

SEISMOLOGICAL BULLETIN

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神戸市神戸區中山手通七丁目
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From No. 1, to No. 56, 1936.

KŌBE JAPAN.

SEISMOLOGICAL BULLETIN

of the Imperial Marine Observatory and the Kōbe Meteorological Observatory of Japan.
 $\varphi = 34^{\circ} 41' 18''N$ $\lambda = 135^{\circ} 10' 51''E$ $h = 58.3m$ Underground: Diluvial Series.

Instruments: Omori's Seismograph.
(Horizontal)

Wiechert Seismograph.
(Horizontal & Vertical)

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Jan.

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	19.2		0.001	20
AN:	20.1		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	6.2	8	0.005	113
AN:	6.2	14	0.005	107
Az:	4.5	5	0.006	89

Feb.

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	19.0		0.001	20
AN:	19.8		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	6.4	7	0.005	111
AN:	6.4	9	0.005	101
Az:	4.0	6	0.006	84

Mar.

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	20.9		0.001	20
AN:	21.3		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	6.6	5	0.005	105
AN:	6.2	7	0.010	110
Az:	4.1	6	0.004	61

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	Az		
1	Jan. 2	ePN	22	43	04	21.0	-10	-8	-10	5730	Felt in western Sumatra.
		ePz	22	43	06						
		ePE	22	43	08						
		PEN	22	43	10						
		iPz	22	43	11						
		eE	22	48	10						
		eSz	22	50	27						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
2	Jan. 7	eSN	22	50	30					61	Moderate shocks were felt in vicinity of Kyōto City. Felt in Kinki district.
		eLN	23	00	05						
		eLZ	23	00	24						
		M _E	23	03	06	18.5	±3				
		M _N	23	05	53	16.0		±4			
		M _Z	23	06	40	16.0			±4		
		M ² _E	23	06	53	16.0	±8				
		eF	23	19	±						
		iP	19	33	48		+3	+2			
		iS	19	33	57		+40	-20	+10		
M _{EN}	19	33	58	0.9	-68	+76					
M _Z	19	33	58	1.0			-50				
M ² _E	19	34	02	0.9	+50						
eF	19	43	±								
3	Jan. 13	SNZ	4	55	56			-6			Near Tate-yama, Toyama Prefecture.
		M _{EN}	4	56	00	1.4	±8	+8			
		M _Z	4	56	00	1.6			-5		
		eF	4	57	±						
4	Jan. 14	eE	5	54	09						Near Sandwich IIs, South Atlantic Ocean.
		eN	5	54	47						
		eZ	5	54	48						
		eZ	5	56	17						
		eF	6	08	±						
5	Jan. 14	eP _Z	17	55	21						Near New Hebrides IIs, SW Pacific Ocean.
		eN	17	55	45						
		eZ	17	59	53						
		M _Z	18	10	08	16.0			±1		
		M _N	18	13	45	15.5		±2			
		eF	18	24	±						
6	Jan. 20	eP _Z	17	02	21						SE off Mindanao, Philippine IIs. S phase is not distinct.
		eP _{EN}	17	02	29						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
7	Jan. 21	P _{R1N}	17	03	19	4.5		+16		89	Near Kiyokawa, middle part of Wakayama Prefecture.
		P _{R1E}	17	03	21		-8				
		P _{R1Z}	17	03	24				+7		
		P _{R2N}	17	03	41	4.4		+14			
		P _{R2Z}	17	03	47				+9		
		i _E	17	04	35	3.9	+33				
		i _E	17	05	17	3.5	+20				
		i _N	17	05	25	3.5		+12			
		eL _E	17	09	12						
		eL _Z	17	10	00						
		eL _N	17	10	16						
		M _E	17	12	30	21.5	±9				
		M _Z	17	13	16	20.0			±4		
		M _N	17	13	39	19.0		±12			
eF	17	31	±								
8	Jan. 28	iP	6	56	01		+3	+5	+7	82	Near Miyazu, Kyōto Prefecture.
		iS _{EN}	6	56	14		+29	+20			
		eS _Z	6	56	13						
		M _E	6	56	14	0.5	+29				
		M _N	6	56	14	0.8		-26			
		eF	6	57	±						
9	Jan. 29	eP _{EN}	1	38	07					670	Near Kuzyūkuri-hama, Tiba Prefecture.
		P _Z	1	38	07				+0.5		
		eS	1	38	18				+1		
		M _Z	1	38	20	1.0			±2		
		M _N	1	38	29	2.4		±2			
eF	1	40	±								
9	Jan. 29	eP _{NZ}	1	29	09					670	Near Kuzyūkuri-hama, Tiba Prefecture.
		eP _E	1	29	11						
		eS _E	1	30	20						
		eS _N	1	30	22						
		M _Z	1	30	36	2.3			+3		
		M _N	1	30	37	2.5		-11			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
10	Jan. 29	ME	1	30	48	2.5	+8				Near Ōno, upper valley of the Yura River, Kyōto Prefecture.
		eF	1	38	±						
		eP	23	42	39						
		iSz	23	42	45				-2		
		iSE	23	42	46		-5				
		MZ	23	42	45	0.5			+3		
		ME	23	42	46	0.3	-5				
		eF	23	43	±						
11	Feb. 2	PEZ	16	38	08		+1		-0.5	111	NW of Kaneyama, Mie Prefecture.
		iP	16	38	08		-3	+3	+3		
		SEN	16	38	23		-2	-2			
		eSz	16	38	23						
		ME	16	38	25		+8				
		MX	16	38	25	0.5		-8			
		MZ	16	38	26				+3		
		F	16	38	50						
12	Feb. 3	SE	4	51	06		+1				Near Sumoto, Awazi Province.
		SNZ	4	51	07			-2	-1		
		MZ	4	51	07				-3		
		ME	4	51	08	0.5	+7				
		MX	4	51	08	0.4		-5			
		F	4	51	50						
13	Feb. 5	P	7	11	37		+4	+6	-1.5	57	Near Kyōto City. Moderate shocks were felt in vicinity of Kyōto City.
		iSEN	7	11	44		+41	-18			
		iSz	7	11	45				+13		
		MX	7	11	46	0.8		-50			
		MZ	7	11	46	0.9			-40		
		ME	7	11	51	0.9	+55				
eF	7	18	±								
14	Feb 7	ePz	9	01	53					2985	Damages at near Lan-chou, Kansu, China; 103°E 35°N, according to Nanking's report.
		ePN	9	01	56						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
15	Feb. 8	Pz	9	02	00				-2		Probable epicenter in New Guinea.
		PN	9	02	01			+2			
		PE	9	02	02		+4				
		iz	9	02	06	1.7			+5		
		iN	9	02	10	1.3		+5			
		iE	9	02	12	2.0	+6				
		eSz	9	06	35						
		SN	9	06	36			-6			
		SE	9	06	38		+10				
		MX	9	11	03	18.0		+65			
		MZ	9	12	41	14.5			+15		
		ME	9	12	44	14.5	+50				
16	Feb. 10	MZ	9	14	27	12.0			+18		NW off Fiji IIs, SW Pacific Ocean.
		MZE	9	14	30	11.0	-105				
		eF	19	00	±						
		ePz	12	18	49					4295	
		ePN	12	18	50						
		ePE	12	18	52				+1.5		
		Pz	12	18	52						
		eSz	12	24	53				+2		
		Sz	12	24	59						
		SEN	12	25	00		+15	-5			
		eF	12	37	±						
		17	Feb. 12	ePN	18	15	35				
PNZ	18			15	53			-5			
PE	18			15	55		-5				
ez	18			24	20						
eF	18			33	±						
17	Feb. 12	ePN	9	41	57				-2	4120	Felt in eastern part of Java IIs.
		Pz	9	41	59						
		ePE	9	42	01						
		eSN	9	47	51						
		S	9	47	56		-6	-5	-2		

