SEISMOLOGICL BULLETIN

OF THE

IMPERIAL MARINE OBSERVATORY

AND

KOBE METEOROLOGICAL OBSERVATORY.

KOBE, JAPAN.

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CONTENTS

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SEISMOLOGICAL BULLETIN

of the Imperial Marine Observatory and the Kobe Meteorological Observatory of Japan.

$\varphi = 34^\circ\ 41'\ 18''$ $\lambda = 135^\circ\ 10'\ 51''$ h = 58.3 m Underground : Diluvial Series.

Instrument : Omori's Seismograph (Horizontal Pendulum.) — Wiechert Seismograph (Horizontal & Vertical)

Jan.

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	16.7		0.001	20
AN:	15.1		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	3.6	Aperiodic	0.006	101
AN:	3.7	"	0.007	101
AZ:	3.8	3.9	0.002	62

Feb.

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	17.0		0.001	20
AN:	16.2		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	3.6	Aperiodic	0.008	106
AN:	3.6	"	0.009	102
AZ:	3.5	6.9	0.002	70

Mar.

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	16.8		0.001	20
AN:	16.2		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	3.6	Aperiodic	0.008	106
AN:	3.6	"	0.009	102
AZ:	3.5	4.6	0.002	70

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
1	Jan. 1	P	8 03 09					95	Mouth of the Kii river, Wakayama prefecture.
		S	8 03 17						
		L	8 03 22						
		ME	8 03 22	0.4	±13				
		MN	8 03 22	0.4		±10			
		MZ	8 03 22				±5		
		FE	8 03 58						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		F_N	8 03 52						
		F_Z	8 03 45						
									Near Neze, Ryukyu Ils.
2	Jan. 3	i	5 02 16						
		M_E	5 02 17		+7				
		M_N	5 02 17			±5			
		F_E	5 02 42						
		F_N	5 02 40						
3	Jan. 5	P	1 24 16					2210	Kamchatka district.
		S	1 27 57						
		S_Z	1 27 58						
		M_E	1 28 05		−32				
		M_N	1 28 05	4.2		+48			
		M_Z	1 28 13	4.7			−52		
		eF_{EN}	1 37 ±						
		eF_Z	1 34 ±						
4	Jan. 5	eP	18 56 08						SE off Syakotan Isl, Kurile Ils. Moderate shocks were felt at epicentral region.
		eF_{EN}	19 04 ±						
		eF_Z	19 01 ±						
5	Jan. 10	eP_E	18 15 28						Southern part of Hiuga nada. Moderate shocks were felt at Southern part of Kyusyu.
		eP_Z	18 15 45						
		e	18 15 48						
		e_N	18 15 56						
		e_E	18 16 07						
		eL_E	18 16 48						
		eL_N	18 16 55						
		M_E	18 16 57	1.9	−13				
		M_N	18 17 08	2.1		−15			
		M_Z	18 16 57	2.0			−12		
		eF_E	18 27 ±						
		eF_N	18 26 ±						
		eF_Z	18 23 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
6	Jan. 11	P	21 22 26						NNW far off Bonin Isl.
		L	21 23 37						
		eM_E	21 23 39		±6				
		eM_N	21 23 39	1.8		±7			
		eF_E	21 29 ±						
		eF_N	21 30 ±						
7	Jan. 13	P	20 43 52					53	Mouth of Kii river. Wakayama prefecture.
		S	20 43 59						
		M_E	20 44 00	0.5	±33				
		M_N	20 44 00	0.5		±26			
		M_Z	20 44 00				±6		
		F_{EN}	20 46 34						
		F_Z	20 45 36						
8	Jan. 18	P	19 59 45					267	Deep earthquake ?. Inscribed at Nagoya and Sumoto.
		L	20 00 21						
		M_E	20 00 22	1.6	+17				
		M_N	20 00 21	1.6		+12			
		M_Z	20 00 22	1.6			−8		
		F_E	20 01 31						
		F_N	20 01 40						
		F_Z	20 01 33						
9	Jan. 25	eP_Z	1 44 03						SE off philippine.
		e_Z	1 44 51						
		eF	1 49 ±						
10	Jan. 25	M_{SE}	14 41 02						In the Kii channel.
		F	14 41 23						
11	Jan. 26	eP	4 23 20					22	Local shock.
		L	4 23 23						
		M	4 23 24						
		F	4 23 33						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	SW far off Bonin Isl.
12	Jan. 26	ePNE	12 24 45						
		eF	12 33 ±						
13	Jan. 30	eP	4 41 14					45	Lower basin of the Kii river, Wakayama prefecture.
		i	4 41 20						
		L	4 41 24						
		M_E	4 41 25	0.6	±15				
		M_N	4 41 25	0.6		±17			
		M_Z	4 41 24						
		F_E	4 42 10						
		F_N	4 42 15						
		F_Z	4 42 53						
14	Jan. 31	P	0 03 17					28	Harima nada, Inland sea.
		L	0 03 21						
		M_E	0 03 22	0.5	±22				
		M_N	0 03 22	0.5		±28			
		M_Z	0 03 21				±8		
		F_E	0 03 57						
		F_N	0 04 03						
		F_Z	0 04 17						
15	Feb. 1	P	23 08 48						In the Kasima sea.
		P_Z	23 08 39						
		e	23 10 03						
		eF	23 15 ±						
16	Feb. 2	P	15 02 59					3840	In the Okhotsk sea.
		iPZ	15 03 01						
		S	15 08 37						
		eL	15 14 12						
		M_E	15 15 08						
		M_{SW}	15 15 07	21.6		±7			
		eF	15 26 ±						
17	Feb. 5	e	13 29 42						Severe microseisms.

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eL	13 30 50						Near Raizan, SW of Fukuoka city. Moderaye shocks were felt at the epicentral region.
		M_N	13 30 53						
		eF_{EN}	13 32 ±						
		eF_Z	13 32 ±						
18	Feb. 7	P	2 40 53					30	Near Miyama, Kyoto prefecture. Moderate shocks were felt at Northern part of Settu province.
		P_Z	2 40 52						
		L	2 40 57						
		L_Z	2 40 56						
		M_E	2 40 58						
		M_N	2 40 58						
		M_Z	2 40 58						
		F_E	2 42 02						
		F_N	2 42 13						
		F_Z	2 42 32						
19	Feb. 7	P	3 16 41					27	Ditto.
		P_Z	3 16 40						
		L	3 16 44						
		L_Z	3 16 43						
		M_E	3 16 44		±4				
		M_N	3 16 44			±3			
		F_E	3 17 37						
		F_N	3 17 21						
		F_Z	3 17 08						
20	Feb. 7	eP	3 28 03						In the Kii channel.
		M_E	3 28 04						
		M_N	3 28 04						
		M_Z	3 28 02						
		F_E	3 28 44						
		F_N	3 28 28						
		F_Z	3 28 17						
21	Feb. 7	P	3 34 26					29	Same to No 18.
		L	3 34 30						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_E	3 34 31		±31				
		M_N	3 34 30			±13			
		M_Z	3 34 31				±21		
		F_E	3 35 42						
		F_N	3 35 39						
		F_Z	3 35 52						
22	Feb. 7	e	3 36 30						An after shock of No. 17.
		eF	3 41 ±						
23	Feb. 7	e	4 49 24						Local shock.
		L	4 49 25						
		M_E	4 49 25		±3				
		M_N	4 49 25			±2			
		F_E	4 49 39						
		F_N	4 49 35						
		eF_Z	4 49 37						
24	Feb. 7	e?	6 22 43						Ditto.
		M_E	6 22 46	0.9	±3				
		M_N	6 22 45	0.9		±5			
		F_E	6 22 48						
		F_N	6 22 50						
25	Feb. 7	eP	8 44 15						In the Kasima sea.
		eF_E	8 54 ±						
		eF_N	8 53 ±						
		eF_Z	8 52 ±						
26	Feb. 7	P	20 11 51						NW of the Osaka bay. Time is uncertain.
		L	20 11 54						
		M_E	20 11 55		±9				
		M_N	20 11 55			±7			
		M_Z	20 11 53				±6		
		F_E	20 12 23						
		F_N	20 12 18						

No	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eF_Z	20 12 27						
*27	Feb. 11	P	0 12 09					48	Off the Mouth of the Kii river. Strong shocks were felt at Wakayama city. Perceptible at Kinki district. Time is uncertain.
		S	0 12 16						
		M_1E	0 12 19	1.4	−363				
		M_1N	0 12 29	1.4		±402			
		M_1Z	0 12 33	3.4			±270		
		M_2E	0 13 33	3.1	±382				
		M_2N	0 13 30	2.5		±526			
		M_2Z	0 13 31	3.1			±330		
		M_3E	0 14 10	3.1	±525				
		eF	0 24 ±						
28	Feb. 13	P_E	11 43 17					82	An after shock of No. 27.
		P_N	11 43 17						
		L	11 43 28						
		M_E	11 43 30	0.5	+3				
		M_N	11 43 30	0.5		±3			
		F_E	11 43 46						
		F_N	11 43 49						
		F_Z	11 43 42						
29	Feb. 13	eP	12 41 26						Local shock.
		eF	12 43 04						
30	Feb. 14	eP	16 05 49						An after shock of No. 27.
		eL	16 05 56						
		M_E	16 05 57	0.7	±3				
		eF_E	16 06 14						
		eF_N	16 06 20						
		eF_Z	16 06 13						
31	Feb. 14	e_E	22 54 53						Northern part of Bungo channel.
		e_N	22 55 12						
		e_E	22 55 41	0.6					
		eL_N	22 55 37						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eFE	22 56 50						
		eFN	22 56 58						
32	Feb. 15	L	23 40 33						An after shock of No. 27.
		ME	23 40 35		±3				
		MN	23 40 35						
		FE	23 40 55						
		FN	23 41 03						
33	Feb. 18	MN	7 38 10	1.8		±3			Local shock.
		F	7 38 27						
34	Feb. 18	eP	8 36 43					50	An after shock of No. 27.
		L	8 36 50						
		ME	8 36 50	0.5	±11				
		MN	8 36 56	1.3		±7			
		eFE	8 40 ±						
		eFN	8 39 ±						
35	Feb. 19	L	22 42 54						An after shock of No. 27.
		ME	22 42 54	0.4	±7				
		MN	22 42 54	0.4		±3			
		FE	22 43 21						
		FN	22 43 23						
36	Feb. 20	ePE	23 37 40						Near Itô, Izu province. Moderate shocks were felt at epicentral region.
		iSE	23 38 30						
		LN	23 38 41						
		ME	23 38 50	1.8	–				
		MN	23 38 46	1.6		−14			
		eFEN	23 44 ±						
37	Feb. 21	PN	7 55 20						
		L	7 55 26					39	Local shock.
		F	7 55 46		±3				

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
38	Feb. 22	eSW	5 32 28						An after shock of No. 27 ?.
		eFWS	5 36 ±						
39	Feb. 22	eE	5 49 39						Near Itô, Izu province.
		L	5 49 51						
		ME	5 49 59						
		eF	5 53 ±						
40	Feb. 22	P	11 22 47						Ditto.
		S	11 23 23						
		L	11 23 33						
		ME	11 23 40	2.0	+14				
		MN	11 23 41	1.9		−11			
		eFE	11 30 ±						
		eFN	11 29 ±						
41	Feb. 22	P	18 20 13						Near Miyazu, Kyoto prefecture.
		L	18 20 25						
		ME	18 20 25	0.4	±6				
		MN	18 20 30	0.4		±8			
		FE	18 21 00						
		FN	18 21 04						
42	Feb. 23	ME	5 36 13		±3				In the Kii channel.
		MN	5 36 13			±2			
		F	5 36 52						
43	Feb. 23	P	7 55 22						Ditto.
		PZ	7 55 22						
		L	7 55 34						
		ME	7 55 35	0.5	±13				
		MN	7 55 34	0.5		±9			
		MZ	7 55 35	0.5			±3		
		FE	7 56 33						
		FN	7 56 42						
		FZ	7 56 31						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
44	Feb. 23	L	11 30 12						An after shock of No. 27.
		ME	11 30 13	0.6	±3				
		M_1N	11 30 13			±2			
		M_2N	11 30 18	0.5		±2			
		FE	11 30 50						
		FN	11 31 04						
45	Feb. 24	ePZ	20 57 22						Deep earthquake. Near Kii peninsula.
		eN	20 58 04						
		eZ	20 58 03						
		eLE	20 59 18						
		ME	21 01 05	2.5	±4				
		eF	21 03 ±						
46	Feb. 28	P	7 48 39					82	An after shock of No. 27.
		L	7 48 50						
		ME	7 48 51	0.8	−8				
		MN	7 48 51						
		FEN	7 49 18						
		FZ	7 49 15						
47	Feb. 28	eP	9 31 58						Near Itô, Izu province.
		S	9 32 26						
		iE	9 32 46						
		eLE	9 33 12						
		ME	9 33 16						
		eF	9 36 ±						
48	Mar. 1	eP	17 43 57						Near Tiba city.
		eL	17 44 35						
		eF	17 48 ±						
49	Mar. 2	P	0 32 31						
		L	0 32 36					36	Western part of the Osaka bay.
		MSW	0 32 37	0.3	±2				
		F	0 32 55						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
50	Mar. 3	eP	18 51 29					365	Near Itô, Izu province.
		SE	18 52 06						
		LN	18 52 18						
		ME	18 52 27	1.5	±11				
		MN	18 52 23	1.4		±9			
		MZ	18 52 23	1.6			±7		
		eFEN	18 56 ±						
		eFZ	18 55 ±						
51	Mar. 3	P	20 11 54					359	Near Ito, Izu province. Moderate shocks were felt at Ito.
		S	20 12 30						
		LN	20 12 43						
		MN	20 12 51	2.1		±12			
		MZ	20 12 56	2.4			±11		
		eFE	20 19 ±						
		eFN	20 20 ±						
		eFZ	20 18 ±						
52	Mar. 5	P	10 36 20					71	Basin of the Arita river, Wakayama prefecture.
		L	10 36 29						
		ME	10 36 31	0.7	±14				
		MN	10 36 31	0.6		±11			
		F	10 37 04						
53	Mar. 5	iP	13 31 16			−2	−1	76	Ditto.
		L	13 31 26						
		ME	13 31 27	0.4	+23				
		MN	13 31 27	0.6		−14			
		MZ	13 31 30	0.6			−14		
		FE	13 32 04						
		FN	13 32 23						
		FZ	13 31 56						
54	Mar. 6	P	3 33 37					860	NNW off Bonin Ils. Weak shocks were felt at Bonin Ils.
		iS	3 35 10						
		ME	3 35 11	3.0	−49				

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		MN	3 35 11	3.0		−45			
		MZ	3 35 12	2.2			−22		
		eFEN	3 40 ±						
		eFZ	3 42 ±						
55	Mar. 7	PZ	10 53 54						South off Yaku Isl, Ryukyu Ils.
		eF	11 01 ±						
56	Mar. 8	ePN	19 40 28					385	Near Ito, Izu province. Strong shocks were felt at Ito.
		iE	19 40 39						
		iN	19 40 33						
		SE	19 41 08						
		L	19 41 20						
		ME	19 41 29	1.5	±11				
		MN	19 41 23	1.6		±8			
		MZ	19 41 22				±9		
		eFE	19 45 ±						
		eFNZ	19 46 ±						
57	Mar. 9	e	9 44 24						Deep earthquake.? Inscribed at Nagoya, and Sumoto.
		eN	9 45 18						
		eFE	9 49 ±						
		eFN	9 50 ±						
58	Mar. 9	P	10 55 25						
		SE	10 56 03					368	Same of No. 56.
		LN	10 56 15						
		ME	10 56 23	1.8	±43				
		MN	10 56 19	1.5		±26			
		MZ	10 56 28	2.6					
		eFE	11 05 ±				±23		
		eFN	11 04 ±						
		eFZ	11 06 ±						
59	Mar. 9	ePN	20 23 57						
		eE	20 24 35						Near Ito, Izu province. Faint record.

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eN	20 24 46						
		eF	20 27 ±						
60	Mar. 10	iP	16 31 06			+1.0	−1.4	1670	East off Karafuto, (Saghalin).
		e	16 31 08						
		PME	16 31 10	1.2	±27				
		PMN	16 31 10	0.9		±33			
		PMZ	16 31 10	1.4			±31		
		iS	16 34 00						
		ME	16 34 03	2.2	±20				
		MN	16 34 03	2.2		±20			
		MZ	16 34 03				±10		
		eFE	16 44 ±						
		eFN	16 42 ±						
		eFZ	16 40 ±						
61	Mar. 11	P	23 35 40.9					7	Local shock With earth sound.
		S	23 35 41.9						
		ME	23 35 43		±30				
		MN	23 35 42			±47			
		MZ	23 35 42				±30		
		FE	23 36 16						
		FN	23 36 22						
		FZ	23 36 18						
62	Mar. 12	eP	3 47 12						Near Ito, Izu province. Faint record.
		e	3 47 22						
		eLE	3 48 07						
		eF	3 50 ±						
63	Mar. 12	eP	19 30 13						Near Ito, Izu province. Disturbed by micro-seisms.
		eF	19 35 ±						
64	Mar. 14	MN	1 07 53			±13			Local shock.
		F	1 07 59						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
									Near Ito, Izu province.
65	Mar. 14	eP?	5 20 34						
		eS	5 21 09						
		M_E	5 21 10		±9				
		M_N	5 21 12			±8			
		eF	5 25 ±						
66	Mar. 15	eP	9 34 47					313	Near Ito, Izu province. Strong shocks were felt at Ito.
		eS	9 35 18						
		L_N	9 35 29						
		M_E	9 35 33	1.1	±11				
		M_N	9 35 29	1.5		±7			
		M_Z	9 35 30	2.0			±7		
		eF_E	9 41 ±						
		eF_N	9 40 ±						
		eF_Z	9 42 ±						
67	Mar. 16	P	5 04 05						In the Ensyu nada.?
		eS	5 05 23						
		M_{SW}	5 05 56	3.5	±7				
		eF	5 10 ±						
68	Mar. 17	P	10 11 01						Mouth of Kii river, Wakayama prefecture. Weak shocks were felt at Wakayama.
		L	10 11 08						
		M	10 11 09		±11	±15	±3		
		eF	10 15 ±						
69	Mar. 17	eP_N	10 24 34						In the Kasima sea. Very faint.
		eP_E	10 24 44						
		eF	10 27 ±						
70	Mar. 19	eP	1 17 36						Near Ito, Izu province. Moderate shocks were felt at Ito.
		S_E	1 18 11						
		L_N	1 18 22						
		M_E	1 18 32	2.2	±9				
		M_N	1 18 32	2.2		±5			
		eF_E	1 24 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eF_N	1 25 ±						
71	Mar. 19	P	4 43 19					74	Near Okayama.
		L	4 43 29						
		M	4 43 30		±6	±8			
		F	4 43 56						
72	Mar. 20	eP	4 15 30						Mouth of Kii river, Wakayama prefecture. Very faint.
		L	4 15 40						
		M_N	4 15 41	0.8	±4				
		eF	4 16 16						
73	Mar. 21	eP_E	14 25 03					347	Near Ito, Izu province.
		e_N	14 25 05						
		e_E	14 25 13						
		e_N	14 25 09						
		S_E	14 25 38						
		L_N	14 25 50						
		M_E	14 25 52	2.2	±11				
		M_Z	14 26 03	1.9			±9		
		eF_{EN}	14 30 ±						
		eF_Z	14 31 ±						
74	Mar. 22	e	3 27 01						Local shock. Very small movement.
		eF_N	3 27 23						
75	Mar. 22	eP	8 03 34						Near Ito, Izu province. Very small movement
		i	8 03 42	0.6		±4			
76	Mar. 22	e	8 04 45						Near Ito, Izu province. Strong shocks were felt at near epicentral region.
		S	8 05 00						
		L_N	8 05 04						
		M_{EN}	8 05 10	2.4	−4	±2			
		M_Z	8 05 15	2.3			±2		
		eF	8 10 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
77	Mar. 22	iP	8 51 26					369	Near Ito, Izu province. Strong shocks were felt at epicentral region.
		iSE	8 52 04						
		iLN	8 52 16						
		M_1E	8 52 42	3.6	+118				
		M_1N	8 52 42	3.6		+122			
		MZ	8 52 36	2.7			−77		
		M_2E	8 54 04	3.3	−79				
		M_2N	8 54 01	3.3		−73			
		eFE	9 10 ±						
		eFNZ	9 09 ±						
78	Mar. 22	PN	12 05 45					82	An after shock of North Tango earthquake, On March, 7, 1927.
		LE	12 05 56						
		MEN	12 05 59	0.8	±7	±8			
		MZ	12 05 58				±6		
		FEN	12 06 55						
		FZ	12 06 45						
79	Mar. 25	e	1 31 17						Local shock. Very small movement.
		eF	1 31 30						
80	Mar. 25	P?	11 31 10	3.4	−4	−3	−2		NNW far off Bonin Ils.
		eSN	11 32 00						
		eFEN	11 40 ±						
		eFZ	11 35 ±						
81	Mar. 26	P	5 23 33						
		iSE	5 24 13	2.4	+10			391	Near Ito, Izu province. Moderate shocks were felt at Ito.
		L	5 24 26						
		ME	5 24 35	2.1	−19				
		MN	5 24 37	2.4					
		MZ	5 24 39	2.5		+16			
		eF	5 35 ±				−14		
82	Mar. 26	P	7 20 08						
		eN	7 21 40	3.3		±17		4400	Probable epicenter, 7.6°S 124.8°E (J.S.A.)

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eN	7 23 20	3.3					
		SE	7 26 32						
		SN	7 26 18	20.5		±17			
		LE	7 29 47						
		eZ	7 32 24	22.9					
		ME	7 30 59	16.4					
		MN	7 37 23	16.4		±10			
		MZ	7 35 21	20.6			±10		
83	Mar. 26	eP	7 41 52						Related to No. 82.
		eF	8 05 ±						
84	Mar. 26	PN	11 40 08						A distant earthquake. By Omori's seismograph Related to No. 82.
		SN	11 46 02						
		eLN	11 50 11						
		eF	12 07 ±						
85	Mar. 26	P	16 42 22					362	Near Ito, Izu province.
		i	16 42 32		+5	+4	−2		
		iS	16 43 00						
		LN	16 43 11						
		ME	16 43 23	1.8	−25				
		MN	16 43 18						
		MZ	16 43 18				−2		
		eFEN	16 52 ±						
		eFZ	16 47 ±						
86	Mar. 28	eP	11 38 01						Upper course of Yosino river, Sikoku district. Very small.
		eF	11 38 24						
87	Mar. 28	iP	15 49 56					59	South of Wakayama city.
		iL	15 50 04						
		MEN	15 50 05	0.5	+17	+14			
		MZ	15 50 06				±6		
		FE	15 50 32						
		FNZ	15 50 26						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
88	Mar. 29	iS ?	0 57 04	3.2	−6	−13	+3		West far off Hatidyo Isl.
		eF	1 03 ±						
89	Mar. 29	e	15 07 44						Near Ito, Izu province.
		M_E	15 09 05						
		eF_E	15 12 ±						
		eF_N	15 10 ±						
90	Mar. 30	eP	0 32 07						A distant earthquake. Faint record.
		eS	0 36 37						
		eF	0 46 ±						
91	Mar. 30	iP	5 08 09		−3	+6	+7	384	A far off Onmae cape, Sizuoka prefecture.
		S	5 08 51						
		eF	5 12 ±						
92	Mar. 30	P_N	15 27 31					4330	A distant earthquake. Related to No. 82.
		eS_N	15 33 37	15.9					
		eL_N	15 37 03						
		eF	15 53 ±						
93	Mar. 30	eP	20 10 10					301	Northern part of Bungo channel.
		S	20 10 44						
		M_E	20 11 08	1.3	±10				
		M_N	20 11 03			±8			
		eF	20 13 ±						

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kobe Meteorological Observatory of Japan.

$\varphi = 34^\circ\ 21'$ $\lambda = 134^\circ\ 53'$ h = 109.0 m. Underground: Cretaceous.

Instruments: Omori's Seismograph. (Horizontal Pendulum)

Wiechert Seismograph. (Horizontal & Vertical)

Jan.

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	16.9	1.9	0.002	20
A_N:	17.0	3.0	0.005	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4.5	Aperiodic	0.003	122
A_N:	4.8	,,	0.004	106
A_Z:	4.2	2.9	0.002	95

Feb.

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	17.2	2.0	0.003	20
A_N:	17.8	3.0	0.005	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4.6	Aperiodic	0.001	113
A_N:	4.9	,,	0.002	103
A_Z:	4.6	2.6	0.003	84

Mar.

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	17.2	2.0	0.003	20
A_N:	17.3	3.0	0.005	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	3.6	Aperiodic	0.001	113
A_N:	4.9	,,	0.002	104
A_Z:	4.6	2.6	0.003	84

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
1	Jan. 1	iP	8 03 05					34	Mouth of the Kii river, Wakayama prefecture.
		S	8 03 10						
		M_E	8 03 11	0.4	±4				
		M_N	8 03 11	0.4		+5			
		M_Z	8 03 11	0.3			±3		
		F	8 04 05						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km	
								2220	Kamchatka district.
2	Jan. 5	P	1 24 22						
		S	1 28 04						
		ME	1 28 15	6.8	±20				
		MN	1 28 18	6.4		±12			
		MZ	1 28 07	5.1			±26		
		eF	1 45 ±						
3	Jan. 5	eP	18 55 57						SE off Syakotan Isl, Kurile Ils.
		eF	19 06 ±						
4	Jan. 8	eP	6 11 29					32	Local shock.
		eS	6 11 33						
		MN	6 11 33	0.3		±1			
		eF	6 11 44						
5	Jan. 10	P	18 15 21						Southern part of Hiuga Nada. Moderate shocks were felt at Southern part of Kyusyu.
		ME	18 16 52	2.9	−14				
		MN	18 17 06	2.9		+12			
		MZ	18 16 53	3.6			±7		
		eF	18 33 ±						
6	Jan. 11	P	21 22 28						
		S	21 23 37					508	NNW far off Bonin Isl.
		ME	21 23 37	2.0	+7				
		MN	21 23 38	2.9		±3			
		MZ	21 23 37	2.0			−2		
		eF	21 28 ±						
7	Jan. 11	P	23 52 32						
		S	23 52 36					28	Mouth of the Kii river, Wakayama prefecture. Time is uncertain.
		ME	23 52 36	0.3	−3				
		MN	23 52 36	0.4		±4			
		MZ	23 52 36				±1		
		F	23 53 09						
*8	Jan. 13	P	20 43 47						
		S	20 43 51					28	Mouth of the Kii river, Wakayama prefecture. Perceptible.
		ME	20 43 52	0.4	−30				
		MN	20 43 52	0.4		−35			
		F	20 45 20						
9	Jan. 14	P	3 38 26					19	Mouth of the Kii river, Wakayama prefecture.
		S	3 38 28						
		ME	3 38 29	0.4	−3				
		MN	3 38 29	0.4		−3			
		MZ	3 38 31				±1		
		F	3 38 49						
10	Jan. 14	P	18 50 19					10	In the Kii channel.
		S	18 50 21						
		ME	18 50 21	0.4	+2				
		MN	18 50 22	0.4		+2			
		F	18 50 33						
11	Jan. 18	eS	15 29 46						Local shock.
		eF	15 30 ±						
12	Jan. 18	eP	19 59 46					282	Deep earthquake. ? Inscribed at Kobe and Nagoya.
		eS	20 00 24						
		ME	20 00 24	1.7	+2				
		MN	20 00 24	1.4		−3			
		MZ	20 00 24	1.4			±1		
		eF	20 02 ±						
13	Jan. 25	P	0 25 56					25	Local shock.
		S	0 26 00						
		MEN	0 26 00		±2	±1			
		F	0 26 16						
14	Jan. 25	e	1 43 47						SE off Philippine.
		e	1 44 46						
		eMN	1 44 49	3.9		±1			

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
							±1		
		eMZ	1 44 47	3.1					
		eF	1 48 ±						
									Mouth of the Gokase river, Miyazaki prefecture.
15	Jan. 25	e	2 35 27						
		eS	2 35 55						
		MN	2 36 08	1.7		±1			
		MZ	2 36 19	1.6			±1		
		eF	2 38 ±						
									In the Kasima sea.
16	Jan. 25	eP	11 45 00						
		eF	11 48 ±						
									In the Kii channel.
17	Jan. 25	P	14 40 53					28	
		S	14 40 56						
		ME	14 40 57	0.4	−4				
		MN	14 40 57	0.4		−7			
		MZ	14 40 57	0.2			±1		
		F	14 41 41						
									Ditto.
18	Jan. 26	P	13 30 46						
		S	13 30 49						
		ME	13 30 50	0.5	±1				
		MN	13 30 50	0.3					
		eF	13 31 ±						
									Local shock.
19	Jan. 27	eP	7 18 52						
		eS	7 18 56					27	
		ME	7 18 57	0.4	±2				
		MN	7 18 57	0.4		±2			
		MZ	7 18 56						
		eF	7 19 09				±1		
									Lower basin of the Kii river, Wakayama prefecture.
20	Jan. 30	P	4 41 11						
		S	4 41 17					46	
		ME	4 41 17	0.4	−4				
		M1N	4 41 18	0.4		±4			

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		MZ	4 41 17	0.3			±1		
		MZN	4 41 21	0.6		±5			
		F	4 42 04						
21	Jan. 31	P	0 03 17					32	Harima Nada.
		S	0 03 21						Inland sea.
		ME	0 03 21	0.3	+4				
		MN	0 03 22	0.3		±3			
		MZ	0 03 21				±1		
		F	0 03 51						
22	Feb. 1	P	20 13 39					28	Near Wakayama.
		S	20 13 43						
		ME	20 13 43	0.3	−2				
		MN	20 13 43	0.4		−2			
		F	20 13 59						
23	Feb. 1	eP	23 08 46						In the Kasima sea.
		eS	23 09 32						
		ME	23 10 41	3.3	±1				
		MN	23 10 32	3.3		+2			
		MZ	23 10 34	2.9			±2		
		eF	23 14 ±						
24	Feb. 2	P	15 03 02						In the Okhotsk sea.
		eL	15 11 26						
		ME	15 15 11	21.6	±35				
		MN	15 15 19	19.3		±35			
		MZ	15 15 19	20.0			±30		
		eF	15 34 ±						
25	Feb. 2	eP	20 05 29					22	Near Wakayama.
		S	20 05 32						
		ME	20 05 32	0.4	−2				
		MN	20 05 32	0.4		±1			
		eF	20 05 50						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	Near Wakayama.
26	Feb. 4	S	12 36 40		±1				
		ME	12 36 41			±2			
		MN	12 36 41						
		eF	12 36 53						
27	Feb. 5	P	13 29 24					445	Near Raizan, SW off Fukuoka city.
		S	13 30 24						Moderate shocks were felt at epicentral region.
		ME	13 30 38	1.6	−4				
		MN	13 30 38	1.4		+5			
		MZ	13 30 36	1.7			±2		
		eF	13 33 ±						
28	Feb. 7	P	2 41 00					69	Near Miyama, Kyoto prefecture.
		S	2 41 10						Moderate shocks were felt at Northern part of Settu province.
		ME	2 41 10	0.3	+4				
		MN	2 41 10	0.3		−8			
		MZ	2 41 10	0.2			−2		
		F	2 41 52						
29	Feb. 7	S	3 16 56						Ditto.
		MN	3 16 57			±1			
		eF	3 17 09						
30	Feb. 7	P	3 27 49						
		S	3 27 56					56	In the Kii channel.
		ME	3 27 57		±2				
		MN	3 27 57	0.4		±2			
		MZ	3 27 57	0.2					
		F	3 28 26				±1		
31	Feb. 7	P	3 34 34						
		S	3 34 44					74	Near Miyama, Kyoto prefecture.
		ME	3 34 44	0.4	+3				
		MN	3 34 44	0.3					
		MZ	3 34 45	0.3		−5			
		F	3 35 43				±1		

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
32	Feb. 7	eS	3 36 40						An after shock of No. 27. Weak shocks were felt at the epicentral region.
		eME	3 36 59	1.1	±1				
		eMN	3 36 54	0.9		±1			
		eMZ	3 36 54	1.3			±1		
		eF	3 38 ±						
33	Feb. 7	e	8 44 54						In Kasima sea.
		eF	8 49 ±						
34	Feb. 7	P	11 20 50					48	Basin of the Arita river, Wakayama prefecture.
		S	11 20 56						
		MEN	11 20 56		±1	−1			
		F	11 21 19						
35	Feb. 7	S	14 37 21						Local shock.
		MN	14 37 21	0.3	±1				
		eF	14 37 32						
36	Feb. 7	S	20 11 55						Northwestern part of the Osaka bay.
		MEN	20 11 55	0.3	+1	−1			
		F	20 12 15						
37	Feb. 9	S	0 01 42						Local shock.
		MN	0 01 42			±1			
		eF	0 02 05						
38	Feb. 10	P	8 55 19					29	In the Kii channel.
		S	8 55 23						
		ME	8 55 23	0.2	−2				
		MN	8 55 24	0.2		±3			
		MZ	8 55 24				±1		
		F	8 55 43						
*39	Feb. 11	iP	0 12 08		+82	−75	−72	24	Mouth of the Kii river, Storong shocks were felt at Wakayama city. Weak shocks were felt
		S	0 12 11						
		ME	0 12 17	2.1	+359				

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	at this station.
		MN	0 12 21	3.2		±311			
		MZ	0 12 15	2.1			−400		
		F	0 25 05						
40	Feb. 11	eP	0 27 41					28	An after shock of No. 39.
		eS	0 27 45						
		eMN	0 27 45			±5			
		F	0 28 14						
41	Feb. 11	S	0 32 22						Local shock.
42	Feb. 11	S	0 32 27						Ditto.
		F	0 32 35						
43	Feb. 11	P	1 29 42					28	An after shock of No 39.
		S	1 29 46						
		ME	1 29 47	0.4	−6				
		MN	1 29 47	0.4		±7			
		MZ	1 29 47				±1		
		F	1 30 45						
44	Feb. 11	S	1 31 35						Local shock.
		F	1 31 44						
45	Feb. 11	S	1 53 33						
		ME	1 53 34	0.4	±0.4				An after shock of No. 39.
		MN	1 53 34			±1			
		F	1 53 44						
46	Feb. 11	P	2 01 43						
		S	2 01 46					24	Ditto.
		ME	2 01 47		±2				
		MN	2 01 47						
		F	2 02 06			±1			
47	Feb. 11	S	3 22 51						Ditto.

