						
		F	13 56 30—						
288	" 20	eP	16 05 28.3					690	After shock of sea off Miyako.
		eS	16 06 43.8						
		F	16 08 08—						
289	" 20	e	18 23 16.7					—	Ditto.
		F	18 26 30—						
290	" 20	P	18 30 16.5					122	Lower course of the river Miya in Mie pref.
		S	18 30 32.9						
		F	18 33 45—						
291	" 20	eP	19 11 01.8					910	After shock of sea off Miyako.
		eS	19 12 40.4						
		F	Covered						
292	" 20	eP	19 15 55.8					730	Ditto.
		eS	19 17 15.4						
		F	19 23 59—						
293	" 21	eP	5 10 56.7					45	Lower course of the river Yahagi in Aiti pref.
		S	5 11 02.8						
		F	5 12 24—						
294	" 21	eP	6 31 29.7					630	ψ=140°9E, λ=37°2N. Near Mt. Kiritoriya in Hokusima pref.
		S	6 32 38.5						
		F	6 34 59—						
295	" 21	eP	11 56 56.3					1150	SSE. sea off Hatijyo Is.
		eS	11 58 59.6						
		F	12 06 21—						

No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre distance km.	Remarks
					AE μ	AN μ	Az μ		
			h m s						
296	May 21	e	21 58 20.8				—	A distant earthquake.	
		eS	22 01 19.5						
		F	22 05 53—						
297	" 22	eP	10 58 57.8				610	After shock of sea off Miyako.	
		eS	11 00 04.8						
		F	11 04 27—						
298	" 22	e	14 21 53.8				—	Near the Inubanuma in Tiba pref.	
		F	14 24 36—						
299	" 22	eP	15 30 55.2				790	After shock of sea off Miyako.	
		S	15 32 20.8						
		F	15 39 13—						
300	" 22	eP	20 45 52.3				880	In the Hyuga nada.	
		eS	20 47 28.5						
		F	20 53 32—						
301	" 22	e	22 04 07.5				—	Epicenter unknown.	
		F	22 05 37—						
302	" 23	eP	16 38 04.6				—	$\psi=131^{\circ}7E, \lambda=31^{\circ}4N.$ In the Hyuga nada.	
		S	16 40 03.0						
		ME	16 40 30.9	2.5	-20				
		MN	16 40 42.0	—		-19			
		F	16 50 24—						
303	" 23	eP	16 53 22.0				1180	$\psi=131^{\circ}4E, \lambda=31^{\circ}2N.$ Ditto	
		S	16 55 27.7						
		F	17 04 28—						
304	" 23	eP	23 35 46.7				860	$\psi=143^{\circ}9E, \lambda=39^{\circ}5N.$ After shock of sea off Miyako.	
		eS	23 37 20.8						
		F	23 41 29—						
305	" 24	eP	4 38 55.2				1300	$\psi=145^{\circ}3E, \lambda=45^{\circ}6N.$ N. sea off Siretoko cape	
		S	4 41 13.2						
		F	4 48 26—						
306	" 24	eP	5 42 33.4				38	A local shock.	
		S	5 42 38.5						
		F	5 43 33—						



No.	Date	Phase	Time G. M. C. T	Period	Amplitude			△ Epicentre- distance	Remarks
					AE	AN	Az		
			n m s	s	μ	μ	μ	km.	
307	May 24	eP	10 40 03.8					439	ψ=142°3E, λ=38°2N. E. sea off Kinkwasan.
		S	10 41 02.9						
		F	10 49 30 -						
308	" 24	e	20 51 39.8					—	A local shock.
		F	20 52 55—						
309	" 25	eP	6 53 08.8					560	Near Sakura in Tiba pref.
		S	6 54 10.3						
		F	6 57 38—						
310	" 25	eP	16 41 00.0					307	ψ=139°7E, λ=34°2N. NE. sea off Miyake sima
		S	16 41 41.4						
		F	16 46 11—						
311	" 27	eP	0 33 23.2					610	ENE. sea off Hatijyo Is.
		eS	0 34 30.6						
		F	0 40 36—						
312	" 28	P	4 51 00.8					560	SE. off Kinkwa san.
		S	4 52 02.9						
		F	4 58 43—						
313	" 28	eP	23 40 06.2					364	ψ=138°0E, λ=32°4N. WSW. sea off Hatijyo Is. (Deep focus.)
		S	23 40 55.2						
		F	23 47 46—						
314	" 30	eP	4 13 28.4					171	Near Misima in Idu province.
		S	4 13 51.4						
		F	4 15 35—						
315	June 1	eP	16 12 53.2					274	NE. sea off Hatijyo Is.
		eS	16 13 30.1						
		F	16 16 53—						
316	" 2	e	0 02 07.3					—	In the Kasima-nada.
		F	0 03 41—						
317	" 2	e	3 14 05.0					—	SW. off Tiba city.
		F	3 17 03—						
318	" 2	P	4 43 55.3					680	Sea off Sada cape in Kagosima pref.
		S	4 45 09.9						
		F	4 49 54—						

No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
			h m s						
319	June 2	P	7 40 22.0	— 3.4	μ +47	μ -71	μ	1160	$\psi=131^{\circ}1E$ $\lambda=31^{\circ}7N$. Near Miyakonozyo in Miyazaki pref.
		es	7 42 26.1						
		ME	7 42 38.3						
		MN	7 43 28.8						
		F	8 05 —						
320	" 2	e	17 56 29.5	—			—	Near Mito.	
		F	18 00 01—						
321	" 3	eP	4 26 48.0	—			291	W. sea of Tiba city.	
		eS	4 27 27.2						
		F	4 29 41—						
322	" 3	eP	16 55 03.6	—			372	$\psi=140.2E$, $\lambda=36.3N$. Near Kakioka in Ibaraki pref.	
		S	16 55 53.7						
		F	17 02 38—						
323	" 3	P	17 11 32.6	—			1990	Near Amami Osima Is.	
		S	17 14 54.9						
		F	17 33 59—						
324	" 4	P	13 47 47.3	—			—	A distant earthquake.	
		L?	13 54 02.2						
		F	14 02 15—						
325	" 5	P	1 52 18.9	—			432	$\psi=141^{\circ}1E$, $\lambda=36^{\circ}4N$. In the Kasimanada. Slight shock were felt at all Kwanto and SE. part of Toho- ku district.	
		eS	1 53 17.2						
		F	2 02 43—						
326	" 6	eP	2 29 37.1	—			2760	A distant earthquake.	
		S	2 34 02.4						
		F	2 46 03—						
327	" 6	eP	4 27 52.9	—			—	In the bay of Wakanoura.	
		eS?	4 29 12.9						
		F	4 32 59—						
328	" 6	eP	6 44 45.1	—			1390	N. sea of Ogasawara Is.	
		eS	6 47 11.3						
		F	6 55 53—						
329	" 8	P	13 35 34.6	—			97	Lower course of the river Tenryu.	
		S	13 35 47.7						
		F	13 36 55—						



No.	Date	Phase	Time G. M. C. T			Period	Amplitude			Δ Epicentre- distance km.	Remarks	
							AE	AN	Az			
			h	m	s	s	μ	μ	μ			
330	June. 8	eP	18	12	40.6	3.0	—	—	—	750	$\psi = 144^{\circ}0'E, \lambda = 40^{\circ}2'N.$ ENE. sea off Miyako in Iwate pref. Slight shock were felt from S. part of Hokkaido to N. part of Kwanto district.	
		eS	18	14	02.6							
		MN	18	15	17.7							—32
		ME	18	15	16.0							—23
		F	18	29	10—							
331	" 12	P	21	09	45.9	3.0	—	—	—	600	$\psi = 141^{\circ}7'E, \lambda = 38^{\circ}8'N.$ Near the bay of Kisenuma in Miyagi pref. Slight shock was felt Tohoku district.	
		S	21	10	51.8							
		ME	21	11	17.5							—61
		MN	21	11	36.3							+72
		F	21	24	31—							
332	" 13	P	20	35	36.0	2.7	—	—	—	820	$\psi = 143^{\circ}7'E, \lambda = 40^{\circ}7'N.$ E. off Mouth of the river Mabuti. Slight shock was felt at Tohoku district.	
		S	20	37	04.8							
		ME	20	37	50.3							—74
		MN	20	38	14.5							+86
		F	20	50	20—							
333	" 15	eP	7	00	51.0	—	—	—	—	900	N. sea of Ogasawara Is.	
		eS	7	02	29.2							
		F	7	07	48—							
334	" 17	eP	1	48	01.6	—	—	—	—	—	S. part of the Kasimanada.	
		eS?	1	48	52.9							
		F	1	49	57—							
335	" 17	eP	14	04	09.4	—	—	—	—	960	$\psi = 144^{\circ}1'E, \lambda = 40^{\circ}3'N.$ E. sea off mouth of the river Mabuti.	
		S	14	05	53.0							
		F	14	12	06—							
336	" 18	eP	7	24	29.9	—	—	—	—	63	Bay of Atumi in Aiti pref	
		S	7	24	38.4							
		F	7	25	23—							
337	" 18	P	13	13	05.7	—	—	—	—	—	N. sea off Ogasawara Is.	
		\bar{P}	13	13	23.7							
		S?	13	14	20.1							
		F	13	25	56—							
338	" 18	iP	21	38	55.6	33	—	—	—	640	$\psi = 142^{\circ}8'E, \lambda = 38^{\circ}5'N.$ E. sea off Kinkwasan. Slight shock were felt S. part of Hokkaido, all Tohoku and Kwanto district.	
		S	21	40	05.6							
		Mz	21	40	13.3							± 115
		F	22	06	18—							