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
18	Feb. 12	eF	9 58 ±					1420	South off Bonin IIs.
		ePz	20 23 38						
		eP _{EN}	20 23 39						
		eSz	20 26 06						
		eS _E	20 26 08	-8					
		eS _N	20 26 09						
		eF	20 32 ±						
19	Feb. 15	eP _E	12 54 24				3945	NW of New Guinea. Felt in NW New Guinea, Celam and Kei Isl.	
		iP _N	12 54 24		+12				
		iP _Z	12 54 25			+8			
		P _E	12 54 26	+5					
		PM _N	12 54 29		±25				
		iz	12 54 37			±10			
		PR _{1N}	12 55 44		±15				
		PR _{2N}	12 56 09		±20				
		i _N	12 56 56		±30				
		iz	12 56 59			+11			
		i _E	12 57 00	+32					
		eS _Z	12 59 51						
		eS _N	13 00 08						
		eS _E	13 00 10						
		e _N	13 03 04						
iz	13 03 12								
e _E	13 03 13								
M _E	13 05 23	±20							
M _N	13 06 15		±25						
M _Z	13 06 30			±10					
eF	14 03 ±								
*20	Feb. 21	iP	1 08 07		+440	+15	-287	50	The epicenter is in south- western foot of Mt. Nizyō, SE of Osaka Prefecture; 135°41'E 34°31'N. 9 persons were killed and 25 houses were destroyed at near epicentral region in Kawati & Yamato Provinces.
		iS _{EN}	1 08 13		+6500	-3800			
		iS _Z	1 08 14				-4000		
		M ¹ _{NE}	1 08 22	3.4	-6500				
		M ¹ _{SE}	1 08 33	3.6		+5400			

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
		M ¹ _Z	1 08 36	3.3			+6700		The shocks is felt in western Honsyū and Sikoku district. This earthquake is named "Kawati-Yamato Strong Shock". Data after S from the Omori's Strong Seismograph.
		M ² _{NE}	1 09 20	3.6	+5500				
		M ² _{SE}	1 09 28	3.0		+4000			
		M ² _Z	1 09 31	3.5			+4000		
		M ² _{SE}	1 09 59	4.0		+4200			
		eF	1 17 ±						
21	Feb. 21	P _{EN}	1 38 46					An after-shock of the "Ka- wati-Yamato Strong Shock".	
		M _E	1 39 05	0.5	±1				
		F	1 39 10						
22	Feb. 21	e _N	1 46 02					Ditto.	
		M _{EN}	1 46 09	0.5	+3	+3			
		F	1 46 30						
23	Feb. 21	eP _N	1 46 42					Ditto.	
		M _N	1 46 49	0.4		±1			
		eF	1 47 20						
24	Feb. 21	iP _Z	2 10 00				48	Ditto.	
		iP _{EN}	2 10 01		+6	+2			
		iS _{EN}	2 10 08		+27	+22			
		M _Z	2 10 21	0.5		-17			
		M _E	2 10 21	0.8	+45				
		M ¹ _N	2 10 22	0.7		±45			
		M ² _N	2 11 09	2.3		-55			
		eF	2 15 ±						
25	Feb. 21	M _E	2 18 41	0.5	+7			Ditto.	
		F	2 19 30						
26	Feb. 21	M _E	2 30 02		-2			Ditto.	
		F	2 30 30						
27	Feb. 21	M _E	2 38 05					Ditto.	
		M _N	2 38 10						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
28	Feb. 21	F	2	38	20					51	Ditto.
		iP	4	04	52		+20	+3	-16		
		iz	4	04	53	0.8			+19		
		i _N	4	04	54	0.7		-42			
		iS	4	04	58		+72	-18	-13		
		M ¹ _N	4	04	59	0.8	+175				
		M ¹ _Z	4	05	03	1.3			-41		
		M ¹ _E	4	05	05	1.3	+145				
		M ² _Z	1	05	12	0.7			-37		
		M ² _E	4	06	01	2.4	-170				
		M ³ _E	4	06	11	2.3	+210				
		M ² _N	4	06	13	2.0		+65			
		M ³ _Z	4	06	09	2.3			+28		
		M ⁴ _E	4	06	49	2.6	+60				
		M ⁴ _Z	4	07	02	1.8			-26		
eF	4	25	±								
29	Feb. 21	P _N	9	22	42				50	Ditto.	
		eS	9	22	49						
		M _E	9	22	50		±2				
		M _N	9	22	50	0.6		±2			
		eF	9	23	20						
30	Feb. 21	eP _{NZ}	15	55	02				48	Ditto.	
		eS _Z	15	55	08						
		S _{EN}	15	55	09						
		M _E	15	55	09		+6				
		M _N	15	55	09	0.6		±3			
		M _Z	15	55	20	0.7		±1			
		F	15	56	00						
31	Feb. 21	eP _Z	17	04	39				51	Eastern part of the Arafura Sea, South of New Guinea.	
		eP _N	17	04	44						
		eP _E	17	04	46						
		ez	17	05	06	4.9		±2			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
32	Feb. 21	e _N	17	05	07				-6	51	An after-shock of the "Ka- wati-Yamato Strong Shock".
		eS _Z	17	10	44						
		e _E	17	11	21	6.9	±5				
		e _E	17	13	56						
		M _N	17	17	15	26.0		±2			
		M _Z	17	17	19	21.0			±1		
		eF	17	36	±						
		eP _E	19	16	15						
		P _N	19	16	15						
		P _Z	19	16	16						
33	Feb. 21	iS _{EN}	19	16	22		-2	-2		45	Ditto.
		M _E	19	16	23	0.8	±4				
		M _N	19	16	26	0.5		±2			
		F	19	17	30						
		P _Z	19	18	21						
		P _{EN}	19	18	22						
		S _{EN}	19	18	28		+1	-1			
34	Feb. 21	M _E	19	18	28	0.7	-2			51	Ditto.
		M _N	19	18	32	0.4		±2			
		F	19	18	50						
		eP	19	19	01						
		eS _{EZ}	19	19	08						
35	Feb. 21	S _N	19	19	08			+1	51	Ditto.	
		M _E	19	19	08	0.6	-3				
		M _N	19	19	09	0.7		±2			
		F	19	19	50						
		eP _N	21	49	02						
36	Feb. 21	M _E	21	49	10	0.6	+3		50	Ditto.	
		M _N	21	49	10	0.5		±2			
		F	21	50	00						
36	Feb. 21	iP _{NZ}	21	53	41			+1.5	-3	50	Ditto.

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
		P _E	21 53 41						
		S _Z	21 53 47				-2		
		iS _{EN}	21 54 38		-9	+10			
		M ¹ _E	21 53 48	0.7	+25				
		M _{NZ}	21 54 02	0.5		-20	-10		
		M ² _E	21 54 51	2.2	-20				
		M ³ _E	21 55 01	2.3	-18				
		eF	22 01 ±						
37	Feb. 22	eP _{EN}	3 05 17					Near Simokōno, Wakayama Prefecture.	
		S _{EN}	3 05 23						
		M _Z	3 05 24	0.5			±1		
		M _{EN}	3 05 26	0.5	+4	+4			
		F	3 06 10						
38	Feb. 23	eP	17 06 06					48 An after-shock of the "Kawati-Yamato Strong Shock".	
		S _{EZ}	17 06 12		-2		+1		
		iS _N	17 06 12			+3			
		M	17 06 13	0.4	-8	+6	-2		
		M ² _Z	17 06 15	0.4			±2		
		F	17 07 20						
39	Feb. 26	P _Z	17 41 00					59 In the Kii Channel.	
		iP _E	17 41 01		+1				
		P _N	17 41 01						
		iS _{EN}	17 41 09		+3	+3			
		M _Z	17 41 13	0.4			±2		
		M _E	17 41 14	0.7	-9				
		M _N	17 41 14	0.4		+8			
		eF	17 45 ±						
40	Feb. 27	eP _N	3 10 48					45 An after-shock of the "Kawati-Yamato Strong Shock".	
		S _{EN}	3 10 54		-1	-1			
		eS _Z	3 10 55						
		M _E	3 10 55	0.4	+5				
		M _N	3 10 56	0.5		±3			

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
		eF	3 13 ±						
41	Feb. 27	eP _E	10 11 49					4350 Western part of New Guinea.	
		eP _Z	10 11 51						
		eP _N	10 11 53						
		i _N	10 12 26	5.5		±5			
		i _Z	10 12 26	5.2			±2		
		P _{R1N}	10 13 46	4.0		±6			
		P _{R2N}	10 14 08	3.8		±6			
		eS _N	10 17 57						
		eS _Z	10 18 03						
		eS _E	10 18 05						
		e _Z	10 21 03						
		e _{EN}	10 21 23						
		eF	10 38 ±						
42	Feb. 28	P _E	0 18 33		+2			209 In the Aki-nada, Inland Sea.	
		P _{NZ}	0 18 34			-3			
		S _E	0 19 01		-2				
		eS _{NZ}	0 19 05						
		M _E	0 19 14	0.6	±3				
		M _Z	0 19 14	1.1			±1		
		F	0 20 10						
43	Feb. 29	eP	0 33 05					Mouth of the Kinokawa, North of Wakayama City.	
		eS _Z	0 33 11						
		eS _{EN}	0 33 12		-4	-4			
		M _E	0 33 12	0.5	+9				
		M _N	0 33 13	0.4		-12			
		eF	0 37 ±						
44	Mar. 1	eP _N	10 25 09					1450 North off the Siretoko Cape, Hokkaidō, 145°0 E 44°8 N. Felt in eastern part of Hokkaidō. Record is deep focus type.	
		eP _Z	10 25 12						
		eS _N	10 27 40						
		M _N	10 28 10	4.3		+25			
		M _E	10 28 11	3.6	-17				