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		ME	3 22 51		±1				
		MN	3 22 52			±2			
		F	3 23 07						
48	Feb. 11	P	5 21 41					30	An after shock of No. 39.
		S	5 21 45						
		ME	5 21 46	0.3	−3				
		MN	5 21 46	0.4		−3			
		MZ	5 21 46	0.4			±10		
		F	5 22 15						
49	Feb. 11	P	9 00 21					27	Ditto.
		S	9 00 24						
		ME	9 00 24	0.3	−1				
		MN	9 00 25			±2			
		F	9 00 42						
50	Feb. 11	P	10 37 39					30	Ditto.
		S	10 37 43						
		MEN	10 37 43		±2	±2			
		F	10 38 02						
51	Feb. 11	P	22 18 26					33	Ditto.
		S	22 18 30						
		MEN	22 18 30	0.3	±1	±1			
		F	22 18 48						
52	Feb. 12	S	2 30 44						Ditto.
		MEN	2 30 44		±0.4	±0.9			
		F	2 30 55						
53	Feb. 12	P	5 51 48					28	Ditto.
		S	5 51 51						
		ME	5 51 52		±1				
		MN	6 51 51	0.3		+2			
		F	5 52 03						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
54	Feb. 12	e	8 07 45						Near Yaku Is', Ryukyu Ils.
55	Feb. 12	P	11 30 12					32	An after shock of No. 39.
		S	11 30 17						
		ME	11 30 17	0.3	−5				
		MN	11 30 17	0.3		−5			
		F	11 30 51						
56	Feb. 12	S	16 13 38						Ditto.
		F	16 13 51						
57	Feb. 12	P	18 42 08					28	Ditto.
		S	18 42 12						Time is uncertain.
		MEN	18 42 12		±1	±1			
		F	18 42 26						
58	Feb. 12	S	22 22 44						Ditto.
		MN	22 22 44			±1			Time is uncertain.
		F	22 22 59						
59	Feb. 13	S	2 40 27						Ditto.
		eF	2 40 34						
60	Feb. 13	P	11 43 13					46	Ditto.
		S	11 43 19						
		ME	11 43 19	0.3	+1				
		MN	11 43 19	0.4		+			
		MZ	11 43 19				±1		
		F	11 43 50						
61	Feb. 13	S	15 44 20						In the Kii channel.
		F	15 44 40						
62	Feb. 13	S	23 34 52						Ditto.
		MΞ	23 34 52		±0.3				
		MN	23 34 52			±1			

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		MZ	23 34 52				−1		
		eF	23 35 10						
63	Feb. 14	P	15 21 55					17	An after shock of No. 39.
		S	15 21 58						
		ME	15 21 58	0.3	±1				
		MN	15 21 58			−1			
		F	15 22 08						
64	Feb. 14	P	16 05 42					25	Ditto.
		S	16 05 46						
		ME	16 05 46	0.4	+4				
		MN	16 05 46	0.4		+9			
		MZ	16 05 47	0.4			±1		
		F	16 06 23						
65	Feb. 14	P	17 42 35					31	Ditto.
		S	17 42 39						
		MΞ	17 42 41	0.3	−3				
		MN	17 42 41	0.3		±3			
		MZ	17 42 39	0.2			±1		
		F	17 42 53						
66	Feb 14	eP	18 29 58					102	In the Kii channel.
		eS	18 30 12						
		eME	18 30 12	0.8	±0.3				
		eMN	18 30 12	0.5		±0.6			
		eF	18 30 35						
67	Feb. 14	eP	22 55 04					168	Northern part of Bungo channel.
		eS	22 55 26						
		eME	22 55 40	1.4	±0.6				
		eMN	22 55 35	1.4		±0.9			
		eMZ	22 55 34	2.0			±0.5		
		eF	22 56 17						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
68	Feb. 15	P	0 26 08					45	In the Kii channel.
		S	0 26 14						
		M_E	0 26 14	0.4	±3				
		M_N	0 26 15	0.5		±6			
		M_Z	0 26 16	0.3			±1		
		F	0 26 50						
69	Feb. 15	S	2 23 03						Ditto.
		F	2 23 17						
70	Feb. 15	P	5 16 59					24	Ditto.
		S	5 17 02						
		M_E	5 17 02	0.4	±1				
		M_N	5 17 02			−1			
		F	5 17 20						
71	Feb. 15	S	8 31 27						Ditto.
		F	8 31 36						
72	Feb. 15	S	12 59 21						Ditto.
		F	12 59 29						
73	Feb. 15	P	23 40 21					36	An after shock of No. 39.
		S	23 40 26						
		M_E	23 40 26	0.4	±2				
		M_N	23 40 27	0.4		±4			
		M_Z	23 40 27	0.3			±1		
		F	23 40 47						
74	Feb. 17	P	3 09 59					48	In the Kii channel.
		S	3 10 06						
		M_E	3 10 06	0.5	+7				
		M_N	3 10 08	0.6		±3			
		M_Z	3 10 06	0.4			±1		
		F	3 10 33						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
75	Feb 18	iP	8 36 38		+1.6	−2.8	−2.1	28	An after shock of No. 39.
		iS	8 36 41						
		M_E	8 36 42	0.7	−11				
		M_N	8 36 41	0.5		+15			
		M_Z	8 36 41	0.3			−5		
		F	8 38 01						
76	Feb. 18	S	9 33 24						Ditto.
		M_E	9 33 27	0.3	±1				
		M_N	9 33 37			±1			
		F	9 33 37						
77	Feb. 19	P	17 05 53					38	Ditto.
		S	17 05 58						
		M_E	17 05 58	0.4	−2				
		M_N	17 05 58			±2			
		F	17 06 18						
78	Feb 19	P	22 42 42					29	Ditto.
		S	22 42 46						
		M_E	22 42 46	0.4	+2				
		M_N	22 42 47	0.4		−7			
		M_Z	22 42 48	0.2			±1		
		F	22 43 41						
79	Feb. 20	S	2 04 05						Local shock.
		F	2 04 12						
80	Feb. 20	eP	23 37 51					388	Near Ito, Izu province. Moderate shocks were felt at the epicentral region.
		S	23 38 44						
		M_E	23 39 02	2.7	±3				
		M_N	23 39 04	2.5		±3			
		M_Z	23 38 49	1.7			±1		
		eF	23 44 ±						
81	Feb. 22	P	5 30 57					28	An after shock of

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		S	5 31 01						No. 39.
		M_E	5 31 02	0.4	−4				
		M_N	5 31 03	0.4		±4			
		M_Z	5 31 04				±1		
		F	5 31 38						
82	Feb. 22	eP	5 49 49						Near Ito, Izu province.
		M_E	5 50 11	2.7	±0.8				
		M_N	5 50 18	2.2		±0.5			
		eF	5 52 ±						
83	Feb. 22	e	11 23 28						Ditto.
		eS	11 23 48						
		M_E	11 23 56	2.5	±2				
		M_N	11 23 56	2.5		±2			
		M_Z	11 23 49	1.6			±1		
		eF	11 28 ±						
84	Feb. 22	S	18 20 35						Near Miyazu, Kyoto prefecture.
		M_E	18 20 35		−3				
		M_N	18 20 35	0.3		±3			
		M_Z	18 20 38				±1		
		F	18 21 01						
85	Feb. 23	P	5 36 10					17	In tne Kii channel.
		S	5 36 12						
		M_E	5 36 12	0.2	+2				
		M_N	5 36 12			±1			
		F	5 36 28						
86	Feb. 23	P	7 55 17		+0.8	−0.9	−1.7	60	Ditto.
		S	7 55 26						
		M_E	7 55 26	0.4	±5				
		M_N	7 55 26	0.5		±11			
		M_Z	7 55 26				±1		
		F	7 56 30						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
87	Feb. 23	P	11 30 01					30	An after shock of No. 39.
		S	11 30 05						
		M_E	11 30 05	0.3	+3				
		M_N	11 30 06	0.5		−8			
		M_Z	11 30 07	0.2			+2		
		F	11 30 41						
88	Feb. 24	P	20 57 33					209	Deep earthquake. Near Kii peninsula.
		eS	20 58 01						
		eL	20 59 27						
		SM_Z	20 58 10	2.0			+5		
		M_E	20 59 33	2.9	±1				
		M_N	20 59 39	3.3		±3			
		M_Z	20 59 42	3.3			±2		
		eF	21 02 ±						
89	Feb. 27	eP	12 12 26					280	In the Hiuga Nada, East off Miyazaki prefecture.
		eS	12 13 04						
		M_E	12 13 08	3.0	±1				
		M_N	12 13 07	1.6		±1			
		eF	12 15 ±						
90	Feb. 27	eP	20 19 59					14	An after shock of No. 39.
		S	20 20 00						
		M_E	20 20 01	0.3	±1				
		M_N	20 20 00	0.4		−2			
		F	20 20 27						
91	Feb. 28	P	7 05 21					37	Local shock.
		S	7 05 26						
		M_E	7 05 26	0.3	±2				
		M_N	7 05 26	0.4		±1			
		F	7 05 48						
92	Feb. 28	P	7 48 34					38	An after shock of No. 39.
		S	7 48 39						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_E	7 48 40	0.3	+4				
		M_N	7 48 40	0.3		±5			
		M_Z	7 48 42	0.6			±1		
		F	7 49 25						
93	Feb. 28	eP	9 32 04					293	Near Ito, Izu province.
		S	9 32 43						
		M_E	9 33 43	1.6	±2				
		M_N	9 33 47	2.0		±2			
		eF	9 36 ±						
94	Mar. 1	S	2 21 37						Local shock.
		eF	2 21 46						
95	Mar. 1	S	2 39 01						Ditto.
		eF	2 39 06						
96	Mar. 1	P	13 27 21					40	In the Kii channel.
		S	13 27 26						
		M	13 27 26	0.3	−2	±2	±1		
		F	13 27 49						
97	Mar. 1	e	17 44 49						Near Tiba city.
		eS	17 45 08						
		eF	17 46 ±						
98	Mar. 2	P	0 32 32						
		S	0 32 37					37	Western part of Osaka bay.
		M	0 32 37	0.4	+3	−1			
		F	0 32 51						
99	Mar. 2	P	16 22 06						
		S	16 22 13					51	Local shock.
		M	16 22 13	0.4	±1	±2			
		F	16 22 43						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
100	Mar. 2	S	3 06 18						Local shock.
		eF	3 06 28						
101	Mar. 3	e	18 52 06						Near Ito, Izu province.
		M_E	18 52 38	3.1	±2				
		M_N	18 52 39	2.3		±2			
		M_Z	18 52 27	3.1			±1		
		eF	18 54 ±						
102	Mar. 3	eP	20 12 10						Ditto.
		S	20 12 46						
		M_E	20 13 01	3.2	±4				
		M_N	20 13 02	3.1		−6			
		M_Z	20 12 49	2.2			±2		
		eF	20 17 ±						
103	Mar. 4	S	2 29 27						Local shock.
		eF	2 29 35						
104	Mar. 5	P	10 36 14					48	Basin of the Arita river, Wakayama prefecture.
		S	10 36 20						
		M	10 36 21	0.5	−6	−9	−2		
		F	10 37 09						
105	Mar. 5	P	13 31 09					48	Ditto.
		S	13 31 16						
		M	13 31 16	0.5	−8	+16	±3		
		F	13 32 15						
106	Mar. 6	P	3 33 31					711	NNW of Bonin Isl. Weak shocks were felt at Bonin Ils.
		S	3 35 07						
		M_{EN}	3 35 08	3.9	−20	−19			
		M_Z	3 35 11	3.4			±6		
		eF	3 44 ±						
107	Mar. 6	P	13 55 26					13	In the Kitan strait.

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		S	13 55 27						
		M	13 55 28	0.4	−2	−4			
		F	13 55 54						
108	Mar. 6	P	15 55 02						In the Kitan strait.
		S	15 55 06						
		M	15 55 07	0.4	−2	−5			
		F	15 55 26						
109	Mar. 7	eP?	9 02 01						Local shock.
		eF	9 04 ±						
110	Mar. 7	eP	10 53 49					831	South off Yaku Isl, Ryukyu Ils.
		eL	10 55 41						
		M_E	10 56 42	1.7	±1				
		M_N	10 56 50	4.4		±3			
		M_Z	10 56 53	3.2			±1		
		eF	11 01 ±						
111	Mar. 8	eP	19 40 51						Near Ito, Izu province. Strong shocks were felt at Ito.
		S	19 41 24						
		M_E	19 41 34	2.4	±3				
		M_N	19 41 38	2.6		−3			
		M_Z	19 41 35	2.0			±1		
		eF	19 45 ±						
112	Mar. 9	eP	9 44 35						Deep earthquake ?. Inscribed at Kobe and Nagoya.
		eS	9 45 04						
		M_E	9 45 05	3.4	±2				
		M_N	9 45 50	2.6		±2			
		M_Z	9 45 38	2.6			±1		
113	Mar. 9	eP	10 55 31						Near Ito, Izu province. Strong shocks were felt at Ito.
		eS	10 56 18					346	
		M_E	10 56 32	3.1	±6				
		M_N	10 56 37	2.7		±6			

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eF	11 05 ±						
114	Mar. 9	eP	20 24 34						Near Ito, Izu province.
		eS	20 25 05						
		eF	20 27 ±						
115	Mar. 10	P	16 31 10					1650	East off Karafuto.
		S	16 34 01						
		M	16 34 09						
		eF	16 43 ±						
116	Mar. 11	eP	4 47 40						A distant earthquake. Luzon, ?
		eF	4 55 ±						
117	Mar. 11	eP	10 07 11					7	Local shock.
		S	10 07 12						
		M	10 07 12	0.3	±1	±2	±1		
		F	10 07 35						
118	Mar. 11	eP	23 35 53					28	Near Kobe.
		S	23 35 57						
		M	23 35 57	0.3	−1	−2			
		F	23 36 18						
119	Mar. 12	eP	19 31 16						Near Ito, Izu province. Disturbed by microseisms.
		eF	19 35 ±						
120	Mar. 14	eP	5 21 04						Near Ito, Izu province.
		eS	5 22 30						
		eF	5 26 ±						
121	Mar. 15	eP	9 34 52					309	Near Ito, Izu province. Strong shocks were felt at Ito.
		eS	9 35 34						
		M_E	9 35 35	1.8	±2				
		M_N	9 35 48	2.4		±3			
		M_Z	9 35 34	2.0			±1		

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km	
		eF	9 39 ±						
									In the Ensyu nada.?
122	Mar. 16	S	5 04 01						
		M	5 04 04	3.0	±2	±2	±3		
		eF	5 07 ±						
									Mouth of Kii river,
123	Mar. 16	S	21 27 06						Wakayama prefecture.
		M	21 27 07	0.3	±1	±1			
		F	21 27 23						
124	Mar. 17	P	5 40 49					24	Local shock.
		S	5 40 52						
		M	5 40 52	0.4	±1	−3	±1		
		F	5 41 04						
*125	Mar. 17	iP	10 10 57		+4.4	−4.9	−8.3	28	Mouth of Kii river,
		S	10 11 01						Wakayama prefecture.
		M	10 11 01	0.6	−19	−26	−9		Weak shocks were felt
		F	10 12 21						at Wakayama.
126	Mar. 19	eP	1 17 54						
		S	1 18 26						Near Ito, Izu province.
		M_E	1 18 39	3.4	±2				Moderate shocks were
		M_N	1 18 40	3.0		±2			felt at Ito.
		M_Z	1 18 36	2.7			±1		
		eF	1 21 ±						
127	Mar. 19	eP	4 43 19						
		S	4 43 28					67	Near Okayama.
		M_{EN}	4 43 28	0.3	+3	−6			
		M_Z	4 43 29						
		F	4 44 05				±1		
128	Mar. 19	eP	15 31 10						
		eS	15 31 55					336	Southern part of the
		M_E	15 32 02	2.0	±1				Huganada.

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_N	15 32 06	1.8		±1			
		M_Z	15 31 55	1.8			±1		
		eF	15 35 ±						
129	Mar. 20	P	4 15 29					30	Mouth of Kii river,
		S	4 15 33						Wakayama prefecture.
		M_{EN}	4 15 34	0.3	−4	+4			
		M_Z	4 15 33				±1		
		F	4 16 02						
130	Mar. 20	P	5 18 23					18	Local shock.
		S	5 18 26						
		M	5 18 26		+2	−2			
		F	5 18 46						
131	Mar. 20	S	23 12 07						Ditto.
		M_N	23 12 09	0.3		±2			
		F	23 12 23						
132	Mar. 21	P	14 25 15					287	Near Ito, Izu province.
		S	14 25 54						Strong shocks were felt
		M_E	14 26 08	3.3	±3				at Ito.
		M_N	14 26 08	2.6		−2			
		M_Z	14 25 55	2.2			±2		
		eF	14 30 ±						
133	Mar. 22	P	8 51 32					382	Near Ito, Izu province.
		S	8 52 10						Strong shocks were felt
		L	8 52 20	3.5	+29				at Ito.
		M_E	8 52 39	6.4		+48			
		M_N	8 52 38	3.8			+18		
		M_1Z	8 52 42	6.7			+18		
		M_2Z	8 53 10						
		eF	9 06 ±						
134	Mar. 22	iP	12 05 53					115	An after shock of North

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		S	12 06 08						Tango earthquake, on March 7th 1927.
		M_E	12 06 11	1.1	+3				
		M_N	12 06 10	0.6		−4			
		M_Z	12 06 10	1.2			±1		
		F	12 06 44						
135	Mar. 25	eP	9 00 44					15	Local shock.
		S	9 00 46						
		M	9 00 46	0.3	±0.3	−1			
		F	9 01 05						
136	Mar. 25	eS	11 31 05						NNW far off Bonin Isl.
		M_E	11 31 09	3.0	−3				
		M_N	11 31 09	2.4		−2			
		eF	11 32 ±						
137	Mar. 26	P	5 23 42					289	Near Ito, Izu province. Moderate shocks were felt at Ito.
		S	5 24 21						
		M_E	5 24 44	3.0	+5				
		M_N	5 24 44	3.6		−4			
		M_Z	5 24 53	2.9			±3		
		F	5 31 38						
138	Mar. 26	P	7 20 02		+	+	+	4720	Probable epicenter at 7°.6S 124°.8E (J.S.A.)
		S	7 26 29						
		SM_E	7 26 33	10.9	−29				
		SM_N	7 26 33	11.3		+150			
		SM_Z	7 26 45	17.3			−40		
		L	7 29 48						
		M_1E	7 29 48	16.4	+110				
		M_1N	7 30 15	13.6		+92			
		M_Z	7 33 44	20.4			−133		
		M_2E	7 34 40	14.5	+50				
		M_2N	7 34 19	25.2		+220			
		eF	8 09 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
139	Mar. 26	e	11 40 05						A distant earthquake.
		e	11 45 43						
		eF	11 51 ±						
140	Mar. 26	P	16 42 31					351	Near Ito Izu Province.
		S	16 43 18						
		M_E	16 43 32	3.6	+5				
		M_N	16 43 19	2.8		±6			
		M_Z	16 43 20	2.6			−3		
		F	16 51 42						
141	Mar. 26	eP	19 12 42					121	In the Iyo nada, Iland sea.
		eS	19 12 58						
		M_E	19 13 01	0.8	±1				
		M_N	19 13 04	2.6		−2			
		M_Z	19 13 05	1.6			±1		
		F	19 13 51						
142	Mar. 28	eP	11 37 33					117	Uppere course of Yossino river, Sikoku district.
		S	11 37 49						
		M_E	11 37 50	0.4	±2				
		M_N	11 37 51	0.4		±5			
		M_Z	11 37 52	0.6			±1		
		F	11 38 25						
143	Mar. 28	P	15 49 49					43	South of Wakayama city.
		S	15 49 55						
		M_E	15 49 55	0.6	−6				
		M_N	15 49 56	0.5		−12			
		M_Z	15 49 59				+4		
		F	15 51 13						
144	Mar. 29	P	0 56 13					368	West far off Hatidyo Isl.
		S	0 57 03						
		M_E	0 57 04	2.6	+6				
		M_N	0 57 03	2.6		−18			

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km	
		MZ	0 57 14	2.2			±2		
		F	1 01 02						
145	Mar. 30	eP	0 31 55					3825	A distant earthquake.
		eS	0 37 32						
		eF	0 45 ±						
146	Mar. 30	P	5 08 12		−1.8	+1.0	+3.6	30.6	A far off Onmae cape, Sizuoka prefecture.
		S	5 08 53						
		MEZ	5 08 53	1.0	−1		±5		
		MN	5 08 53	1.5		−5			
		F	5 11 21						
147	Mar. 30	eP	15 27 01					4960	A distant earthquake.
		S	15 33 41						
		ME	15 37 04	10.9	±1				
		MN	15 37 03	11.9		±2			
		eF	15 51 ±						
148	Mar 30	P	20 09 24					205	Northern part of Bungo channel.
		S	20 09 52						
		M	20 09 54	0.4	±3	±7	±2		Felt at the epicentral region.
		eF	20 13 ±						
149	Mar. 31	P	9 23 41					31	Mouth off Kii river, Wakayama prefecture.
		S	9 23 45						
		M	9 23 46	0.3	±1	−4			
		F	9 24 08						

TOYOOKA JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kobe Meteorological Observatory of Japan.

φ=35° 32′ λ=134° 49′ h=32.2 m. Underground: Diluvial Series.

Instruments: Wiechert Seismograph.

(Horizontal)

Jan.

	T_0	ε	$\frac{r}{l_0^2}$	V
AE:	4.2	Aperiodic	0.003	110
AN:	4.0	2.7	0.002	102

Feb.

	T_0	ε	$\frac{r}{l_0^2}$	V
AE:	4.2	Aperiodic	0.003	104
AN:	4.1	3.8	0.003	99

Mar.