No.	Date	Phase	Time G. M. C. T	Period	Amplitude			Δ Epicentre- distance	Remarks
					AE	AN	AZ		
			h m s	s	μ	μ	μ	km.	
339	June. 19	eP	6 19 27.2					444	E. sea off Kinkwasan.
		eS	6 20 27.0						
		F	6 23 13-						
340	" 19	eP	7 15 29.0				—	Ditto.	
		eS?	7 16 25.1						
		F	7 18 03-						
341	" 22	eP	15 26 54.8				97	Near Takayama.	
		S	15 27 07.9						
		F	15 28 12-						
342	" 23	eP	3 28 22.6				630	$\psi = 142^{\circ}3'E$, $\lambda = 38^{\circ}0'N$. ESE off Kinkwasan	
		eS	3 29 31.3						
		F	3 32 50-						
343	" 23	eP	13 26 00.5				620	Ditto.	
		eS	13 27 08.9						
		F	13 29 52-						
344	" 23	eP	23 31 56.6				217	Near Mt. Tukuba.	
		S	23 32 25.9						
		F	23 34 28-						
345	" 24	P	22 03 58.9				6250	A distant earthquake. Near Smatra Is.	
		S?	22 11 48.8						
		I?	22 14 27.3						
		F	23 22 26-						
346	" 25	e	0 14 07.5				—	A local shock.	
		F	0 17 45-						
347	" 25	e	1 49 42.1				—	$\psi = 143^{\circ}4'E$, $\lambda = 39^{\circ}4'N$. ESE. sea off Miyako in Iwate pref.	
		eS	1 51 05.9						
		F	1 53 49-						
348	" 25	eP	3 21 04.5				160	Near Mt. Tukuba.	
		eS	3 21 26.0						
		F	3 23 28-						
349	" 26	eP	0 48 54.0				780	ENE. sea off Miyako.	
		S	0 50 19.3						
		F	0 53 23-						



No.	Date	Phase	Time G. M. C. T			Period s	Amplitude			Δ Epicentre- distance km.	Remarks
							AE μ	AN μ	Az μ		
350	June. 26	e	12	18	05.4				—	A local shock.	
		F	12	19	27—						
351	" 28	eP	6	22	28.7				414	$\psi = 142^{\circ}2E, \lambda = 38^{\circ}2N.$ E. sea off Kinkwasan.	
		S	6	23	24.5						
		F	6	30	32—						
352	" 29	P	13	17	42.0				71	Near Kasimo in Gihu pref.	
		S	13	17	51.5						
		F	13	20	37—						
353	" 30	P	17	46	32.3				112	Near Hukui city.	
		S	17	46	47.4						
		F	17	49	13—						

The end

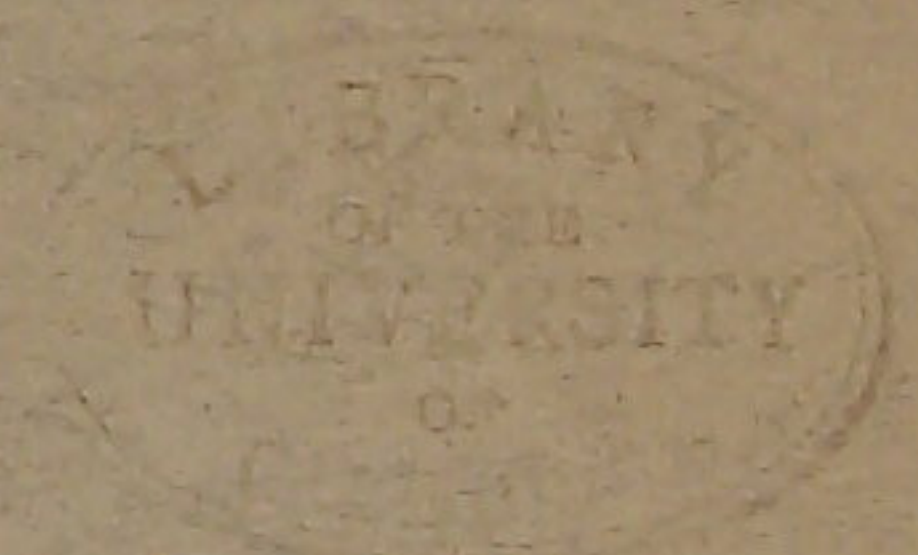
SEISMOLOGICAL BULLETIN
OF THE
AITIKEN METEOROLOGICAL OBSERVATORY

NAGOYA JAPAN

VOL. IV. NO. 2,

FROM JULY TO DECEMBER.

1933



NAGOYA

MARCH 1934

CONSTANTS

Latitude and longitude of the center of the Seismographic room

$$\lambda = 35^{\circ}10' \text{ N}$$

$$\varphi = 136^{\circ}5'8 \text{ E from Greenwich}$$

Altitude, 51.7^{m} above mean sea level.

Lithologic foundation, Schottered clay (Tertiary)

Time. All determinations are reduced to Greenwich mean civil time.

Constants of the Seismographs

Apparatus	Component	T°	ξ	$\frac{r}{T^{c^2}}$	V	
Wiechert 200kg	I {	N	5.2	8	0.01	73
		E	5.2	9	0.02	72
	II {	N	5.0	10	0.01	75
		E	5.0	9	0.01	73
	III {	N	5.0	9	0.01	77
		E	5.0	8	0.02	75
	IV {	N	5.1	7	0.01	78
		E	5.1	7	0.01	78
" 80kg	I	Z	4.3	5	0.02	64
	II...IV	Z	3.2	10	0.02	90
Omori	{	N	18.0	4	0.02	30
		E	18.0	4	0.01	30

Note. I, Jan. 1, to. Feb. 23

II, Feb. 24 to. Mar. 22

III, Mar. 23 to. Jun. 14

IV, Jun. 15 to. Jun. 30

Symbols and Notations

I. Phases of the Seismogram.

P = First preliminary tremors (Longitudinal)

\bar{P} = Individual or upperfirst preliminary tremors

S = Second preliminary tremors (Transverse)

L = Long waves at the beginning of the surface phase.

M = Greatest motion in the surface phase.

F = End of discernible movements.

II. Nature of the motion.

i = Sudden beginning of the motion.

e = Gradual beginning of the motion.

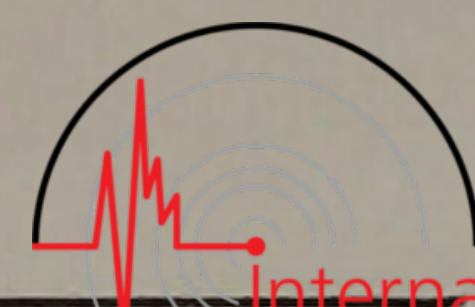
III. Remarkes.

Covered = Covered by following shock.

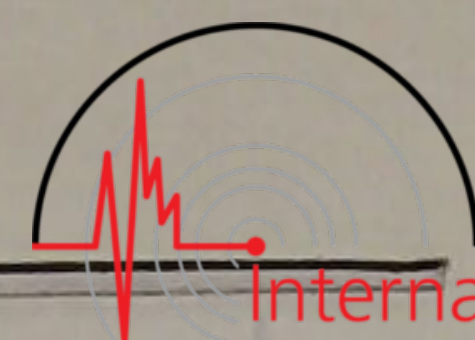
Is. = Island. Pref. = Prefecture. Str. = Strait.