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
45	Mar. 2	Mz	10	28	12	3.2			± 3	1050	SE off the Erimo Cape, Hokkaido, 144°0 E 41°6 N. Moderate shocks were felt in the vicinity of Tokati Province.
		eF	10	36	\pm						
		ePz	3	21	21						
		ePN	3	21	23						
		ePE	3	21	25						
		SE	3	23	16		-15				
		SN	3	23	19			+9			
		eSz	3	23	21						
		eLN	3	24	02						
		eLE	3	24	18						
		eLz	3	24	40						
		Mz	3	24	40	17.0			± 17		
		MN	3	25	29	19.0		-100			
ME	3	26	33	14.5	-150						
eF	4	31	\pm								
46	Mar. 2	P	18	06	50				-1	51	An after shock of the "Kawati-Yamato Strong Shock" on Feb. 21th 1937.
		SN	18	06	56			-2			
		SE	18	06	57		+2				
		eSz	18	06	57						
		MN	18	06	57	0.5		± 4			
		ME	18	06	59	0.5	+5				
		eF	18	10	\pm						
47	Mar. 5	eSN	23	39	16					Near Hukui City.	
		eSE	23	39	17						
		ME	23	39	17	0.6	-2				
		MN	23	39	17			+2			
		F	23	39	43						
48	Mar. 8	ez	4	48	48					Near Wakayama City.	
		eEN	4	48	49						
		eMEN	4	48	49	0.5	-5	± 5			
		F	4	49	12						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
49	Mar. 10	ePEZ	20	38	18					1200?	South off the Erimo Cape, Hokkaido.
		ePN	20	38	22						
		eS?E	20	40	35						
		ME	20	42	12	19.0	± 5				
		MN	20	42	12	18.0		± 5			
		Mz	20	42	43	17.0			± 2		
eF	20	55	\pm								
50	Mar. 11	eP	0	45	53					970	East off Miyako, Iwate Prefecture.
		eSE	0	47	32						
		eSz	0	47	38						
		eLN	0	47	45						
		Mz	0	48	16				+5		
		ME	0	48	23	6.9	± 10				
		MN	0	48	31			+11			
		eF	1	02	\pm						
51	Mar. 11	ePN	3	55	54					81	Near the Hidaka River, Wakayama Prefecture.
		eSN	3	56	05						
		ME	3	56	08	0.6	-3				
		MN	3	56	08	0.5		± 2			
		F	3	56	52						
52	Mar. 22	eN	5	31	56					Local shock.	
		MN	5	32	00	1.2		± 3			
		MEZ	5	32	02	0.8	± 2		± 1		
F	5	32	09								
53	Mar. 22	ePN	12	24	41					4645	Near Solomon IIs, Melanesia.
		ePE	12	24	42						
		ePz	12	24	43				-1		
		iPN	12	24	48						
		iPE	12	24	49		+10		-6		
		eSN	12	31	04						
		MN	12	42	02	16.0		± 2			
eF	13	01	\pm								

From No. 1 to No. 108, 1936.

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kōbe Meteorological Observatory of Japan.
 $\varphi = 34^{\circ} 21'$ $\lambda = 134^{\circ} 53'$ $h = 109.0$ m. Underground: Cretaceous.

Instrument: Omori's Seismograph.
 (Horizontal)

Wiechert Seismograph.
 (Horizontal & Vertical)

Jan.

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	16.4	2.5	0.0003	20
AN:	19.3	2.7	0.0003	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	4.9	Aperiodic	0.002	107
AN:	4.6	"	0.003	99
AZ:	4.2	"	0.001	64

Feb.

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	16.0	2.5	0.0002	20
AN:	19.4	2.7	0.0002	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	4.8	Aperiodic	0.003	109
AN:	4.5	"	0.001	101
AZ:	4.2	"	0.002	60

Mar.

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	16.3	1.9	0.0002	20
AN:	19.9	3.3	0.0002	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	4.9	Aperiodic	0.002	114
AN:	4.5	"	0.001	102
AZ:	4.3	"	0.001	60

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
54	Mar. 23	ePN	1 43 44					126	Near Hatiman, Gifu Prefecture.
		ePE	1 43 45						
		iS	1 44 02	+4	-7	-2			
		ME	1 44 03	1.3	-9				
		MX	1 44 03	0.8		± 7			
		MZ	1 44 03			± 3			
		eF	1 46 \pm						
55	Mar. 24	ePN	17 58 56					In the Kumano-nada, SE off the Kii Peninsula. P phase obscured by microseisms.	
		ePE	17 59 00						
		ePZ	17 59 02						
		SE	17 59 20						
		eSN	17 59 21						
		ME	17 59 23	2.1	-9				
		eF	18 04 \pm						
56	Mar. 31	ePE	3 36 23					South off the Bonin IIs. Deep focus earthquake.	
		ePN	3 36 26						
		PEZ	3 36 29	+4		-2			
		PN	3 36 30		-3				
		eE	3 37 38	4.8	± 8				
		eN	3 37 46	4.0		± 7			
		eZ	3 39 10	2.3		± 2			
		eE	3 39 27	3.6	± 7				
		eN	3 39 40			± 10			
		eE	3 39 59	4.7	± 9				
		eF	3 50 \pm						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
392	Dec. 31 (1935)	ePEN	17 52 11				0.4		Near Volcano Aso, Kyūsyū.
		SEN	17 52 16						
		MEN	17 52 17	± 2	+3				
		F	17 53 33						
1	Jan. 2	PEN	12 15 45				36	Basin of the Kinu River, Kwantō district.	
		S	12 15 50						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks	
					A _E μ	A _N μ	A _Z μ			
2	Jan. 2	M _E	12 15 50	0.2	+3			5275	Felt in western Sumatra.	
		M _N	12 15 51	0.4		+6				
		F	12 16 50							
		iP _E	22 43 05							
		iP _Z	22 43 06							
		eP _N	22 43 07							
		S _N	22 50 01							
		S _Z	22 50 02							
		S _E	22 50 03							
		L _N	23 01 43							
		L _E	23 02 01							
		eL _Z	23 02 23							
		M _N	23 06 11	17.0		± 38				
		M _E	23 07 03	17.0	+67					
M _Z	23 08 07	16.2			± 60					
eF	23 35 \pm									
3	Jan. 4	P _{EN}	17 46 49				33	Near Wakayama City.		
		S	17 46 54							
		M _N	17 46 54	0.4		+2				
		M _E	17 46 55	0.4	± 1					
F	17 47 39									
4	Jan. 7	iP _Z	19 33 55				-3.1	100	Moderate shocks were felt in vicinity of Kyōto City. Felt in Kinki district.	
		P _N	19 33 55							
		P _E	19 33 56							
		S _Z	19 34 08							
		S _{EN}	19 34 09							
		M _E	19 34 09	1.0	-36					
		M _N	19 34 09	0.8		-26				
		M _Z	19 34 12	0.8						+6
		e _{EN}	19 36 18							
		eF	19 39 \pm							
5	Jan. 10	e _E	12 46 48						Near Kyōto City.	