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	4.2	Aperiodic	0.003	104
AN:	4.1	3.8	0.003	99

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
1	Jan. 3	eP	5 02 03						In the Wakasa bay, North off Kyoto Prefecture.
		L	5 02 11						
		ME	5 02 11		−4				
		MN	5 02 11			+8			
		FE	5 02 31						
		FN	5 02 25						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
2	Jan. 5	P	1 24 14		−3	−3		2122	Kamchatka district.
		L	1 27 48						
		ME	1 27 57		−25				
		MN	1 27 52	3.8		+21			
		eFEN	1 33 30						
3	Jan. 10	ePE	18 15 52					465	Suthern part of Hiuga nada. Moderate shocks were felt at Southern part of Kyusyu.
		PN	18 15 57						
		SE	18 16 44						
		eSN	18 16 44						
		LN	18 17 00						
		ME	18 17 19	4.2	+23				
		MN	18 17 17	2.5		+21			
		eFEN	18 21 ±						
4	Jan. 11	PN	21 22 36					581	NNW far off Bonin Ils.
		L	21 23 54						
		ME	21 23 58		+8				
		MN	21 23 56			+23			
		FE	21 25 57						
		eFN	21 25 40						
5	Feb. 1	ePN	23 09 01						In the Kasima sea. Faint record.
		LN	23 10 17						
		eME	23 10 32		−3				
		MN	23 10 25			−5			
		eFEN	23 12 ±						
6	Feb. 5	iPE	13 29 43					372	Near Raizan, SW of Fukuoka city. Moderate shocks were felt at the epicentral region.
		LN	13 30 31						
		ME	13 30 39		−12				
		MN	13 30 47			+24			
		eFE	13 32 02						
		eFN	13 32 ±						
7	Feb. 7	P	2 41 02					70	Near Miyama, Kyoto

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		L	2 41 11						prefecture. Moderate shocks were felt at Northern part of Settu province.
		MEN	2 41 13		−14	±9			
		FEN	2 41 43						
8	Feb. 7	P	3 34 36					69	Ditto.
		L	3 34 45						
		ME	3 34 47		−5				
		MN	3 34 48			−5			
		FEN	3 35 07						
9	Feb. 7	ePE	3 36 13					306	An after shock of No. 6. Weak shocks were felt at the epicentral region.
		L	3 36 55						
		ME	3 37 02		+4				
		MN	3 37 03			+9			
		FE	3 37 39						
		eFN	3 37 44						
*10	Feb. 11	iP	0 12 27					132	Off the Mouth of the Kii river. Strong shocks were felt at wakayama city perceptible at Kinki district.
		iL	0 12 45						
		ME	0 12 47		−88				
		MN	0 12 50			+124			
		FE	0 18 27						
		FN	0 17 36						
11	Feb. 20	P	23 38 02					369	Near Ito, Izu province. Moderate shocks were felt at epicentral region.
		LN	23 38 51						
		ME	23 39 00	1.7	−7				
		MN	23 39 00	1.4		−14			
		FE	23 40 18						
		FN	23 42 04						
12	Feb. 22	P	10 42 20						Local shock.
		L	10 42 23						
		MEN	10 42 23	0.2	−10	±17			
		F	10 42 48						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
*13	Feb. 22	P	18 20 00					20	Near Miyazu, Kyoto prefecture. Perceptible.
		L	18 20 03						
		M_E	18 20 03		±61				
		M_N	18 20 03			−108			
		F_E	18 20 55						
		F_N	18 20 44						
14	Feb. 25	P	10 06 52					21	Local shock.
		L	10 06 55						
		M_E	10 06 55	0.5	−13				
		M_N	10 06 55	0.4		+15			
		F_{EN}	10 07 23						
15	Feb. 28	P	9 32 03						Near Ito, Izu province.
		L_N	9 32 48						
		M_E	9 32 57	1.3	−4				
		M_N	9 32 52	1.5		−9			
		F_E	9 34 41						
		F_N	9 34 42						
16	Mar. 3	P_E	18 51 41					334	Near Ito, Izu province. disturbed by micro-seisms.
		L_N	18 52 26						
		M_E	18 52 36		+5				
		M_N	18 52 35			−10			
		F	18 53 41						
17	Mar. 3	P	20 12 06					343	Ditto.
		L_N	20 12 52						
		M_E	20 13 01		−7				
		M_N	20 12 56	1.9		−18			
		F	20 14 41						
18	Mar. 6	P_E	3 33 51					692	NNW off Bonin Ils. Weak shocks were felt at Bonin Ils.
		L_E	3 35 24						
		L_N	3 35 28						
		M_E	3 35 27	3.8	−17				

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_N	3 35 30			+11			
		F	3 37 46						
19	Mar. 7	P_N	10 54 04					760	South off Yaku Isl. Ryukyu Ils.
		eP_E	10 54 15						
		S_N	10 55 27						
		L	10 56 50						
		M_E	10 57 01		−5				
		M_N	10 57 02	3.8		+8			
		eF_E	10 59 ±						
		eF_N	11 00 ±						
20	Mar. 8	P	19 40 40					356	Near Ito, Izu province. Strong shocks were felt at Ito.
		L_N	19 41 28						
		M_E	19 41 37	1.5	−6				
		M_N	19 41 30	1.9		+11			
		F_E	19 42 59						
		F_N	19 42 53						
21	Mar. 9	P_E	10 55 35					347	Ditto.
		L_E	10 56 21						
		L_N	10 56 23						
		M_E	10 56 43		+12				
		M_N	10 56 27	1.9		−31			
		eF	11 04 ±						
22	Mar. 10	P	16 31 04					1800	East off Karafuto.
		L	16 33 49						
		M_E	16 33 53		−29				
		M_N	16 34 22			−14			
		eF	16 38 ±						
23	Mar. 12	P_E	19 30 34						Near Ito, Izu province. Disturbed by micro-seisms.
		S_N	19 31 20						
		eL_N	19 31 46						
		F	19 33 00						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
24	Mar. 14	PE	5 20 31					325	Near Ito, Izu province.
		PN	5 20 34						
		LN	5 21 18						
		MN	5 21 23			+7			
		FE	5 22 31						
		FN	5 22 39						
25	Mar. 15	P	9 34 51					356	Near Ito, Izu province. Strong shocks were felt at Ito.
		L	9 35 39						
		ME	9 35 47		−5				
		MN	9 35 40	1.6		−10			
		FE	9 37 41						
		FN	9 37 54						
26	Mar. 21	iPE	14 25 10					361	Near Ito, Izu province.
		ePN	14 25 07						
		eLE	14 25 57						
		iLN	14 25 59						
		MN	14 26 01	1.7		−14			
		F	14 28 57						
27	Mar. 22	P	8 04 06						Near Ito, Izu province, Small movment.
		eLN	8 05 10						
		MN	8 05 15			−3			
		F	8 07 32						
28	Mar. 22	ePE	8 51 31					398	Near Ito, Izu province. Strong shocks were felt at Ito.
		PN	8 51 33						
		SE	8 52 15						
		LE	8 52 25						
		LN	8 52 27						
		ME	8 52 36	1.7	−57				
		MN	8 52 35			+110			
		CN	8 54 33						
		eFE	9 08 ±						
		eFN	9 09 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
*29	Mar. 22	P	12 05 34					25	Perceptible. An after shock of North Tango earthquake, on March, 7th, 1927.
		L	12 05 37						
		M	12 05 38	0.3	−42	+76			
		FE	12 07 18						
		FN	12 08 17						
30	Mar. 24	P	5 30 36					21	Ditto.
		L	5 30 38						
		ME	5 30 38		−7				
		MN	5 30 39			+4			
		FE	5 30 46						
		FN	5 30 54						
31	Mar. 26	P	5 23 40					418	Near Ito, Izu province. Moderate shocks were felt at Ito.
		L	5 24 36						
		ME	5 24 55		−8				
		MN	5 24 41			+22			
		FE	5 32 43						
		FN	5 33 08						
32	Mar. 26	ePE	7 20 16					4720	Probable epicenter, 7°.6 S 124°. E. (J.S.A.). Each phase is not distinct.
		iPN	7 20 18						
		SE	7 26 43						
		SN	7 26 45						
		eSR1E	7 30 10						
		eSR1N	7 30 35						
		LN	7 33 01						
		MN	7 34 31	25.0		+15			
		eFE	8 02 ±						
		eFN	8 22 ±						
33	Mar. 26	PN	11 40 11						A distant earthquake. Faint record.
		eF	12 01 ±						
34	Mar. 26	PE	16 42 35					347	Near Ito, Izu province.
		PN	16 42 37						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		L_E	16 43 21						
		L_N	16 43 25						
		M_E	16 43 24		+17				
		M_N	16 43 30	1.6		+26			
		eF_E	16 49 ±						
		eF_N	16 51 ±						
35	Mar. 28	ePN	15 50 16					106	South of Wakayama city.
		L	15 50 30						
		M_E	15 50 30		−4				
		F_E	15 50 52						
		F_N	15 50 59						
36	Mar. 28	L	18 13 34						Near Ito, Izu province. Very small movment.
		M_N	18 13 29			−4			
		F	18 13 10						
37	Mar. 28	P	19 06 09						Ditto.
		F	19 08 47						
38	Mar. 29	P	0 56 22					423	West far off Hatidyo Isl.
		L	0 57 19						
		F_E	0 59 16						
		F_N	0 59 09						
39	Mar 29	eP	15 07 41						Near Ito, Izu province. Each phase is not distinct.
		eF	15 09 21						
40	Mar. 30	ePE	15 27 33						A distant earthquake. Faint record.
		ePN	15 27 42						
		eL_E	15 34 04						
		M_N	15 37 33			−7			
		eF_E	15 40 23						
		eF_N	15 45 ±						
41	Mar. 30	P	20 10 25					283	Northern part of Bungo

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		S	20 10 49						channel.
		L	20 11 02						Felt at epicentral region.
		M_E	20 11 08	1.0	+6				
		M_N	20 11 12	1.0		+6			
		F_E	20 12 20						
		F_N	20 12 17						

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OF THE

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SEISMOLOGICAL BULLETIN

of the Imperial Marine Observatory and the Kobe Meteorological Observatory of Japan.

$\varphi = 34^\circ\ 41'\ 18''$ $\lambda = 135^\circ\ 10'\ 51''$ h=58.3 m Underground: Diluvial Series.

Instrument: Omori's Seismograph (Horizontal Pendulum.) — Wiechert Seismograph (Horizontal & Vertical)

April

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	16.7		0.001	20
A_N:	16.8		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	3.8	Aperiodic	0.006	99
A_N:	3.9	"	0.006	90
A_Z:	3.7	5.0	0.002	76

May

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	15.9		0.001	20
A_N:	14.7		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4.0	Aperiodic	0.007	92
A_N:	3.7	"	0.007	100
A_Z:	4.3	9.7	0.002	73

June

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	17.3		0.001	20
A_N:	15.0		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	3.8	Aperiodic	0.008	103
A_N:	3.8	"	0.008	98
A_Z:	4.4	12.2	0.002	68

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
94	April 1	ePE	14 05 43		+2	+1			Near Ito, Izu province. Moderate shocks were felt at Ito.
		P	14 05 55						
		iN	14 06 10						
		L	14 06 32						
		MZ	14 07 18						
		eF	14 11 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
95	April 3	eP	18 31 06						Iyo nada, Western part of the Inland sea.
		L_E	18 31 27						
		M_E	18 31 31	0.5	±3				
		M_N	18 31 33			±2			
		F	18 32 21						
96	April 4	P	5 09 57						Far off Hatidyo Isl.
		S_E	5 10 37						
		eF	5 14 ±						
97	April 4	iP	9 33 55						SW far off Hatidyo Isl.
		S?	9 41 06						
		eF	9 53 ±						
98	April 9	iN	4 19 36		±5	±5			Mouth of the Kii river, Wakayama prefecture.
		F_E	4 20 13						
		F_N	4 20 16						
99	April 9	P	23 48 17						Lower basin of the Naka river, Ibaraki prefecture.
		eS	23 48 59						
		M_E	23 49 19	0.9	±5				
		M_N	23 49 20			±6			
		M_Z	23 49 20				±4		
		eF_E	23 53 ±						
		eF_{NZ}	23 54 ±						
100	April 21	P	10 23 02						SE far off Otiisi cape, Hokkaido.
		eF	10 35 ±						
101	April 21	P	23 25 51					87	Middle part of Kii peninsula ? Very small movment.
		S	23 26 02						
		M_E	23 26 03		±6				
		M_N	23 26 03			±5			
		F	23 26 20						
102	April 23	eP_N	21 52 40					1850	SE far off Kunaziri

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
	✓	P_E	21 52 46						Isl, Kurile Ils.
		S_N	21 55 55						
		eL_E	21 58 15						
		eL_N	21 56 38						
		M_E	22 01 52	16.–	±12				
		M_1N	21 59 32	19.		±11			
		M_1Z	21 59 08	22.					
		M_2N	22 01 02	14.		±15			
		M_2Z	22 01 13	16.			±11		
		eF_E	22 22 ±						
		eF_N	22 29 ±						
		eF_Z	22 18 ±						
103	April 24	P	0 27 39						SE far off Kunaziri Isl, Kurile Ils.
		eL_N	0 32 56						
		eF	0 42 ±						
104	April 26	iP	16 25 16					3860	In the Aleutian Ils.
		S_E	16 30 52						
		S_N	16 30 49						
		eN	16 33 40						
		eL_E	16 35 57	21.0					
		eF_E	16 47 ±						
		eF_N	16 51 ±						
105	April 28	eL_N	18 51 21						Near the frotire of Burma - Yunnan. Disturbed by microseisms.
		eM_E	18 53 39						
		eF	19 07 ±						
106	April 29	P_Z	10 51 40					114	An after shock of North Tango earthquake on March 7th 1927.
		P_N	10 51 41						
		S_E	10 51 56						
		S_Z	10 51 55						
		M_E	10 51 59	1.0	−8				
		M_N	10 51 59	1.0		−8			
		M_Z	10 51 58	1.1			−5		

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km	
		F_{EN}	10 52 28						
		F_Z	10 52 27						
107	April 30	e	16 16 55						A distant earthquake.
		eF	16 22 ±						
108	May 1	P	0 59 09					554	Near Tyosi, Tiba prefecture.
		$\bar{P}_E$	0 59 29						Strong shocks were felt at the epicentral region.
		i_N	0 59 34						Diameter of perceptible zone is about 600 km.
		S_E	1 00 12						
		S_Z	1 00 13						
		L	1 00 24						
		L_Z	1 00 28						
		M_1E	1 00 38	3.2	−263				
		M_1N	1 00 46	3.3		+317			
		M_Z	1 00 41	3.1			−192		
		M_2E	1 01 39	3.3	+288				
		M_2N	1 02 27	3.3		−193			
		eF_{EN}	1 21 ±						
		eF_Z	1 18 ±						
109	May 1	eP	4 21 46						An after shock of No 108. Moderate shocks were felt at epicentral region.
		$i\bar{P}$	4 22 00						
		S	4 22 45						
		eL_{SW}	4 22 55						
		M_{SW}	4 23 00	3.9	±71				
		M_{SE}	4 23 12	3.6		±60			
		M_Z	4 23 01	2.0			−33		
		eF	4 31 ±						
110	May 2	iP	20 53 02						
		L	20 53 11					65	In the Kii channel.
		M	20 53 11	0.4	±13	±10			
		F	20 53 58						
111	May 4	eP	16 58 21						Middle basin of the

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eF	17 01 ±						Kokai river, Musasi province.
112	May 5	P_Z	13 53 16					4225	Pegu, Burma.
		S	13 59 16						Destructive in the epicentral region.
		eL_N	14 05 10						
		M_E	14 10 24	11.7	±135				
		M_1N	14 07 49	14.2		±193			
		M_Z	14 10 21	10.2			±97		
		M_2N	14 10 00	11.7		±156			
		eF_{EN}	15 13 ±						
		eF_Z	15 01 ±						
113	May 6	eP	22 45 26					8000	North Western part of Persia. Destructive in the epicentral region.
		S	22 54 45						
		eL_E	23 11 −						
		M_E	23 18 13	19.8	±14				
		M_N	23 18 38	19.6		±19			
		M_Z	23 20 25	15.3			±23		
		eF_E	23 56 ±						
		eF_N	23 58 ±						
		eF_Z	0 04 ±						
114	May 7	e_E	20 42 45						Near Ito, Izu province. Faint record.
		M_E	20 43 05	1.6	±3				
		M_N	20 43 00	1.2		±3			
		eF_E	20 45 ±						
		eF_N	20 44 ±						
115	May 8	e	4 26 30						Ditto.
		eF	4 31 ±						
116	May 8	eP	13 01 51						Ditto.
		F	13 06 04						
117	May 8	eP	15 51 37						Ditto.
		e	15 51 59						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		F	15 53 02						
118	May 8	P	15 55 45						A distant earthquake. Armenia. ?
		eL	16 18 22	18.3					
		eF	16 36 ±						
119	May 8	eP	16 05 44						Near Ito, Izu province. Faint record.
		e_E	16 06 03						
		eF	16 06 41						
120	May 8	eP	16 14 09					10 ?	Upper basin of the Yodo river. Perceptible at Kyoto.
		S	16 14 11						
		M	16 14 11						
		F	16 14 24						
121	May 8	P	21 10 50					44	On the mouth of the Arita river. Wakayama prefecture.
		S	21 10 56						
		L ?	21 11 00						
		M_E	21 11 04	1.4	−4				
		M_N	21 11 02	0.9		−8			
		F_E	21 11 38						
		F_N	21 11 34						
		F_Z	21 12 01						
122	May 9	eP_E	2 53 31						Near Ito, Izu province. Strogng shocks were felt at Ito.
		P_N	2 53 34						
		S	2 54 06						
		eL	2 54 18						
		M_E	2 54 27	2.2	±12				
		M_N	2 54 26	2.5		±7			
		M_Z	2 54 24	1.9			±6		
		eF_{EN}	3 00 ±						
		eF	2 59 ±						
123	May 10	P	12 04 22						
		iP_Z	12 04 21					−	SW off Siomisaki, South end of Kii

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		i	12 04 45						peninsula. Record is abnormal.
		iZ	12 04 46						
		iN	12 04 53	1.8	±20				
		eL_N	12 05 50						
		M_E	12 06 06		±17				
		M_N	12 06 03	4.1		−23			
		M_Z	12 06 05						
		eF_{EN}	12 12 ±						
		eF_Z	12 09 ±						
124	May 10	eP	12 08 34						Local shock.
		eF	12 09 10						
125	May 12	P	12 27 35					406	Near Ito, Izu province. Moderate shocks were felt at Ito.
		$\bar{P}_E$	12 27 50						
		S_E	12 28 15						
		$\bar{S}_N$?	12 28 29						
		M_E	12 28 36	2.3	±37				
		M_N	12 28 40	2.8		±18			
		M_Z	12 28 37	2.2			±14		
		eF_{EN}	12 37 ±						
		eF_Z	12 35 ±						
126	May 13	iS_W	23 57 56						Near Ito, Izu province.
		S_{SW}	23 58 07						
		S_{SE}	23 58 12						
		eL_{SW}	23 58 14						
		M_{SW}	23 58 20	4.0	11				
		M_{SE}	23 58 24			±9			
		M_Z	23 58 24						
		eF	0 06 ±						
127	May 14	P	8 35 52					248	East off Sima peninsulas. Ise province. Deep earthquake. ?
		S	8 36 26						
		M_E	8 36 27	0.9	±17				
		M_N	8 36 28	2.3		−26			

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
							+19		
		MZ	8 36 28	1.9					
		eFEN	8 42 ±						
		eFZ	8 40 ±						
128	May 14	eP	16 35 19						Near Ito, Izu province.
		eL	16 36 30						
		MSW	16 36 38	2.0	±9				
		eF	16 41 ±						
129	May 15	P	6 42 58					48	Upper basin of the Yodo river, Osaka prefecture.
		L	6 43 04						
		ME	6 43 05		±3				
		MN	6 43 05			±4			
		FE	6 43 35						
		FN	6 43 34						
130	May 15	e	6 59 34						Near Ito, Izu province.
		eL	6 59 58						
		eF	7 05 ±						
131	May 15	eP	7 44 51						Near Ito, Izu province. Faint record.
		eF	7 48 ±						
132	May 15	e	10 14 49						Ditto.
		eF	10 18 ±						
133	May 15	e	10 27 22						Ditto.
		eF	10 31 ±						
134	May 15	e	19 41 23						An after shock of No. 108.
		e	19 41 44						
		eFE	19 44 35						
		eFN	19 44 01						
135	May 16	eP	13 36 04						Near Ito, Izu province. Faint record.
		eF	13 39 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
136	May 16	P	20 14 59					383	Near Ito, Izu province. Strong shocks were felt at Ito.
		$\bar{P}$E	20 15 07						
		iN	20 15 12						
		iSE	20 15 40						
		$i\bar{S}$N	20 15 50						
		M_1E	20 15 54	2.6	−117				
		MN	20 16 10	3.1		+105			
		MZ	20 16 08	3.1			−55		
		M_2E	20 17 48	3.4	+138				
		eFE	20 37 ±						
		eFN	20 32 ±						
		eFZ	20 33 ±						
137	May 18	eP	0 12 37						Near Ito, Izu province. Faint record.
		eFE	0 20 ±						
		eFN	0 18 ±						
138	May 18	eP	6 26 58						Near Ito, Izu province. Faint record.
		e	6 27 39						
		eS	6 27 56						
		eF	6 33 ±						
139	May 19	eSW	3 59 23						North off Naze Isl, Ryukyu Ils.
		eS	4 01 06						
		eF	4 05 ±						
140	May 19	iP	15 07 58	4.6	+8	+11	+9	1970	Upper valley of Pinan-taikei, East coast of Formosa, Moderate shocks were felt at Southern part of Formosa. P phase is very clear and lager.
		iSN	15 11 18						
		iSZ	15 11 24						
		ME	15 11 26	13.0	+22				
		MN	15 11 26			−30			
		MZ	15 11 31	6.0			−30		
		eFEN	15 22 ±						
		eFZ	15 20 ±						
141	May 20	PSE	11 21 54					3875	A distant earthquake.

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	A_N	A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
									Probable epicenter 51°N 180°W.
		S_{SE}	11 27 35						
		eL_N	11 30 34						
		M_E	11 35 49	11.6	±3				
		M_N	11 35 42	11.6					
		M_Z	11 36 37						
		eF_{EN}	11 49 ±						
		eF_Z	11 52 ±						
142	May 20	P	22 12 37						An after shock of No 108.
		e	22 12 50						
		eL	22 13 39						
		M	22 13 59						
		eF	22 18 ±						
143	May 21	eP	17 38 09						Near Ito, Izu province.
		S	17 38 42						
		eL	17 38 53						
		M_E	17 39 01		±5				
		M_N	17 39 01			±3			
		eF	17 42 ±						
144	May 21	P	19 02 11						Lower basin of the Arita river, Wakayama prefecture. Very small movment.
		S	19 02 16						
		M_E	19 02 19	0.5	−5				
		M_N	19 02 18	0.5		±4			
		F_E	19 02 40						
		F_N	19 02 36						
145	May 23	iP	16 39 06		+72	−24	−58	329	South off Osima, Izu province. Moderate shocks were felt at Kanto district. Each phase is very clear.
		iS	16 39 51						
		M_1E	16 40 01	3.9	+332				
		M_1N	16 40 04	3.5		−346			
		M_Z	16 39 54	3.6			−178		
		M_2E	16 41 51	3.3	+484				
		M_2N	16 41 45	3.5		+251			
		eF	16 53 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	A_N	A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
146	May 26	i_{SW}	9 09 25						SE far off Boso peninsula.
		L_{SW}	9 09 43						
		eF	9 16 ±						
147	May 28	P	17 43 44					172	Middle basin of the Hino river, Tottri prefec'ure.
		S	17 44 07						
		M_N	17 44 07	0.6		±5			
		F_E	17 44 48						
		F_N	17 44 52						
148	May 28	P	19 33 16						Lower basin of the Naka river, Ibaraki prefeture. Faint record.
		F	19 35 34						
149	May 29	M_E	3 35 38						Local shock. Small movment.
		M_N	3 35 38	1.3		±2			
		F_E	3 35 50						
		F_N	3 35 33						
150	May 31	P	13 13 06					88	Middle basin of the Hidaka river. Wakayama prefecture.
		S	13 13 17						
		M_E	13 13 50	0.6	±4				
		M_N	13 13 50			±7			
		F_E	13 13 56						
		F_N	13 14 01						
151	May 31	P	17 59 34		+2		−1.3	545	Lower basin of the Naka river, Ibaraki prefecture. Strong shocks were felt at Kanto district Perceptible diameter is about 1000 km.
		i_E	17 59 44						
		i_N	17 59 59						
		S_N	18 00 33						
		L_N	18 00 47						
		M_1E	18 00 58		−428				
		M_1N	18 01 02	2.7		−435			
		M_1Z	18 01 05				−215		
		M_2E	18 01 54	2.8	−570				
		M_2N	18 01 56	3.1		±268			
		M_2Z	18 02 01	2.8			±185		

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_sE	18 02 55	2.9	±357				
		M_sN	18 02 58	2.3		±310			
		eF_E	18 21 ±						
		eF_N	18 19 ±						
		eF_Z	18 12 ±						
152	June 3	eP	19 58 32						NNW far off Bonin Ils.
		M_{NW}	19 59 49			±6			
		eF_{SW}	20 02 22						
153	June 4	P	9 57 43					4000 ?	Kei Ils, Molucas. (According to Java's report.)
		S_E	10 03 28	4.1					
		S_{NW}	10 03 30						
		$S_{R_1}E$	10 06 55						
		eF_E	10 16 ±						
		eF_N	10 13 ±						
		eF_Z	10 11 ±						
154	June 5	i_N	11 53 15	4.3					A distant earthquake. Probable in the South Pacific Ocean. ?
		i_Z	11 53 13	5.3					
		e_N	12 02 08	11.0		+15			
		eF	12 23 ±						
155	June 8	eP	15 49 07						ENE far off Sioya cape.
		eF	15 56 ±						
156	June 11	eP_Z	0 57 32						
		eP_E	0 57 37					4720	East off Newginea ? South Pasific Ocean.
		i_N	0 57 54	4.8					
		i_Z	0 57 53						
		$P_{R_1}N$	0 58 45						
		i_S	1 04 04						
		eS_Z	1 03 21						
		S_R	1 07 41						
		eL_E	1 09 01						
		eL_N	1 10 11						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eL_Z	1 09 20						
		M_E	1 14 09	21.0	+6				
		M_N	1 14 09	19.5		−12			
		M_Z	1 14 24	19.6			+18		
		eF_E	1 34 ±						
		eF_N	1 38 ±						
		eF_Z	1 34 ±						
157	June 12	P	13 37 23					69	In the basin of the Arita river, Wakayama prefecture.
		S	13 37 33						
		M	13 37 34	0.6	−1	−1			
		F_E	13 37 52						
		F_N	13 37 50						
		F_Z	13 37 48						
158	June 13	P	1 01 46						Okhotsk sea.
		i_E	1 02 02						
		e_E	1 08 07						
		eF_{EN}	1 17 ±						
		eF_Z	1 13 ±						
159	June 17	eP	3 01 16						SSE off Sioya cape.
		eF	3 06 ±						
160	June 18	eP	12 14 47						Ditto.
		eF_E	12 20 ±						
		eF_N	12 19 ±						
161	June 18	P	20 47 43						Hiuga nada, SE off Miyazaki prefecture.
		e_S	20 47 59						
		M	20 48 04						
		eF	21 50 10						
162	June 19	e_Z ?	13 16 16						A distant earthquake. Probable tow earthquake superimporsed. ?
		e_{SW}	13 59 22	11.7					
		e_{NW}	13 59 32	11.7					

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eF	14 16 ±						
163	June 21	eP	9 48 51						Hiuga nada SE off Miyazaki prefecture. Probable tow earthquake Superimposed. ?
		i_E	9 49 43						
		i_N	9 49 41						
		eL_N?	9 57 14	23.1					
		eF	10 07 ±						
164	June 23	e	19 43 08						A distant earthquake. Probable in the South sea.
		i_{SW}	19 44 56						
		i_{NW}	19 45 10						
		eF	19 59 ±						
165	June 25	eP	21 41 03						Small movment. Pacific Ocean near Peru
		eF	21 49 ±						
166	June 26	P	0 11 48						Near Ito, Izu province.
		S	0 12 29						
		M_{SW}	0 12 45						
		eF	0 18 ±						
167	June 29	eP	0 26 31						Kasumiga ura, Ibaragi prefecture.
		S	0 27 20						
		M_{SW}	0 27 24	1.9	±2				
		eF	0 31 ±						
168	June 29	S	1 12 10						In the basin of the Arita river, Wakayama prefecture.
		F	1 12 32						

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kobe Meteorological Observatory of Japan.

$\varphi = 34^\circ\ 21'$ $\lambda = 134^\circ\ 53'$ h = 109.0 m. Underground: Cretaceous.

Instruments: Omori's Seismograph. (Horizontal Pendulum) — Wiechert Seismograph. (Horizontal & Vertical)

April

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	17.5	1.9	0.001	20
A_N:	17.0	2.5	0.0003	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4.8	Aperiodic	0.002	118
A_N:	5.1	,,	0.001	98
A_Z:	4.2	2.9	0.001	65

May

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	17.3	3.2	0.001	20
A_N:	17.6	2.6	0.0004	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	5.0	Aperiodic	0.003	107
A_N:	4.8	,,	0.002	110
A_Z:	4.3	,,	0.002	65

June

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	17.7	2.6	0.001	20
A_N:	17.7	2.5	0.0002	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	5.0	Aperiodic	0.003	105
A_N:	5.0	,,	0.002	103
A_Z:	4.3	,,	0.002	65

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
150	Mar. 31	P	21 07 30					10	Local shock.
		S	21 07 31						
		M	21 07 31	0.3	±1	±1			
		F	21 07 45						
151	April 1	eP	14 05 29					309	Near Ito, Izu province.
		S	14 06 11						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_E	14 06 21	2.0	±3				
		M_N	14 06 15	2.7		±2			
		M_Z	14 06 20	2.3			±1		
		F	14 11 46						
152	April 2	P	8 11 43					39	In the Kii channel.
		S	8 11 48						
		M_{EN}	8 11 49	0.3	−4	−9			
		M_Z	8 11 49	0.3			−2		
		F	8 12 08						
153	April 2	eP	21 37 24					59	Ditto.
		S	21 37 32						
		M	21 37 32	0.5	±3	−3	±1		
		F	21 37 50						
154	April 3	S	17 26 48						Hiuti nada, Inland sea.
		M	17 26 48		±1	±1			
		F	17 26 59						
155	April 3	eP	18 30 46					243	Iyo nada, Western part of the Inland sea.
		eS	18 31 19						
		M_E	18 31 21	1.4	±1				
		M_N	18 31 20	1.5		±2			
		M_Z	18 31 23	0.8			±1		
		F	18 32 55						
156	April 4	eP	9 33 54						SW far off Hatidyo Isl.
		eF	9 51 ±						
157	April 8	S	16 45 00						In the Kitan strait.
		M_N	16 45 01						
		F	16 45 07						
158	April 9	eP	4 10 59					18	In the Kitan strait.
		S	4 11 02						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M	4 11 02	0.3	±1	±1			
		F	4 11 14						
159	April 9	iP	4 19 25		−1.3	−1.9	−1.6	28	Mouth of the Kii river, Wakayama prefecture.
		S	4 19 28						
		M_E	4 19 29	0.5	+6				
		M_N	4 19 28	0.5		+6			
		M_Z	4 19 30	0.4			±3		
		F	4 20 25						
160	April 9	eP	23 48 34					340	Lower basin of the Naka river, Ibaraki prefecture.
		S	23 49 20						
		M_{EN}	23 49 26	1.8 2.1	+1	−2			
		M_Z	23 49 28	1.5			±2		
		F	23 50 50						
161	April 12	P	20 36 40					59	In the Kii channel.
		S	20 36 48						
		M_E	20 36 48	0.4	±1				
		M_{NZ}	20 36 48	0.3		±2	±0.3		
		F	20 37 23						
162	April 19	P	11 50 36					33	In the Wakanoura, South of Wakayama city.
		S	11 50 41						
		M	11 50 42	0.5	±1	±4			
		F	11 51 08						
163	April 19	eP	20 55 09						NE off Okinawa Isl, Ryukyu Ils.
		eF	20 57 ±						
164	April 21	eP_Z	10 23 07						SE far of Otiisi cape, Hokkaido.
		eP_{EN}	10 23 03						
		eF	10 38 ±						
165	April 23	eS	1 40 52						Local shock.
		eF	1 51 01						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
								30	Mouth of the Kii river.
166	April 23	P	11 48 26						
		S	11 48 30						
		MEN	11 48 31	0.3 0.4	−3	−2			
		MZ	11 48 32				±1		
		F	11 48 47						
									Local shock.
167	April 23	S	11 49 32						
		M	11 49 32	0.4	±1	±3			
		F	11 49 42						
								1920	SE far off Kunaziri Isl, Kurile Ils.
168	April 23	P	21 52 47						
		S	21 56 02						
		L	21 57 39						
		M_1E	21 59 56	17.8	±169				
		M_1N	21 59 36	16.9		±113			
		M_1Z	21 59 27	20.0			±100		
		M_2E	22 02 11	15.0	±142				
		M_2N	22 01 11	15.0		±109			
		M_2Z	22 01 15	18.5			±100		
		eF	22 21 ±						
169	April 24	P	13 33 02						Aki nada, Western part of the Inland sea.
		eF	13 34 19						
170	April 25	P	9 17 02					298	Off the mouth of the Yorumo river, Ooita prefecture.
		S	9 17 42						
		ME	9 18 21	3.1	±3				
		MN	9 17 54	3.2		±6			
		MZ	9 18 21	3.7			±2		
		eF	9 21 ±						
171	April 25	P	12 32 39					298	Upper basin of the Yakkan river, Ooita prefecture.
		S	12 33 19						
		ME	12 33 25	1.8	±3				
		MN	12 33 20	3.0		−5			
		MZ	12 33 22	2.8			±2		

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eF	12 36 ±						
172	April 26	eP	16 25 01					4085	In the Aleutian Ils.
		eS	16 30 53						
		eL	16 33 13						
		ME	16 37 13	22.6	±83				
		MN	16 40 26	17.0		±38			
		MZ	16 39 58	17.5			±33		
		eF	17 00 ±						
173	April 27	S	17 37 32						Local shock.
		ME	17 37 33	0.4	±1				
		MN	17 37 33	0.2		±1			
		F	17 37 46						
174	April 28	e	18 47 28						Frontir of the Burma and Yunnan.
		e	18 52 17						
		M_1E	18 54 06	16.0	±35				
		M_1N	18 53 13	16.0		+65			
		MZ	18 54 30	12.7			±17		
		M_2E	18 58 28	11.3	±13				
		M_2N	18 58 28	13.2		±27			
		eF	19 11 ±						
175	April 29	P	10 51 48					143	An after shock of North Tango earthquake, On March, 7, 1927.
		S	10 52 07						
		M	10 52 07		±1	±2			
		F	10 52 37						
176	April 29	eP	18 46 27					32	Local shock.
		S	18 46 32						
		ME	18 46 35	0.4	−1				
		MN	18 46 32	0.4		±2			
		F	18 46 47						
177	April 30	eP	16 16 50						A distant earthquake.