No.	Time	Duration	Intensity	Direction	Remarks
25	10.0	8	2.5	W	Whitby Bay
27	10.0	8	2.5	W	
28	10.0	10	2.5	W	
29	10.0	8	2.5	W	
30	10.0	8	2.5	W	Whitby Bay
31	10.0	8	2.5	W	
32	10.0	7	2.5	W	Whitby Bay
33	10.0	7	2.5	W	
34	10.0	5	2.5	W	Whitby Bay
35	10.0	10	2.5	W	
36	10.0	8	2.5	W	Whitby Bay
37	10.0	8	2.5	W	

Note: I. Jan 1 to Feb 28
 II. Feb 29 to Mar 31
 III. Mar 31 to Jun 11
 IV. Jun 11 to Jun 30



No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AB μ	AN μ	Az μ		
			h m s						
356	July 1	eP S F	1 51 12.6 1 51 34.9 1 53 40 -				165	Near the cape of Omae. P: Vary faint. Time approximately.	
357	" 2	eP S F	16 50 06.6 16 51 38.3 16 58 34 -				850	$\psi = 142.8E, \lambda = 40.1N$. NE. sea off Miyako. Slight shock were felt N. part of Tohoku and S. part of Hokkaido.	
358	" 3	e F	1 17 03.5 1 18 54 -					Sea off Katuura in Boso peninsula. Faint record.	
359	" 3	eP eS F	1 22 54.1 1 23 31.8 1 24 45 -				280	Ditto.	
360	" 4	e F	17 06 54.6 17 08 -					Near city of Mumadu. Micro seismo.	
361	" 5	e F	15 46 30.4 15 49 36 -					Near Hatijyo Is. Very faint record.	
362	" 6	P S ME MN F	2 00 18.0 2 00 41.3 2 00 52.7 2 00 52.7 2 08 49 -	1.1 0.7	W ± 31	+1 +32	173	$\psi = 140.0E, \lambda = 35.6N$. N. part of the Tokyo bay. Slight shock was felt all Kanto districts.	
363	" 6	eP eS F	14 27 00.4 14 28 32.3 14 31 54 -				850	NE. sea off Miyako.	
364	" 6	P S F	23 59 14.2 23 59 26.1 23 01 56 -				88	W. foot of Mt. Akaisi-dake in nagano pref.	
365	" 7	eP eS F	16 02 01.1 16 02 19.1 16 04 02 -				134	Near Mineyama in Tango province.	
366	" 8	P S F	7 58 09.7 7 58 45.1 8 07 11 -				263	$\psi = 140.0E, \lambda = 34.2N$. E. sea off Miyake Is. Slight shock was felt SE. part of Kwanto district.	



No.	Date	Phase	Time M. C. T.	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
367	July 9	P	1 33 25.2				1450	$\psi = 149.5E, \lambda = 43.0N.$ Far SE. sea off Etorofu Is. Slight shocks were felt at E. part of Hokkaido. Seismic waves recorded in all most of Japan.	
		S	1 35 57.3						
		F	2 04 06-						
368	" 9	e	9 03 00.3				1650	Ditto.	
		F	9 09 14-						
369	" 9	eP	9 31 19.3				1650	Ditto.	
		S	9 34 09.8						
		F	Covered						
370	" 9	eP	9 51 44.8				1375	Ditto.	
		S	9 54 09.4						
		F	10 09 06-						
371	" 9	e	11 14 45.0				1690	Near Kisiwada at coast of the Osaka bay.	
		F	11 16 17-						
372	" 9	eP	11 25 14.0				1690	Sea off Etorofu Is.	
		eS	11 28 09.4						
		F	11 34 47-						
373	" 9	P	12 34 06.5				1400	$\psi = 149.0E, \lambda = 42.5N.$ Slight shock was felt in Kusiro but records have been registered at Taiwan and Tyosen.	
		eS	12 36 33.3						
		L?	12 37 55.7						
		F	13 06 29-						
374	" 9	eP	16 10 38.2				960	E. sea off the cape of Nosyahu.	
		eS?	16 13 59.9						
		F	16 25 17-						
375	" 9	eP	16 56 54.5				960	Near city of Beppu in Ooita pref.	
		eS	16 58 38.9						
		F	17 03 51-						
376	" 9	eP	17 54 52.5				1100	E. sea off the cape of Nosyahu.	
		eS	17 56 50.2						
		F	18 04 50-						
377	" 9	eP	19 22 32.9				1440	Ditto.	
		eS	19 25 04.1						
		F	19 30 15-						
378	" 9	e	21 35 15.4				1440	Very faint record. A Local shock?	
		F	21 38 13-						

No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE	AN	Az		
			h m s		μ	μ	μ		
379	July 9	eP	22 18 29.9					1340	E. sea off the cape of Nosyahu.
		eS	22 20 51.8						
		F	22 28 13-						
380	" 10	iP _E	0 23 20.9		+9	+4		1000	$\psi=144.8E, \lambda=38.9N.$ Far E. sea off Kamaisi. Slight shocks were felt S. part Hokkiado, Tohoku and N. part of Kwanto district.
		S?	0 25 08.5						
		F	0 39 27-						
381	" 10	e	6 25 38.9						S sea off Etorohu Is.
		F	6 31 05-						
382	" 10	e	6 48 34.1						In the Kasimanada. Very faint record.
		F	6 52 09-						
383	" 10	eP	10 41 00.7						A distant shock. Near Borneo Is.
		S?	10 42 00.7						
		F	11 00 20-						
384	" 10	e	11 07 45.6						S. sea off cape of Nosima. Very faint record.
		F	11 10 15-						
385	" 10	e	18 30 11.0						In the Kasima-nada. Very faint record.
		F	18 32 11-						
386	" 10	eP	20 28 04.4						Sea off Inubo-zaki.
		S?	20 29 06.6						
		F	20 35 12-						
387	" 10	e	23 05 34.4						Near Kunasiri Is. Micro seisms.
		F	23 10 45-						
388	" 11	e	1 31 47.7						A local shock? Very faint tremors.
		F	1 32 59-						
389	" 11	eP	2 00 52.5						
		eS	2 01 59.1					610	Sea off Kujukurigahama.
		M _N	2 02 19.4	2.6		-39			
		M _E	2 02 24.0		+24				
		F	Covered						
390	" 11	eP	6 09 10.2						Ditto.
		S?	6 10 03.0						
		F	6 16 21-						

No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
391	July 11	eP	6 51 02.6					418	SE. sea off Katsuura.
		S?	6 51 58.8						
		MN	6 52 26.2						
		ME	6 52 40.1						
		F	6 09 18-						
392	" 11	eP	7 17 51.4					590	Kujyukurigahama.
		eS	7 18 56.8						
		F	7 24 49-						
393	" 11	eP	8 29 46.1					580	Sea off Hatijyo Is.
		S	8 30 49.7						
		F	8 36 26-						
394	" 11	eP	9 20 51.4					730	Sea off Kujyukurigahama.
		eS	9 22 11.2						
		F	9 29 18-						
395	" 11	e	10 17 36.3						A local shock? Faint record.
		F	10 19 26-						
396	" 11	eP	21 25 33-					about 380	Time uncertain. SE. off Inubo cape?
		eS	21 26 24-						
		F	21 27 25-						
397	" 12	eP	9 30 07.7						SE. off Inubo zaki.
		eS?	9 30 50.6						
		F	9 35 19-						
398	" 12	eP	12 01 06.8						Near Toyama.
		eS?	12 01 33.4						
		F	12 02 59-						
399	" 12	eP	14 35 03.3						In the Toyama bay.
		eS?	14 35 10.2						
		F	14 36 02-						
400	" 12	eP	14 48 28.4						Near sea off Yakusima Is. in Kagosima pref.
		eS?	14 50 55.5						
		F	14 55 17-						
401	" 12	eP	18 54 14.5	2.2				540	SE. sea off Inubo-zaki.
		eS	18 55 14.9						
		MN	18 55 46.6						
		ME	18 56 05.2						
		F	19 08 -						