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
		e _N	12 46 50						
		e _E	12 47 12						
		S _{EN}	12 47 30						
		M _E	12 47 33	2.6	± 1				
		M _N	12 47 36	2.2		± 1			
		eF	12 49 \pm						
6	Jan. 10	e _N	14 08 00						Near Yuasa, Wakayama Prefecture.
		e _E	14 08 01						
		M _E	14 08 02	0.4	-1				
		M _N	14 08 02			± 1			
		F	14 08 26						
7	Jan. 11	e _{EN}	22 25 45						Near Akana, Simane Prefecture.
		S _{EN}	22 25 47						
		M _E	22 25 48	1.0	+1				
		M _N	22 25 48	1.2		± 2			
		F	22 27 01						
8	Jan. 13	eP	4 56 02						Near Tate-yama, Toyama Prefecture.
		eS _Z	4 56 11						
		eS _E	4 56 12						
		eS _N	4 56 13						
		M _Z	4 56 13	1.0		± 1			
		M _E	4 56 14	1.4	± 2				
		M _N	4 56 17	2.0		± 2			
F	4 57 54								
9	Jan. 14	e _{EZ}	5 56 14						Near Sandwich IIs, South Atlantic Ocean.
		e _N	5 56 16						
		eS _{EZ}	5 56 23						
		M _E	5 56 28	2.0	+1				
		M _Z	5 56 30	3.4		-1			
		M _N	5 56 43	2.6		-1			
		eF	6 00 \pm						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
10	Jan. 14	ePEN	11 31 59					62? Local Shock?	
		SEN	11 32 08						
		ME	11 32 08	0.2	-5				
		MN	11 32 08	0.4		± 5			
		F	11 33 27						
11	Jan. 14	ePN	16 07 33				36 Off the mouth of Arita River, Wakayama Prefecture.		
		SEN	16 07 38						
		ME	16 07 38	0.6	-1				
		MN	16 07 38	0.4		+2			
		F	16 08 23						
12	Jan. 18	eN	17 25 00				Near Ōyano Isl, Yasiro Bay, Kumamoto Prefecture.		
		eEZ	17 25 01						
		eN	17 25 04						
		eEZ	17 25 10						
		MN	17 25 10	2.4		± 2			
		ME	17 25 13	2.2	± 1				
		MZ	17 25 18	2.2		± 1			
13	Jan. 20	PN	17 02 16				3355 SE off Mindanao.		
		PEZ	17 02 18						
		eE	17 03 09						
		ez	17 03 12						
		eN	17 03 14						
		SEN	17 07 24						
		eLE	17 09 30						
		eLN	17 09 43						
		eLZ	17 10 13						
		ME	17 10 25	11.5	+17				
		MZ	17 13 16	17.4		± 60			
14	Jan. 21	IPZ	6 55 59				67 Near Kiyokawa, middle part of Wakayama Prefecture.		
						± 3.1			

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
		iPEN	6 56 00		-1.9	+1.0			
		iSZ	6 56 08						
		iSEN	6 56 09						
		ME	6 56 10	0.6	+53				
		MN	6 56 10	0.4		-27			
		MZ	9 56 10	1.0		+9			
		F	6 58 51						
15	Jan. 22	PZ	9 34 06					In the Kumano-nada?	
		PEN	9 34 07						
		F	9 37 ±						
16	Jan. 23	ePeN	1 54 14				13	Local shock.	
		SEN	1 54 16						
		ME	1 54 16		± 1	± 1			
		F	1 54 26						
17	Jan. 23	PEN	16 31 53				25	Near Wakayama City.	
		SEN	16 31 56						
		ME	16 31 57		± 2				
		MN	16 31 57	0.4		+4			
		F	16 32 37						
18	Jan. 25	PEN	20 59 26				42	Basin of the Arita River, Wakayama Prefecture.	
		ez	20 59 30						
		SEN	20 59 31						
		MN	20 59 32	0.6		+4			
		MZ	20 59 32			± 1			
		ME	20 59 33	0.4	+4				
19	Jan. 28	eE	1 38 06					Near Miyazu, northern part of Kyōto Prefecture.	
		eN	1 38 11						
		eN	1 38 16						
		ez	1 38 28						
		eSN	1 38 28						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
		eSE	1	38	29						
		M ¹ E	1	38	30		-1				
		M ¹ NZ	1	38	31	1.2		-2			
		eEN	1	38	40						
		M ² E	1	38	42	0.6	± 1				
		M ² N	1	38	43	1.0		-3			
		eF	1	41	\pm						
20	Jan. 28	eSEN	10	41	52						Near Gobō, Wakayama Prefecture.
		M _E	10	41	52						
		M _N	10	41	54	0.3		± 1			
		F	10	42	16						
21	Jan. 29	P _N	1	29	19					564	Near Kuzyūkuri-hama, Tiba Prefecture.
		P _Z	1	29	21						
		P _E	1	29	21						
		S _{EN}	1	30	35						
		eS _Z	1	30	40						
		M _E	1	30	41	2.2	+3				
		M _N	1	30	45	2.6		-4			
		M _Z	1	30	52	2.1			-1		
		eF	1	38	\pm						
22	Feb. 1	P _N	22	44	06					39	In the Wakaura Bay, Kii Channel.
		S	22	44	12						
		M _E	22	44	12	0.4	+4				
		M _N	22	44	13	0.3		+5			
		M _Z	22	44	14				± 1		
		F	22	44	49						
23	Feb. 2	S _{EN}	3	15	36						Near Gobō, Wakayama Prefecture.
		M _{EN}	3	15	37	0.3	-1	± 1			
		F	3	15	53						
24	Feb. 2	eP _N	16	38	14					134	NW of Kaneyama, Mie Prefecture.
		eE	16	38	25						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
		eS _N	16	38	32						
		eZ	16	38	32						
		eSE	16	38	33						
		M _N	16	38	35	0.6		± 3			
		M _Z	16	38	36	0.7			-1		
		M _E	16	38	36		-3				
		F	16	39	38						
*25	Feb. 3	iP	4	51	06					10	Perceptible. Local shock.
		iS	4	51	07						
		M _E	4	51	07	0.4	-34				
		M _N	4	51	08	0.4		+24			
		M _Z	4	51	08	0.3			+8		
		F	4	53	18						
26	Feb. 3	eP _{EN}	8	16	26					39	Near Gobō, Wakayama Prefecture.
		S _{EN}	8	16	31						
		M _{EN}	8	16	31	0.3	+2	± 1			
		F	8	17	06						
27	Feb. 5	P	7	11	44					102	Moderate shocks were felt in vicinity of Kyōto City.
		S	7	11	58						
		M _N	7	11	58	1.8		-18			
		M _Z	7	11	59	1.0			+10		
		M _E	7	11	59	1.2	-30				
		F	7	16	40						
28	Feb. 7	iP	9	01	59					2930	Damages at Lan-chou City, Kansu, China.
		S _N	9	06	32						
		S _E	9	06	36						
		S _Z	9	06	42						
		L _N	9	09	13						
		L _E	9	09	39						
		M _N	9	10	55	14.0		-300			
		M _Z	9	12	35	14.4			± 167		
		M _E	9	13	20	14.1	-331				

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
29	Feb. 7/8	eF	9	57	±						Near Wakayama City.
		eP _N	23	59	59						
		S _{EN}	0	00	01						
		M _{EN}	0	00	02	0.4	±1	±1			
30	Feb. 8	F	0	00	31						Local shock.
		S _{EN}	1	52	56						
		M _N	1	52	56			±1			
31	Feb. 8	F	1	53	04						Probable epicenter in New Guinea.
		eP _{EN}	12	18	48					4350	
		P _Z	12	18	50						
		S _Z	12	24	53						
		S _{EN}	12	24	57						
		M _Z	12	24	58	6.4			±3		
		M _E	12	24	59	5.0	±6				
32	Feb. 8	M _N	12	24	59	3.4		-6			Near Gobō, Wakayama Prefecture.
		eF	12	35	±						
		P _Z	20	03	52					50	
		P _{EN}	20	03	53						
		S	20	03	59						
		M _{EN}	20	04	00	0.4	-5				
33	Feb. 10	M _N	20	04	00	0.3		-4			NW off Fiji IIs, SW Pacific Ocean.
		F	20	04	43						
		iP _Z	18	15	53				-5.0	6900	
		P _{EN}	18	15	54		+2.8	-1.0			
34	Feb. 11	S _E	18	24	17						Near Hiwasa, Tokushima Prefecture.
		S _N	18	24	19						
		F	18	39	±						
		P _{EN}	19	33	41					76	
		S	19	33	51						
M _E	19	33	52		-3						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
35	Feb. 12	M _N	19	33	52	0.3		-5			Felt in eastern part of Java IIs.
		M _Z	19	33	55					-1	
		F	19	34	37						
36	Feb. 12	P _{EN}	9	41	55		+0.9	-1.0		4120	South off Bonin IIs.
		P _Z	9	41	56					-1.7	
		S _N	9	47	48						
		S _E	9	47	49						
		S _Z	9	47	50						
		eF	9	59	±						
37	Feb. 12	P _E	20	23	35					1375	Near Tadono, middle basin of the Arita River, Wakayama Prefecture.
		P _{NZ}	50	23	35						
		S _N	20	25	58						
		S _E	20	26	01						
		eF	20	36	±						
38	Feb. 12	eP _{EN}	22	24	42					31	Near Tadono, middle basin of the Arita River, Wakayama Prefecture.
		S _{EN}	22	24	46						
		M _E	22	24	46		-2				
		M _N	22	24	47	0.4		-4			
39	Feb. 13	F	22	25	37						North off Amami-Ōsima, Ryūkyū Isl.
		eE	2	00	33						
		eN	2	00	38						
40	Feb. 13	eF	2	04	±						Near Gobō, Wakayama Prefecture.
		P _{EN}	6	09	50					45	
		S _{EN}	6	09	56						
		M _{EN}	6	09	57	0.3	±1	-3			
41	Feb. 14	F	6	10	29						Local Shock.
		eP _{EN}	1	48	50					26	
		S _{EN}	1	48	54						
		M _{EN}	1	48	54		±1	-2			
F	1	49	12								