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eF	16 19 ±						
178	May 1	P	0 59 11					538	Near Tyosi, Tiba prefecture.
		S	1 00 24						Strong shocks were felt at epicentral region.
		ME	1 00 55	5.0	+64				Diameter of perceptible zone is about 600 km.
		MN	1 00 46	5.0		−116			
		MZ	1 00 48	4.8			−62		
		eF	1 29 ±						
179	May 1	P	4 21 58					518	An after shock of No 178.
		S	4 23 08						
		M_1E	4 23 14	3.1	−10				
		M_1N	4 23 14	4.5		−17			
		M_1Z	4 23 19	4.3			−12		
		M_2E	4 23 57	2.9	−12				
		M_2N	4 24 07	3.5		+10			
		M_2Z	4 23 40	3.0			−9		
		eF	4 32 ±						
180	May 1	P	7 59 42					14	Near Wakayama city.
		S	7 59 44						
		ME	7 59 44	0.3	−2				
		MN	7 59 45	0.3		−3			
		F	7 59 56						
181	May 1	P	11 19 39					36	Ditto.
		S	11 19 44						
		ME	11 19 46	0.4	±2				
		MN	11 19 44	0.3		±4			
		F	11 20 15						
182	May 2	P	18 03 37					30	In the Kii channel.
		S	18 03 41						
		MEN	18 03 42	0.4	+4	−6			
		MZ	18 03 42						
		F	18 04 01				±1		

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
183	May 2	iP	20 52 55					40	In the Kii channel.
		S	20 53 00						
		MEN	20 53 01	0.4	−7	−13			
		MZ	20 53 03				±3		
		F	20 54 14						
184	May 5	eP	13 53 14					4245	Pegu, Burma. Distructive at the epicentral region.
		SE	13 59 18						
		SN	13 59 12						
		eL	14 06 01						
		M_1E	14 07 55	15.0	−800				
		M_1N	14 07 39	15.0		−1609			
		M_2E	14 09 53	14.3	−1142				
		M_2N	14 09 19	12.0		−461			
		M_3E	14 15 28	14.1	+617				
		M_3N	14 15 05	14.3		+667			
		eF	15 09 ±						
185	May 6	eP	22 45 33					7920	Northwestern part of Persia. Distructive at the epicentral region.
		S	22 54 49						
		M_1E	23 14 21	23.4	±160				
		M_1N	23 15 19	20.6		+217			
		M_2E	23 20 48	17.8	+143				
		M_2N	23 21 29	16.9		−267			
		eF	23 58 ±						
186	May 7	eP	20 43 00						Near Ito, Izu province.
		eF	20 44 ±						
187	May 8	eP	15 51 49						Ditto.
		eF	15 53 ±						
188	May 8	eP	16 05 58						Ditto.
		eF	16 07 ±						
189	May 8	iP	21 10 04		+0.8	−1.3	−0.8	33	Mouth of the Arita

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	river, Wakayama prefecture.
		S	21 10 09						
		MEN	21 10 09	0.5	−9	+9			Time is uncertain.
		MZ	21 10 09	0.7			±2		
		F	21 11 16						
190	May 9	S	1 15 11						Ditto.
		M	1 15 11	0.3					
		F	1 15 23						
191	May 9	eP	2 53 38					334	Near Ito, Izu province.
		S	2 54 23						
		ME	2 54 36	2.8	+2				
		MN	2 54 28	2.1		±3			
		MZ	2 54 29				±2		
		eF	2 57 ±						
192	May 10	P	12 05 53					366?	SW off Siomisaki, South end of the Kii peninsula. Time is uncertain.
		S	12 06 42						
		ME	12 06 46	4.0	±7				
		MN	12 06 46	3.1		±6			
		MZ	12 06 45	3.8			±4		
		F	12 11 22						
193	May 12	eP	12 27 48					329	Near Ito, Izu province.
		S	12 28 32						
		ME	12 28 48	3.4	±4				
		MN	12 28 48	2.8		±5			
		MZ	12 28 52	2.4			±2		
		eF	12 35 ±						
194	May 13	eP	23 57 58						Ditto.
		S	23 58 26						
		ME	23 58 31	2.8	±1				
		MN	23 58 29	2.4		±2			
		MZ	23 58 39	2.4			±1		
		F	0 03 23						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
195	May 14	P	5 56 26					50	In the Kii channel.
		S	5 56 32						
		M	5 56 33	0.4	±0.4	±1			
		F	5 56 44						
196	May 14	P	8 35 53					273	East off Sima peninsula, Ise province.
		S	8 36 30						
		ME	8 36 30	2.2	−10				
		MNZ	8 36 30	1.6		+6	±2		
		F	8 39 36						
197	May 14	eP	16 33 54						Near Ito, Izu province.
		M	16 35 21	2.4	±1	±1			
		eF	19 39 ±						
198	May 15	S	6 43 14						Upper basin of the Yodo river, Osaka prefecture.
		F	6 43 32						
199	May 15	eP	6 59 36						Near Ito, Izu province.
		eS	7 00 06						
		M	7 00 06	3.0 2.8	±1	±2			
		eF	7 03 ±						
200	May 15	eP	10 14 45						Ditto.
		eF	10 18 ±						
201	May 15	eP	10 27 27						Ditto.
		eF	10 29 ±						
202	May 15	eP	19 41 34						An after shock of No 178.
		eF	19 44 ±						
203	May 16	P	4 17 52					39	On the basin of the Arita river, Wakayama prefecture.
		S	4 17 57						
		M	4 17 57	0.4	−1	±2			
		F	4 18 12						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
204	May 16	P	20 15 02					401	Near Ito, Izu province. Strong shocks were felt at Ito.
		S	20 15 56						
		M_1E	20 16 19	4.7	+24				
		M_1N	20 16 09	3.2		−36			
		M_Z	20 16 28	3.9			+18		
		M_2E	20 17 09	4.9	+13				
		M_2N	20 17 06	3.4		+20			
		F	20 36 ±						
205	May 18	e	0 15 43						Near Ito, Izu province.
		eF	0 19 ±						
206	May 19	eP	3 59 43						North off Naze Isl, Ryukyu Ils.
		F	4 02 25						
207	May 19	P	4 02 34					31	Near Wakayama city.
		S	4 02 38						
		M	4 02 38	0.3	±1	±1			
		F	4 03 06						
208	May 19	iP	15 07 51					1930	Upper valley of the Pinan-taikei, Formosa. Moderate shocks were felt at Southern part of Formosa.
		PM	15 07 54	3.3	−31	−35	−48		
		S	15 11 09						
		ME	15 11 16	5.1	+23				
		MN	15 11 16	6.0		−22			
		MZ	15 11 16	6.8			−9		
		eF	15 30 ±						
209	May 20	P	4 35 50					32	On the basin of the Arita river, Wakayama prefecture.
		S	4 35 55						
		ME	4 35 55	0.3	+2				
		MN	4 35 55	0.4		−4			
		F	4 36 27						
210	May 20	P	11 21 59						A distant earthquake. Probable epicenter 51°N 180°W
		eL	11 30 09						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		ME	11 33 51	15.0	±32				51°N 180°W.
		MN	11 33 56	14.0		±10			
		MZ	11 35 13	16.5			±29		
		eF	11 53 ±						
211	May 20	eP	22 13 05						An after shock of No 178.
		eS	22 13 37						
		ME	22 14 03	1.6	±1				
		MN	22 14 04	2.7		±1			
		eF	22 16 14						
212	May 21	eS	17 38 43						Near Ito, Izu province.
		ME	17 39 10	2.5	±1				
		MN	17 39 12	2.2		±1			
		eF	17 41 ±						
213	May 21	P	19 01 59					40	Lower basin of the Arita river, Wakayama prefecture.
		S	19 02 04						
		ME	19 02 05	0.5	±1				
		MN	19 02 05	0.3		−2			
		MZ	19 02 08				±2		
		F	19 02 37						
214	May 21	P	20 50 08					37	Northern part of the Kii channel.
		S	20 50 13						
		ME	20 50 13	0.3	+2				
		MN	20 50 14	0.3		±1			
		F	20 50 36						
215	May 21	P	20 59 32					70	In the Kii channel.
		S	20 59 42						
		MEN	20 59 42	0.4 0.5	−3	−7			
		MZ	20 59 46				±2		
		F	21 00 06						
216	May 23	iP	16 39 10					326	South off Osima,

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		S	16 39 54						Izu province. Moderate shocks were felt at Kanto district.
		M_1E	16 40 04	2.1	+56				
		M_1N	16 40 08	2.3		+165			
		M_Z	16 40 10	3.5			−65		
		M_2E	16 40 54	3.7	+44				
		M_2N	16 41 01	4.1		+69			
		M_Z	16 40 48	3.6			+32		
		F	17 02 ±						
217	May 25	P	1 02 01					11	Near Wakayama city.
		S	1 02 02						
		M	1 02 03	0.3	±1	±2			
		F	1 02 20						
218	May 26	S	12 55 57						Northern part of the Kii channel.
		M_N	12 55 58			±2			
		F	12 56 06						
219	May 28	S	17 44 06						Middle basin of the Hino river, Tottori prefecture.
		M	17 44 07	0.4	±1	+2			
		F	17 44 32						
220	May 28	eP	19 34 04						Lower basin of the Naka river, Ibaraki prefecture. Moderate shocks were felt at the epicentral region.
		eS	19 34 30						
		eF	19 36 08						
221	May 31	P	13 11 38					65	Middle basin of the Hidaka river, Wakayama prefecture.
		S	13 11 46						
		M	13 11 47	0.5	+10	−10	+2		
		F	13 12 35	0.4					
222	May 31	P	17 59 35						Lower basin of the Naka river, Ibaraki Prefecture. Strong shocks were felt at Kanto district. Perceptible diameter about 1000 km.
		S	18 00 35					498	
		L	18 00 42						
		M_E	18 00 57	4.6	+126				
		M_N	18 01 01	3.4		−121			

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_Z	18 01 06	3.8			−38		
		eF	18 27 ±						
223	June 3	S	6 29 18						In the Kii channel.
		M	6 29 18	0.4	±1				
		F	6 29 27	0.3		−2			
224	June 3	eP_N	19 58 03					447	NNW far off Bonin Isl.
		S	19 59 03						
		M_N	19 59 03	3.0		±1			
		eF	20 02 ±						
225	June 3	S	22 09 19						Local shock.
		M	22 09 19		±1	±1			
		F	22 09 32						
226	June 4	P	9 57 41						Kei Isl, Moluca Ils. according to Batavia.
		S_E	10 03 25	4.6	−12				
		S_N	10 03 27	3.0		±3			
		S_Z	10 02 48	3.0			±2		
		eF	10 16 ±						
227	June 5	P	18 22 24					18	Local shock.
		S	18 22 26						
		M	18 22 27	0.3	−2	−3			
		F	18 22 42						
228	June 8	eP	15 48 34						ENE far off Sioya cape.
		eS	15 49 27						
		eF	15 52 ±						
229	June 10	S	19 02 41						Local shock.
		M	19 02 41	0.3	±2	±2			
		F	19 03 01						
230	June 11	P	0 57 30					4830	East off New Ginea.

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		S	1 04 02						by Kobe, Sydney, and Java.
		L	1 08 50						
		M_E	1 13 48	20.3	±93				
		M_N	1 13 48	17.4		±178			
		M_Z	1 13 50	20.3			±40		
		eF	1 31 ±						
231	June 12	P	13 37 17					49	In the basin of the Arita river, Wakayama prefecture.
		S	13 37 23						
		M	13 37 24	0.4	−3	+6	±1		
		F	13 37 58						
232	June 13	eP	0 28 26						Ditto.
		S	0 28 28						
		M	0 28 29	0.4	±1	±1			
		F	0 28 44						
233	June 14	P	12 02 21					30	In the Wakanoura, South of Wakayama city.
		S	12 02 25						
		M	12 02 26	0.8	±1	−3			
		F	12 02 42						
234	June 15	P	7 54 13					19	Ditto.
		S	7 54 16						
		M	7 54 16	0.6	±1	+2			
		F	7 54 26						
235	June 17	eP	3 01 26						SSE off sioya cape.
		eS	3 02 08						
		M_E	3 02 36	2.8	±1				
		M_N	3 02 39	2.1		±1			
		M_Z	3 02 09	2.3			±1		
		eF	3 05 ±						
236	June 18	eP	12 15 25						Ditto.
		eS	12 16 18						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_E	12 16 28	2.9	±2				
		M_N	12 16 22	2.3		±2			
		M_Z	12 16 28	2.4			±1		
		eF	12 21 ±						
237	June 18	P	20 45 19					211	Hiuga nada, SE off Miyazaki prefecture. Time is uncertain.
		S	20 45 48						
		M_E	20 46 10	2.0	±1				
		M_N	20 46 00	1.2		±2			
		M_Z	20 46 00	1.8			±1		
		eF	20 49 ±						
238	June 21	eP	9 48 19					475	Ditto.
		S	9 49 23						
		M_E	9 49 25	1.9	±2				
		M_N	9 49 26	1.7		±4			
		M_Z	9 49 52	2.1			±2		
		F	9 53 43						
239	June 21	eP	14 17 06					39	Wakanoura, South off Wakayama city.
		S	14 17 11						
		M_{EN}	14 17 11	0.3	±1	±2			
		F	14 17 38						
240	June 23	eP	19 42 12						A distant earthquake. Probable in the South sea.
		eF	19 47 ±						
241	June 24	P	10 58 50					33	In the basin of the Arita river, Wakayama prefecture.
		S	10 58 58						
		M_{EN}	10 58 58	0.3	+4	+6			
		F	10 59 35						
242	June 29	e	0 27 15						Kasumiga ura, Ibaraki prefecture.
		eS	0 27 35						
		M_E	0 27 40	1.8	±1				
		M_N	0 27 53	1.4		±1			

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eF	0 29 ±						
243	June 29	P	1 11 57					38	In the basin of the Arita river, Wakayama prefecture.
		S	1 12 02						
		MEN	1 12 03	0.4	−4	−6			
		MZ	1 12 02	0.3			±1		
		F	1 12 42						
244	June 30	ePEN	1 58 08						Local shock.
		eF	1 58 22						
245	June 30	e	5 02 33						Near Miyazaki ctty.
		eS	5 02 34						
		MN	5 02 35						
		eF	5 02 44						

TOYOOKA JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kobe Meteorological Observatory of Japan.

φ=35° 32′ λ=134° 49′ h=32.2 m. Underground : Diluvial Series.

Instrument : Omori's Seismograph (Horizontal Pendulum.) Wiechert Seismograph (Horizontal & Vertical)

April

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	15.0		0.002	20
AN:	10.2		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	3.9	Aperiodic	0.003	105
AN:	4.1	4.7	0.003	109
AZ:	3.8	2.8	0.002	65

May

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	12.8		0.002	20
AN:	9.6		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	3.9	Aperiodic	0.003	102
AN:	4.0	4.0	0.004	114
AZ:	3.7	5.0	0.003	66

June

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	12.8		0.002	20
AN:	9.6		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	3.9	Aperiodic	0.003	102
AN:	4.0	4.0	0.004	114
AZ:	3.7	5.0	0.003	66

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
42	April 1	iP	14 05 30					357	Near Ito, Izu province. Moderate shocks were felt at Ito.
		eLE	14 06 15						
		LN	14 06 18						
		MN	14 06 26			−11			
		FE	14 08 04						
		FN	14 08 12						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
43	April 3	PE	18 31 23						Iyo nada, Westrn part in the Inland sea.
		PN	18 31 20						
		FE	18 32 10						
		FN	18 32 17						
44	April 9	PE	23 47 51					444	Lower basin of the Naka river, Ibaraki prefecture.
		LE	23 48 50						
		ME	23 48 53		−2				
		MN	23 49 11			−6			
		FE	23 51 27						
		FN	23 51 36						
45	April 23	iPZ	21 52 33					1830	SE far off Kunasiri Isl, Kurile Ils.
		PEN	21 52 37						
		SN	21 55 45						
		LN	21 57 33						
		ME	22 00 39	15.8	+19				
		M_1N	22 00 51	16.8		−26			
		MZ	22 01 04	15.2			−15		
		M_2N	22 05 05			−12			
		FE	22 25 ±						
		FN	22 24 ±						
		FZ	22 17 ±						
46	April 26	iPZ	16 25 10					4278	In the Aleutian Ils.
		iP	16 25 13						
		LE	16 34 28						
		LN	16 34 17						
		LZ	16 34 23						
		MN	16 37 21		−6				
		MZ	16 37 42	20.3		+5			
		eFE	16 49 ±						
		eFN	16 53 ±						
		eFZ	16 51 ±						
47	April 28	LEZ	18 56 39						Frontier Burma and

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eLN	18 56 57						Yunnun.
		ME	18 58 31		+4				Faint record.
		M_1N	18 58 02			+12			
		MZ	18 58 40				−5		
		M_2N	18 59 28			+9			
		eF	19 09 ±						
48	April 29	iP	10 51 26					36	An after shock of the North Tango earthquake, on March, 7, 1927.
		L	10 51 31						
		MEN	10 51 31		±8	+18			
		MZ	10 51 32				+6		
		FE	10 52 10						
		FN	10 52 11						
		FZ	10 52 37						
49	May 1	iP	0 59 10					514	Near Tyōsi, Tiba prefecture.
		L	1 00 19						Strong shocks were felt at epicentral region.
		ME	1 00 59	2.2	+124				Perceptible diameter is about 600 km.
		MN	1 00 38	3.9		−253			
		MZ	1 01 00				−172		
		eF	1 17 ±						
50	May 1	P	1 17 23						An after shock of No 50.
		eF	1 20 ±						
51	May 1	ePE	4 21 38					585	Ditto. Moderate shocks were felt at the epicentral region.
		ePN	4 21 52						
		iPZ	4 21 40						
		iSN	4 22 44						
		LN	4 22 59						
		LZ	4 22 59						
		ME	4 23 07		+24				
		MN	4 23 09			−45			
		MZ	4 24 09				+43		
		eFE	4 30 ±						
		eFN	4 33 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eFZ	4 28 ±						
52	May 5	PE	13 53 18					4245	Pegu, Burma. Destractive at epicentral region.
		ePN	13 53 16						
		PZ	13 53 17						
		SE	13 59 19						
		SNZ	13 59 15						
		LE	14 06 46						
		LN	14 06 30						
		ME	14 10 23	11.0	−145				
		MN	14 07 48	13.1		+181			
		MZ	14 10 20	11.1			+191		
		M2E	14 11 10	13.1	+114				
		M2N	14 08 23	12.7		+168			
		M2Z	14 10 55	11.1			−112		
		M3N	14 09 26	12.7		−100			
		M3Z	14 11 30	13.4			+97		
		M4N	14 10 09	11.0		+160			
		M4Z	14 12 15	13.5			−97		
		M5N	14 12 22	12.3		+110			
		eFE	15 11 ±						
		eFN	15 01 ±						
		eFZ	15 14 ±						
53	May 6	ePEZ	22 45 33						
		ePN	22 45 36					7780	NWrn part of Persia. Destructive at epicentral region.
		SE	22 54 42						
		SN	22 54 40						
		LE	23 11 18						
		ME	23 17 56	17.3	−16				
		MN	23 18 22	16.9		+15			
		MZ	23 19 49	15.2			−23		
		M2E	23 19 05	14.8	−16				
		M2N	23 20 59	14.8		+25			
		M2Z	23 22 01	16.2			+20		
		M3E	23 21 35	12.6	+12				

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M3N	23 22 55	15.8		−19			
		M4E	23 22 32	14.8	+14				
		M4N	23 22 41	16.9		+16			
		eFEN	23 46 ±						
		eFZ	23 49 ±						
54	May 9	PE	2 53 40					354	Near Ito, Izu province. Strong shocks were felt at Ito.
		PN	2 53 42						
		PZ	2 53 41						
		LEN	2 54 28						
		LZ	2 54 25						
		ME	2 54 34	2.0	+3				
		MN	2 54 33	1.6		−7			
		MZ	2 54 33				−8		
		eFEN	2 57 ±						
		eFZ	2 56 ±						
55	May 10	PEN	12 04 38					203	SW off Siomisaki, South end of the Kii peninsula.
		ePZ	12 04 34						
		LN	12 05 06						
		ME	12 05 11		+3				
		MN	12 05 12			−4			
		eFEZ	12 07 ±						
		eFN	12 08 ±						
56	May 10	PE	12 08 40						Inscribed at Kobe.
		LZ	12 08 56						
		MN	12 08 56			+3			
		eFE	12 09 42						
		eFN	12 09 46						
		eFZ	12 09 39						
57	May 12	ePEN	12 27 50					354	Near Ito, Izu province. Moderate shocks were felt at Ito.
		ePZ	12 27 49						
		iP	12 27 50						
		LEN	12 28 38						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		L_Z	12 28 32						
		M_E	12 28 43	1.8	+9				
		M_N	12 28 38	1.8		−20			
		M_Z	12 28 39						
		F	12 33 ±						
58	May 13	eP_{EN}	23 57 36					285	Near Ito, Izu province.
		P_Z	23 57 40						
		L_E	23 58 19						
		L_N	23 58 20						
		L_Z	23 58 18						
		M_E	23 58 27		+2				
		M_N	23 58 23			−4			
		M_Z	23 58 20				−7		
		F_E	0 00 57						
		F_N	0 01 25						
		F_Z	23 59 49						
59	May 14	P	8 35 55					279	East off Sima peninsula, Ise province.
		L	8 36 33						
		M_E	8 36 34		+18				
		M_{NZ}	8 36 35			−23	−8		
		F_{EN}	8 38 28						
		F_Z	8 37 52						
60	May 14	eP_E	16 34 42					320	Near Ito, Izu province. The end parts were overtaken by following earthquake.
		eP_N	16 34 48						
		L_{EN}	16 35 28						
		L_Z	16 35 30						
61	May 14	eP_E	16 36 03						Ditto.
		eP_N	16 36 04						
		eP_Z	16 36 10						
		L_E	16 36 41						
		L_{NZ}	16 36 42						
		M_E	16 36 51		−4				

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_N	16 36 45			−6			
		M_Z	16 36 46				+5		
		eF_E	16 37 54						
		eF_N	16 37 22						
		eF_Z	16 38 02						
62	May 15	eP_E	6 59 18						Near Ito, Izu province.
		L_N	6 59 56						
		M_N	7 00 06			+3			
		F_E	7 01 51						
		F_N	7 02 18						
63	May 15	eL_E	7 45 15						Ditto.
		L_N	7 45 15						
		eF_E	7 46 15						
		eF_N	7 46 40						
64	May 15	eP	10 14 36						Ditto.
		eF	10 16 20						
65	May 15	P_E	10 26 57					282	Ditto.
		P_N	10 27 07						
		L_N	10 27 45						
		F_E	10 28 28						
		F_N	10 28 43						
66	May 15	eP_E	12 50 06						Ditto.
		L_N	12 51 00						
		F_E	12 51 58						
		F_N	12 51 49						
67	May 15	eP	19 40 31					316	Ditto.
		L_N	19 41 14						
		M_E	19 41 51		−3				
		M_N	19 41 50			−3			
		eF_E	19 43 02						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eFN	19 42 47						Near Ito, Izu province.
68	May 16	PE	13 35 38						
		PN	13 36 02						
		eLN	13 36 24						
		F	13 37 35						
69	May 16	ePZ	20 15 06					336	Ditto. Strong shocks were felt at Ito.
		ePE	20 15 10						
		iPEZ	20 15 13						
		PN	20 15 12						
		LE	20 15 58						
		ME	20 16 26		−42				
		MN	20 16 18			−75			
		MZ	20 16 03	3.2			+132		
		eFEN	20 30 ±						
		eFZ	20 28 ±						
70	May 18	ePE	9 27 12					346	?
		ePN	9 27 14						
		SE	9 27 59						
		eF	9 30 ±						
71	May 19	P	15 08 01		+2.9	+4.3	+10.6	2020	Upper valley of the Pinan-taikei, Formosa. Moderate shocks were felt at the Southern part of Formosa.
		S	15 11 25						
		LN	15 14 27						
		eFE	15 21 ±						
		eFN	15 23 ±						
		eFZ	15 24 ±						
72	May 20	ePE	11 21 53						
		PN	11 21 57					3915	A distant earthquake. Probable epicenter 51°N 180°W.
		PZ	11 21 56						
		LN	11 30 58						
		eFEN	11 46 ±						
		eFZ	11 50 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
73	May 20	ePE	22 13 15						An after shock of No 50.
		ePN	22 13 12						
		eF	22 15 ±						
74	May 21	eP	17 38 19						Near Ito, Izu province.
		L	17 39 05						
		MN	17 39 08			−4			
		FE	17 40 12						
		FN	17 40 14						
75	May 23	iPEN	16 39 13					498	South off Osima, Izu province. Moderate shocks were felt at Kanto District.
		iPZ	16 39 12						
		iSE	16 40 05						
		iSN	16 40 03						
		iSZ	16 40 03						
		ME	16 40 36	4.9	+103				
		M1N	16 40 22	3.8		+143			
		MZ	16 40 21	4.0			+285		
		M2N	16 40 37	4.2		−131			
		M3N	16 41 15	4.6		−138			
		eFEN	16 59 ±						
		eFZ	16 57 ±						
76	May 26	P	6 54 40					22	An after shock of North Tango earthquake, on March, 7, 1927,
		S	6 54 43						
		M	6 54 43		±5	+7			
		FE	6 55 06						
		FN	6 55 03						
77	May 26	ePN	9 09 43						SE far off Boso peninsula.
		eFN	9 11 13						
78	May 31	iPE	17 59 35					465	Lower basin of the Naka river, Ibaraki prefecture. Strong shocks were felt at Kanto district.
		iPN	17 59 37						
		iPZ	17 59 34						
		SE	18 00 36						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		SN	18 00 40						Perceptible diameter about 1000 km.
		LE	18 01 00						
		ME	18 01 20	3.1	+186				
		MN	18 01 04	3.3		−254			
		M1Z	18 00 59	2.1			−228		
		M2Z	18 01 22	3.4			−256		
		eFE	18 12 ±						
		eFNZ	18 15 ±						
79	June 8	iP	18 21 36					19	Local shock.
		iS	18 21 39						
		M	18 21 39		±5	+4			
		F	18 21 52						
80	June 11	ePE	0 57 42					4975	East off New Ginea? by Kobe, Java, and Sydney
		ePN	0 57 39						
		PZ	0 57 38						
		eSE	1 04 44						
		eSN	1 03 55						
		SZ	1 04 19						
		eLE	1 18 53						
		LZ	1 10 27						
		MZ	1 14 51				+12		
		eFEN	1 39 ±						
		eFZ	1 24 ±						
81	June 18	ePE	20 47 20						Hiuga nada, SE off Miyazaki prefecture.
		ePN	20 47 18						
		eF	20 49 ±						
82	June 21	iP	9 48 59						
		iS	9 49 41					310	Hiuga nada, SE off Miyazaki prefecture.
		ME	9 49 51						
		MN	9 49 53		−5				
		FE	9 51 59			−5			
		FN	9 51 52						
		FZ	9 51 22						
83	June 24	iP	14 50 36					25	An after shock of North Tango earthquake on March, 7th, 1927.
		iS	14 50 39						
		MEN	14 50 39		±21				
		MZ	14 50 40			−15			
		FEN	14 50 57				±4		
		FZ	14 51 48						

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SEISMOLOGICL BULLETIN

OF THE

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of the Imperial Marine Observatory and the Kobe Meteorological Observatory of Japan.

$\varphi = 34^\circ\ 41'\ 18''$ $\lambda = 135^\circ\ 10'\ 51''$ h=58.3 m Underground : Diluvial Series.