No.	Date	Phase	Time G. M. C T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
			h m s						
402	July 13	eP	3 04 55.6					Mt. Asama. (volcano)	
		eS?	3 06 29.5						
		F	3 13 01-						
403	" 13	eP	7 59 34.4				810	$\psi = 138.7E, \lambda = 42.4N.$ W. sea of Hokkaido. Slight shocks were felt in SW. part of Hokkaido and N. part of Tohoku district.	
		eS	8 01 02.0						
		F	8 12 10-						
404	" 13	e	10 44 37.6					SE. sea off Inubo-zaki.	
		F	10 50 29-						
405	" 13	eP	10 52 01.2				600	Ditto.	
		eS	10 53 06.8						
		F	10 59 32-						
406	" 14	eP	1 48 32.3					A distant shock.	
		F	2 01 23-						
407	" 14	eP	6 34 02.9				430	In the Kashima-nada.	
		eS	6 35 00.8						
		F	6 40 13-						
408	" 14	eP	16 05 44.9				920	Sea off Vladivostock.	
		S	16 07 24.7						
		F	16 19 36-						
409	" 15	P	3 56 14.8				246	Valley of the river Kogai in Ibaragi pref.	
		S	3 56 47.9						
		ME	3 57 09.5		-15				
		MN	3 57 16.8			+24			
		F	4 05 48-						
410	" 16	eP	7 28 04.7				680	Sea off Miyako.	
		eS	7 29 20.0						
		F	7 33 01-						
411	" 16	e	15 32 16.5					Near city of Wakayama. Very faint record.	
		F	15 33 30-						
412	" 17	eP	18 18 30.1					Sea off Miyako.	
		S?	18 19 19.0						
		F	18 26 41-						

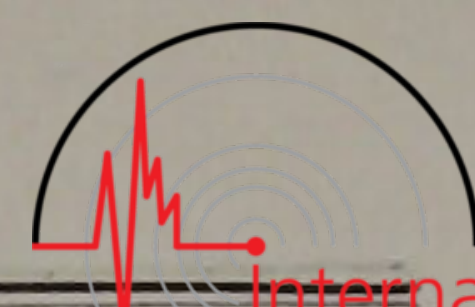
No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE μ	AN μ	AZ μ		
413	July 18	P	11 27 15.2				314	Near Yokoatari Is. in Kagoshima pref.	
		S	11 28 57.5						
		ME	11 29 05.2						
		F	11 36 07-						
414	" 18	eP	18 00 38.5				about 176	Near mt Tenjin in Okayama pref.	
		eS?	18 01 02.2						
		F	13 05 21-						
415	" 18	e	19 05 55.6					In the Kashima-nada. Faint record.	
		F	19 08 25-						
416	" 18	P	19 10 39.6					A distant shock. Near the Philippine Is.s.	
		L?	19 15 01.2						
		F	19 30 46-						
417	" 19	eP	2 28 58.5				169	Lower course of the river Arita.	
		eS	2 29 21.3						
		F	2 34 44-						
418	" 19	e	11 01 22.2					Mt. Asama. Vary faint record.	
		F	11 05 33-						
419	" 19	eP	13 39 50.4					A distant shock in Alaska.	
		F	13 50 51-						
420	" 19	eP	15 07 15.6					Ditto.	
		F	15 20 21-						
421	" 20	eP	16 58 44.3				385	In the sea of Japan.	
		eS	16 59 36.2						
		F	17 03 56-						
422	" 20	P	23 15 44.9				740	$\phi=144.8E, \lambda=38.5N.$ E. sea off Kinkwazan. Slight shock were felt S. part of Hokkaido, Tohoku and N. part of Kwanto district.	
		S	23 17 06.0						
		ME	23 17 29.0	2.3	-128				
		MZ	23 17 31.4	1.8		+26			
		MN	23 18 04.5	2.3		-110			
		F	23 31 38-						
423	" 21	eP	20 27 17.4					Middle course of the river Kinu. Faint record.	
		eS?	20 29 15-						
		F	20 34 58-						

No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance	Remarks
					AE	AN	Az		
			h m s		μ	μ	μ	km.	
424	July 22	eP	6 33 29.3					710	E. sea off Miyako.
		eS	6 34 46.9						
		F	6 41 57-						
425	" 22	eP	8 42 38.0						Sea off mouth of the river Mabuti. Faint record.
		eS?	8 44 10.4						
		F	8 50 50-						
426	" 23	P	1 19 47.2					178	Near Sionomisaki.
		S	1 20 11.1						
		F	1 23 20-						
427	" 24	P	8 39 58.8					870	S. sea off Vladivostock.
		eS	8 41 33.5						
		F	8 52 42-						
428	" 24	eP	18 01 07.9						Near Katuura in Tiba pref. Faint record.
		eS?	18 02 34.9						
		F	18 04 47-						
429	" 26	eP	4 59 58.5					293	Sea off Inubo zaki.
		eS	5 00 38.0						
		F	5 02 08-						
430	" 26	eP	6 41 58.9					272	Near Mt. Tukuba.
		eS	6 42 35.5						
		F	6 44 35-						
431	" 28	P	16 43 57.5					217	$\psi = 135.0E, \lambda = 34.2N.$ In the Kii str. Strong shock was felt in Wakayama. Slight shock were felt at Kinki, Tyugoku, Sikoku and SE. part of Tyubu district.
		S	16 44 26.8						
		MN	16 44 29.4	0.8		-372			
		ME	16 44 29.5	0.7	+312				
		Mz	16 44 37.8	1.0			-80		
		F	16 58 48-						
432	" 30	e	17 25 11.5						Epicenter unknown. Very faint record.
		F	17 46 53-						
433	" 31	P	2 58 08.3						SSE. sea off Hatijyo Is.
		S	2 59 32.4						
		F	3 07 30-						
434	" 31	P	9 03 28.8					200	$\psi = 139.8E, \lambda = 34.5N.$ S. sea off cape Nosima at Boso peninsula.
		S	9 03 55.7						
		ME	9 04 13.4	1.3	+18				
		F	9 11 53-						



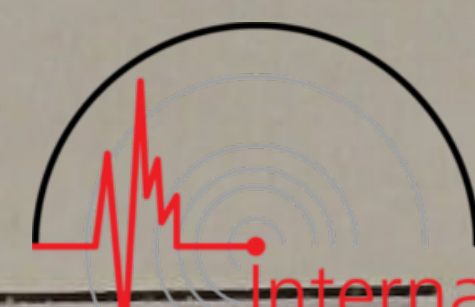
No.	Date	Phase	Time G. M. C. T	Period	Amplitude			Δ Epicentre- distance	Remarks
					AE	AN	Az		
			n m s	s	μ	μ	μ	km.	
435	Aug. 2	e	12 21 00.5						$\psi = 141.7E, \lambda = 40.2N.$ Upper course of the river Kuji. Slight shock was felt N. part of Tohoku district.
		F	12 24 16-						
436	" 5	P	0 52 55.4						A distant shock near Solomon Is.s.
		L?	0 59 57.2						
		F	1 11 38-						
437	" 7	P	0 43 44.2				740		$\psi = 144.7E, \lambda = 39.4N.$ Far E. sea off Kamaisi.
		eS	0 45 04.8						
		F	0 54 19-						
438	" 7	eP	11 11 24.0						$\psi = 142.7E, \lambda = 42.3N.$ Lower course of the river Niikapu in Hokkaido. Time uncertain.
		S?	11 13 34.7						
		F	11 18 01-						
439	" 8	eP	6 05 00.7						Sea off cape of Erimo. Faint record. Time uncertain.
		S?	6 05 40.1						
		F	6 08 21-						
440	" 9	eP	4 34 26.0						Near Kohu city?
		S?	4 35 04.1						
		F	4 37 30-						
441	" 11	P	9 00 50.1						$\psi = 96.E, \lambda = 30.N.$ SE. part of Tibet in China.
		L?	9 12 49.8						
		F	9 26 03-						
442	" 11	P	11 45 07.0					75	A local shock.
		S	11 45 17.1						
		F	11 46 20-						
443	" 15	P	2 59 57.9	1.8				930	$\psi = 144.0E, \lambda = 29.2N.$ NNE. sea about 280km. from Ogasawara Is. Slight shock was felt at Kwanto district.
		S	3 01 38.6						
		M _s	3 01 41.7						
		F	3 15 12-						
444	" 18	P	8 21 41.7					1480	$\psi = 129.5E, \lambda = 29.7N.$ WSW. sea off Yakusima.
		eS	8 24 16.9						
		F	8 32 04-						
445	" 18	P	16 07 26.7					21	A local shock. Near Toyoaki in Aiti pref.
		S	16 07 29.5						
		F	16 08 33-						