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
41	Feb. 14	PEN	12	38	25					48	Near Gobō, Wakayama Prefecture.
		SEN	12	38	31						
		ME	12	38	31	0.4	+2				
		MN	12	38	33	0.3		-3			
		F	12	39	20						
42	Feb. 15	iP	12	54	21		-1.8	+6.9	+10.8	3530	NW off New Guinea. Felt in Ceram, Kei Isl. and NW New Guinea.
		ez	12	55	51						
		eN	12	55	53						
		eE	12	55	54						
		SEN	12	59	39						
		LE	13	03	01						
		LZ	13	03	11						
		LN	13	03	21						
		ME	13	05	20	15.0	-142				
		MZ	13	07	17	19.4			-250		
		MN	13	08	51	16.0		-244			
		eF	14	07	±						
43	Feb. 17	iPEN	21	09	01					25	Near Wakayama City.
		S	21	09	04						
		MN	21	09	05	0.4		-5			
		ME	21	09	06	0.3	-4				
		MZ	21	09	06				+1		
44	Feb. 18	PEN	17	33	01					39	In the Kitan Strait.
		S	17	33	06						
		MEN	17	33	07	0.4	±2	±2			
		MZ	17	33	07				-1		
		F	17	33	34						
45	Feb. 20	PEN	1	20	34					34	In the Kii Channel.
		SEN	1	20	38						
		ME	1	20	40		±1				
		MN	1	20	40	0.4		+2			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	km.		
46	Feb. 20	F	1	21	06					34	Local Shock.
		ePEN	1	53	36						
		SEN	1	53	41						
		MEN	1	53	41		±1	±1			
*47	Feb. 21	F	1	54	07					65	The epicenter is in south-western foot of Mt. Nizyō, SE of Ōsaka Prefecture, 135°41'E 34°31'N. 9 persons were killed and 25 houses were destroyed at near epicentral region in Kawati & Yamato Provinces. The shocks is felt in western Honsyū & Sikoku district. This earthquake is named "Kawati-Yamato Strong Shock"
		iPEN	1	08	11.0						
		iPz	1	08	11.2						
		eSN	1	08	19.1						
		iSz	1	08	21						
		ME	1	08	26	3.3	-988				
		MN	1	08	40	4.1		+1096			
		Mz	1	08	40	1.6			-383		
eF	1	37	±								
48	Feb. 21	PEN	1	38	41					78	An after-shock of the "Kawati-Yamato Strong Shock".
		SEN	1	38	51						
		MEN	1	38	52	0.3	+1				
		MN	1	38	52			±1			
		F	1	39	12						
49	Feb. 21	PEN	2	05	34					71	Ditto.
		SEN	2	05	43						
		MEN	2	05	44		±1	±1			
		F	2	06	10						
50	Feb. 21	ePEN	2	06	45					74	Ditto.
		SEN	2	06	55						
		MN	2	06	55	0.3		±1			
		F	2	07	21						
51	Feb. 21	iP	2	10	03		+2.7	+2.0	-5.0	72	Ditto.
		iS	2	10	13						
		ME	2	10	17	0.8	-11				
		MNZ	2	10	17	0.6		-17	±4		

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
52	Feb. 21	eF	2	15	±					63	Ditto.
		P _{EN}	2	18	37						
		S _{EN}	2	18	46						
		M _N	2	18	46	0.4		±1			
		M _E	2	18	49	0.6	±1				
		F	2	19	20						
53	Feb. 21	P _{EN}	2	29	53					74	Ditto.
		S _{EN}	2	30	03						
		M _E	2	30	04		+1				
		M _N	2	30	04	0.4		±1			
		F	2	30	21						
*54	Feb. 21	iP	4	04	56		+7.3	+9.9	-15.0	70	Ditto. Perceptible.
		iS	4	05	05						
		M _N	4	05	05	0.6		-59			
		M _E	4	05	10	0.8	-42				
		M _Z	4	05	10				+17		
		eF	4	17	±						
55	Feb. 21	eN	6	39	45					70	An after-shock of the "Ka-wati-Yamato Strong Shock".
		eE	6	40	±						
		eN	6	44	01						
		eF	6	51	±						
56	Feb. 21	P _{EN}	9	22	45					70	An after-shock of the "Ka-wati-Yamato Strong Shock".
		S _{EN}	9	22	54						
		M _N	9	22	56			±1			
		F	9	23	19						
57	Feb. 21	P _{EN}	15	55	06					67	Ditto.
		S _{EN}	15	55	15						
		M _E	15	55	16	0.8	-2				
		M _N	15	55	16	0.2		±1			
		F	15	55	52						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
58	Feb. 21	eP	17	04	52					4265	Eastern part of the Arafura Sea, south of New Guinea.
		S _{EN}	17	10	52						
		S _Z	17	10	57						
		L _N	17	13	58						
		L _Z	17	14	07						
		M _Z	17	17	08	20.0			-50		
		eF	17	30	±						
59	Feb. 21	P _{EN}	19	16	17					81	An after-shock of the "Ka-wati-Yamato Strong Shock".
		S _{EN}	19	16	28						
		M _E	19	16	29	0.7	+1				
		M _N	19	16	34	0.4		-2			
		F	19	17	04						
60	Feb. 21	P _{EN}	19	18	33					67	Ditto.
		S _{EN}	19	18	42						
		M _E	16	18	42		-3				
		M _N	19	18	42	0.4		+3			
		F	19	19	01						
61	Feb. 21	eP _{EN}	19	19	03					89	Ditto.
		S _{EN}	19	19	15						
		M _E	19	19	16		-3				
		M _N	19	19	16	0.4		+3			
		F	19	19	57						
62	Feb. 21	P	21	53	45					66	Ditto.
		S	21	53	54						
		M _E	21	53	54	0.8	+6				
		M _Z	21	53	58	1.2			±1		
		M _N	21	53	58	0.4		±4			
		F	21	57	40						
63	Feb. 22	P	3	05	13					46	Near Simokōno, Wakayama Prefecture.
		S	3	05	19						
		M _E	3	05	21		-2				