Instrument : Omori's Seismograph (Horizontal Pendulum.) Wiechert Seismograph (Horizontal & Vertical)

July

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	16.9		0.001	20
AN:	16.3		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	3.9	Aperiodic	0.007	95
AN:	3.9	"	0.006	95
AZ:	4.5	"	0.003	72

Aug

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	16.5		0.001	20
AN:	15.8		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	3.7	Aperiodic	0.005	103
AN:	3.6	"	0.006	109
AZ:	4.4	"	0.003	65

Sept

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	16.5		0.001	20
AN:	15.8		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	3.7	Aperiodic	0.005	103
AN:	3.6	"	0.006	109
AZ:	4.4	"	0.003	65

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
169	July 2	iP	8 18 53					88	An afershock of North Tango earthquake on March 7th 1927. Moderate shocks were felt at Northern part of Tango province.
		S	8 19 05						
		MEN	8 19 08	1.0	−29	−24			
		MZ	8 19 09	1.1			+24		
		FE	8 22 17						
		FN	8 22 24						
		FZ	8 20 69						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
170	July 2	PEN	21 11 13					4350	Destructive in Gauhati Assam.
		PZ	21 11 14						Epicenter 27.5 N, 90. E.
		iEN	21 11 27						(According to Strasbourg)
		iZ	21 11 26						
		PR1E	21 12 47						
		S	21 17 20						
		eL	21 23 —						
		M1E	21 26 49	21.2	±21				
		MN	21 27 14	15.4		±33			
		M2E	21 30 31	13.2	±33				
		eF	21 57 ±						
171	July 4	eP	13 38 35					98	Upper basin of the Hidaka river, Wakayama prefecture.
		iS	13 38 48						
		M	13 38 48	0.8	−16	±15	±7		
		FE	13 39 23						
		FN	13 39 27						
172	July 4	e	16 35 01						Off the mouth of tne Naka river, Ibaraki prefecture. Weak shocks were felt at the coast near the epicenter.
		eF	16 37 ±						
173	July 5	e	9 01 —						NE off the Sioya cape, Ibaraki prefecture. Faint recard.
		eF	9 03 ±						
174	July 5	P	18 04 49					5015	A distant earthquake. Proable in the south sea.
		eSE	18 11 34						
		SN	18 11 33						
		eF	18 21 ±						
175	July 6	S	9 06 01						Lower basin of the Arita river, Wakayama prefecture.
		F	9 06 12						
176	July 6	S	17 32 09						Very small movment. An after shock of North Tango earthquake on March 7th 1927.
		M	17 32 10						
		FE	17 32 27		±4	±4			
		FN	17 32 25						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
177	July 7	e	19 59 18						Off the Naze Isl. Ryukyuu Ils.
		eF	20 07 ±						
178	July 10	e	11 39 08						Mt. Oomuro, Izu province.
		eF	11 43 ±						
179	July 10	eP	12 35 12						20 km off the Onmae cape, of the direction of Southeast, Sizuoka prefecture.
		SE	12 35 42						
		SZ	12 35 46						
		S̄E	12 35 57						
		ME	12 36 03	1.8	−37				
		MN	12 36 08	2.4		−7			
		MZ	12 36 03	1.8			+21		
		eFEN	12 44 —						
180	July 12	S	15 30 02						Very small movment. Southern part of the Kii channel.
		ME	15 30 12		±6				
		MN	15 30 12			±8			
		F	15 30 18						
181	July 13	P	19 33 25						Kan-su district, China. 38° N 98°E. According to Strasbourg.
		eLN	19 43 44						
		ME	19 46 05	14.4	±6				
		MN	19 44 40	16.1		±13			
		eF	19 59 ±						
182	July 14	ePE	10 25 40						In the Kasima sea.
		eSN	10 26 44						
		ME	10 23 17	3.5	±3				
		eF	10 31 ±						
183	July 16	P	16 28 06					64	Upper basin of the Ooi river, Kyoto prefecture.
		S	16 28 15						
		M	16 28 16		±24	±31			
		FE	16 29 05						
		FN	16 29 03						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
184	July 22	P	19 29 04					1630	SE off Etrup Isl, Kurile Ils.
		S	19 31 53						Weak shocks were felt a
		ME	19 33 40	2.9	±24				Pacific coast of the
		MN	19 32 33	3.1		±22			Hokkaido and Oou district
		MZ	19 32 21	3.0			±10		in the area of Perceptible
		eFE	19 49 ±						1300 km radius.
		eFN	19 50 ±						
		eFZ	19 40 ±						
185	July 23	eME	1 00 07	13.-					Faint record.
		eMN	0 59 56	14.-					Destructive in Southern
		eFE	1 11 ±						Italy.
		eFN	1 14 ±						
186	July 27	iS	19 29 25						In the Akasi channel.
		M	19 29 26	0.5	±8	±9			
		F	19 29 33						
187	July 30	eP	6 42 26					205	West off the Ama cape
		S	6 42 53						Noto peninsula.
		ME	6 42 56	1.1	±10				
		MN	6 42 58			±7			
		F	6 44 09						
188	Aug 4	iP	5 23 –						P phase of bistant earthquake.? Lima, Peru? Time is uncertain.
		eF	5 28 –						
189	Aug 4	eP	16 33 00					77	Very small movment.
		S	16 33 10						NW off the Hinomisaki,
		M	16 33 11		±5	±5			in the Kii channel.
		F	16 33 33						
190	Aug 6	iP	21 34 20					94	Upper basin of the
		iS	21 34 33						Hitaka river, Wakayama
		M	21 34 33	0.6	±23	−18	±2		prefecture.
		F	21 37 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
191	Aug 8	SN	7 15 40						An after shock of North
		M	7 15 42						Tango earthquake on
		F	7 16 03						March 7th 1297.
192	Aug 10	iPN	13 11 38					294	SE off Sima peninsula,
		iS	13 12 17						Ise province.
		ME	13 12 19	1.6	+13				Deep focus earthquake.
		MNZ	13 12 18	2.7		+11	−6		
		eFE	13 17 ±						
		eFN	13 16 ±						
		eFZ	13 15 ±						
193	Aug 15	iE	2 44 37						Off the mouth of the
		ME	2 44 58	1.6	+6				Mabuti river, Aomori
		MN	2 44 56	1.9		+5			prefecture.
		eF	2 49 ±						
194	Aug 15	ePN	5 59 43						Small movment.
		M	5 59 55		±5	±4			In the Kii channel.
		FE	6 00 36						
		FN	6 00 42						
195	Aug 17	PE	9 29 34					440	Northern part of the
		PZ	9 29 34						Uraga channel, in the
		SE	9 30 21						mouth of the Tokyo bay.
		SN	9 30 33						Moderate shocks were
		LZ	9 30 37						felt at the coast near the
		ME	9 30 50	2.2	+78				epicenter.
		MN	9 30 53	3.5		+106			
		MZ	9 30 54	3.3			+69		
		eFEN	9 46 ±						
		eFZ	9 36 ±						
196	Aug 18	eE	19 44 12						In the Kasima sea.
		eFE	19 49 ±						Weak shocks were felt at
		eFZ	19 50 ±						the near epicentral coast.

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
197	Aug 19	ePE	12 41 13						North off the Osima, Izu province. Weak shocks were felt at the coast of the Sagami bay
		ePN	12 41 20						
		SE	12 41 54						
		SN	12 41 58						
		ME	12 41 13		−12				
		MN	12 42 14			+15			
		MZ	12 42 10						
		eF	12 47 ±						
198	Aug 19	P	17 43 00					480	Northern part of the Kuzyuukuri shore, Tiba prefecture. Moderate shocks were felt at the near epicentral region Perceptible at Kanto and suthern part of Ocu district.
		S	17 44 05						
		ME	17 44 22	2.3	−26				
		MN	17 44 19	2.2		−24			
		MZ	17 44 18						
		eFEN	17 53 ±						
		eFZ	17 46 ±						
199	Aug 20	ePN	20 57 46					2020	West off Yonakuni Isl. Ryukyuu Ils. Moderate shocks were felt at the Northen part of Formosa.
		S	21 01 13						
		eLN	21 01 41						
		ME	21 04 51	16.6	±23				
		MN	21 04 16	16.6		±38			
		M1Z	21 03 48	18.5			±19		
		M2Z	21 06 42	14.6			±20		
		eFE	21 46 ±						
		eFN	21 50 ±						
		eFZ	21 37 ±						
200	Aug 29	iE	20 05 32						In the Kunasiri channel Kurile Ils. Felt at the Southeastern part of Hokkaido.
		iZ	20 05 31						
		iE	20 05 39						
		iZ	20 05 33						
		eF	20 09 ±						
201	Sept 1	e	18 10 ±						A distant earthquake. Destructive near Stalinabad, Tajikistan. (According to Kew)
		eF	18 17 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
202	Sept 4	ePE	4 20 08					680	East off Kinkazan, Miyagi prefecture. Moderate shocks were felt at the coast near the epicenter.
		ePN	4 20 10						
		S	4 21 23						
		eF	4 28 ±						
203	Sept 5	P	20 01 48					62	Perceptible at the middle part of Harima province. Upper Basin of the Iti river, Hyogo prefecture.
		S	20 01 56						
		M	20 01 58	0.7	+9	±10			
		FE	20 02 28						
		FN	20 02 29						
204	Sept 10	eP	22 26 02						ESE far off Tyosi, Tiba prefecture.
		eFE	22 33 ±						
		eFN	22 35 ±						
205	Sept 11	e	4 22 19						Upper valley of the Nahari river, Koti prefecture. Small movment.
		S	4 22 27						
		ME	4 22 27			±7			
		MN	4 22 28	0.5		±6			
		F	4 22 58						
206	Sept 17	S	17 58 20	0.6	±2				In the Wakaura bay, Kii channel.
		F	17 58 47						
207	Sept 19	P	8 00 30					62	Yuasa bay, Kii channel.
		iS	8 00 38						
		M	8 00 39	0.9	−27	±21	±7		
		eFEN	8 04 ±						
		eFZ	8 03 ±						
208	Sept 21	eP	23 12 01						A distant earthquake. Upper valley of the Yang tse kiang river?.
		eS	23 16 12						
		LN	23 20 26	32.5					
		ME	23 23 34	17.3	−19				
		MN	23 23 15	15.8		−29			
		MZ	23 25 30	14.1			−26		

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eF	23 55 ±						
209	Sept 22	ePN	14 31 54						A distant earthquake.
		eN	14 39 34						
		eFEN	14 49 ±						
		eFZ	14 46 ±						
210	Sept 24	S	0 53 53						Very samll movment.
		ME	0 53 56	1.3	±4				An after shock of North
		F	0 54 21						Tango earthquake.
									Perceptible at Toyooka.
211	Sept 24	eP	12 12 44						A distant earthquake.
		eSW	12 20 40						Felt at Mindanao,
		eSW	12 22 16						Philippine.
		M	12 23 16	18.2					
		eF	12 31 ±						
212	Sept 25	e	18 51 ±						A distsnt earthquake.
		eF	19 01 ±						
213	Sept 26	P	19 56 30						
		S	19 57 04						
		ME	19 57 12		±12				
		MN	19 57 20	1.6		±10			
		eF	20 02 ±						
214	Sept 28	ePN	9 52 45						
		iSE	9 53 29						
		M	9 53 30	1.6	+12				
		eF	9 57 ±						
215	Sept 29	PE	4 53 55						
		SN	4 55 04						
		ME	4 55 08	1.6	±6				
		MN	4 55 05	2.1		±8			
		MZ	4 55 05				±5		

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eF	4 59 ±						
216	Sept 29	P	14 38 20						Lower basin of the Yodo
		S	14 38 25						river, Osaka prefecture.
		ME	14 38 30	0.8	−13				
		MN	14 38 26			±20			
		MZ	14 38 26	0.9			+16		
		FEN	14 38 55						
		FZ	14 39 ±						
252									Off the mouth of the Hime river, Niigata prefecture. Time is uncertain.
630									In the Kagosima bay. Felt at Kyusyu and Sikoku Deep focus earthquake.

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kobe Meteorological Observatory of Japan.

φ=34° 21′ λ=134° 53′ h=109.0 m. Underground: Cretaceous.

Instruments: Omori's Seismograph. (Horizontal Pendulum) Wiechert Seismograph. (Horizontal & Vertical)

July

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	17.0	2.0	0.001	20
A_N:	16.8	2.1	0.0002	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4.9	Aperiodic	0.003	112
A_N:	4.9	,,	0.003	107
A_Z:	4.2	,,	0.001	66

Aug

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	17.8	2.9	0.003	20
A_N:	16.0	2.5	0.0003	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4.9	Aperiodic	0.002	112
A_N:	4.9	,,	0.003	103
A_Z:	4.3	,,	0.001	64

Sept

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	16.5	2.0	0.003	20
A_N:	16.5	1.9	0.0004	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4.8	Aperiodic	0.003	118
A_N:	5.0	,,	0.002	100
A_Z:	4.2	,,	0.001	66

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
246	July 2	P	8 18 57					131	An after shock of Nor Tango earthquake on March, 7th, 1927. Moderate shocks were felt at Northern part of Tango province.
		S	8 19 15						
		M	8 19 16	0.3	+6	+15	±2		
		M_2N	8 19 18	0.3		−7			
		F	8 20 35						
247	July 2	P	21 11 11						A distant earthquake.

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		e	21 19 56						Destructive in Gauhati, Assam. 27°.5N 90° E. (According to Strasburg)
		e_{LN}	21 23 16						
		e_{EZ}	21 26 06						
		M_1E	21 27 45	16.8	+233				
		M_1N	21 27 04	15.5		±267			
		M_2E	21 29 56	12.6	+375				
		M_2N	21 28 10	13.5		−204			
		M_Z	21 29 21	17.4			±183		
		eF	22 00 ±						
248	July 4	P	13 38 33					81	Upper basin of the Hitaka. river, Wakayama prefecture.
		S	13 38 43						
		M_{EZ}	13 38 44	0.3	+4		±1		
		M_N	13 38 45	0.3		−5			
		F	13 39 25						
249	July 4	eP	16 36 00						Off the mouth of the Naka river, Ibaraki prepecture.
		M_E	16 36 15	2.3	±1				
		M_N	16 36 12	1.9		±1			
		eF	16 38 ±						
250	July 4	eP	23 55 24					16	Local shock.
		S	23 55 26						
		eF	23 55 34						
251	July 5	eP	8 59 46						NE off the Sioya cape, Ibaraki prefecture.
		eF	9 01 ±						
252	July 5	eP	18 04 45						A distant earthquake. Recorded at Ploisance, and Roca di Papa.
		eF	18 16 ±						
253	July 5	P	19 11 43					22	Local shock.
		S	19 11 46						
		M_E	19 11 46	0.2	±3				
		M_N	19 11 47	0.3		±3			
		F	19 12 10						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
254	July 6	P	9 05 53					24	Lower basin of the Ar river, Wakayama prefe ure.
		S	9 05 56						
		ME	9 05 57	0.8	−1				
		MN	9 05 58	0.4		+3			
		F	9 06 33						
255	July 6	P	12 36 33					20	In the Kii channel.
		S	12 36 36						
		ME	12 36 37		±1				
		MN	12 36 38	0.3		+2			
		F	12 37 19						
256	July 6	P	15 58 47					24	In the Wakaura bay, Kii channel.
		S	15 58 50						
		ME	15 58 50	0.3	±2				
		MNZ	15 58 51	0.3		−2	±2		
		F	15 59 11						
257	July 6	S	17 32 20						An after shock of Noto Tango earthquake on March, 7th, 1927.
		ME	17 32 23	0.8	±1				
		MN	17 32 21	0.3		±1			
		F	17 32 37						
258	July 6	P	20 44 19					22	Local shock.
		S	20 44 22						
		M	20 44 22	0.4	±1	−3			
		F	20 44 38						
259	July 7	eP	13 03 31					14	In the Wakaura day, Kii channel.
		S	13 03 33						
		ME	13 03 36		±1				
		MN	13 03 34			±1			
		F	13 03 41						
260	July 7	eS	19 58 36						Off the Naze Isl, Ryukyu Ils.
		ME	19 59 45	11.3	±4				
		MN	19 59 29	11.1		±5			
		eF	20 05 ±						
261	July 9	S	1 25 40						Upper basin of the Gō river, Hirosima prefecture.
		M	1 25 42	0.6	±1	−1			
		F	1 26 12						
262	July 9	S	8 50 00						In the Kii channel.
		M	8 50 00		±1	±1			
		F	8 50 12						
263	July 10	e	4 16 06						Upper basin of the Hidi river, Ehime prefecture, Sikoku district.
		S	4 16 11						
		M	4 16 14	0.5		±1			
		F	4 16 28						
264	July 10	P	12 35 08					412	SE off the Onmae cape, Sizuoka prefecture.
		S	12 36 04						
		ME	12 36 20	2.1	−10				
		MN	12 36 16	2.3		−9	±4		
		F	12 43 19						
265	July 11	P	1 38 47					19?	In the basin of the Arita river, Wakayama prefecture.
		S	1 38 49						
		M	1 38 49	0.4	+2	+3			
		F	1 39 14						
266	July 11	P	11 37 17					37	In the basin of the Arita river, Wakayama prefecture.
		S	11 37 22						
		M	11 37 22	0.3	+2	−2			
		F	11 37 43						
267	July 12	S	15 30 02						Southern part of the Kii channel
		M	15 30 06						
		F	15 30 23						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
268	July 13	P	19 33 27						A distant earthquake, Kansau, China. 38° N,
		e	19 43 52						(According to Strasbourg
		ME	19 46 38	12.2	−44				
		MN	19 44 16	13.5		+64			
		MZ	19 45 47	13.5			±20		
		eF	20 06 ±						
269	July 14	eP	10 26 40						In the Kasima sea.
		ME	10 27 15	2.8	±1				
		MN	10 27 17	2.6		±1			
		eF	10 29 ±						
270	July 14/15	eL	23 37 12						A distant earthquake Central America?
		eF	0 11 ±						
271	July 16	P	16 28 14					98	Upper basin of the O river, Kyoto prefectur
		S	16 28 27						
		ME	16 28 29	0.9	−6				
		MN	16 28 27	0.4		−6			
		MZ	16 28 28	1.0			−2		
		F	16 29 34						
272	July 17	eP	3 57 13					36	In the Wakaura bay, Kii channel.
		S	3 57 18						
		M	3 57 19	0.3	±1	±1			
		F	3 57 51						
273	July 18	S	10 23 59					?	Local shock?.
		ME	10 24 04	1.6	−2				
		MN	10 24 00	2.2		−3			
		MZ	10 24 12	2.0			±1		
		eF	10 25 20						
274	July 19	P	2 03 05					39	Local shock.
		S	2 03 10						
		M	2 03 11	0.4	±1	−2			

No.	Date	Phase	Time G M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		F	2 03 45						
275	July 19	P	21 08 31					29	In the Wakaura bay, Kii channel.
		S	21 08 34						
		M	21 08 35	0.4	−3	±3			
		F	21 09 06						
276	July 20	P	9 23 24					29	Ditto.
		S	9 23 28						
		MEN	9 23 28	0.3	+4	±8			
		MZ	9 23 29				±1		
		F	9 24 14						
277	July 21	P	4 46 28					15	In the basin of the Arita river, Wakayama prefecture.
		S	4 46 30						
		MEN	4 46 30	0.4	+2	−4			
		MZ	4 46 31				±1		
		F	4 46 53						
278	July 21	eP	11 36 22					819	West off the Yaku Isl, Ryukyu Ils.
		eS	11 38 13						
		M1E	11 38 21	1.7	±1				
		MN	11 38 23	1.8		±1			
		M2E	11 38 35	2.0			±1		
		eF	11 40 ±						
279	July 21	S	14 06 23						Local shock.
		M	14 06 23	0.3	±1	±1			
		F	14 06 38						
280	July 22	P	19 29 08					1390	SE off Etrup Isl, Kurile Ils. Weak shocks were felt at the Pacific coast of the Hokkaido and Oou bistrict. Perceptible in the area of 1300 km radius.
		S	19 31 34						
		eLE	19 34 50						
		eLN	19 35 11						
		eLZ	19 34 00						
		M1E	19 35 26	10.0	−14				

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_1N	19 35 29	S.0		−15			
		MZ	19 35 27	12.0			±6		
		M_2E	19 38 00	10.0	+8				
		M_2N	19 38 00	10.0		−8			
		eF	19 58 ±						
281	July 23	eL	0 57 38						Destructive in Southe Italy.
		ME	1 05 12	14.6	±13				
		MN	1 06 34	13.5		±15			
		MZ	1 06 44	15.0			±14		
		eF	1 26 ±						
282	July 23	P	10 08 24					132	Near Gifu city.
		eS	10 08 42						
		ME	10 08 51	1.0					
		MN	10 08 44	1.3		±1			
		F	10 09 11						
283	July 24	S	22 42 39						
		M	22 42 39	0.3	−1	±2			In the Wakura bay, Kii channel.
		F	22 42 53						
284	July 25	eP	6 03 59						
		S	6 04 02					19	Ditto.
		M	6 04 02	0.3	−1	−2			
		F	6 04 18						
285	July 27	iP	19 29 13						
		S	19 29 15					15	Near Akasi channel.
		M	19 29 15	0.3	−10	−8	−2		
		M_2N	19 29 16	0.4		+8			
		F	19 29 41						
286	July 30	eP	6 42 21						
		eS	6 43 04					321	West off the Ama cape Noto peninsula.
		ME	6 43 17	2.1	±1				

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	Amplitude AN	Amplitude AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		MN	6 43 12	1.6		±1			
		MZ	6 43 21	2.1			±1		
		F	6 44 33						
287	July 31	eP	5 09 17					25	In the Wakaura bay, Kii channel.
		eS	5 09 21						
		M	5 09 21	0.4	±1	±1			
		F	5 09 40						
288	July 31	ePEN	19 14 02						Southern part of the Kii channel.
		eS	19 14 04						
		M	19 14 04	0.4		±1			
		F	19 14 22						
289	Aug 3	eP	0 34 06					28	Local shock.
		S	0 34 09						
		ME	0 34 09	0.4	±1				
		MN	0 34 10	0.3		−2			
		F	0 34 22						
290	Aug 3	eP	22 02 53					26	In the Wakaura bay, Kii channel.
		eS	22 02 57						
		ME	22 02 58	0.3	−3				
		MN	22 02 57	0.3		±5			
		MZ	22 02 59				±1		
		F	22 03 20						
291	Aug 3	P	23 46 52					35	In the Wakaura bay, Kii channel.
		S	23 46 56						
		ME	23 46 58	0.4	±1				
		MN	23 46 57	0.4		±1			
		F	23 47 20						
292	Aug 4	P	5 23 05						P phase of distant earthquake?. Lima, Peru?
		eF	5 28 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
293	Aug 4	P	16 32 54					39	NW off the Hinomi... in the Kii channel.
		S	16 32 59						
		MEZ	16 32 59	0.4	+7		+2		
		MN	16 33 00	0.3		±8			
		F	16 33 32						
294	Aug 5	eP	13 44 00					17	Local shock.
		S	13 44 02						
		MN	13 44 03	0.3		±1			
		F	13 44 09						
295	Aug 6	S	13 19 22						In the Wakaura b...
		M	13 19 23	0.4	±1	±1			Kii channel.
		F	13 19 38						
296	Aug 6	iP	21 34 16		+18	−16	−50	72	Upper basin of the...
		PMZ	21 34 16	0.2			−5		Hitaka river, Waka...
		PME	21 34 16	0.2	+5				prefecture.
		PMN	21 34 17	0.3		−6			
		iS	21 34 26						
		MEN	21 34 26	0.3	−11	+12			
		MZ	21 34 27				−3		
		M2N	21 34 31	0.3		−5			
		F	21 35 36						
297	Aug 8	P	17 35 37					28	In the Wakaura b...
		S	17 35 40						Kii channel.
		M	17 35 41	0.3	−2	−4	±1		
		F	17 36 05						
298	Aug 10	P	13 11 40					291	SE off Sima pen...
		PMZ	13 11 40	0.9			±4		Ise province.
		S	13 12 19						Deep focus earthqu...
		M1E	13 12 22	2.0	±1				
		MN	13 12 20	2.2		±4			
		MZ	13 12 20	2.0			±1		
		M2E	13 12 50	2.0	±1				
		eF	13 15 ±						
299	Aug 15	e	2 44 42						Off the mouth of the Mabuti river, Aomori prefecture.
		eS	2 44 57						
		ME	2 45 07	1.6	±1				
		MN	2 45 08	1.2		±1			
		F	2 46 48						
300	Aug 15	P	5 59 38					36	In the Kii chennel.
		S	5 59 43						
		M	5 59 43	0.3	+7	−13	−2		
		F	6 00 56						
301	Aug 15	S	18 32 09						Basin of the Arita river, Wakayama prefectnre.
		MEN	18 32 09	0.3	+2	−3			
		F	18 32 26						
302	Aug 15	P	23 14 18					27	In the Wakaura bay, Kii chennel.
		S	23 14 21						
		ME	23 14 25	0.5	+1				
		MN	23 14 22	0.3		±1			
		F	23 14 47						
303	Aug 17	P	9 29 39					431	Northern part of the Uraga channel, in the Tokyo bay. Moderate shocks were felt at the coast near the epicentnr.
		S	9 30 37						
		ME	9 30 57	1.5	+11				
		MN	9 31 02	2.0		−21			
		MZ	9 30 59	2.0			±6		
		F	9 44 ±						
304	Aug 17	P	18 06 34					20	In the Wakaura bay, Kii channel.
		S	18 06 37						
		ME	18 06 37	0.4	±1				
		MN	18 06 38	0.3		+2			
		F	18 06 50						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
305	Aug 18	e	19 44 39						In the Kasima sea.
		eS	19 45 04						Weak shocks were
		ME	19 45 22	2.6	±2				at the coast near the
		MN	19 45 23	2.6		±3			epicenter.
		MZ	19 45 22	2.7			±1		
		eF	19 48 ±						
306	Aug 19	e	12 41 51						North off the Osima
		eS	12 42 09						Izu province.
		MEN	12 42 25	1.9	±1	±1			Weak shocks were fe
		MZ	12 42 12	1.7			±1		the coast of Sagami
		eF	12 46 ±						
307	Aug 19	eP	16 51 58					32	In the Wakaura ba
		S	16 52 03						Kii channel.
		M	16 52 03	0.4	±1	−2			
		F	16 52 20						
308	Aug 19	P	17 43 02					557	Northern part of the
		S	17 44 17						Knzyukuri shore, Th
		ME	17 44 54	2.2	±3				prefectur.
		MN	17 44 49	2.7		±4			Moderate shocks wer
		MZ	17 44 32	3.1			±2		felt at the near epic
		eF	17 50 ±						tral region.
									Perceptible at Kanto
									Southern part of Oc
									disrict.
309	Aug 20	eP	20 57 31						
		S	21 01 11					2200	West off Yonakuni
		L	21 03 28						Ryukyu Ils.
		M1E	21 05 31	12.7	+125				Moderate shocks wer
		M1N	21 03 56	17.4		−425			felt at Northern part
		M1Z	21 03 40	19.4			±90		Formosa and South
		M2E	21 07 05	12.4	+194				Ryukyu.
		M2N	21 06 02	13.7		−325			
		M2Z	21 07 02	13.5			−91		
		eF	21 53 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
310	Aug 23	SN	6 58 52						Local shock.
		MN	6 58 52		−1				Time is uncertain.
		F	6 59 04						
311	Aug 24	S	1 42 40						Basin of the Arita river,
		M	1 42 41	0.3	±1	±1			Wakayama prefectur.
		F	1 42 51						
312	Aug 25	P	1 12 21					33	Ditto.
		S	1 12 25						
		ME	1 12 26	0.3	−2				
		MN	1 12 26	0.3		−2			
		F	1 12 45						
313	Aug 26	P	0 25 59					8	Local shock.
		S	0 26 00						
		M	0 26 01	0.3	±1	±1			
		F	0 26 14						
314	Sept 2	P	4 34 10					28	In the Wakaura bay,
		S	4 34 14						Kii channel.
		ME	4 34 14	0.3	−1				
		MN	4 34 14	0.4		−3			
		F	4 34 28						
315	Sept 4	e	4 21 05						East off Kinkazan,
		eS	4 21 37						Miyagi prefectur.
		ME	4 21 38	2.0	±1				Moderate shocks were
		MN	4 21 45	2.2		±1			felt at the coast near
		F	4 25 ±						epicenter.
316	Sept 5	P	20 01 49					82	Upper basin of the Iti
		S	20 02 00						river, Hyogo prefecture.
		ME	20 02 00	0.3	+3				
		MN	20 02 00	0.4		−11			
		MZ	20 02 01				±1		

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		F	20 03 03						
317	Sept 6	P	13 28 34					22	Basin of the Hita river, Wakayama prefecture.
		S	13 28 37						
		M_E	13 28 37		±1				
		M_N	13 28 37	0.3		[+3			
		F	13 28 59						
318	Sept 7	S	19 30 01						Near Siomisaki, S and of Kii peninsu
		M_{EN}	19 30 01	0.3	+2	−2			
		M_Z	19 30 04				±1		
		F	19 30 17						
319	Sept 9	eP	20 38 50					26	Near Wakayama.
		S	20 38 54						
		M	20 38 54	0.4	±1	±2			
		F	20 39 20						
320	Sept 10	S	17 55 28						Ditto.
		M	17 55 28	0.3	±0.4	±1			
		F	17 55 36						
321	Sept 10	eP	22 25 26						ESE far off Tyôsi Tiba prefecture.
		e	22 28 24						
		eF	22 36 ±						
322	Sept 11	P	4 22 02						
		S	4 22 14					88	Upper basin of the Nahari river, Koti prefecture.
		M_E	4 22 14	0.8	+3				
		M_{NZ}	4 22 15	0.6		−5	±1		
		F	4 23 23						
323	Sept 12	P	11 03 35						
		S	11 03 40					38	In the Wakaura b Kii channel.
		M_{EN}	11 03 40	0.3	+2	±2			
		F	11 04 08						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
324	Sept 12	e	14 54 23						South off Tanegasima Ryukyu Ils.
		eS	14 55 00						
		M_E	14 55 01	2.3	±1				
		M_N	14 55 02	2.8		±1			
		eF	14 57 ±						
325	Sept 12	eP (?)	17 51 27						Local shock.
		eF	17 52 50						
326	Sept 14	eP	2 24 35					46	Basin of the Arita river, Wakayama prefecture.
		S	2 24 41						
		M_E	2 24 42	0.4	±1				
		M_N	2 24 43	0.3		±2			
		F	2 25 09						
327	Sept 14	S	15 16 42						In the Kii channel.
		M	15 16 42	0.4	±0.4	−2			
		F	15 16 57						
328	Sept 17	eP	0 59 12					35	In the Kii channel.
		S	0 59 17						
		M	0 59 17		±1	±2			
		F	0 59 32						
329	Sept 17	P	17 58 27					39	In the Wakaura bay. Kii channel. Time is uncertain.
		S	17 58 32						
		M_E	17 58 32	0.3	−2				
		M_{NZ}	17 58 33	0.4		+4	±1		
		F	17 59 03						
330	Sept 18	eP	4 32 28						Local shock.
		eF	4 33 ±						
331	Sept 18	P	7 00 27					27	Near Wakayama.
		S	7 00 31						
		M	7 00 31	0.4	+1	−2			

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		F	7 00 44						
332	Sept 18	eP	13 41 10					50	Basin of the Arita r
		S	13 41 17						Wakayama prefecture.
		M	13 41 17	0.3	−1	±1			
		F	13 41 40						
*333	Sept 19	iP	8 00 27					41	Iu the Yuasa bay,
		S	8 00 32						Kii channel.
		M	8 00 33	0.4	−17	−24	−8		Perceptible.
		F	8 00 06						
334	Sept 19	P	15 14 00					45 ?	Local shock.
		S	15 14 06						
		M_E	15 14 06	0.3	+1				
		M_N	15 14 07	0.4		±2			
		F	15 14 30						
335	Sept 20	P	2 16 12					46	In the Wakaura bay,
		S	2 16 18						Kii channel.
		M_E	2 16 20	0.4	±1				
		M_N	2 16 18	0.3		+1			
		F	2 16 43						
336	Sept 20	eS	13 05 52						Faint recoed.
		eF	13 10 ±						
337	Sept 21	eP	23 08 11						A distant earthquake.
		iE	23 13 44						Upper valley of the Y
		iN	23 15 58						tse kieng river?
		iZ	23 16 58						
		eS	23 19 11						
		eL_{EZ}	23 22 21						
		eL_N	23 20 38						
		M_1E	23 23 44	16.4	±80				
		M_1N	23 22 56	15.3		±290			
		M_1Z	23 24 38	12.8			±75		
		M_2E	23 25 25	14.1	±107				
		M_2N	23 24 00	12.8		±100			
		eF	23 58 ±						
338	Sept 22	eP	14 31 50						A distant earthquake.
		eL	14 40 00						
		M_E	14 42 08	12.2	±7				
		M_N	14 41 25	14.1		±13			
		M_Z	14 44 07	12.0			±4		
		eF	14 59 ±						
339	Sept 24	P	12 12 18					4905	A distant earthquake.
		eS_N	12 18 56						Felt at Mindanao,
		eL	12 20 15						Philippine.
		M_E	12 21 26	12.0	±7				
		M_N	12 22 52	14.0		±13			
		M_Z	12 22 29	15.5			±6		
		eF	12 52 ±						
340	Sept 25	eL	18 50 50						A distant earthquake.
		M_E	18 50 04	13.1	±8				
		M_N	18 50 22	10.3		±5			
		eF	19 08 ±						
341	Sept 26	P	19 56 52					339	Off the mouth of the
		S	19 57 38						Hime river, Niigata
		M_E	19 58 13	2.4	±2				prefecture.
		M_N	19 57 53	2.4		±5			
		M_Z	19 58 08	2.0			±2		
		F	20 03 15						
342	Sept 28	P	9 47 11					28	Local shock.
		S	9 49 15						
		M	9 49 15	0.3 0.4	+1	+2			
		F	9 49 37						

TOYOOKA JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kobe Meteorological Observatory of Japan.