No.	Date	Phase	Time			Period	Amplitude			△ Epicentre- distance	Remarks
			G.	M.	C. T		AE	AN	Az		
			h	m	s	s	μ	μ	μ	km.	
446	Aug. 19	P	18	31	18.1				15	A local shock.	
		S	18	31	20.1						
		F	18	32	35-						
447	" 20	P	11	50	29.9				2730	A distant shock. E. sea off the Philippine Is.s.	
		S	11	54	52.7						
		F	12	08	55-						
448	" 20	P	12	11	27.1				2730	Ditto.	
		S	12	15	49.7						
		F	12	27	49-						
449	" 20	e	21	00	59.5					Near Iida in Nagano pref. Very faint record.	
		F	21	02	48-						
450	" 22	P	13	18	19.3				2745	A distant shock.	
		S	13	22	43.0						
		F	13	30	30-						
451	" 22	eP	20	50	34.6				130	Near Toyoi in Nagano pref.	
		eS	20	50	52.1						
		F	20	52	29-						
452	" 22	P	21	39	34.9				106	Ditto.	
		S	21	39	49.2						
		F	21	41	27-						
453	" 23	eP	0	31	22.2					Near Hunazu in Gihu pref. P. S. phase uncertain.	
		eS	0	31	56.3						
		F	0	32	51-						
454	" 23	P	12	53	49.2				51	Upper course of the river Matiya in Mie pref.	
		S	12	53	56.1						
		F	12	54	52-						
455	" 24	P	0	30	29.1				57	Upper course of the river Suzuka in Mie pref.	
		S	0	30	36.7						
		F	0	33	46-						
456	" 24	eP	0	40	37.2				146	Valley of the river Sasayama in Hyogo pref.	
		S	0	40	56.8						
		F	0	44	48-						
457	" 24	eP	6	30	05.1				185	Near city of Wakoyama.	
		S	6	30	29.9						
		F	6	32	08-						



No.	Date	Phase	Time G. M. C. T	Period	Amplitude			△ Epicentre- distance	Remarks
					AE	AN	Az		
			h m s	s	μ	μ	μ	km.	
458	Aug. 25	P	7 56 21.7					3310	ψ=102.E, λ=34.N. W. part of China proper.
		P̄	7 56 26.9						
		S	8 01 26.8						
		L	8 05 31.1						
		F	8 58 58—						
459	" 25	eP	11 11 45.4					1375	NW. sea off Anami Osima.
		eS	11 14 09.9						
		F	11 19 06—						
460	" 26	eP	1 32 41.4					1310	Ditto.
		eS	1 35 00.8						
		F	1 40 48—						
461	" 26	eP	3 10 33.6					2010	Sea off mouth of the river Sobinkei in Taiwan.
		eS	3 13 58.0						
		F	3 22 18—						
462	" 26	eP	5 23 11.2					860	SE. off cape Otiisi.
		eS	5 24 44.2						
		F	5 28 28—						
463	" 26	eP	13 23 14.7					248	Near Tutiura in Ibaragi pref.
		eS	13 23 48.1						
		F	13 25 21—						
464	" 26	eP	18 36 44.1					176	Near Mt. Buko in Saitama pref.
		eS	18 37 07.8						
		F	18 38 40—						
465	" 27	P	4 45 35.5					205	Near Nogami in Saitama pref.
		S	4 46 03.2						
		F	4 47 39—						
466	" 27	P	17 07 23.9					40	A local shock. Near Toyoaki in Aiti pref.
		S	17 07 29.3						
		F	17 09 12—						
467	" 27	eP	21 48 37.0					293	Near Mt. Tukuba.
		eS	21 49 16.5						
		F	21 55 30—						
468	" 28	e	3 56 16.0						Near Yokohama? Feeble tremors.
		F	3 58 22—						

No.	Date	Phase	Time G. M. C. T	Period	Amplitude			Δ Epicentre- distance km.	Remarks		
					AE	AN	Az				
469	Aug. 28	e	h m s 8 50 14.2		μ	μ	μ	3565	$\psi = 145.5E, \lambda = 44.0N.$ N. sea about 80 km. off Nemuro.		
		F	8 55 42—								
470	" 28	P	22 39 47.7					3565	A distant shock.		
		S	22 45 09.0								
		F	0 31 35—								
471	" 29	P	12 32 36.2					425	$\psi = 141.4E, \lambda = 37.7N.$ SE. sea off mouth of the river Abukuma. Slight shock were felt at SE. part of Tohoku and N. part of Kwanto district.		
		S	12 33 33.4								
		MN	12 34 01.6							1.2	-76
		Mz	12 34 12.6							1.8	-24
		ME	12 34 16.0							1.9	-89
472	" 29	P	15 11 07.1					268	Sea off Hatijyo Is.		
		eS	15 11 43.2								
		F	15 21 35—								
473	" 29	eP	16 28 03.1					159	S. part of the Osaka bay.		
		S	16 28 24.5								
		F	16 33 28—								
474	" 30	eP	16 40 48.0					227	Near lake of Hamana.		
		S	16 41 18.5								
		F	16 46 39—								
475	" 31	eP	3 55 19.5					1190	S. sea off Yakusima.		
		eS	3 57 26.8								
		F	4 03 34—								
476	Sept. 2	iP	16 42 44.4					598	$\psi = 139.4E, \lambda = 30.3N.$ S. sea off about 330km. from Hatijyo Is. The focus is about 300 km. under from the surface. Slight shock was felt at Kwanto distorict.		
		eS	16 43 50.2								
		ME	16 43 57.5							-1450	
		MN	16 43 59.6							1.7	± 550
		Mz	16 44 01.6							2.7	-132
		F	16 55 23.8								
		ScS	17 17 03—								
477	" 3	P	—					190	Upper course of the river Kumano.		
		S	3 52 41.7								
		F	3 58 53—								
478	" 3	eP	23 40 30.9					190	Upper course of the river Kumano.		
		S	23 40 56.6								
		F	23 41 44—								



No.	Date	Phase	Time G. M. C. T.	Period s	Amplitude			Δ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
			h m s						
479	Sept. 6	eP S F	14 05 59.3 14 06 30.1 14 10 57.0				229	$\psi = 137.8E, \lambda = 34.4N.$ SSE. sea off Hamamatu, deep focus. Orizin about 250km. from the surface.	
480	" 6	P \bar{P} L F	22 18 33.9 22 18 46.3 22 27 16.0 22 46 4-					A distant shock. Near Fiji Is.	
481	" 7	eP F	17 59 - 18 14 18-					A distant shock in the South Ocean.	
482	" 9	eP S F	5 04 57.2 5 06 50.3 5 29 40.5				840	$\psi = 131.0E, \lambda = 44.0N.$ NE. about 120km. off Vladio- stock.	
483	" 9	eP S F	6 25 - 6 26 41.1 6 34 39-					In the Kasima-nada.	
484	" 9	e F	6 25 36.4 6 29 37-					Near Isigaki in Wakayama pref.	
485	" 9	e F	21 29 24.2 21 37 -					A distant shock in the South Ocean.	
486	" 10	eP S F	2 56 40.9 2 57 30.0 3 05 40-				364	Sea off Inubo-zaki.	
487	" 10	e F	11 25 44.2 11 32 31-					Epicenter unknown, very faint record.	
488	" 11	eP S F	16 26 01.6 16 26 15.4 16 27 44-				102	Near mouth of the river Tenryu	
489	" 12	eP S F	5 06 52.8 5 08 24.1 5 19 09-				670	$\psi = 143.6E, \lambda = 39.6N.$ E. sea off Miyako.	
490	" 12	eP S F	6 26 24.2 6 26 27.5 6 27 04-				25	A local shock.	