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
64	Feb. 22	M _N	3 05 21	0.4		-3		Felt in southern part of South I, New Zealand. Epicenter 54° S 165° E, according to Wellington's report.	
		M _Z	3 05 25				±2		
		F	3 06 08						
		e _N	15 44 38						
		e _E	15 44 41						
		e _Z	15 44 44						
		e _Z	15 48 16						
		e _Z	15 50 32						
		e _{S_N}	15 55 16						
		e _{S_E}	15 55 28						
e _{L_{E_N}}	16 08 ±								
e _F	16 43 ±								
65	Feb. 23	P _{E_N}	17 06 09	0.8	±2	+4	72	An after-shock of the "Kawati-Yamato Strong Shock".	
		S _{E_N}	17 06 19						
		e _N	17 06 22						
		M _E	17 06 22						
		M _N	17 06 22						
F	17 07 30	0.4							
66	Feb. 24	eP _{E_N}	12 01 26	0.4	-2	+4	33	In the Wakaura Bay, Kii Channel.	
		S	12 01 31						
		M _N	12 01 31						
		M _E	12 01 31						
		F	12 02 32						
67	Feb. 24	eP _{E_N}	13 33 58	0.3	-1	±2	59	Near Tadono, Middle basin of the Arita River, Wakayama Prefecture.	
		S	13 34 06						
		M _E	13 34 06						
		M _N	13 34 06						
		F	13 34 32						
68	Feb. 26	S _{E_N}	12 32 22	0.5	-1	-1		Local shock.	
		M _E	12 32 23						
		M _N	12 32 23						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks		
					A _E μ	A _N μ	A _Z μ				
69	Feb. 26	F	12 32 51				29	In the Kii Channel.			
		iP	17 40 53		+	-1.0			-0.8		
		iS	17 40 57								
		M _E	17 40 57	0.6	+28						
		M ¹ _N	17 40 59	0.4		-23					
		M _Z	17 41 00	0.7					-7		
		M ² _N	17 41 04	0.4		-21					
F	17 44 29										
70	Feb. 27	eP _{E_N}	3 01 48		-2	+2	103	Near earthquake?			
		S _{E_N}	3 02 02								
		M _{E_N}	3 02 02								
		F	3 02 23								
71	Feb. 27	P _{E_N}	3 10 52		±1	+2	69	An after-shock of the "Kawati-Yamato Strong Shock".			
		S _{E_N}	3 11 01								
		M _E	3 11 01								
		M _N	3 11 02								
		F	3 11 32						0.4		
72	Feb. 27	eP _E	10 11 46				4400	Western part of New-Guinea.			
		eP _N	10 11 48								
		P _Z	10 11 50								+1.7
		e _{E_N}	10 12 22								
		S _{E_N}	10 17 57								
		L	10 21 14								
		M _N	10 21 26						7.9		+18
		M _E	10 21 37						7.9	+21	
		e _F	10 45 ±								
73	Feb. 28	P _N	0 18 29				232	In the Aki-nada, Inland Sea.			
		P _E	0 18 30								
		eP _Z	0 18 31								
		e _{S_N}	0 19 00								
		S _Z	0 19 01								

No.	Date	Phase	Time			Amplitude			Δ	Remarks
			G.	M.	T.	A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.
*74	Feb. 29	M _N	0	19	01	0.4		+4		22 Mouth of the Kino-kawa, north of Wakayama City. Perceptible.
		e _E	0	19	02					
		M _E	0	19	05	1.2	-4			
		M _Z	0	19	07	0.8			-2	
		F	0	21	23					
		i _P	0	32	59		+5.3	-5.9	-8.3	
75	Feb. 29	i _S	0	33	02					21 Ditto.
		M _N	0	33	06	0.4		-78		
		M _E	0	33	07	0.8	-48			
		M _Z	0	33	10	0.4			+20	
		F	0	37	26					
		e _{PEN}	0	33	53					
76	Feb. 29	S	0	33	56					20 Ditto.
		M _N	0	33	56	0.4		-3		
		F	0	34	26					
		i _{PEN}	2	56	20					
77	Mar. 1	i _S	2	56	23					20 Ditto.
		M _{EN}	2	56	23	0.4	-4	-6		
		M _Z	2	56	23				±1	
		F	2	57	14					
		P	10	25	18				-1.7	
77	Mar. 1	S _{EN}	10	28	02					1610 North off the Siretoko Cape, Hokkaidō, 145°0 E, 44°8 N. Felt in eastern part of Hokkaidō. Record is deep focus Type.
		S _Z	10	28	12					
		M _Z	10	28	14	4.8			-3	
		M _E	10	28	16	5.4	-9			
		M _N	10	28	17	5.4		+11		
		F	10	42	±					
		i _P	3	21	34		-1.8	-2.0	+1.7	
78	Mar. 2	S _Z	3	23	45					982 SE off Erimo Cape, Hokkaidō, 144°0 E, 41°6 N. Moderate shocks were felt in the vicinity of Tokati Province.
		S _N	3	23	46					
		S _E	3	23	47					

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
79	Mar. 2	L _{NZ}	3	24	38					71 An after-shock of the "Kawati-Yamato Strong Shock".	
		L _E	3	24	39						
		M _N	3	25	46	16.9		-800			
		M ¹ _E	3	25	53	16.3	-740				
		M _Z	3	26	21	14.4			-250		
		M ² _E	3	26	47	15.7	+720				
		e _Z	3	35	33						
		e _E	3	36	54						
		e _F	5	07	±						
		PEN	18	06	53						
80	Mar. 5	S	18	07	02					Near Hukui City?	
		M _Z	18	07	04				±1		
		M _E	18	07	07	0.6	-4				
		M _N	18	07	07	0.4		+9			
		F	18	08	10						
81	Mar. 6	e _{EN}	23	39	28					48 Near Wakayama City.	
		e _{SE}	23	39	32						
		M _E	23	39	32		-1				
		M _N	23	39	85	0.3		±1			
82	Mar. 7	F	23	40	02					Air wave caused by the eruption of Volcano Asama, on 1h 30m today?	
		e _{PN}	11	38	24						
		e _{SN}	11	38	30						
83	Mar. 7	M _N	11	38	31			±1		37 Near Wakayama City.	
		F	11	38	46						
		e _N	1	57	16						
		e _S	1	57	18						
83	Mar. 7	e _N	1	57	22					Near Wakayama City.	
		F	1	57	47						
		P	20	28	33						
83	Mar. 7	S	20	28	38					Near Wakayama City.	
		M _E	20	28	38		-2				

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
84	Mar. 8	M _N	20 28 38	0.4	-1	±2		30	Ditto.
		F	20 29 23						
		eP _{EN}	0 32 37						
		S	0 32 41						
		M _{EN}	0 32 42						
85	Mar. 8	eEN?	1 00 35	0.4	-1	±2		30	Local shock.
		eN	1 00 39						
		eN	1 00 57						
		eF	1 01 22						
86	Mar. 8	P	1 25 17	0.5	-4			31	Near Wakayama City.
		S	1 25 21						
		M _E	1 25 22						
		M _N	1 25 22						
		M _Z	1 25 25						
87	Mar. 8	P	4 48 36	0.4	-4			30	Ditto.
		S	4 48 40						
		M _E	4 48 41						
		M _{NZ}	4 48 42						
		eEN	4 48 45						
88	Mar. 8	eEN	16 29 38	0.4	-2	-2			Ditto.
		S _{EN}	16 29 39						
		M _{EN}	16 29 39						
		F	16 30 05						
		89	Mar. 10						
M _{EN}	1 46 58								
eEN	1 47 01								
F	1 47 22								

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
90	Mar. 10	P _{EN}	20 38 24	0.4	±67	-117		1780	South off the Erimo Cape, Hokkaidō.
		eP _Z	30 38 24						
		S _N	20 41 27						
		S _E	20 41 29						
		M _E	20 42 34						
		M _N	20 42 34						
		M _Z	20 44 16						
		eF	21 03 ±						
91	Mar. 10	P _{EN}	23 41 42	0.6	-3	-3			Near Wakayama City.
		S	23 41 48						
		M _{EN}	23 41 49						
		M _Z	23 41 49						
		F	23 42 43						
92	Mar. 11	eP _Z	0 45 56	3.9	+0.9	+6		876	East off Miyako, Iwate Prefecture.
		P _{EN}	0 45 58						
		S _N	0 47 53						
		S _E	0 47 55						
		eS _Z	0 47 58						
		M _N	0 48 40						
		M _Z	0 48 44						
		M _E	0 48 53						
eF	1 04 ±								
93	Mar. 11	P _{EN}	3 55 44	0.6	-3	+2		88	Near Hidaka River, Waka- yama Prefecture.
		S _{EN}	3 55 56						
		M _N	3 55 57						
		M _E	3 55 57						
		F	3 56 43						
94	Mar. 12	S _N	1 45 10	0.6	-7				Local shock.
		eN	1 45 12						
		eF	1 45 33						
95	Mar. 12	iP	8 53 28	0.6			30	Near the mouth off Arita River, Wakayama Prefecture.	

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
96	Mar. 12	iS	8	53	32					30	In the Kii Channel.
		ME	8	53	32	0.5	+11				
		MN	8	53	34	0.4		-12			
		MZ	8	53	35				-5		
		F	8	55	26						
		ePEN	17	23	01						
97	Mar. 17	S	17	23	05					30	Local shock.
		ME	17	23	05		+2				
		MN	17	23	05	0.3		-4			
		F	17	23	36						
98	Mar. 18	SEN	0	41	33					24	In the Kitan Strait.
		MEN	0	41	33		+1	-2			
		F	0	42	00						
99	Mar. 20	eEN	13	45	57					33	Near Wakayama City.
		eEN	13	46	09						
		MN	13	46	09	0.4		+1			
		F	13	46	23						
100	Mar. 20	ePN	11	38	46					33	Near Wakayama City.
		SEN	11	38	50						
		ME	11	38	50		+2				
		MN	11	38	50	0.2		-2			
101	Mar. 22	F	11	39	08					33	Near Wakayama City.
		PEN	13	59	00						
		S	13	59	05						
		ME	13	59	05	0.3	+2				
102	Mar. 22	MN	13	59	06	0.3		-3		33	Near Wakayama City.
		F	13	59	39						
		SEN	1	36	40						
		MEN	1	36	41		+1	-2			
103	Mar. 29	F	1	37	11					33	Local shock.