φ=35° 32′ λ=134° 49′ h=32.2 m. Underground: Diluvial Series.

Instrument: Omori's Seismograph (Horizontal Pendulum.) Wiechert Seismograph (Horizontal & Vertical)

July

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	12.8	3.0	0.001	20
A_N:	9.6	3.0	0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	3.9	Aperiodic	0.003	102
A_N:	4.0	4.0	0.004	114
A_Z:	3.7	5.0	0.003	66

Aug

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	6.4	3.0	0.001	20
A_N:	6.2	3.0	0.002	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	3.7	Aperiodic	0.004	112
A_N:	3.9	5.1	0.004	114
A_Z:	3.4	2.0	0.006	63

Sept

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	7.6	3.0	0.002	20
A_N:	7.9	3.0	0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4.0	10.0	0.003	97
A_N:	4.0	6.0	0.004	104
A_Z:	3.9	4.0	0.004	78

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	A_N	A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
343	Sept 28	S	9 53 34						SSE off Osima, mouth of the Sagami
		M_E	9 53 45	2.1	±1				
		M_N	9 53 47	2.1		±3			
		M_Z	9 53 46	2.1			±1		
		F	9 55 12						
344	Sept 29	P	4 53 48					477	In the Kagosima ba
		S	4 54 52						Felt at Kyusyu and
		M_1E	4 54 57	2.5	−5				Sikoku district.
		M_N	4 54 54	2.2		+5			
		M_Z	4 54 58	2.2			±2		
		M_2E	4 55 17	2.0	±3				
		F	5 00 ±						
345	Sept 29	P	23 38 27					80	Lower basin of the Y
		S	23 38 38						river, Osaka prefectu
		M_E	23 38 39	0.3	−3				
		M_N	23 38 38	0.4		−6			
		M_Z	23 38 38	0.6			±1		
		F	23 39 25						
*84	July 2	iP	8 18 37					19	An after shock of North Tango earthquake on March, 7th, 1927. Moderate shocks were felt at this station.
		iS	8 18 40						
		M	8 18 40		−187	−324	−231		
		F	8 21 ±						
85	July 2	P_E	21 11 11					4155	Destructive in Gauhati, Assam. 27°.5N 90°E.
		P_N	21 11 15						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		PZ	21 11 10						Accorbing to Strasbourg.
		ePR1E	21 11 24						
		ePR1N	21 11 22						
		iSE	21 17 11						
		iSN	21 17 14						
		eLN	21 23 10						
		eLZ	21 26 19						
		ME	21 29 25	16.5	−40				
		M1N	21 29 03	15.5		+38			
		MZ	21 29 21	17.2			+47		
		M2N	21 30 44	12.6		+38			
		eFEN	21 56 ±						
		eFZ	21 54 ±						
86	July 6	ePEN	17 30 47					24	An after shock of North Tango earthquake on March, 7th, 1927. Time is uncertain.
		ePZ	17 30 45						
		eS	17 30 50						
		MEN	17 30 50	+29	+21				
		MZ	17 30 49			±10			
		FEN	17 31 26						
		eFZ	17 32 ±						
87	July 8	iP	12 26 27					25	Ditto.
		iS	12 26 30						
		M	12 26 30		±7	−7			
		eF	12 26 43						
88	July 9	PN	1 25 17					161	Upper basin of the Go river, Hirosima prefectur.
		iS	1 25 39						
		ME	1 25 40		−3				
		MN	1 25 44			+3			
		eF	1 26 ±						
89	July 10	eP	11 39 04						Mt Oomuro, Izu province.
		S	11 39 19						
		eF	11 41 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
90	July 10	ePNZ	12 35 12					282	SE off Onmae cape. Sizuoka prefectuer.
		iPE	12 35 21						
		iPN	12 35 26						
		iE	12 35 32						
		iEN	12 35 56						
		iSE	12 35 59						
		iSN	12 36 02						
		SZ	12 35 58						
		ME	12 36 14	1.2	−16				
		MN	12 36 16	2.6		+21			
		MZ	12 36 15				−13		
		eFEZ	12 39 ±						
		eFN	12 40 ±						
91	July 13	ePE	19 33 48						A distant earthquake. Kan-su, China. 38°N 98°E (According to Strasbourg.)
		ePN	19 33 39						
		LE	19 43 42						
		LN	19 43 32						
		eFE	19 55 ±						
		eFN	19 59 ±						
92	July 16	PE	16 28 11					76	Upper basin of the Ooi river, Kyoto prefectur.
		S	16 28 21						
		ME	16 28 22	0.4	−12				
		MN	16 28 22	0.3		−11			
		FE	16 28 48						
		FN	16 29 02						
		FZ	16 29 00						
93	July 19	iP	13 51 52					19	An after shock of North Tango earthquake on March 7th 1927.
		S	13 51 55		−18	±7	±6		
		M	13 51 55						
		FEN	13 52 15						
		F	13 52 29						
94	July 22	iP	19 28 57					1320	SE off Etrup Isl,

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		S	19 31 17						Kurile Ils.
		eLE	19 33 08						Weak shocks were felt
		eLN	19 33 21						at Pacific coast of
		eLZ	19 33 16						Hokkaido and Oou district.
		eFE	19 50 ±						Perceptible in the area
		eFN	19 45 ±						of 1300km radius.
		eFZ	19 52 ±						
95	July 23	eL	0 57 ±						Destructive in the South
		eFE	1 14 ±						Italy.
		eFN	1 17 ±						
96	July 30	ePE	6 41 59					208	West of the Ama cape,
		PEN	6 42 02						Noto peninsula.
		PZ	6 42 00						
		eS	6 42 30						
		ME	6 42 34		−4				
		MN	6 42 32			+5			
		FEN	6 44 23						
		FZ	6 43 22						
97	July 31	iP	20 07 39						
		iS	20 07 42					22	Local shock.
		M	20 07 42	0.2	−12	+13	±5		
		FE	20 07 55						
		FN	20 07 57						
		FZ	20 08 17						
98	Aug 2	iP	17 46 44						
		iS	17 46 46					19	Ditto.
		M	17 46 47	0.4	−9	+11			
		FE	17 46 58						
		FN	17 47 02						
		FZ	17 47 21						
99	Aug 6	ePN	6 34 53						Ditto.

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		S	6 34 54						
		M	6 34 55			+4			
		F	6 35 20						
*100	Aug 8	iP	7 15 15					20	An after shock of North
		S	7 15 17						Tango earthquake on
		M	7 15 18		+61	±22	±8		March 7th 1927.
		FE	7 16 05						Perceptible.
		FN	7 16 03						
		FZ	7 16 16						
101	Aug 15	eE	2 44 20						Off the mouth of the
		eN	2 44 18						Mabuti river, Aomori
		SE	2 45 00						prefectur.
		eF	2 48 ±						
								490	Northern part of the
102	Aug 17	eP	9 29 39						Uraga channel, in the
		iPE	9 29 51						Tokyo bay.
		iPN	9 29 50						Moderate shocks were felt
		iPZ	9 29 44						at the epicentral region.
		SE	9 30 44						
		SN	9 30 46						
		SZ	9 30 44						
		M_1E	9 30 46	2.1	−46				
		M_1N	9 30 56	3.8		+137			
		M_1Z	9 30 47	1.7			−67		
		M_2E	9 30 55		−43				
		M_2N	9 30 57	2.7					
		CN	9 31 31						
		CZ	9 31 27						
		eFE	9 35 ±						
		eFN	9 38 ±						
		eFZ	9 34 ±						
								18	Local shock.
103	Aug 17	PEN	18 44 08						
		iPZ	18 44 07						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		iS	18 44 09						
		M	18 44 10		+5	−12			
		FEN	18 44 34						
		FZ	18 45 18						
104	Aug 18	P	19 43 29						In the Kasima sea, Weak shocks were felt at the coast near the epicenter.
		eS	19 44 39						
		M	19 44 54			−4			
		eFE	19 46 ±						
		eFNZ	19 47 ±						
105	Aug 19	P	12 42 28					361	North of the ōsima, Izu province. Weak shocks were felt at the coast of Sagami bay.
		SE	12 43 17						
		SZ	12 43 15						
		ME	12 43 18		+3				
		MN	12 43 19	1.4		+6			
		MZ	12 43 17						
		eFEN	12 46 ±						
		FZ	12 44 48						
106	Aug 19	ePE	17 42 59						
		ePN	17 43 00					453	Northern part of the Kuzyuukuri shore, Tiba prefecture. Moderate shocks were felt at the coast near the epicenter.
		iE	17 43 05						
		iN	17 43 09						
		iZ	17 43 04						
		SN	17 44 09						
		LN	17 44 14						
		ME	17 44 32		+8				
		MN	17 44 23			+22			
		MZ	17 44 16				−10		
		eFE	17 48 ±						
		eFN	17 49 ±						
		eFZ	17 46 ±						
107	Aug 20	PE	20 57 43						
		PN	20 57 44					2130	West off Yonakuni Isl, Ryukyu Ils.

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eLE	21 01 20						Moderate shocks were felt at the northern part of Formosa and southern part of Ryuukyu Ils.
		eLN	21 01 17						
		ME	21 05 18	14.8	+31				
		M1N	21 05 59	13.0		+38			
		M2N	21 07 07	10.6		−40			
		eFE	21 30 ±						
		eFN	21 35 ±						
108	Sept 5	P	20 01 47					62	Upper basin of the Iti river, Hiyoogo prefecture.
		S	20 01 55						
		ME	20 01 56		±7				
		MN	20 01 55			±6			
		FE	20 02 22						
		FN	20 02 27						
		FZ	20 02 30						
109	Sept 17	P	14 11 38					13	Local shock.
		S	14 11 40						
		M	14 11 40		+8	−11			
		F	14 11 50						
110	Sept 21	PEZ	23 10 49					4664	A distant earthquake. Upper valley of the Yang-tsze-kiang river?.
		ePN	23 10 51						
		iE	23 11 52						
		eSE	23 16 08						
		eLE	23 21 58						
		LNZ	23 20 52						
		M1E	23 24 24	12.0	+18				
		M1N	23 23 42	15.6		+37			
		M1Z	23 25 18	13.2			−21		
		M2E	23 25 16	14.2	−19				
		M2N	23 26 05	12.5		−29			
		M2Z	23 26 05	12.6			−22		
		M3E	23 26 10	12.0	+26				
		M4E	23 26 56	140	+15				
		M5E	23 27 15	14.0	+17				

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	A_N	A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_6E	23 28 05	12.0	+15				
		eF_{EN}	23 51 ±						
		eF_Z	23 57 ±						
*111	Sept 24	P	0 53 25					20	An after shock of North Tango earthquake on March, 7th, 1927. Perceptible.
		S	0 53 27						
		M	0 53 28		+12	+16			
		F_{EN}	0 53 59						
		eF_Z	0 55 ±						
112	Sept 26	eP_E	19 56 25						Off the mouth of the Hime river, Niigata prefecture.
		eP_N	19 56 24						
		i_E	19 56 31						
		i_N	19 56 32						
		i_Z	19 56 31						
		i_E	19 56 42						
		i_S	19 57 08						
		M_E	19 57 12	1.5	+7				
		M_N	19 57 26	1.7		−10			
		M_Z	19 57 13	1.2			+6		
		eF	20 00 ±						
113	Sept 29	e_E	4 54 26						In the Kagosima bay. felt at Kyusyu and Sikoku district.
		e_N	4 54 14						
		S	4 55 11						
		M_N	4 55 18	1.5		−7			
		eF_{EN}	4 56 06						
		eF_Z	4 56 29						
*114	Sept 29	P	14 38 24						
		S	14 38 27					26	Lower basin of the Yodo river, Osaka prefecture. Perceptible.
		M	14 38 28	0.3	−19	+23			
		F_{EN}	14 39 00						
		F_Z	14 39 49						

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OF THE

IMPERIAL MARINE OBSERVATORY

AND

KOBE METEOROLOGICAL OBSERVATORY.

KOBE, JAPAN.

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From Oct. 1 1930, to Dec. 31 1930.

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From No. 217. to No. 291, 1930.

KÔBE JAPAN.

SEISMOLOGICAL BULLETIN

of the Imperial Marine Observatory and the Kobe Meteorological Observatory of Japan.

$\varphi = 34^\circ\ 41'\ 18''$ $\lambda = 135^\circ\ 10'\ 51''$ h = 58.3 m Underground : Diluvial Series.

Instruments: Omori's Seismograph. (Horizontal Pendulum)

Wiechert Seismograph. (Horizontal & Vertical)

Oct.

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	16.9		0.001	20
AN:	15.2		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	4.2	Aperiodic	0.007	84
AN:	3.9	,,	0.006	98
AZ:	4.1	,,	0.002	70

Nov.

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	17.0		0.001	20
AN:	15.1		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	3.6	Aperiodic	0.007	97
AN:	3.6	,,	0.006	97
AZ:	4.2	,,	0.005	67

Dec.

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	16.8		0.001	20
AN:	16.3		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	3.6	Aperiodic	0.008	104
AN:	3.7	,,	0.006	104
AZ:	4.5	,,	0.002	64

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
217	Sept. 30	ePZ	21 28 28					4245	Near New-Guinea.
		PRIE	21 29 26						
		S	21 34 29						
		LSW	21 37 28	24.-					
		MSW	21 38 07		±32				
		eF	22 16 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
218	Oct. 1	eS	2 58 02	3.3					Central Luzon, Philippine.
		eF	3 03 ±						
219	Oct. 2	eN	10 03 52						West of Erimo cape, Hokkaido.
		eE	10 05 29						
		eF	10 11 ±						
220	Oct. 7	eP	1 29 23					58	Lower basin of the Arita river, Wakayama prefecture.
		iS	1 29 31						
		ME	1 29 32	0.5	±12				
		MN	1 29 32			±6			
		F	1 30 07						
221	Oct. 8	iP	10 29 10					6380	P phase is distinct. Near New Hebrides, South Pacific Ocean.
		eSSE	10 37 07	26.1					
		eLSW	10 44 13						
		MSW	10 44 48	22.8	±8				
		eF	11 07 ±						
222	Oct. 10	eSW	0 56 06	17.–					A distant earthquake. Inscribe at Sumoto, Ploisance and Florencexim.
		eF	1 03 ±						
223	Oct. 12	ePE	8 59 34						West of the Kasumi Lake, Ibaraki prefecture.
		SN	9 00 24						
		MN	9 00 25	2.4		±7			
		MZ	9 00 24				±5		
		eFEN	9 05 ±						
		eFZ	9 04 ±						
224	Oct. 16	iP	21 32 53		−6	−3	+4	195	Near Daisycdi, Isikawa prefecture. Moderate shocks were felt at the epicentral region. Fore skock of next earthquake ?.
		iP̄	21 32 55						
		SE	21 33 18						
		S̄N	21 33 20						
		SZ	21 33 19						
		ME	21 33 21	1.7	+130	−112			
		MN	21 33 21	1.4					

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		MZ	21 33 21	1.7			+63		
*225	Oct. 16	PZ	21 36 27				+20	193	Perceptible. Near Daisyoji, Isikawa prefecture. Small damaged at the epicentral region. Perceptible in the radius of 300 km.
		ePN	21 36 30			−24			
		iPE	21 36 32		−27				
		P̄EN	21 36 35		−177	−83			
		P̄Z	21 36 29				+126		
		SE	21 36 57						
		SN	21 36 59						
		SZ	21 36 53						
		M1E	21 37 03		±559				
		M1N	21 37 04			±520			
		MZ	21 37 00	1.5			−300		
		M2E	21 38 47	3.1	±405				
		M2N	21 39 04	2.6		±295			
		eFE	21 52 ±						
		eFN	21 49 ±						
226	Oct. 18	iP	4 23 36					178	An after shock of No 225.
		iS	4 24 00						
		ME	4 24 03	0.6	±8				
		MN	4 24 01	1.4		±10			
		MZ	4 24 01	1.2			±7		
		eFEN	4 28 ±						
		eFZ	4 24 51						
227	Oct. 21	P	5 26 09					247	North off Misaki, Iyo province.
		S	5 26 42						
		ME	5 26 44	1.9	−27				
		MN	5 26 48			±20			
		MZ	5 26 45	1.0			−11		
		eF	5 30 ±						
228	Oct. 24	P	20 19 33		+30	−47	−49	2120	Near Northern part of Marianne deep. P phase is remarkable. Azimuth S 30° E.
		i	20 19 59						
		SE	20 23 07						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		SZ	20 23 05						Dilatation.
		ME	20 23 16	6.1	+269				All seismographs inetalled in our main island registered the remarkable trains of the waves of this earthquake.
		MN	20 23 46	5.2		−153			
		MZ	20 23 44	5.0			−74		
		iE	20 31 12	5.0	+87				
		eE	20 32 57	4.1	±72				
		eFEN	21 37 ±						
		eFZ	21 42 ±						
229	Oct. 24	e	22 22 47						Lower basin of the Kinu river, Ibaraki prefectur.
		S	22 23 57						
		ME	22 24 19	2.0	+8				
		MN	22 24 20	2.0		−7			
		MZ	22 24 13				±3		
		eFEN	22 28 ±						
		eFZ	22 26 ±						
230	Oct. 26	iN	1 48 01						In the Wakaura bay, Kii channel.
		S	1 48 07						
		MN	1 48 07		±3				
		F	1 48 27						
231	Oct. 26	P	13 45 19					64	Lower basin of the Arita river, Wakayama prefecture.
		S	13 45 28						
		ME	13 45 28		±46				
		MN	13 45 28			±34			
		eF	13 48 ±						
232	Oct. 28	eP	18 07 59					57	In the Harima nada Inland sea.
		S	18 08 07						
		MEN	18 08 09	0.6	±10	±8			
		MZ	18 08 12				±4		
		FE	18 08 42						
		FN	18 08 25						
		FZ	18 08 25						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
233	Oct. 28	P	21 14 45					2135	Near Marianne deep.
		iS	21 18 20						
		eLSW	21 19 25						
		MZ	21 21 03	19.0					
		eFEN	21 39 ±						
		eFZ	21 32 ±						
234	Oct. 29	P	14 27 26			+1	+3	56	In the wakaura bay, Kii channel.
		S	14 27 34						
		ME	14 27 35		±7				
		MNZ	14 27 34			±27	±6		
		eFEN	14 30 ±						
		eFZ	14 29 ±						
235	Nov. 8	eSW	3 28 18						A distant earthquake. Probable in the South sea.
		iN	3 33 04	4.3					
		iZ	3 33 06						
		SE	3 37 40	4.3					
		SZ	3 37 38						
		eFEN	3 57 ±						
		eFZ	3 50 ±						
236	Nov. 8	P	4 02 12					63	In the Wakaura bay, Kii channel.
		iS	4 02 20						
		M1E	4 02 21	0.6	−23				
		M1N	4 02 22	0.6		+34			
		MZ	4 02 24				±7		
		M2E	4 02 27	0.9	+35				
		M2N	4 02 27	0.9		+27			
		FE	4 03 56						
		FN	4 03 53						
		FZ	4 03 34						
237	Nov. 9	ePSW	19 15 29						A distant earthquake. Probable epicenter : 10° S 122° E. (accroding to Manila's report).
		ISW	19 17 46						
		eSSE	19 20 49						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eLSE	19 25 28						
		MSW	19 33 25	16.8	−29				
		MSE	19 33 26	17.1		−20			
		MZ	19 33 37	16.6			+15		
		eFEN	20 19 ±						
		eFZ	20 25 ±						
238	Nov. 10	eP	13 37 33						In the Kasima sea.
		eS	13 38 14						
		FE	13 39 40						
		FN	13 39 45						
		FZ	13 39 23						
239	Nov. 10	PZ	13 51 19						A distant earthquake. Probable epicenter : 20° N 145° E. (according to Manila's report).
		eP	13 51 22						
		eSSW	14 00 14						
		MSW	14 02 31	21.2					
		MSE	14 05 33						
		MZ	14 02 45						
		eF	14 28 ±						
		eFZ	14 24 ±						
240	Nov. 11	eN	8 34 29						NW off Yonakuni Isl, Ryukyu Ils.
		eF	8 45 ±						
241	Nov. 15	e	0 58 45						Faint record. A distant earthquake.
		eF	1 02 41						
242	Nov. 17	iPN	15 16 16						Upper basin of the Go river, Hirosima prefecture.
		iE	15 16 23					169	
		S	15 16 39						
		ME	15 16 46	2.0	−31				
		MN	15 16 44	2.3		+43			
		MZ	15 16 42				−32		
		FEN	15 19 40						
		FZ	15 19 00						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
243	Nov. 21	eP	9 51 17						Fore shock of North Izu earthquake, on Nov 25 1930.
		eS	9 51 31						
		ME	9 51 34						
		MN	9 51 34						
		FE	9 52 24						
		FN	9 52 38						
		FZ	9 52 35						
244	Nov. 21	P	12 18 48						Ditto.
		S	12 19 05						
		ME	12 19 09	1.5	+13				
		MN	12 19 09			±9			
		FE	12 20 45						
		FN	12 20 37						
		eFZ	12 20 24						
245	Nov. 24	iP	6 45 54					58	Lower basin of the Kii river, Wakayama prefecture.
		iS	6 46 02						
		ME	6 46 06		±29				
		MN	6 46 06			±47			
		FE	6 47 06						
		FN	6 47 02						
246	Nov. 25	eP	6 27 21						Fore shock of North Izu earthquake, on Nov 25 1930.
		S	6 27 53						
		ME	6 27 59						
		MN	6 28 09						
		FE	6 29 29						
		FN	6 29 38						
247	Nov. 25	P	7 06 41						Ditto. Moderate shocks were felt at the epicentral region. Time is uncertain.
		S	7 07 27						
		ME	7 00 30	1.9	±24				
		MN	7 07 30	2.1		±27			
		eF	7 14 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km	
248	Nov. 25	ePZ	7 51 15						An affer shock of North Izu earthquake, Time in uncertain.
		SZ	7 51 46						
		eFZ	7 55 ±						
249	Nov. 25	e	11 24 39						Ditto.
		SZ	14 24 55						
		ME	14 24 58	2.6	±5				
		MN	14 24 58	2.6		±6			
		FE	14 25 54						
		FN	14 25 47						
*250	Nov. 25	PZ	19 03 37		−6	+3	+4	378	So Called "North Izu great earthquake." cpicenter; Neck of the Izu peninsula. 25 0 men were killed and 1050 men wound -ed, mnmber of the totaly ruined houses were about 3500.
		iE	19 03 43						
		iN	19 03 42						
		iZ	19 03 41						
		iZ	19 04 12						
		SEN	19 04 19						
		SZ	19 04 20						
		S?	19 04 26						
		MSW	19 04 42	3.2	±9600				
		MSE	19 05 25	5.4		±11700			
		M1Z	19 05 02	4.1			±5800		
		M2Z	19 05 51	3.9			±6530		
		eFSW	19 19 ±						
		eFSE	19 19 ±						
		eFZ	1 23 ±						
251	Nov. 26	iP	1 07 57						An after shock of North Izu earthquake?.
		MSW	1 09 14	3.5	−7				
		MSE	1 09 23	3.5		+6			
		eFSW	1 14 ±						
		eFSE	1 13 ±						
252	Nov. 26	eP	4 53 00						An after shock of North Izu earthquake, on Nov 25 1930.
		eS	4 53 43					321	
		M	4 53 49						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		FE	4 57 12						
		FN	4 57 16						
		FZ	4 56 39						
253	Nov. 26	e	8 43 37						An after shoch of North Izu earthquake, on Nov 25 1930.
		SE	8 44 08						
		ME	8 44 27						
		MN	8 44 24						
		FE	8 48 37						
		FN	8 48 35						
254	Nov. 26	e	9 11 17						Ditto.
		FE	9 13 21						
		FN	9 13 13						
255	Dec. 2	PZ	7 08 02						A distant earthquake, Tibet ?.
		eLSE	7 18 34						
		MSW	7 20 41	20.4	±15				
		MSE	7 21 39	18.6		±21			
		MZ	7 21 42	13.6			±7		
		eFEN	7 34 ±						
		eFZ	7 32 ±						
256	Dec. 3	ePZ	18 58 54					3945	epicenper: 96°5 E 18° N Destructive in Bnrma. (according to Strasbourg)
		ePE	18 59 11						
		SE	19 04 55						
		eLN	19 08 56						
		ME	19 16 25	12.0	−175				
		MN	19 13 30	12.0		−230			
		MZ	19 16 21	12.0			+214		
		eFE	20 39 ±						
		eFN	20 38 ±						
		eFZ	20 10 ±						
257	Dec. 4	iP	4 16 55					43	Near Kyoto city.
		S	4 17 01						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M	4 17 02		±32	±24	±20		
		FEN	4 17 56						
		FZ	4 18 02						
*258	Dec. 5	iP	20 31 56		+92	−17	+42	54	Weak shocks were felt at Kobe.
		iS	20 32 01						West off Awaji islnd.
		MSW	20 32 06		±1900				
		MSE	20 32 06			±4500			
		MZ	20 32 04				±830		
		eF	20 35 ±						
259	Dec. 7	eN	5 51 30						Small movment,
		eE	5 51 42						An after shock of North
		eN	5 51 43						Izu earthquake, on Nov
		ME	5 51 59	1.1	±4				25 1930.
		eFE	5 56 ±						
		eFN	5 55 ±						
260	Dec. 7	eE	6 08 06						Small movment.
		MN	6 08 32						
		eF	6 11 ±						
261	Dec. 8	MSW	6 32 44	10.5	±3				Faint record.
		MSE	6 32 50	10.5		±4			Middle basin of the
		eF	6 43 ±						Sobun river,
									Southern part of Formosa.
									Felt at all Formosa.
									Fore shock of next
262	Dec. 8	eP	8 05 07						earthquake ?.
		eZ	8 05 22					2110	Middle basin of the
		SSW	8 08 41						Sobun river. Southern
		eLSW	8 12 51						part of Formosa.
		MSW	8 13 31	14.0	±5				Strong shocks were felt
		MSE	8 13 56	12.7		±7			and destructive at the
		MZ	8 13 32	11.6					epicentral region.
		eFSW	8 31 ±						
		eFSE	8 30 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eFZ	8 28 ±						
263	Dec. 11	P	3 18 54					14	Very small movment.
		S	3 18 56						Local shock.
		ME	3 18 57						
		F	3 19 11						
264	Dec. 12	S	13 51 16						Small and faint.
		MZ	13 51 22						An after shock of
		FEN	13 51 54						North Izu earthquake,
		FZ	13 51 48						on Nov 25 1930.
265	Dec. 12	ePSW	16 03 59						Faint record.
		iSE	16 04 14						
		eF	16 12 ±						
266	Dec. 13	iPE	14 25 07					1900	P phase is distinct.
		iPZ	14 25 06						Near the mouth of the
		iN	14 26 53						Nihikatupu river,
		LSE	14 28 21						Hokkaido.
		MSW	14 29 07	5.6	±18				Moderate shocks were
		MSE	14 29 03	5.6		±25			felt at Western part
		MZ	14 29 07	4.8			±7		of Hokkaido.
		eFE	14 37 ±						
		eFN	14 38 ±						
		eFZ	14 36 ±						
267	Dec. 16	PE	19 50 51					312	An after shock of North
		S	19 51 33						Izu earthquake, On Nov
		ME	19 51 36	1.9	+12				25 1930.
		MN	19 51 36	2.3		−24			
		MZ	19 51 36						
		eF	19 56 ±						
268	Dec. 18	FSW	10 44 21						Faint record.
		eF	10 49 ±						Near Amakusa isl. West
									off Kyusyu.