No.	Date	Phase	Time G. M. C. T	Period	Amplitude			Δ Epicentre- distance	Remarks		
					AE	AN	Az				
			h m s	s	μ	μ	μ	km.			
491	Sept. 12	eP	6 50 25.5					25	A local shock.		
		S	6 50 28.8								
		F	6 51 09-								
492	" 14	P	6 27 19.6					318	Near Inubo-zaki.		
		S	6 28 02.4								
		F	6 33 50-								
493	" 14	eP	11 04 06.5					42	A local shock.		
		S	11 04 12.1								
		F	11 04 41-								
494	" 15	eP	13 54 48.0					339	$\psi = 141.2E, \lambda = 33.5N.$ ENE. sea about 130km. from Hatijyo Is. Slight shock was felt at SE. part of Kwanto district.		
		S	13 55 33.7								
		F	14 00 22-								
495	" 15	eP	16 21 49.1					920	$\psi = 130.4E, \lambda = 29.3N.$ S. sea off Yakusima Is. Slight shock was felt Yaku and Amami osima Is.		
		S	16 23 29.9								
		F	16 25 46-								
496	" 16	eP	17 29 51.0					293	Near Mt. Tukuba.		
		S	17 30 30.5								
		F	17 33 13-								
497	" 17	eP	4 01 24.4					860	Near lake of Towada in Akita pref.		
		eS	4 02 58.5								
		F	4 09 44-								
498	" 20	eP	3 57 26.6					294	$\psi = 136.6E, \lambda = 34.1N.$ In the Kumano-nada. Deep focus, center about 330km. under the ground. Slight shock was felt at Kwanto.		
		S	3 58 06.2								
		ME	3 58 07.1							2.9	+40
		F	4 02 21-								
499	" 20	P	—						S. sea off Okinawa Is. P: uncertain, faint record.		
		S	23 39 29.5								
		F	23 46 —								
500	" 21	eP	3 14 57.3					180	$\psi = 137.0E, \lambda = 37.1N.$ In the bay of Nanao in Isikawa pref. A violent shock was felt at coast of Southern part of the bay. Slight shock was felt almost of Tyubu and NE. part of Kinki district.		
		S	3 15 21.5								
		Mz	3 16 02.6							1.6	-300
		MN	3 16 10.3								-1300
		ME	3 16 29.9								+1300
		F	3 33 36-								

No.	Date	Phase	Time G. M. C. T			Period s	Amplitude			Δ Epicentre- distance km.	Remarks
							AE μ	AN μ	Az μ		
501	Sept. 21	eP	9	49	33.1				790	$\psi = 143.0E, \lambda = 39.3N.$ SE. sea off Miyako. Slight shock was felt at E. part of Tohoku district.	
		S	9	50	59.2						
		MN	9	51	39.8	3.0		+100			
		Mz	9	52	01.5	1.7		-20			
		ME	9	52	45.5	2.6	+69				
		F	10	03	55-						
502	" 21	eP	13	44	03.2				800	$\psi = 143.3E, \lambda = 39.4N.$ Ditto.	
		S	13	45	30.4						
		MN	13	45	34.8	2.6		± 38			
		ME	13	46	05.3	2.4	+35				
		F	13	55	26-						
503	" 21	eP	17	35	58.4				168	Upper course of the river Dosi in Yamanasi pref.	
		S	17	36	21.1						
		F	17	38	13-						
504	" 21	eP	19	45	21.8				675	$\psi = 143.0E, \lambda = 38.3N.$ E. sea off Kinkwazan. Slight shock was felt at coast of Tohoku district.	
		S	19	46	35.4						
		ME	19	46	59.0	2.4	-38				
		MN	19	47	04.3	2.7		+46			
		F	19	56	50-						
505	" 22	eP	1	59	59.4				257	Valley of the river Dosi in Yamanasi pref.	
		eS	2	00	34.0						
		F	2	01	49-						
506	" 22	eP	3	47	17.5				740	E. sea off Kinkwazan.	
		S	3	48	38.4						
		F	3	52	38-						
507	" 22	eP	4	15	35.4				680	Ditto.	
		S	4	16	49.9						
		F	4	20	49-						
508	" 22	eP	14	45	42.6				307	Sea off Kujukurigahama.	
		eS	14	46	24.0						
		F	14	48	52-						
509	" 24	eP?	15	24	39.2				1180	A distant shock. P: and S: Time uncertain.	
		eS?	15	26	45.6						
		F	15	38	35-						
510	" 24	eP	16	07	28.8				640	$\psi = 143.0E, \lambda = 39.3N.$ SE. sea off Miyako.	
		S	16	08	38.7						
		F	16	15	21-						

No.	Date	Phase	Time G. M. C. T	Period	Amplitude			Δ Epicentre- distance	Remarks
					AE	AN	Az		
			h m s	s	μ	μ	μ	km.	
511	Sept. 25	eP	18 58 59.3						A distant shock.
		S	19 12 45.7						
		L	19 15 47.2						
		F	19 35 59--						
512	" 26	P	4 25 22.6				890	$\psi = 141.7E, \lambda = 38.2N.$ SE. sea off Kinkwazan.	
		S	4 26 59.6						
		F	4 30 57--						
513	" 26	eP?	17 41 52.5					S. part in the Bay of Ariake.	
		S	17 42 32.5						
		F	17 44 43--						
514	" 27	eP	11 38 33.4				196	E. part of the Nanao bay. (an after shock).	
		S	11 38 59.8						
		F	11 43 16--						
515	" 28	eP	19 02 12.4				430 ?	Kyusyu district.	
		eS	19 03 10.5						
		F	19 06 34--						
516	" 29	eP	11 41 57.0					Sea off mouth of the river Mabuti.	
		eS?	11 43 00.3						
		F	11 49 26--						
517	" 29	eP	12 42 45.0				332	Near Inubo-zaki.	
		eS	12 43 29.6						
		F	12 47 42--						
518	" 30	eP	14 23 54.7				2730	A distant shock.	
		S	14 28 17.8						
		F	14 47 04--						
519	Oct. 1	iP	2 21 47.6		+9	-4	+44	66	$\psi = 136.4E, \lambda = 35.8N.$ Lower course of the river Ane. Slight shock was felt at Kinki and Tubu district.
		S	2 21 56.5						
		MN	2 21 56.8	0.7		+230			
		Mz	2 21 57.7	0.8			-83		
		ME	2 21 58.2		-140				
		F	2 34 05--						
520	" 1	eP	14 36 15.4				423	$\psi = 141.4E, \lambda = 36.2N.$ In the Kasima-nada. Slight shock was felt at Kwanto district.	
		S	14 37 12.3						
		MN	14 37 34.9	2.8		+51			
		ME	14 37 42.2	2.7		-36			
		F	14 47 49--						

No.	Date	Phase	Time G. M. C. T			Period	Amplitude			Δ Epicentre- distance km.	Remarks
							AE	AN	AZ		
			h	m	s	"	μ	μ	μ		
521	Oct. 1	P	19	25	24.0				419	$\psi = 131.4E, \lambda = 32.9N.$ E. foot of Mt. Aso. (deep focus).	
		S	19	26	20.4						
		F	19	31	26-						
522	" 2	eP	3	34	23.4				297	$\psi = 140.8E, \lambda = 36.6N.$ In the Kasima-nada. Slight shock was felt NE. part of Kwanto district.	
		S	3	35	03.4						
		F	3	40	56-						
523	" 2	eP	15	48	32.8				2070	A distant shock.	
		eS	15	52	02.1						
		F	15	59	10-						
524	" 3	P	18	39	36.4				261	$\psi = 138.8E, \lambda = 37.2N.$ Near Tokamati in Niigata pref. Strong shock were felt Kwanto Tohoku and Tyubu districts. Strong shock was felt at Niigata pre.	
		eS	18	40	11.5						
		Me	18	40	30.4	3.2	+352				
		Mz	18	40	41.5				+61		
		MN	18	40	48.3	2.9		-410			
		F	18	58	35-						
525	" 4	eP	11	01	23.1				606	In the Hyuga-nada.	
		eS	11	02	29.7						
		F	11	08	06-						
526	" 4	e	17	31	08.8					A local shock. Faint record.	
		F	17	35	27-						
527	" 5	P	9	33	48.0				160	S. part of the Kii channel.	
		S	9	34	09.6						
		F	9	37	07-						
528	" 5	eP	13	37	22.3				1700	A distant shock. Epicenter unknown.	
		eS	13	40	18.0						
		F	13	49	53-						
529	" 7	eP	7	41	19.7				564	SE. sea off Inubo-zaki.	
		eS	7	42	22.1						
		F	7	47	47-						
530	" 8	eP	12	37	51.6				960	Ditto.	
		eS	12	39	35.7						
		F	12	45	44-						
531	" 9	eP?	11	28	19.2					Sea off cape of Sioya.	
		eS	11	29	24.7						
		F	11	32	34-						