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
102	Mar. 22	P _{NZ}	6	35	42					826	Near Yaku Isl, northern part of the Ryūkyū Isl.
		P _E	6	35	44						
		S _E	6	37	32						
		S _{NZ}	6	37	35						
		M _N	6	37	38	2.6		+2			
		M _E	6	37	39	3.0	-2				
		M _Z	6	37	43	2.4			+1		
103	Mar. 22	eF	6	42	±					188	Near Hatiman, Gihu Prefecture.
		P _{EN}	12	24	40						
		P _Z	12	24	42						
		eE	12	35	40						
		eL _{EN}	12	37	±						
104	Mar. 23	eF	13	01	±					293	In the Kumano-nada, SE off Kii Peninsula.
		ePN	1	43	47						
		ePEZ	1	43	49						
		SEN	1	44	13						
		M _N	1	44	18	0.8		+2			
		M _E	1	44	21	0.8	+1				
105	Mar. 24	M _Z	1	44	22	0.8			+1	293	In the Kumano-nada, SE off Kii Peninsula.
		eF	1	47	±						
		P	17	58	41						
		S	17	59	20						
		M _E	17	59	20	1.6	+3				
106	Mar. 29	ez	17	59	21					293	Near Asizuri Peninsula, Sikoku district.
		M _N	17	59	23	2.4		+3			
		M _Z	17	59	23	1.8			-3		
		eF	18	04	±						
		eN	23	32	26						
107	Mar. 29	SEN	23	32	29					293	Near Asizuri Peninsula, Sikoku district.
		M _E	23	32	29	0.3	+1				
		M _N	23	32	30	0.5		+1			
		F	23	33	04						

From No. 1 to No. 27, 1936.

TOYOOKA JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kōbe Meteorological Observatory of Japan.
 $\zeta=35^{\circ} 32'$ $\lambda=134^{\circ} 49'$ $h=32.2$ m. Underground: Tertiary.

Instruments: Omori's Seismograph.
 (Horizontal)

Wiechert Seismograph.
 (Horizontal & Vertical)

Jan.

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	20.7	3.0	0.001	20
AN:	20.0	3.0	0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	5.7	10	0.005	97
AN:	6.4	10	0.007	93
AZ:	3.3	3.5	0.006	87

Feb.

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	20.7	3.0	0.001	20
AN:	20.0	3.0	0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	5.8	10	0.004	91
AN:	6.5	10	0.006	85
AZ:	3.3	2.5	0.005	80

Mar.

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	20.7	3.0	0.001	20
AN:	20.0	3.0	0.001	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	5.8	10	0.004	91
AN:	6.5	10	0.006	85
AZ:	3.3	2.5	0.005	80

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
107	Mar. 30	eP _N	2	08	00					41?	Local shock?	
		S _{EN}	2	08	06							
		M _E	2	08	06	0.6	-3					
		M _N	2	08	06	0.4		-3				
		F	2	08	48							
108	Mar. 31	P _E	3	36	25					1510	South of Bonin Isl. Deep focus earthquake.	
		P _{NZ}	3	36	26							
		S	3	39	03							
		M _Z	3	39	10	4.5		-3				
		M _N	3	39	11	3.6		-4				
		M _E	3	39	13	3.9	-4					
		eF	3	47	±							

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
1	Jan. 2	e _N	22	50	30						Felt in western Sumatra. By Omori's Seismograph.
		L _N	23	00	04						
		eF	23	32	±						
2	Jan. 7	P _{EZ}	19	33	51		+1.5		-1.5	80	Moderate shocks were felt in near Kyōto City. Felt in Kinki district.
		eP _N	19	33	52						
		S	19	34	02						

No.	Date	Phase	Time G M T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
3	Jan. 13	M _{EN}	19 34 02		+31	-41		234	Near Tate-yama, Toyama Prefecture.
		M _Z	19 34 05				-16		
		F	19 36 29						
		PEZ	4 55 15						
		eP _N	4 55 15						
		SE _N	4 55 47						
		S _Z	4 55 48						
		M _E	4 55 50	-4					
		M _N	4 55 54		-13				
		M _Z	4 56 03			-3			
F	4 57 01								
4	Jan. 20	i _{NZ}	17 03 29				2690	SE off Mindanao, Philippine.	
		i _E	17 03 35						
		S _N	17 07 48						
		L _N	17 11 01						
		eF	17 30 ±						
5	Jan. 28	eP _Z	1 37 53				16	Near Miyazu, Kyōto Prefecture.	
		P _{EN}	1 37 54						
		eS _E	1 37 56						
		S _{NZ}	1 37 56	0.8	+16				
		M _N	1 37 57			+8			
		M _Z	1 37 57						
		M _E	1 37 58	+7					
eF	1 39 ±								
6	Jan. 28	P	1 38 06				15	An after shock of previous earthquake.	
		eS _E	1 38 07						
		S _N	1 38 08						
		M _E	1 38 07	-8					
		M _N	1 38 08		+22				
		eF	1 39 ±						
7	Jan. 29	PEZ	1 29 23				480	Near Kuzyūkuri-hama, Tiba Prefecture.	

No.	Date	Phase	Time G M T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
8	Feb. 5	P _N	1 29 24				82	Moderate shocks were felt in Kyōto City & vicinity.	
		S _{EN}	1 30 28						
		eS _Z	1 30 32						
		M _N	1 30 41		-10				
		M _E	1 30 46	-7					
		M _Z	1 30 50			-3			
		F	1 32 27						
		P _{EN}	7 11 40	+1.5	(-)	-1.2			
S	7 11 51								
M _E	7 11 58	0.6	-40						
M _N	7 12 00	0.8		-59					
M _Z	7 12 01			-22					
F	7 15 01								
9	Feb. 5	P _Z	16 14 29				29	Near Miyazu, Kyōto Prefecture.	
		P _{EN}	16 14 30	+1.0					
		S _Z	16 14 33						
		S _{EN}	16 14 34						
		M	16 14 34	+6	-6	+2			
F	16 14 57								
10	Feb. 7	P _Z	9 01 55				3325	Damagees at near Lan-chou, Kansu, China.	
		P _E	9 02 02						
		S _E	9 07 09						
		L _E	9 08 57						
		L _N	9 09 17						
		M _E	9 13 37	12.0	-65				
		M _N	9 13 46	13.8		-366			
		M _Z	9 14 02	11.0		+33			
eF	9 32 ±								
11	Feb. 8	P _Z	12 19 01				4350	Probable epicenter in New Guinea.	
		P _N	12 19 06						
		eP _E	12 19 19						
		i _N	12 19 17						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
12	Feb. 15	iz	12	19	18					4225	NW off New Guinea. Felt in Ceram, Kei Isl and NW New Guinea.
		S _N	12	25	13						
		eF	12	34	±						
		P _{NZ}	12	54	31			+5.3	+6.3		
		eP _E	12	54	34						
		S _E	13	00	29						
		S _N	13	00	32						
		i _E	13	03	35						
		L _N	13	06	04						
		M _Z	13	08	04				+1.3		
M _{1N}	13	09	49				-5.3				
M _{2N}	13	12	04				-3.5				
eF	13	46	±								
*13	Feb. 21	P _{EN}	1	08	21		+11.0	-24.7		121	The epicenter is in south- western foot of Mt. Nizyō, SE of Osaka Prefecture; 135°41'E 34°31'N. 9 persons were killed and 25 houses were destroyed at near epicentral region in Kawati & Yamato Provinces. The shocks is felt in W. Honsyū & Sikoku district. This earthquake is named "Kawati-Yamato Strong Shock".
		P _Z	1	08	22				-16.3		
		S _{EN}	1	08	37						
		S _Z	1	08	39						
		M _E	1	08	44	1.2	> ±1100				
		M _N	1	08	44				±1350		
		M _Z	1	08	44	1.3			+875		
eF	1	26	±								
14	Feb. 21	P	2	10	16					110	An after-shock of the "Ka- wati-Yamato Strong Shock".
		S _Z	2	10	30						
		S _{EN}	2	10	31						
		M _Z	2	10	32				-1.3		
		M _N	2	10	33	0.8			+1.9		
		M _E	2	10	35	0.8			-1.6		
		F	2	11	44						
15	Feb. 21	P	4	05	07		-1.1	+1.2	+1.9	121	Ditto.
		S _{EN}	4	05	23						
		S _Z	4	05	24						
		M _Z	4	05	26				-2.4		