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
*269	Dec 20	iP	14 02 57		−11	+1	−10	195	Perceptivle. Near Miyosi, Hirosima prefecture. Moderate shocks were felt at the epicentral region. Perceptible at greater partly of the Western Japan.
		$i\bar{P}_N$	14 02 59						
		iS	14 03 23						
		M_E	14 03 28		±1000				
		M_N	14 03 28			±816			
		M_Z	14 03 26				±707		
		eF_{EN}	14 14 ±						
		eF_Z	14 12 ±						
270	Dec 20	P_E	14 23 37					195	An after shock of No 269.
		S_N	14 24 03						
		M_E	14 24 05	0.8	±5				
		M_N	14 24 05						
		F_{EN}	14 24 42						
27	Dec 20	P_Z	14 43 36					184	Ditto. Moderate shocks were felt at the epicentral region.
		P_E	14 43 37						
		S_E	14 44 02						
		S_N	14 44 03						
		S_Z	14 44 01						
		M_E	14 44 06	1.1	±70				
		M_N	14 44 06	1.1		±76			
		M_Z	14 44 06	1.0			+56		
		eF_{EN}	14 49 ±						
		eF_Z	14 47 ±						
27	Dec. 20	iP	23 27 14					193	An after shock of No 269. Weak shocks were felt at the epicentral region.
		$\bar{P}_N$	23 27 17						
		S	23 27 40						
		M_{EN}	23 27 43	1.1	+78	±50			
		M_Z	23 27 44	1.8			+67		
		eF_{BN}	23 34 ±						
		eF_Z	23 32 ±						
273	Dec 21	iP	12 15 00					191	Near Miyosi, Hirosima prefecture, Moderate shocks wer felt at the
		$i\bar{P}$	12 15 03						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		iS	12 15 25						epicentral region. Perceptible at the Greater portly of the Western Japan.
		M_E	12 15 33		±351				
		M_N	12 15 33			±455			
		M_Z	12 15 32				±464		
		eF_{EN}	12 28 ±						
		eF_Z	12 24 ±						
274	Dec. 21	iP_Z	12 18 23					197	An after shock of No. 269. Moderate shocks were felt at the picentral region.
		iS	12 18 50						
		M_Z	12 18 53	1.3			±178		
		eF_Z	12 21 ±						
275	Dec. 21	eP	13 10 00						An after shock of No. 269.
		eS	13 10 23						
		F_E	13 11 04						
		F_N	13 11 02						
276	Dec. 21	eP	13 17 40						Ditto.
		eS	13 17 56						
		F_E	13 18 25						
		F_N	13 18 22						
277	Dec. 21	iP	14 55 33	3.3	−10	−34	−31	2010	Middle basin of the Sobun. river, Formosa. Perceptalle at the all Formosa and Southern part of Ryukuy Ils.
		iE	14 56 01	3.3	+49				
		iE	14 57 20	3.8	−69				
		eS	14 58 57	7.3					
		eF_{EN}	15 12 ±						
		eF_Z	15 04 ±						
278	Dec. 21	P	16 30 57					198	An after shock of No. 269. Perceotible at the Tiyugoku and Sikoku district.
		$\bar{P}$	16 30 59						
		S	16 31 23						
		$\bar{S}_N$	16 31 26						
		M_E	16 31 27	0.8	−16				
		M_N	16 31 26			−14			
		M_Z	16 31 26	1.2			+12		

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		F_E	16 32 56						
		F_N	16 32 45						
		F_Z	16 32 36						
279	Dec. 21	P	17 38 45					188	An after shock of No. 296.
		$\overline{P}_N$	17 38 48						
		S_E	17 39 10						
		M_E	17 39 12	1.2	±7				
		F	17 40 10						
280	Dec. 21	P	20 48 31					182	Ditto.
		S	20 48 55						
		M_E	20 48 59	0.8	±13				
		M_N	20 49 00			±12			
		M_Z	20 49 00	1.2			±12		
		F_E	20 49 50						
		F_N	20 49 48						
		F_Z	20 49 55						
281	Dec 22	eL	0 03 33						By Omori's Seismogroph Middle basin of the Sobun river, Strong shocks and small damaged at the epicentral region. Felt at all Formosa.
		M_N	0 05 01	12.9		±90			
282	Dec. 22	eL	0 19 31						Ditto.
		M_N	0 20 16	14.6		±100			By Omori's Seismograph
		eF	0 47 ±						
283	Dec. 22	P	3 23 57					197	An after shock of No. 269.
		S	3 24 24						
		M_{SW}	3 24 27	0.9	±23				
		M_{SE}	3 24 29	0.6		±17			
		M_Z	3 24 26	1.1			±20		
		F_{SW}	3 25 17						
		F_{SE}	3 25 41						
		F_Z	3 25 39						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
284	Dec. 22	eL_N	4 23 40						By Omori's Seismograph. Middle basin of the Sobun river, Southern part of Formosa.
		M_E	4 29 46	10.9	±25				
		M_N	4 30 00	11.7		±80			
		eF_E	4 37 ±						
		eF_N	4 47 ±						
285	Dec. 22	P	23 07 38					196	An after shocks of No. 269.
		S	23 08 04						
		M_Z	23 08 07	1.1			±5		
		F	23 09 33						
286	Dec. 23	P	2 09 54					178	Ditto.
		S	2 10 18						
		M_E	2 10 21	0.9	±13				
		M_Z	2 10 20	1.2			±3		
		F_{EN}	2 11 30						
		F_Z	2 11 11						
287	Dec. 23	eP	4 07 15					191	Ditto.
		eS	4 07 40						
		M_E	4 07 41	1.0	±3				
		M_Z	4 07 41	1.0		±3			
		F	4 08 14						
288	Dec. 23	P	10 47 13					198	Ditto.
		S	10 47 39						
		M_E	10 47 44	0.8	±11				
		M_N	10 47 44	0.9		±12			
		M_Z	10 47 41	0.9			±8		
		F_{EN}	10 48 36						
		F_Z	10 48 31						
289	Dec. 23	P_Z	21 42 37						Very Faint record. A distant earthquake. Probable in the South Sea.
		e_E	21 44 44						
		e_N	21 45 06	4.2					
		eL_N	21 [illegible] 37						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_E	21 56 52	10.0					
		M_N	21 54 26	12 l					
		eF	22 04 ±						
290	Dec. 23/24	P_Z	23 57 37					1400	East off Erimo Cape, Hokkaido.
		eP_E	23 57 38						Perceptible at Hokkaido and Northern part of Oou district.
		S_Z	0 00 02						
		M_E	0 01 35	3.0	±10				
		M_N	0 02 12			±7			
		M_Z	0 01 01	2.2			±7		
		eF_E	0 09 ±						
		eF_N	0 07 ±						
		eF_Z	0 06 ±						
291	Dec. 31	i_E	11 18 13						NW far off Bonin Isl.
		i_N	11 18 15	2.3					
		i_Z	11 18 16						
		eF	11 26 ±						

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kobe Meteorological Observatory of Japan.

$\varphi = 34° 21'$ $\lambda = 134° 53'$ h = 109.0 m. Underground: Cretaceous.

Instrument: Omori's Seismograph. (Horizontal Pendulum.) Wiechert Seismograph. (Horizontal & Vertical)

Oct.

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	16.5	2.4	0.0001	20
A_N:	16.7	2.0	0.0003	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4.8	Aperiodic	0.003	115
A_N:	5.1	„	0.002	96
A_Z:	4.2	„	0.001	67

Nov.

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	17.5	2.1	0.0003	20
A_N:	16.6	2.7	0.0006	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4.7	Aperiodic	0.004	112
A_N:	4.8	„	0.002	103
A_Z:	4.2	„	0.002	65

Dec.

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	17.6	2.2	0.0003	20
A_N:	17.3	3.0	0.0004	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	5.8	Aperiodic	0.001	76
A_N:	5.9	„	0.001	75
A_Z:	4.4	„	0.001	60

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
346	Sept. 30	P	21 28 16					4265	A distant earthquake. Near New Guinea.
		S	21 34 19						
		eL	21 37 25						
		M_1E	31 37 26	14.2	+42				
		M_N	21 40 40	13.5		+31			
		M_Z	21 45 12	15.5			±19		
		M_2E	21 40 16	11.6	+22				

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eF	22 19 ±						
347	Oct. 1	eS	2 57 49						A distant earthquake. Luzon, Philippine.
		eM_E	2 58 18	3.8	±2				
		eM_N	2 58 13	3.8		±2			
		eM_Z	2 58 00	3.3			±2		
		eF	3 07 ±						
348	Oct. 2	eP	0 46 17					3195	A distant earthquake.
		eS	0 51 13						
		eF	1 05 ±						
349	Oct. 2	P	12 56 17					35	In the Wakaura bay, Kii channel.
		S	12 56 22						
		M_E	12 56 23	0.3	−8				
		M_N	12 56 22	0.3		+10			
		M_Z	12 56 24	0.4			−2		
		F	12 57 06						
350	Oct. 4	eP_N	3 47 42					141	Local shock. ?
		eS_{EN}	3 48 01						
		eF	3 48 47						
351	Oct. 5	eP	10 44 39					56	In the Kii channel.
		S	10 44 46						
		M_E	10 44 48	0.3	±1				
		M_N	10 44 46	0.4		+3			
		M_Z	10 44 48				±1		
		F	10 45 07						
352	Oct. 6	P	13 33 23					26	In the Wakaura bay, Kii channel.
		S	13 33 27						
		M_E	13 33 28		±1				
		M_{NZ}	13 33 29	0.3					
		F	13 33 52			+2	±1		

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
353	Oct. 6	P	20 52 10					104	Northern part of the Bungo channel.
		S	20 52 24						
		M_E	20 52 33	0.8	+2				
		M_N	20 52 31	0.5		−2			
		M_Z	20 52 37	0.8			−1		
		F	20 53 16						
354	Oct. 7	P	1 29 17					39	Lower basin of the Arita river, Wakayama prefecture.
		S	1 29 22						
		M_E	1 29 22	0.4	+10				
		M_N	1 29 23	0.4		−11.0			
		M_Z	1 29 23	0.3			±2		
		F	1 30 31						
355	Oct. 8	P	10 29 08					6550	Near New-hebrides, South Pacific Ocean.
		S	10 37 14						
		eL	10 43 37						
		M_1E	10 44 39	21.3	+40				
		M_1N	10 44 39	23.2		+65			
		M_Z	10 48 36	19.4			−35		
		M_2E	10 10 11	15.5	−14				
		M_2N	10 49 49	21.3		+60			
		eF	11 15 ±						
356	Oct. 8	P	21 29 30					28	Local shock.
		S	21 29 33						
		M	21 29 33		+1	±1	±1		
		F	21 29 42						
357	Oct. 10	eS_{NZ}	0 54 20						A distant earthquake. Inscribe at Kobe, Plaisance and Florence-Xim.
		eS_E	0 55 06						
		eL_N	0 55 43						
		eL_E	0 57 43						
		M_{EN}	0 58 50	12.6 12.2	±6	±4			
		M_Z	1 01 24	12.2			±3		
		eF	1 09 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
358	Oct. 10	P	23 37 01					28	Basin of the Arita river, Wakayama Prefecture.
		S	23 37 05						
		ME	23 37 05	0.4	+4				
		MN	23 37 06	0.4		−12			
		MZ	23 37 05	0.3			−3		
		F	23 37 52						
359	Oct. 12	eP	8 59 26					516	West of Kasumi Lake, Ibaragi prefecture.
		S	9 00 35						
		ME	9 00 35	3.4	−1				
		MN	9 00 37	3.8		+1			
		MZ	9 00 39	3.2			+1		
		F	9 00 52						
360	Oct. 15	P	5 04 00					44	Upper valley of the Hidaka river, Wakayama prefecture.
		S	5 04 06						
		ME	5 04 06		+1				
		MN	5 04 06	0.3		−1			
		F	5 04 22						
361	Oct. 16	P	8 11 18					21	In the Kii channel.
		S	8 11 21						
		ME	8 11 21	0.4	+1				
		MN	8 11 22	0.3		+3			
		MZ	8 11 21				+1		
		F	8 11 35						
362	Oct. 16	P	21 32 56					277	Near Daisyozi, Isikawa prefecture. Moderate shocks were felt at the epicentral region. Fore shock of next earthquake. ?
		S	21 33 34						
		ME	21 33 35	1.8	+25				
		MN	21 33 37	2.4		+24			
		MZ	21 33 34	1.9			−8		
*363	Oct. 16	P	21 36 38					241	Perceptible. Near Daisyozi, Isikawa prefecture.
		S	21 37 10						
		MIE	21 37 13	1.9	−104				

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		MIN	21 37 15	1.3		−145			Small damaged at the epicentral region, Perceptible long radius 300 km.
		MZ	21 37 21	2.1			−52		
		M2E	21 38 08	2.6	+64				
		M2N	21 38 07	2.6		+67			
		F	21 59 ±						
364	Oct. 17	PN	17 29 37					21	Local shock.
		S	17 29 40						
		MN	17 29 41	0.3		−1			
		F	17 29 53						
365	Oct. 18	P	4 23 41					234	An after shock of No 363.
		S	4 24 13						
		ME	4 24 16	0.9	±2				
		MN	4 24 14	1.3		±3			
		MZ	4 24 13	1.0			+1		
		eF	4 26 ±						
366	Oct. 19	P	0 20 37					33	Basin of the Arita river, Wakayama prefecture.
		S	0 20 41						
		M	0 20 41	0.3	+2	−5	+2		
		F	0 21 06						
367	Oct. 20	ePNZ	2 08 23					287	An after shock of No 363.
		IEN	2 08 51						
		eS	2 09 02						
		eF	2 10 ±						
368	Oct. 21	P	5 26 56					270	North off Misaki, Iyo province.
		S	5 26 33						
		ME	5 26 33	2.3	+14				
		MN	5 26 38	2.3		−16			
		MZ	5 26 38	2.7			−11		
		F	5 28 53						
369	Oct. 23	eP	2 54 09						Iyo nada, Inland sea.

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eS	2 54 16						
		ME	2 54 16	0.4	±0.4				
		MN	2 54 18	0.6		±1			
		eF	2 54 39						
370	Oct. 23	P	16 21 25					33	Near Wakayama.
		S	16 21 30						
		M	16 21 30	0.4	+1	−2			
		F	16 21 49						
371	Oct. 24	P	10 24 54					28	In the Wakaura bay, Kii channel.
		S	10 26 57						
		ME	10 26 58		−1				
		MN	10 26 58	0.3		±4			
		MZ	10 27 00				−2		
		F	10 27 08						
372	Oct. 24	iP	20 19 32					2040	Near the Northern part of Marianne deep.
		S	20 22 59						
		M_1E	20 23 14	9.2	+82				
		M_1N	20 23 07	5.0		+126			
		M_1Z	20 23 22	8.7			−41		
		M_2E	20 26 30	12.7	−68				
		M_2N	20 25 53	11.3		+50			
		M_2Z	20 26 40	11.6			+21		
		F	21 52 ±						
373	Oct. 24	eP	22 23 31						Lower basin of the Kinu river, Ibaragi prefecture.
		S	22 24 08						
		ME	22 24 12	1.4	+2				
		MN	22 24 16	1.9		+3			
		MZ	22 24 17	1.5			−3		
		eF	22 28 ±						
374	Oct. 25	eS ?	0 13 35						Local shock.
		eF	0 13 44						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
375	Oct. 25	S	6 06 26						Local shock.
		M	6 06 26	0.3	−3	±1			
		F	6 06 36						
376	Oct. 26	iP	1 47 48					28	In the Wakaura bay, Kii channel.
		S	1 47 52						
		ME	1 47 52	0.4	+8				
		MN	1 47 52	0.5		−15			
		MZ	1 47 52	0.6			−3		
		F	1 48 50						
377	Oct. 26	eP	1 55 27						Local shock.
		eF	1 55 45						
*378	Oct. 26	iP	13 45 14					44	Perceptible. Lower basin of the Arita river, Wakayama prefecture.
		S	13 45 20						
		ME	13 45 24	0.8	+17				
		MN	13 45 22	0.5		−24			
		MZ	13 45 21	0.8			−8		
		F	13 45 59						
379	Oct. 28	P	18 07 49					36	In the Harima nada, Inland sea.
		S	18 07 53						
		MEZ	18 07 54	0.4	−9		−4		
		MN	18 07 55	0.4		−16			
		F	18 08 44						
380	Oct. 28	P	21 14 42					2090	Near Marianne deep.
		S	21 18 14						
		eL	21 20 23						
		ME	21 22 35	15.4	±36				
		MN	21 21 49	15.4		±41			
		MZ	21 20 53	17.4			±31		
		eF	21 55 ±						
*381	Oct. 29	iP	14 27 20					27	Perceptible.

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		S	14 27 24						In the Wakaura bay, Kii channel.
		M_E	14 27 24	0.5	+26				
		M_N	14 27 24	0.6		+56			
		M_Z	14 27 24	0.4			−15		
		F	14 30 08						
382	Oct. 30	S	7 20 51						Local shock.
		M_E	7 20 52	0.3	+1				
		M_N	7 20 52	0.3		−2			
		F	7 21 03						
383	Oct. 30	S	7 43 54						Ditto.
		M	7 43 54	0.2	−2	−3			
		F	7 44 03						
384	Oct. 31	P	16 34 00					38	In the Wakaura bay, Kii channel.
		S	16 34 04						
		M_E	16 34 04		+1				
		M_N	16 34 04	0.3		±2			
		F	16 34 21						
385	Nov. 8	e	3 32 57						A distant earthquake. Probable in the South sea.
		eS	3 36 05						
		eF_E	3 43 ±						
		eF_N	3 44 ±						
386	Nov. 8	P	4 02 05						
		S	4 02 12					49	In the Wakaura bay, Kii channel.
		M_{EZ}	4 02 13	0.4	−9		+2		
		M_N	4 02 14	0.6		+10			
		F	4 04 47						
387	Nov. 8	P	11 19 54						
		S	11 19 58					32	Ditto.
		M_E	11 19 58	0.4	−2				
		M_N	11 19 59	0.4		+3			

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_Z	11 20 00	0.3			±1		
		F	11 20 32						
388	Nov. 9	P_Z	19 15 28						A distant earthquake. Probable epicenter 10° S 120° E (according to Manila's report).
		P_{EN}	19 15 30						
		eS_E	19 23 12						
		eS_N	19 25 05						
		eL_{EN}	19 26 48						
		M_1E	19 26 59	15.0	+46				
		M_1N	19 27 24	15.0		+74			
		M_1Z	19 28 05	17.4			±50		
		M_2N	19 33 08	15.0		±100			
		M_2Z	19 33 11	16.5			−71		
		M_3N	19 37 44	15.0		±75			
		eF_{EN}	20 26 ±						
		eF_Z	20 17 ±						
389	Nov. 10	e	13 38 07						In the Kasima sea.
		eS	13 38 30						
		M_E	13 38 31	1.6	+1				
		M_N	13 38 40	1.6		±1			
		eF	13 40 ±						
390	Nov. 10	P	13 51 20					3840	A distant earthquake. Probable epicenter 20° N 145° E (according to Manila's report).
		eS_N	13 56 58						
		eL_E	14 00 09						
		eL_{NZ}	14 01 05						
		M_E	14 00 33	18.2	±44				
		M_1N	14 03 42	18.2		±43			
		M_Z	14 01 58	20.6			±30		
		M_2N	14 06 31	18.8		±39			
		eF	14 31 ±						
391	Nov. 11	eP_E	8 33 16					1980	NW off Yonakuni Isl, Ryukyu Ils.
		P_{NZ}	8 33 24						
		S	8 36 38						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_E	8 36 45	6.4	±4				
		M_N	8 36 38	6.7		±6			
		M_Z	8 36 38	6.8			±2		
		eF	8 48 ±						
392	Nov. 12	P	13 01 57						Near Koti. Sikoku district.
		S	13 01 59						
		M_E	13 02 00		+1				
		M_N	13 02 01	0.4		−2			
		F	13 02 16						
393	Nov. 13	P	20 32 42					28	Near Wakayama.
		S	20 32 46						
		M_E	20 32 46	0.4	+2				
		M_N	20 32 47	0.5		−4			
		M_Z	20 32 47				±1		
		F	20 33 15						
394	Nov. 15	eP	0 59 32						A distant earthquake. Time is uncertain.
		eF	1 02 ±						
395	Nov. 15	P	7 12 21						
		S	7 12 23					19	Near Wakayama. Time is uncertain.
		M_E	7 12 24	0.4	−2				
		M_N	7 12 24	0.4		+4			
		M_Z	7 12 23	0.3			+3		
		F	7 13 13						
396	Nov. 15	P	10 08 45						
		S	10 08 48					20	Ditto.
		M_E	10 08 48		±1				
		M_N	10 08 49						
		F	10 09 09						
397	Nov. 15	P	18 20 18						
		S	18 20 24					44	In the Wakaura bay, Kii channel.

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_E	18 20 24	0.8	+2				
		M_N	18 20 24	0.4		+6			
		M_Z	18 20 25				±2		
		F	18 21 00						
398	Nov. 15	P_EN	23 31 01					25	Near Wakayama.
		S	23 31 05						
		M	23 31 05	0.3	−2	+2			
		F	23 31 26						
399	Nov. 16	S_N	14 54 43						Local shock.
		M_N	14 54 44			±1			
		F_N	14 54 51						
400	Nov. 17	eP_N	6 27 45					29	Near Wakayama.
		S	6 27 49						
		M_E	6 27 51	0.6	±1				
		M_N	6 27 50	0.3		±2			
		F	6 28 03						
401	Nov. 17	S	14 42 37						Ditto.
		M_E	14 42 37		+1				Time is uncertain.
		M_N	14 42 37			±2			
		F	14 42 49						
402	Nov. 17	P	15 15 48					198	Upper basin of the Go river, Hirosima prefecture. Time is uncertain.
		S	15 16 15						
		M_E	15 16 17	1.2	−4				
		M_N	15 16 16	2.1		−8			
		M_Z	15 16 19	1.2			−2		
		eF	15 18 ±						
403	Nov. 20	P_N	8 05 56					34	Near Wakayama.
		S	8 06 01						
		M	8 06 01		+1	±2			
		F	8 06 13						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
404	Nov. 21	eP	9 51 21						Fore shock of North Izu earthquake, on Nov 25 1930.
		eS	9 51 49						
		ME	9 51 57	2.4	±1				
		MN	9 51 52	2.4		±1			
		eF	9 55 ±						
405	Nov. 21	eP	12 18 58						Ditto.
		eS	12 19 25						
		ME	12 19 32	2.4	±1				
		MN	12 19 30	2.6		±2			
		MZ	12 19 31	1.4			±1		
		eF	12 22 ±						
406	Nov. 22	P	22 00 01					117	Mouth of the Aki river, Koti prefecture.
		S	22 00 16						
		MEN	22 00 18	0.4	+4	−7			
		MZ	22 00 19	0.6			±2		
		F	22 01 26						
407	Nov. 22	eP	23 39 51						Fore shock of North Izu earthquake, on Nov 25 1930.
		eSEZ	23 40 27						
		eSN	23 40 20						
		ME	23 40 29	3.0	+1				
		MN	23 40 28	3.1		±2			
		eF	23 42 ±						
408	Nov. 23	ePEN	2 10 27						Local shock.
		eF	2 11 ±						
409	Nov. 23	ePEN	5 02 10						Ditto.
		eF	5 02 29						
410	Nov. 23	ePEN	20 01 39						Near Mt Unzen, Kyusyu district.
		eS	20 02 21						
		eF	20 03 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
*411	Nov. 24	iP	6 45 49					44	Perceptible. Lower basin of the Kii river, Wakayama prefecture.
		S	6 45 55						
		MEN	6 45 56	0.6	+31	−47			
		MZ	6 45 55	0.4			−8		
		F	6 48 43						
412	Nov. 25	eP	6 27 46						Fore shock of North Izu earthquake, on Nov 25 1930.
		S	6 28 26						
		ME	6 28 26	1.8	−1				
		MN	6 28 29	2.4		+1			
		F	6 29 19						
413	Nov. 25	eP	7 06 47					369	Ditto. Moderate shocks were felt at the epicentral region.
		S	7 07 37						
		ME	7 07 50	0.9	±4				
		MN	7 08 01	2.4		±4			
		MZ	7 07 42	1.4			±1		
		eF	7 13 ±						
414	Nov. 25	eP	7 51 34						Fore shock of North Izu earthquake, on Nov 25 1930.
		S	7 52 08						
		ME	7 52 14	2.8	−1				
		MN	7 52 15	2.4		±2			
		F	7 53 46						
415	Nov. 25	eP	14 24 37						Ditto.
		S	14 25 16						
		ME	14 25 24	1.8	±1				
		MN	14 25 16	2.5		−1			
		F	14 26 44						
*416	Nov. 25	iP	19 03 40					390	So called "North Izu great earthquake" Epicenter; Neck of the Izu peninsula. 250 men were kliled and 1050 men wounded,
		SEZ	19 04 34						
		SN	19 04 29						
		M₁E	19 04 51	19.1	> −5300				
		M₁N	19 04 48	19.7		> −4850			

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_1Z	19 05 16	10.1			>+1870		totnly ruined houses were numbered about 3500.
		M_2E	19 07 00	14.7	−3000				
		M_2N	19 07 07	9.2		−3640			
		M_2Z	19 05 54	5.8			+245		
		M_3E	19 08 02	14.7	+2240				
		M_3N	19 07 49	11.5		−2300			
		M_3Z	19 06 12	8.5			+455		
		M_4E	19 09 25	12.2	+1390				
		M_4N	19 09 42	15.5		−2390			
		eF_E	20 59 ±						
		eF_N	21 04 ±						
		eF_Z	20 57 ±						
417	Nov. 26	ePN	1 07 42						An after shock of North Izu earthquake ?.
		P_E	1 08 01						
		M_E	1 08 41	2.5	−1				
		M_N	1 08 52	2.2		+2			
		eF	1 11 ±						
418	Nov. 26	ePN	4 26 28					17	Local shock.
		eS_{EN}	4 26 30						
		M_N	4 26 30	0.4		−2			
		F	4 26 40						
419	Nov. 26	$ePEN$	4 53 33					310	An after shock of North Izu earthquake, on Nov 25 1930.
		eS_{EN}	4 54 15						
		M_E	4 54 17	2.3	±1				
		M_N	4 54 21	1.9		±1			
		eF	4 57 ±						
420	Nov. 26	$ePEN$	8 43 53						Ditto.
		eS	8 44 25						
		M_E	8 44 36	2.7	±1				
		M_N	8 44 27	2.7		±2			
		eF	8 47 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
421	Nov. 26	$ePEN$	23 06 53						In the Kii channel.
		eF	23 08 ±						
422	Nov. 26	S	23 58 49						Ditto.
		M	23 58 50		−1	−3			
		F	23 59 04						
423	Nov. 27	PEN	21 55 17					510	Near Iwakawa, Kagosima prefecture.
		S	21 56 26						
		M_E	21 56 32	1.5	+0.4				
		M_N	21 56 39	2.8		±1			
		F	21 58 ±						
424	Nov. 28	eP	15 27 02					32	Mouth of the Kii river, Near Wakayama city.
		S	15 27 07						
		M_E	15 27 07	0.4	−1				
		M_N	15 27 08	0.3		+2			
		F	15 27 16						
425	Nov. 28	P	19 33 35					28	Ditto.
		S	19 33 39						
		M_{EN}	19 33 39	0.4	+4	−10			
		M_Z	19 33 40				±2		
		F	19 34 31						
426	Nov. 28	P	21 38 24					28	Ditto.
		S	21 38 28						
		M	21 38 29	0.3	−4	−8	+3		
		F	21 39 07						
427	Nov. 30	P	14 42 08					34	In the Tomogasima strait, Kii channel.
		S	14 42 12						
		M_{EN}	14 42 13	0.4	±1	−3			
		F	14 42 26						
428	Dec. 2	eS_N	7 18 47						A distant earthquake.