No.	Date	Phase	Time			Period	Amplitude			△ Epicentre- distance	Remarks
			G.	M.	O. T.		AE	AN	Az		
			n	m	s				km.		
532	Oct. 9	eP	12	07	02.4		μ	μ	μ	176	ψ = 139.1E, λ = 35.5N. Upper course of the river Dosi. Strong shock was at the center. Slight shock were felt at over Kwanto districts.
		S	12	07	26.1						
		MN	12	07	35.9			+108			
		Mz	12	07	36.8				-44		
		ME	12	07	51.5		-101				
		F	12	08	55-						
533	" 11	eP	13	58	59.3					590	ψ = 141.9E, λ = 38.3N. E. sea off Kinkwazan. Slight shock were felt over Tohoku and NE. part of Kwanto district.
		S	14	00	04.5						
		ME	14	00	27.8	2.8	-30				
		MN	14	00	34.0	2.4		±40			
		F	14	08	46-						
534	" 13	e	12	22	42.9					Near Sawara in Tiba pref.	
		F	12	25	35-						
535	" 13	eP	17	48	52.3				215	In the bay of Wakanoura.	
		S	17	49	21.2						
		F	17	51	22-						
536	" 14	eP	12	50	08.8				840	N. sea off Ogasawara Is.	
		S	12	51	39.7						
		F	12	58	45-						
537	" 15	e	3	27	18.6					In the Sagami bay.	
		F	3	28	36-						
538	" 15	eP	8	14	27.9				391	ψ = 141.5E, λ = 37.5N. Sea off mouth of the river Uketo in Hukusima pref.	
		eS	8	15	20.5						
		F	8	18	23-						
539	" 15	eP	16	28	49.4				332	Near city of Tiba.	
		eS	16	29	34.1						
		F	16	32	10-						
540	" 16	e	4	43	47.6					ψ = 144.0E, λ = 42.4N. NE. sea off the cape of Erimo.	
		F	4	48	02-						
541	" 16	eP	22	01	23.2				304	ψ = 141.4E, λ = 36.6 N. In the Kashima-nada.	
		eS	22	02	04.2						
		F	22	05	15-						
542	" 17	e	12	05	54.3					A local shock? Feeble tremors.	
		F	12	06	53-						

No.	Date	Phase	Time			Period	Amplitude			Δ Epicentre- distance km.	Remarks
			G.	M.	C. T		AE	AN	AZ		
			h	m	s	s	μ	μ	μ		
543	Oct. 17	e	12	28	37 ?						Central Japan. Time approximate.
		F	12	42	25-						
544	" 19	eP	17	23	54.7				263		W. sea off Idu Is.
		eS	17	24	30.1						
		F	17	27	32-						
545	" 19	eP	17	31	46.7				188		Ditto.
		S	17	32	11.9						
		F	17	35	53-						
546	" 21	eP	2	45	24.5				620		SE. sea off Nozima-zaki.
		eS	2	46	32.4						
		MS	2	47	22.9	2.9		-51			
		ME	2	47	32.1	2.8	-32				
		F	3	01	10-						
547	" 22	e	11	58	16-						A distant shock. Epicenter unknown.
		F	12	04	12-						
548	" 23	eP	0	43	27.8				830		E. sea off Miyako.
		S	0	44	57.3						
		F	0	51	17-						
549	" 24	eP	18	15	12.7				680		Far ESE. sea off Inbozaki.
		S	18	16	26.7						
		F	18	20	28-						
550	" 25	e	23	47	52.9						A distant shock, probably NW. part of Arzentin?
		S	23	54	30-						
551	" 26	e	6	10	19.0						A local shock.
		F	6	13	03-						
552	" 26	e	6	38	23-						Ditto.
		F	6	40	39-						
553	" 26	eP?	12	25	28.0						Central Japan.
		S	12	27	25.0						
		F	12	33	-						
554	" 28	e	15	25	22.1						A local shock. Feeble tremors.
		F	15	27	40-						

No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			△ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
555	Oct. 28	e	16 36 52.2					A local shock.	
		F	16 38 29-						
556	" 28	e	17 33 17.5					A local shock? Feeble tremors.	
		F	17 35 30-						
557	" 28	e	21 39 15.5					Ditto.	
		F	21 41 40-						
558	" 30	eP?	7 09 27.7					Central Japan.	
		eS?	7 10 24.6						
		F	7 14 23-						
559	" 30	eP	14 01 22.3				610	Epicenter unknown.	
		eS	14 02 29.4						
		F	14 07 21-						
560	" 31	e	16 35 05.0					Near city of Koku	
		F	16 38 34-						
561	Nov. 1	eP	8 22 45.6				325	$\psi = 140.7E, \lambda = 35.7N.$ N. part of coast of Kuju- rigahama. Slight shock was felt at Kwanto district.	
		eS	8 23 29.4						
		Mz	8 24 00.2	0.8			+13		
		ME	8 24 02.6	2.6	+36				
		MN	8 24 03.1	2.4		+41			
		F	8 34 12-						
562	" 1	e	10 15 53.6					Ditto. Faint record.	
		F	10 17 33-						
563	" 1	eP	10 35 20.0				334	Ditto.	
		eS	10 36 04.9						
		F	10 38 31-						
564	" 1	e	18 14 50.0					In the Uraga str.	
		F	18 18 10-						
565	" 2	e	10 03 02.3					A local shock? Faint record.	
		F	10 06 39-						
566	" 3	eP	5 48 10.7				278	Near Itinomiya city in Tiba pref.	
		eS?	5 48 48.1						
		F	5 52 35-						

No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			△ Epicentre- distance km.	Remarks
					AE μ	AN μ	AZ μ		
			h m s						
567	Nov. 3	eP	10 53 30.9					300	SE. sea off Katuura.
		eS	10 54 11.4						
		F	10 59 —						
568	" 4	e	4 28 08.0					Epicenter unknown. Very faint record.	
		F	4 35 07—						
569	" 4	e	19 59 44.0					Near town of Syobara in Hirosima pref.	
		F	20 05 33—						
570	" 5	e	3 05 12.9					Sea off Yaku Is. in Kagosima pref.	
		F	3 10 23—						
571	" 5	eP	17 17 31.6				600	NW. sea off Hatijyo Is. (A deep focus).	
		eS	17 18 37.9						
		F	17 25 24—						
572	" 5	eP	20 43 15.0					A distant shock.	
		L	20 47 06.5						
		F	20 57 —						
573	" 6	eP	14 21 20.8				387	Sea off Kujuurigahama.	
		eS	14 22 12.9						
		F	14 26 42—						
574	" 6	eP	15 17 27.5					Ditto. Faint record.	
		eS	15 17 57.0						
		F	Covered						
575	" 6	eP	15 21 08.2				308	Ditto.	
		eS	15 21 49.7						
		F	15 28 09—						
576	" 6	e	15 57 27.6					In the Sagami bay. Faint record.	
		F	16 01 20—						
577	" 6	eP	17 53 35.4				272	Sea off Kujuurigahama.	
		eS	17 54 12.0						
		F	17 57 55—						
578	" 7	eP	1 41 41.5					Ditto.	
		eS	1 42 27.2						
		F	Covered						

No.	Date	Phase	Time G. M. C. T			Period s	Amplitude			△ Epicentre distance km.	Remarks
							AE μ	AN μ	Az μ		
579	Nov. 7	eP?	1	44	07.2				286	Sea off Kujukurigahama.	
		eS	1	44	45.7						
		F	1	48	29-						
580	" 7	eP	16	59	58.7				361	At the coast of Kujyukurigahama.	
		eS	17	00	47.4						
		F	17	09	45-						
581	" 8	eP	5	45	52.5				765	ψ=142.3E, λ=41.3N. ESE. sea off the cape of Siriya.	
		eS?	5	47	16.0						
		F	5	52	23-						
582	" 8	iPz	17	38	50.6				50	A local shock. Near Mitake in Gihu pref. Slight shock was felt at the center.	
		S	17	38	57.4						
		Mz	17	38	57.5						
		Me	17	38	58.1	0.5	-78	+20			
		MN	17	38	59.5	0.6		-46			
		F	17	47	57-						
583	" 10	e	5	43	42.5					Epicenter unknown. Weakly waves.	
		F	5	49	12-						
584	" 11	eP	9	33	31.6				326	SE. sea off the cape of Nozima.	
		eS	9	34	15.5						
		F	9	38	24-						
585	" 11	eP?	13	29	52.1					Ditto.	
		S	13	30	28.2						
		F	13	35	19-						
586	" 11	eP	22	15	20.6				211	Mt. Asama.	
		eS	22	15	49.0						
		F	22	20	17-						
587	" 12	e	7	02	56.3					Lower cours of the river Kinu.	
		F	7	07	08-						
588	" 14	eP?	0	27	14.5					SE. sea off the cape of Nozima. P: and S: uncertain.	
		eS?	0	28	11.9						
		F	0	32	18-						
589	" 16	eP	13	54	49.3				100	S. part of Sima peninsula.	
		S	13	55	02.7						
		F	13	57	23-						

No.	Date	Phase	Time G. M. C. T			Period s	Amplitude			Δ Epicentre- distance km.	Remarks
							μ AE	μ AN	μ AZ		
590	Nov. 16	eP	13	57	51.3				112	Ditto. Slight shock was felt near the center.	
		S	13	58	06.4						
		ME	13	58	12.1	0.8	-36				
		MN	13	58	19.3	0.9		-38			
		Mz	13	58	12.8	0.9		+12			
		F	14	05	23-						
591	" 16	eP	21	01	52.0				222	Near city of Wakayama?	
		S	21	02	21.9						
		F	21	05	43-						
592	" 19	eP	1	34	30.6				289	$\psi = 139.0E, \lambda = 32.6N.$ SW. off Hatijyo Is. (deep focus)	
		S	1	35	09.5						
		F	1	40	10-						
593	" 19	e	3	21	39.7					A surface wave of distant shock.?	
		F	3	26	-						
594	" 19	eP	20	27	51.9				420	Sea off Katuura.	
		eS	20	28	48.5						
		F	20	32	26-						
595	" 20	eP	1	36	40.5				284	$\psi = 140.7E, \lambda = 36.0N.$ In the Kasima-nada. Slight shock was felt at Kwanto district.	
		eS	1	37	18.7						
		F	1	40	23-						
596	" 20	P	23	32	47.9					A distant earthquake. SW. off Green land.	
		PP	23	33	56.3						
		PPP	23	35	05.6						
		L	23	50	08.8						
		F	0	50	-						
597	" 22	e	12	23	26.8					NW. sea off Amami Osima.	
		F	12	27	29-						
598	" 22	eP	12	50	09.0					A distant shock. In the South Ocean.	
		L	13	00	11.0						
		F	13	20	34-						
599	" 22	e	16	56	56.5					Near Amami Osima.	
		F	16	59	-						
600	" 22	P								P: uncertain. Near sea of Amami Osima.	
		eS?	19	01	43.5						
		F	19	12	12.7						

No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			Δ Epicentre- distance km.	Remarks	
					A _E μ	A _N μ	A _Z μ			
601	Nov. 22	eP?	22 32 21.0					P: uncertain. Near sea of Amami Osima.		
		eS?	22 34 09.9							
		F	Covered							
602	" 22	eP?	22 35 17.3					Ditto.		
		eS	22 37 07.3							
		F	22 48 —							
603	" 23	eP	4 59 36.2				225	Near Tokamati in Niigata pref.		
		eS	5 00 06.5							
		F	5 04 57—							
604	" 26	e	8 26 12.5					A local shock? Feeble tremors.		
		F	8 28 51—							
605	" 27	eP	7 51 03.5				362	$\psi = 141.1E, \lambda = 36.4N.$ In the Kasima-nada.		
		S	7 51 52.3							
		F	7 56 48—							
606	" 27	eP	19 16 09.9				620	$\psi = 143.2E, \lambda = 39.7N.$ Far E. sea off Miyako. Slight shock were felt at Iwate, Aomori & Akita pref.		
		eS	19 17 18.1							
		M _N	19 17 49.1						3.2	± 19
		M _E	19 17 52.2						3.2	+13
		F	19 25 46—							
607	" 28	eP	12 03 30.9				40	Lower cours of the river Kiso. A local shock.		
		S	12 03 36.3							
		F	12 04 24—							
608	Dec. 1	eP?	17 46 54.6				670	In the bay of Ariake in Kyushu.		
		S	17 48 07.4							
		F	17 54 16—							
609	" 2	e	6 07 57.7					E. sea off Katuura.		
		F	6 14 54—							
610	" 2	e	8 46 45.3				660	Far ESE. sea of Taito in Taiwan. P: uncertain.		
		S	8 47 57.2							
		F	8 56 16—							
611	" 3	eP	2 08 49.5				164	Vicinity of Wakayama.		
		S	2 09 11.6							
		F	2 13 17—							
612	" 3	e	7 07 32.8					Ditto. Feeble tremors.		
		F	7 10 01—							

No.	Date	Phase	Time G. M. C. T			Period	Amplitude			△ Epicentre- distance	Remarks
							AE	AN	Az		
			h	m	s	s	μ	μ	μ	km.	
613	Dec.	3	e	19	29	13.7					Near Simoduma in Ibaragi pref.
			F	19	32	13-					
614	"	3	eP	22	36	04.5				178	Vicinity of Wakayama.
			S	22	36	28.4					
			F	22	44	06-					
615	"	4	iP	19	36	46.7		-9		1250	ψ=144.0E, λ=45.2N. Far E. sea off the Soya str. Slight shock were felt S. part of Hokkaido and N. part of Tohoku district.
			S	19	38	59.5					
			ME	19	39	05.7	3.5	±260			
			MN	19	39	06.2	3.9		-170		
			Mz	19	39	13.3			+25		
			F	19	55	51-					
616	"	6	eP	19	21	23.7				228	ψ=141.5E, λ=37.0N. E. sea off the cape of Sioya.
			S?	19	22	29.7					
			F	19	28	12-					
617	"	7	iPz	18	35	53.0				176	ψ=139.04E, λ=35.04N. NE. part of Idu peninsula. Strong or Slight shocks were felt all Kwanto and S. part of Tyubu district.
			S	18	36	16.7					
			MN ⁽¹⁾	18	36	17.3	1.3		-142		
			ME	18	36	17.5	1.3	±143			
			Mz	18	36	19.9	1.1				
			MN ⁽²⁾	18	36	43.4	1.7		-52		
618	"	8	eP	1	05	21.5				228	N. sea off Noto peninsula.
			S	1	05	52.2					
			F	1	10	04-					
619	"	10	eP	14	16	26.0				417	ψ=142.0E, λ=38.3N. SE. sea off Kinkwazan.
			eS	14	17	22.1					
			F	14	21	58-					
620	"	11	e	15	21	23.8				247	Near the mouth of the river Naka in Ibaragi pref.
			F	15	23	44-					
621	"	11	eP	17	03	25.0				247	Near the mouth of the river Naka in Ibaragi pref.
			eS	17	03	58.2					
			F	17	06	29-					
622	"	11	e	22	35	52.6				247	Near cape of Sioya.
			F	22	39	03-					

No.	Date	Phase	Time G. M. C. T	Period s	Amplitude			△ Epicentre- distance km.	Remarks
					AE μ	AN μ	Az μ		
623	Dec. 16	P	n m s 19 36 54.2					186	Near Wakayama.
		eS	19 37 19.2						
		F	19 40 28—						
624	" 17	eP	0 55 03.1					410	Sea off Kujyukuri-hama.
		eS	0 55 58.4						
		F	0 58 44—						
625	" 19	e	17 44 01.3						SE. sea off Kinkwazan. Faint record.
		F	17 45 26—						
626	" 21	e	3 39 45.7						Near Yokohama?
		F	3 41 47—						
627	" 21	eP	23 11 09.6						NW. sea off Ogasawara Is.
		eS?	23 12 13.9						
		F	23 15 58—						
628	" 24	e	0 53 45.9						A local shock? Feeble tremors.
		F	0 54 21—						
629	" 25	eP	20 09 35.0					26	A local shock.
		S	20 09 38.5						
		F	20 10 02--						
630	" 26	e	5 53 50.4						Ditto. Feeble tremors.
		F	5 55 30—						
631	" 28	eP	14 51 28.3						In the Kashima-nada.
		eS?	14 52 26.9						
		F	14 54 44—						
632	" 29	e	3 58 07.6						NE. sea off the cape of Sioya. Very faint record.
		F	3 59 48—						
633	" 30	e	2 52 08.1						Sea off Kinkwa-zan.
		F	2 54 04.0						
634	" 31	P	12 46 06.6						SSE. sea off Hatijyo Is.
		eS?	12 46 57.9						
		F	12 50 18—						

The end.