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		eSE	7 19 22						Tibet ?.
		ME	7 22 08	10.9	±11				
		MN	7 21 04	13.6		±42			
		eFE	7 32 ±						
		eFN	7 32 ±						
429	Dec. 3	P	6 36 06					32	In the Kii channel.
		S	6 36 10						
		M	6 36 20	0.5	+2	+3			
		F	6 36 32						
430	Dec. 3	P	18 59 11					4085	A distant earthquake.
		SE	19 05 05						epicenter; 96°5 E 18° N,
		SN	19 05 01						Destructive in Burma.
		eLE	19 11 09						(according to Strasbourg)
		eLNZ	19 10 38						
		M1E	19 13 36	11.6	+420				
		M1N	19 13 04	14.4		+1742			
		M1Z	19 14 26	11.6			−221		
		M2E	19 14 44	13.1	−633				
		M2N	19 14 11	11.3		−611			
		M3E	19 15 36	13.5	+1278				
		M3N	19 14 47	12.0		−875			
		M2N	19 18 33	11.3		−919			
		eFEN	20 40 ±						
		eFZ	20 26 ±						
431	Dec. 4	P	4 17 04					79	Near Kyoto city.
		S	4 17 15						
		M1E	4 17 15	0.6	−4				
		M1N	4 17 15	0.4		−6			
		M2EN	4 17 17	0.6	−4	−4			
		F	4 18 20						
*432	Dec. 5	iP	20 31 51					22	Epicenter, West off
		SZ	20 31 54						Awaji Isl.
									Weak shocks were felt at

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M	20 31 54	0.7 ?	−1180	+1440	+262		Awazi Isl.
		FZ	20 39 ±						
433	Dec. 7	eP	5 51 51						An after shock of North
		eS	5 52 12						Izu earthquake, on Nov
		eF	5 54 ±						25th 1930.
434	Dec. 8	eP	6 27 57						Middle basin of the
		eSN	6 30 59						Sobun river, Southern
		eLE	6 32 00						part of Formosa.
		eLN	6 32 30						Felt at all Formosa.
		eLZ	6 32 15						Fore shock of next earth-
		ME	6 33 03	10.9	±3				quake ?.
		MN	6 32 57	10.9		±11			
		MZ	6 32 57	10.3			±6		
		eFEN	6 44 ±						
		eFZ	6 38 ±						
435	Dec. 8	ePEZ	8 05 17					2280	Middle basin of the
		ePN	8 05 19						Sobun river, Southern
		eSE	8 09 16						part of Formosa.
		eSN	8 08 54						Strong shocks were felt
		eLE	8 13 17						and destructive at the
		eLN	8 13 43						epicentral region.
		eLZ	8 13 13						
		MEN	8 14 18	11.0	−25	−33			
		MZ	8 14 02	11.3			±17		
		eFEN	8 30 ±						
		eFZ	8 25 ±						
436	Dec. 11	eP	17 13 23					29	Local shock.
		S	17 13 27						
		ME	17 13 27	0.4	−2				
		MN	17 13 28	0.3		+2			
		F	17 14 09						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	A_N	A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
437	Dec. 12	eP	16 03 51						Faint record.
		eS	16 03 57						
		M_E	16 04 01	1.5	−1				
		M_N	16 03 58	2.0		−1			
		eF	16 05 ±						
438	Dec. 12	eP	19 44 53						An after shock of North Izu earthquake, on Nov 25th 1930.
		eS	19 45 03						
		eF	19 47 ±						
439	Dec. 13	P	14 25 11					1400	Near the mouth of the Nihikatupu river, Hokkaido. Moderate shocks were felt at the Western part of Hokkaido.
		eS	14 27 38						
		M_E	14 29 37	3.5	−2				
		M_N	14 29 27	4.5		+3			
		M_Z	14 29 29	3.3			+2		
		eF_{EN}	14 37 ±						
		eF_Z	14 36 ±						
440	Dec. 15	S_N	12 25 54						Local shock.
		F_N	12 26 03						
441	Dec. 16	P_N	19 51 22					353	An after shock of North Izu earthquake, on Nov 25th 1930.
		eS	19 52 09						
		M_E	19 52 27	2.2	±1				
		M_N	19 52 16	2.6		±2			
		M_Z	19 52 29	2.2			±2		
		eF_{EZ}	19 54 ±						
		eF_N	19 55 ±						
442	Dec. 18	eP_N	10 43 38						Near Amakusa Isl, West off Kyusyu.
		S_N	10 44 12						
		M_N	10 44 20	3.3		±2			
		eF_N	10 47 ±						
443	Dec. 20	iP	14 02 55						Perceptible. Near Miyosi. Hirosima prefecture.
		iS	14 03 18					172	

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	A_N	A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M_1E	14 03 22	1.3	−204				Moderate shocks were felt at the epicentral region. Perceptible at the greater partly of Western Japan.
		M_1NZ	14 03 22	1.7		−301	+87		
		M_2E	14 03 28	1.5	+106				
		M_2N	14 03 32	1.5		+155			
		eF_{EN}	14 16 17						
		eF_Z	14 14 17						
444	Dec. 20	eP	14 23 39					162	An after shock of No 443.
		S	14 24 01						
		M_E	14 24 03	0.8	+0.4				
		M_N	14 24 02	0.9		+1			
		M_Z	14 24 01	0.8			±1		
		eF	14 25 ±						
445	Dec. 20	P	14 43 34					183	Ditto. Moderate shocks were felt at the epicentral region.
		S	14 43 58						
		M_{EN}	14 45 00	0.7	−6	+10			
		M_Z	14 44 01	1.1			−5		
		eF	14 48 ±						
446	Dec. 20	eS_N	15 49 49						Ditto.
		eF	15 50 07						
447	Dec. 20	eS	18 16 17						Ditto.
		M	18 16 19	0.8	±0.4	±1			
		F	18 16 48						
448	Dec. 20	eS	20 23 36						Ditto.
		M	20 23 40	0.9	±0.4	±1			
		eF	20 24 ±						
449	Dec. 20	P	23 27 12					177	Ditto. Weak shocks were felt at the epicentral region.
		S	23 27 35						
		M_{EN}	23 27 39	1.1	+27	−60			
		M_Z	23 27 36	1.6			−14		
		eF	23 33 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
450	Dec 21	eP	3 11 11						Basin of the Arita river, Wakayama prefecture.
		eF	3 11 41						
*451	Dec. 21	P	12 14 58					183	Perceptible. An after shock of No 443.
		S	12 15 22						
		M_{EN}	12 15 22	1.3	+108	−192			Moderate shocks were felt at the epicentral region, and perceptible at the greater partly of Western Japan.
		M_Z	12 15 32	1.5			+74		
		eF	12 27 ±						
452	Dec. 21	eP	13 10 00						An after shock of No 443.
		S	13 10 20						
		F	13 11 04						
453	Dec. 21	eP	13 17 47						Ditto.
		eF	13 19 ±						
454	Dec. 21	eS	14 10 28						Ditto.
		F	14 11 12						
455	Dec 21	P	14 55 28		−15	−15	−23	1970	Middle basin of the Sobun river, Southern part of Formosa. Perceptible at the all Formosa and Southern part of Ryukyu.
		PM_E	14 55 32	4.2	+37				
		PM_N	14 55 32	5.5		+30			
		PM_Z	14 55 32	3.6			−62		
		S	14 58 48						
		M_E	14 58 55	4.9	+20				
		M_N	14 58 51	5.6		+18			
		M_Z	14 58 50	6.6			−4		
		eF_{EN}	15 24 ±						
		eF_Z	15 18 ±						
456	Dec. 21	P	16 30 55						
		S	16 31 19					185	An after shock of No 443.
		M_{EZ}	16 31 22	1.0	±1				Perceptible at the Tyugoku and Sikoku district.
		M_N	16 31 20	0.8			−3		
		eF_{EN}	16 34 ±			−2			
		eF_Z	16 32 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	Amplitude A_N	Amplitude A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
457	Dec. 21	P	17 38 33						An after shock of No 443.
		F	17 39 57						
458	Dec. 21	eP	20 48 27					180	Ditto.
		S	20 48 51						
		M	20 48 53	0.8	±1	±2			
		F	20 49 39						
459	Dec. 22	eP	0 01 56						Middle basin of the Sobun river, Southern part of Formosa. Strong shocks and small destructive at the epicentral region.
		S_{EZ}	0 04 09						
		i_E	0 04 33						
		M_E	0 04 55	12.8	−16				
		M_N	0 05 37	11.9		±13			
		M_Z	0 04 57	12.6			±5		
		eF_{EN}	0 10 ±						
		eF_Z	0 08 ±						
460	Dec. 22	eP_{EN}	0 16 20						Ditto.
		S_{EN}	0 19 22						
		S_Z	0 18 49						
		M_E	0 21 33	13.1	±19				
		M_N	0 21 47	11.3		+18			
		M_Z	0 20 07	9.7			±9		
		eF_{EN}	0 28 ±						
		eF_Z	0 25 ±						
461	Dec. 22	P	3 23 58					163	An after shock of No 443.
		S	3 24 20						
		M_{EN}	3 24 22	1.0	+2	+3			
		M_Z	3 24 21	1.0			±2		
		F	3 25 21						
462	Dec 22	e_N	4 31 28						An after shock of No 459.
		S_E	4 30 56						
		S_Z	4 31 59						
		S_N	4 32 21						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		ME	4 32 53	10.3	±15				
		MN	4 33 01	10.3		±13			
		MZ	4 32 46	10.0			±6		
		eFEN	4 40 ±						
		eFZ	4 36 ±						
463	Dec 22	ePN	11 28 11					22	In the Wakaura bay, Kii channel.
		S	11 28 14						
		ME	11 28 14		+2				
		MN	11 28 14	0.4		−3			
		F	11 28 26						
464	Dec 22	eP	23 07 36					171	An after shock of No 443.
		S	23 08 00						
		M	23 08 02	0.7	±1	+2			
		F	23 08 35						
465	Dec. 23	S	1 04 43						In the Wakaura bay, Kii channel.
		ME	1 04 43		±04				
		MN	1 04 43	0.4		−2			
		F	1 04 58						
466	Dec. 23	eP	2 09 50						
		S	2 10 13					168	An after shock of No 443,
		ME	2 10 14	1.1	−2				
		MN	2 10 15	0.9		+5			
		F	2 10 44						
467	Dec. 23	eP	4 07 12						
		S	4 07 34					163	Ditto.
		ME	4 07 35	1.0	+1				
		MN	4 07 36	1.0		±2			
		F	4 08 18						
468	Dec. 23	eP	6 11 16						
		S	6 11 19					26	Tomogasima strait, Kii channel.

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		M	6 11 20	0.3	±1	−2			
		F	6 11 29						
469	Dec. 23	eP	10 47 11					173	An after shock of No 443.
		S	10 47 34						
		ME	10 47 38	0.8	+1				
		MN	10 47 39	0.8		+3			
		MZ	10 47 36	0.8			±2		
		F	10 48 35						
470	Dec.$^{23}/_{24}$	eP	23 57 49					1490	East off Erimo cape, Hokkaido. Perceptible at Hokkaido and Northern part of Oou district.
		eS	0 00 25						
		ME	0 00 30	5.6	+2				
		MN	0 00 55	4.2		−2			
		MZ	0 00 34	4.2			±2		
		eFEN	0 07 ±						
		eFZ	0 06 ±						
471	Dec. 29	eP	22 05 57					25	Local shock.
		S	22 06 00						
		M	22 06 00	0.4	+4	−3			
		F	22 06 14						
472	Dec. 30	P	6 22 22					25	In the Wakaura bay, Kii channel.
		S	6 22 25						
		ME	6 22 25	0.4	+4				
		MN	6 22 25	0.3		+4			
		MZ	6 22 25				+3		
		F	6 22 45						

TOYOOKA JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kobe Meteorological Observatory of Japan.

φ=35° 32′ λ=134° 49′ h=32.2 m. Underground : Diluvial Series.

Instrument : Omori's Seismograph (Horizontal Pendulum.) Wiechert Seismograph (Horizontal & Vertical)

Oct.

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	20.5		0.001	20
A_N:	26.0		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	4.3	8.8	0.003	86
A_N:	4.0	5.6	0.003	114
A_Z:	3.7	4.2	0.005	82

Nov.

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	26.0		0.001	20
A_N:	21.5		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	3.8	6.9	0.003	104
A_N:	4.2	3.7	0.002	79
A_Z:	3.4	3.2	0.004	75

Dec.

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	26.0		0.001	20
A_N:	21.5		0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
A_E:	3.8	6.9	0.003	104
A_N:	4.2	3.7	0.002	79
A_Z:	3.4	3.2	0.004	65

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	A_N	A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
115	Sept. 30	ePEN	21 28 50						A distant earthquake. Near New Guinea ?.
		ePZ	21 28 51						
		iE	21 34 44						
		iN	21 34 56						
		SEN	21 38 02						
		eSZ	21 38 44						
		Fe	22 00 ±						

No	Date	Phase	Time G. M. T.	Period	Amplitude A_E	A_N	A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
116	Oct. 1	ePEN	2 58 03						A distant earthquake. Luzon, Philippine.
		ePZ	2 58 02						
		iP	2 58 09						
		eSE	3 02 17						
		eSN	3 02 19						
		eFE	3 08 ±						
117	Oct. 8	iP	10 26 16						P phase is distinct. New Hebrides, South Pacific Ocean.
		eLEN	10 44 57						
		eLZ	10 47 00						
		eFE	10 59 ±						
		eFN	11 04 ±						
		eFZ	11 15 ±						
*118	Oct. 16	iP	21 32 47					138	Perceptible. Epicenter, Near Daisyo-zi, Isikawa prefecture. Moderate shocks were felt at the epicentral region. Fore shock of next earthquake ?.
		$i\bar{P}_E$	21 32 50						
		$i\bar{P}_{NZ}$	21 32 49						
		iSE	21 33 05		+32				
		iSNZ	21 33 07			−71			
		ME	21 33 07	1.2	−172				
		MN	21 33 08	1.6		−313			
		MZ	21 33 12				±56		
		F	21 36 19						
*119	Oct. 16	iPEN	21 36 22					131	Moderate shocks were felt at this Station. Epicenter Near Daisyo-zi, Isikawa prefecture. Small damaged at rhe epicentral region.
		iPZ	21 36 23						
		$i\bar{P}_{EZ}$	21 36 26						
		$i\bar{P}_N$	21 36 25						
		iSEN	21 36 40						
		iSZ	21 36 44						
		ME	21 36 41	0.8	±1430				
		MN	21 36 43			−700>			
		MZ	21 36 44				±878		
		eF	21 50 ±						
120	Oct. 18	PEN	4 23 28		+0.4	+0.1		129	An after shock of No 119.

No.	Date	Phase	Time G. M. T.	Period	Amplitude A_E	A_N	A_Z	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		P_Z	4 23 27				−0.1		
		iP_{EN}	4 23 29		−5.2	−1.8			
		iP_Z	4 23 28				+6.1		
		iS	4 23 46						
		M_E	4 23 47		+16				
		M_N	4 23 46			+6			
		M_Z	4 23 47	1.3			+9		
		F_E	4 25 21						
		F_N	4 25 43						
		F_Z	4 25 47						
121	Oct. 20	iP	2 08 06					149	An after shock of No 119.
		$\overline{P}$?	2 08 07						
		S_N	2 08 26						
		M_E	2 08 26	4.2	+12				
		M_N	2 08 27	3.2		−9			
		M_Z	2 08 27						
		F_{EN}	2 09 23						
		F_Z	2 08 48						
122	Oct. 21	iP	5 26 11					285	North off Misaki, Iyo province.
		eS_E	5 26 43						
		eS_N	5 26 44						
		iS_{EN}	5 26 50						
		M_E	5 26 55		−14				
		M_N	5 27 00						
		M_Z	5 26 51				+10		
		F_E	5 28 12						
		F_N	5 27 42						
		F_Z	5 27 49						
123	Oct. 24	iP_{EN}	20 19 42					2185	Near the Northern part of Marianne deep, North Pacific Ocean.
		iP_Z	20 19 41						
		iE_N	20 19 46		−36	+28			
		iZ	20 19 55						
		S_E	20 23 19		−29		+65		
		S_{NZ}	20 23 22			−70	+38		
		M_E	20 23 44	4.6	−145				
		M_1N	20 23 25	4.8		+165			
		M_Z	20 24 03	5.0			+84		
		M_2N	20 24 40	5.4		−88			
		eF_E	21 33 ±						
		eF_N	21 36 ±						
		eF_Z	21 27 ±						
124	Oct. 24	eP_E	22 23 21						Lower basin of the Kinu river, Ibaraki prefectur.
		eS_E	22 24 00						
		eS_N	22 24 02						
		eF	22 26 ±						
125	Oct. 26	P_E	13 45 41					87	Lower basin of the Arita river, Wakayama prefecture.
		S_{EN}	13 45 53						
		M_E	13 45 59		+10				
		M_N	13 45 56			−4			
		F_E	13 47 03						
		F_N	13 46 56						
		F_Z	13 47 07						
126	Oct. 28	eP	21 14 54					2210	Near Marianne deep.
		i	21 15 08						
		S_E	21 18 36						
		S_N	21 18 34						
		S_Z	21 18 37						
		eL_N	21 21 34						
		eL_Z	21 21 19						
		eF_{EN}	21 37 ±						
		eF_Z	21 36 ±						
127	Oct. 29	P	14 27 47					99	Faint record. In the Wakaura bay, Kii channel.
		S	14 28 00						
		M	14 28 06		−3	−2			
		F_E	14 28 31						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		FN	14 28 39						
128	Nov. 8	PE	4 02 28					141	Faint record. In the Wakaura bay, Kii channel.
		ePN	4 02 26						
		S	4 02 47						
		ME	4 02 51		+6				
		MN	4 02 47			−5			
		FE	4 04 08						
		FN	4 04 15						
		FZ	4 03 18						
129	Nov. 9	PE	19 15 54						Each phase are not distinct. A distant earthquake. Probable epicenter, 10° S 122° E. (According to Manila's repert)
		ePN	19 15 48						
		ePZ	19 16 34						
		eSZ	19 22 54						
		eLZ	19 27 56						
		eFEN	20 00 ±						
		eFZ	20 10 ±						
130	Nov. 10	ePE	13 37 59						Faint record. In the Kasima sea.
		ePN	13 38 01						
		ePZ	13 37 58						
		eS	13 57 20						
		eLE	14 00 10						
		eLN	14 02 10						
		eLZ	14 02 07						
		eF	14 23 ±						
131	Nov. 17	iP	15 16 14					153	Upper basin of the Go river, Hirosima prefectur.
		iS	15 16 35						
		ME	15 16 42	1.2	+19				
		MN	15 16 39	3.2		−41			
		MZ	15 16 43	1.8			−16		
		FE	15 17 55						
		FN	15 17 35						
		FZ	15 17 14						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
132	Nov. 21	eFE	9 50 50					321	Fore shock of the North Izu earthquake, on Nov 25 1930.
		PZ	9 50 47						
		SE	9 51 34						
		SNZ	9 51 33						
		ME	9 51 40		+3				
		MN	9 51 43			+5			
		MZ	9 51 37				+3		
		FEN	9 52 30						
		FZ	9 52 08						
133	Nov. 21	ePZ	10 17 54					306	Ditto.
		SEN	10 18 35						
		eF	10 19 27						
134	Nov. 21	P	12 18 28					335	Fore shock of the North Izu earthquake, on Nov 25 1930.
		S	12 19 13						
		ME	12 19 19		−5				
		MN	12 19 21			−6			
		MZ	12 19 22				+4		
		FE	19 19 48						
		FN	12 20 02						
		FZ	12 20 00						
135	Nov. 21	eSE	12 57 17						Ditto.
		SN	12 57 20						
		F	12 57 54						
136	Nov. 24	i	6 46 24					28	Lower basin of the Kii river, Wakayama prefecture.
		i	6 46 27						
		M	6 46 28		−9	−4			
		F	6 47 00						
137	Nov. 25	iPE	6 27 33					299	Fore shock of the North Izu earthquake, on Nov 25 1930.
		S	6 28 13						
		FE	6 29 01						
		FN	6 28 54						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
138	Nov. 25	PE	7 06 48					369	Fore shock of the North Izu earthquake, on Nov 25 1930. Moderate shocks were felt at the epicentral region.
		PN	7 06 54						
		PZ	7 06 45						
		SE	7 07 37						
		SN	7 07 36						
		SZ	7 07 41						
		ME	7 07 42		−10				
		MN	7 07 42			−22			
		MZ	7 07 50				+19		
		FE	7 09 16						
		FN	7 09 19						
		FZ	7 08 54						
139	Nov. 25	ePE	7 51 09					323	Fore shock of North Izu earthquake, on Nov 25th 1930.
		S	7 51 52						
		ME	7 51 55		+2				
		MZ	7 51 56				+4		
		FEN	7 52 36						
		FZ	7 52 35						
140	Nov. 25	PE	14 24 16					297 ?	Ditto.
		PZ	14 24 19						
		eS	14 24 56						
		MN	14 25 02			−5			
		FE	14 25 54						
		FN	14 25 49						
		FZ	14 25 44						
*141	Nov. 25	iPEN	19 03 42						
		iPZ	19 03 43					378	So called "North Izu great earthquake". Much damages were occured in epicentral region.
		$i\bar{P}E$	19 03 55						
		$i\bar{P}N$	19 03 58						
		SEN	19 04 33						
		SZ	19 04 38						
		$\bar{S}E$	19 04 43						
		ME	19 04 59		−998				
		MN	19 04 59			>±1120			
		MZ	19 04 47	3.0			−1688		
		eFEN	20 42 ±						
		eFZ	20 40 ±						
142	Nov. 25	PE	19 30 30						An after shock of North Izu earthquake?, on Nov 25 1930.
		ePN	19 30 25						
		eFE	19 31 39						
		eFN	19 31 44						
143	Nov. 25	ePE	19 47 17						Ditto.
		eF	19 48 53						
144	Nov. 26	ePZ	1 07 28					343	Ditto.
		PE	1 07 32						
		SEN	1 08 18						
		SZ	1 08 19						
		ME	1 08 27		−3				
		MN	1 08 22			−4			
		FE	1 09 00						
		FN	1 08 58						
		FZ	1 09 04						
145	Nov. 26	PE	4 53 10					348	Ditto.
		S	4 53 57						
		eF	4 55 ±						
146	Nov. 26	eS	8 44 09						Ditto.
		eF	8 44 55						
147	Nov. 26	P	9 24 14					21	Local shock.
		S	9 24 17						
		M	9 24 17		−4	+9			
		F	9 24 29						
148	Dec. 3	ePE	18 56 06					4265	A distant earthquake.

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		iP	18 59 07						Epicenter 96°5 E 18° N. (According to Strasburg) Destructive in Burma.
		SE	19 05 09						
		SN	19 05 01						
		LE	19 08 52						
		LZ	19 10 46						
		M_1E	19 13 04	16.0	+106				
		M_1N	19 13 17	12.4		−284			
		M_1Z	19 14 15	12.3			+91		
		M_2E	19 15 37	12.0	−168				
		M_2N	19 14 27	14.3		−200			
		M_2Z	19 15 42	11.4			−101		
		M_3E	19 16 11	12.4	−160				
		M_3N	19 15 08	14.0		−175			
		M_3Z	16 16 14	9.3			−124		
		M_4E	19 16 49	10.4	+110				
		M_4N	19 15 51	12.2		−158			
		M_5E	19 17 18	10.4	−135				
		M_5N	19 17 03	14.5		+158			
		M_6E	19 18 26	12.2	−113				
		M_6N	19 17 52	13.0		+114			
		CE	19 23 00						
		eF	19 53 ±						
149	Dec. 4	iPEN	4 17 03						
		iPZ	4 17 04					79	Near Kyoto ctiy.
		S	4 17 14						
		ME	4 17 14	0.4	−13				
		MN	4 17 18	0.4		−11			
		MZ	4 17 15				−8		
		FE	4 18 49						
		FN	4 18 37						
		FZ	4 17 52						
*150	Dec. 5	iPEN	20 32 08						
		PZ	20 32 07		+1	+17	+24	108	Perceptible. West of Awaji Isl. Moderate shocks were felt at the epicentral
		iS	20 32 22						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		ME	20 32 23	0.5	117				region.
		MN	20 32 23	0.3		−80			
		MZ	20 32 24	1.0			+57		
		FE	20 36 30						
		FN	20 36 36						
		FZ	20 36 41						
151	Dec. 7	eLEN	4 03 34						An after shock of North Izu earthquake, ?
		FE	4 04 38						
152	Dec. 7	PE	5 51 22					326	An after shock of North Izu earthquake, on Nov 25th 1930.
		SE	5 52 06						
		SN	5 52 05						
		ME	5 52 07		+2				
		MN	5 52 07			−4			
		FE	5 53 04						
		FN	5 53 10						
153	Dec. 8	PE	6 26 45						Faint record.
		LE	6 32 46						Middle basin of the Sobun river, Formosa.
		eF	6 37 ±						Felt at all Formosa. Fore shocks of next earthquake. ?
154	Dec. 8	PE	8 05 31						Middle besin of the Sobun river, Formosa.
		ePN	8 05 23						Strong shocks were felt
		eE	8 11 05						and destructive at the
		iN	8 11 08						epicentral region.
		LE	8 13 46						
		LN	8 13 36						
		MEN	8 16 00		+5	+3			
		eFE	8 28 ±						
		eFN	8 23 ±						
155	Dec. 13	P	14 25 01						Near the mouth of the Nihikatupu river, Hokkaido.
		eSE	14 26 44						Mnderate shocks were
		eSN	14 26 46						felt at the Western part
		ME	14 26 47		+8				

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		MN	14 26 48			−11			of Hokkaido.
		eF	14 31 ±						
156	Dec. 16	ePE	19 50 54					297	An after shock of the North Izu earthquake, on Nov 25th 1930.
		iPE	19 50 57						
		PZ	19 50 58						
		SE	19 51 37						
		eSN	19 51 41						
		eSZ	19 51 45						
		ME	19 51 43		+5				
		MN	19 51 41			+7			
		FE	19 52 38						
		FN	19 52 47						
*157	Dec. 20	iPEN	14 02 54		−12	−6		183	Perceptible, Near Miyosi, Hirosima prefecture. Moderate shocks were felt at the epicentral region. Perceptible at the greater partry of western Japan.
		iPZ	14 02 55				−7		
		SEN	14 03 19						
		SZ	14 03 21						
		MEN	14 03 23	1.3	+506	−820			
		MZ	14 03 24	1.4			−357		
		eFEN	14 13 ±						
		eFZ	14 12 ±						
158	Dec. 20	ePEN	14 23 39					194	An after shock of No 157.
		ePZ	14 23 36						
		S	14 23 55						
		ME	14 24 00		+4				
		MN	14 24 01			−6			
		F	14 26 36						
*159	Dec. 20	iPEN	14 43 33					157	Perceptible. An after shock of No 157. Moderate shocks were felt at the epicentral region.
		iPZ	14 43 32						
		iSEN	14 43 54				−1		
		SZ	14 43 55						
		ME	14 44 00						
		MN	14 44 01		+83	−97			

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		MZ	14 44 02				+27		
		FEN	14 46 40						
		FZ	14 46 18						
160	Dec. 20	S	15 37 42						Very small movment. An after shock of No 157.
		ME	15 37 42		−3				
		F	15 38 05						
161	Dec. 20	S	17 44 16						Local shock.
		F	17 44 36						
162	Dec. 20	S	20 23 36						An after shock of No 157.
		F	20 24 12						
163	Dec. 20	iP	23 27 12					176	Ditto. Weak shocks were felt at the epicentral region.
		iSEZ	23 27 35						
		iSN	23 27 36						
		ME	23 27 42	1.5	−38				
		MN	23 27 40	1.7		−100			
		MZ	23 27 39	1.7			+54		
		FEN	23 32 48						
		FZ	23 32 23						
*164	Dec. 21	iP	12 14 56		−10	−3		173	Perceptible. Greatest after shock of No 157. Moderate shocks were felt at the epicenter. Perceftible in the greater part of Wester Japan.
		iS	12 15 20						
		ME	12 15 31	0.9	+308				
		MN	12 15 24			−737			
		MZ	12 15 22	1.4			±244		
*165	Dec. 21	FEN	12 18 24					169	Perceptible. An after shock of No 157. Moderate shocks were felt at the epicentral region.
		PZ	12 18 22						
		S	12 18 47						
		ME	12 18 49	1.1	+77				
		MN	12 18 49	1.3		+108			
		MZ	12 18 47	1.4			−49		
		FEN	12 24 13						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		FZ	12 23 12						
166	Dec. 21	iPEN	13 10 13						An after shock of No 175.
		iPZ	13 10 12						
		MN	13 10 19			−4			
		FEN	13 11 00						
		FZ	13 10 41						
167	Dec. 21	P	13 17 50						Ditto.
		FEN	13 18 18						
		FZ	13 18 17						
168	Dec. 21	iS	14 10 25						Ditto.
		FEN	14 10 57						
		FZ	14 11 16						
169	Dec. 21	iPEN	14 55 38		−15	−24		2040	P phase is remarkable Middle basin of the Sobun river, Southern part of the Formosa. Felt at all Fomosa and Southern part of Ryukyu Ils.
		iPZ	14 55 36				−26		
		PM	14 55 38	3.0					
		SE	14 59 05	2.5	−50	−75	−158		
		SN	14 59 07						
		SZ?	14 58 07						
		eFEN	15 14 ±						
		əFZ	15 20 ±						
170	Dec. 21	P	16 30 53						
		SEN	16 31 16					168	An after shock of No 157. Perceptible at the Tiyugoku and Sikoku district.
		SZ	16 31 18						
		ME	16 31 22		−12				
		MNZ	16 31 19			−28	+7		
		FEN	16 32 16						
		FZ	16 32 15						
171	Dec. 21	iP	17 38 43						
		iS	17 39 04					159	Ditto.
		MEN	17 39 09		+6	−14			

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
		MZ	17 39 08				+5		
		FEN	17 39 47						
		FZ	17 39 41						
172	Dec. 21	iP	20 48 27					168	An after shock of No 157.
		S	20 48 50						
		ME	20 48 51		±9				
		MNZ	20 48 52			±11	±4		
		FEN	20 49 22						
		FZ	20 49 10						
173	Dec. 22	iPEN	3 23 55					166	Ditto.
		iPZ	3 23 54						
		SEN	3 24 17						
		SZ	3 24 19						
		ME	3 24 18	0.8	−14				
		MN	3 24 20			−17			
		MZ	3 24 19				−7		
		FEN	3 25 09						
		FZ	3 25 18						
174	Dec. 22	PE	23 07 38					149	Ditto.
		FZ	23 07 37						
		S	23 07 58						
		ME	23 07 59		+7				
		MNZ	23 08 01			−6	−4		
		FE	23 08 33						
		FN	23 08 22						
		FZ	23 08 17						
175	Dec. 23	P	2 09 49					143	Ditto.
		SEN	2 10 08						
		SZ	2 10 10						
		MEN	2 10 09		−6	+9			
		FEN	2 11 ±						

No.	Date	Phase	Time G. M. T.	Period	Amplitude AE	AN	AZ	Δ	Remarks
			h m s	s	μ	μ	μ	km.	
176	Dec. 23	PE	4 07 10					165	An after shock of No 157.
		SEN	4 07 32						
		SZ	4 07 37						
		ME	4 07 33		−5				
		MN	4 07 32			+7			
		FEN	4 11 00						
177	Dec. 24	PN	10 47 13					150	Ditto.
		PZ	10 47 11						
		SE	10 47 33						
		SN	10 47 34						
		SZ	10 47 35						
		ME	10 47 35		+7				
		MN	10 47 34			+14			
		MZ	10 47 36				−5		
		FEN	10 48 41						
		FZ	10 48 18						
178	Dec. 25	P	4 09 14					22	Local shock.
		S	4 09 17						
		MEN	4 09 17		±21	±14			
		FEN	4 09 33						
		FZ	4 10 45						