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
16	Feb. 21	M _E	4	05	28	1.6	-3.2			114	Ditto.
		M _N	4	05	31	1.4		-3.8			
		F	4	08	39						
17	Feb. 22	P _Z	21	53	55					114	Ditto.
		P _{EN}	21	53	56						
		S _{EZ}	21	54	11						
		eS _N	21	54	12						
		M _E	21	54	12			-6			
		M _N	21	54	15				-6		
		M _Z	21	54	17						
F	21	55	00								
18	Feb. 22	P _E	15	44	53					114	Felt in southern part of South I, New Zealand. Epicenter 54°S, 165°E., accor- ding to Wellington's report.
		P _{NZ}	15	44	54						
		S _E	15	55	42						
		S _N	15	55	49						
eF	16	56	±								
19	Feb. 23	S _{EN}	17	06	37					114	An after-shock of the "Ka- wati-Yamato Strong Shock".
		eS _Z	17	06	39						
		F	17	06	57						
20	Feb. 28	P _Z	10	12	01					4350	Western part of New Guinea.
		P _N	10	12	05						
		P _E	10	12	09						
		S _N	10	18	13						
		S _E	10	18	15						
		eF	10	46	±						
20	Feb. 28	eP _E	0	18	44					252	In the Aki-nada, Inland Sea.
		P _Z	0	18	44						
		P _{EN}	0	18	54						
		S	0	19	18						
		M _{NZ}	0	19	19			+9	-4		
		M _E	0	19	20			-3			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
21	Mar. 1	F	0	20	05					1490	North off the Siretoko Cape, Hokkaidō. 145°E, 44°S E. Felt in eastern part of Hokkaidō.
		P _Z	10	25	10						
		P _E	10	25	12						
		S _E	10	27	49						
		S _N	10	27	51						
		M _E	10	27	58		+13				
		M _N	10	28	03			+9			
eF	10	30	±								
22	Mar. 2	eP _Z	3	21	25				+1.9	811	SE off Erimo Cape, Hokkaidō. 144°0 E, 41°6 N. Moderate shocks were felt in vicinity of Tokati Province, Hokkaidō.
		P	3	21	26		-4.2	-4.7	-12.3		
		S _{EN}	3	23	15						
		eS _Z	3	23	21						
		eL _E	3	24	03						
		L _N	3	24	09						
		M ¹ _N	3	25	26	20.5		+155			
		M ¹ _E	3	26	28	14.4	+63				
		M _Z	3	26	21				-31		
		M ² _N	3	27	03	13.4		+129			
		M ² _E	3	27	49	14.4	-59				
eF	4	08	±								
23	Mar. 5	P _E	23	38	47					122	Near Hukui City.
		eP _N	23	38	48						
		S	23	39	04						
		M _E	23	39	04		-4				
		M _N	23	39	05			+6			
		F	23	39	49						
24	Mar. 10	eL _N	20	41	27						South off the Erimo Cape, Hokkaidō.
		M _N	20	43	54			+24			
		eF	20	55	±						
25	Mar. 11	P _Z	0	45	49					749	East off Miyako, Iwate Prefecture.
		P _{EN}	0	45	54						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
26	Mar. 22	S _E	0	47	35						Near Solomon IIs, Melanesia.
		S _N	0	47	42						
		eF	0	52	±						
27	Mar. 23	P _Z	12	24	50					176	Near Hatiman, Gifu Prefecture.
		P _N	12	24	56						
		P _E	12	24	57						
		eF	12	58	±						
		eP _Z	1	43	36						
27	Mar. 23	P _E	1	43	37					1.0	
		S	1	44	01		-6				
		M _E	1	44	04						
		M _N	1	44	05			+16			
		M _Z	1	44	06				-4		
		F	1	45	31						



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

Instruments: Omori's Seismograph.
(Horizontal)

Wiechert Seismograph.
(Horizontal & Vertical)

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April

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	19.7		0.001	20
AN:	19.1		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	6.5	7	0.005	106
AN:	6.4	7	0.005	103
Az:	3.9	6	0.005	87

May

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	19.9		0.001	20
AN:	19.8		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	6.7	7	0.006	104
AN:	6.1	10	0.009	110
Az:	4.1	7	0.004	81

June

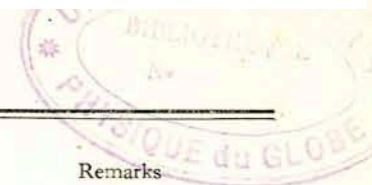
	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	19.4		0.001	20
AN:	20.0		0.001	20

	T_o	ε	$\frac{r}{T_o^2}$	V
AE:	5.9	4	0.003	104
AN:	6.0	5	0.015	103
Az:	4.0	7	0.004	88

No.	Date	Phase	Time			Amplitude			Δ	Remarks
			G.	M.	T.	AE	AN	Az		
57	April 1	ePNZ	h	m	s	s	μ	μ	μ	3435 Destructive shock at Talaud Isl. to the NE of Celebes Isl.; according to Batavia's report.
		ePE	2	15	37					
		in	2	15	39	4.9	+65			
		iz	2	17	03	4.2		+23		
		iE	2	17	09	4.6	-30			
		iz	2	17	12	3.5		-23		
		in	2	18	16	3.8		+40		

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
58	April 1	i _E	2 18 24	3.9	+58			3435	An after-shock of the previous earthquake.
		S _E	2 20 49		-30				
		S _N	2 20 50			+40			
		eL _E	2 22 47						
		eL _N	2 23 01						
		M ¹ _Z	2 25 56	23.0			± 22		
		M _E	2 26 40	11.0	-105				
		M ¹ _N	2 28 06	17.0		+90			
		M ² _Z	2 29 40	21.0			± 23		
		M ² _N	2 32 36	17.5		+78			
		eF	3 52 ±						
		eP _Z	20 17 18						
		eP _N	20 17 20						
		eP _E	20 17 32						
		eS _Z	20 22 31						
		eS _E	20 22 54						
		eS _N	20 22 56						
		eL _N	20 24 15						
		eL _E	20 24 18						
eL _Z	20 26 19								
M _E	20 29 21	19.0	-4						
M _Z	20 30 18	19.0			± 4				
M _N	20 31 41	18.0		± 8					
eF	21 03 ±								
59	April 2	eP _N	6 24 37					To the east of New Guinea.	
		eP _E	6 24 38						
		eP _Z	6 24 39						
		M _N	6 37 19	21.0		± 2			
		M _Z	6 37 20	22.0					± 2
		eP	7 00 ±						
60	April 2	e _E	21 00 16				Off the mouth of Simandō R., Sikoku district.		
		e _S	21 00 20						
		M _E	21 00 23	0.8	± 5				

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
61	April 3	M _N	21 00 23	0.7		± 4		57	Near Kyōto City.
		F	21 01 03						
		P _N	14 49 01						
		eP _{EN}	14 49 02						
		S	14 49 09		-5	-6	+4		
		M _Z	14 49 10	0.8			-15		
		M _E	14 49 11	0.5	-40				
		M ¹ _N	14 49 11	0.6		+40			
		M ² _N	14 49 10	0.7		± 20			
		eF	14 54 ±						
62	April 5	P _Z	14 29 19				550	To the south of Hatizyō Isl.	
		eP _{EN}	14 29 21						
		eS _{NZ}	14 30 20						
		eS _E	14 30 26						
		M _Z	14 30 55	3.2					± 3
		M _N	14 30 57	3.4		± 8			
		M _E	14 31 02	2.9	± 8				
		eF	14 38 ±						
63	April 6	P _Z	4 12 39				212	Off the mouth of Simandō R., Sikoku district.	
		P _{EN}	4 12 40						
		S _Z	4 13 08						-4
		S _{EN}	4 13 09		+8	-5			
		M _E	4 13 13	0.6	-5				
		M _N	4 13 13	0.7		+14			
		M _Z	4 13 14	1.3					-7
		eF	4 18 ±						
64	April 12	eP _N	20 56 18					Moderate shocks were felt in Palau Isl., West Caloline IIs.; Pacific Ocean. P phase in microseisms.	
		eP _E	20 56 19						
		eP _Z	20 56 39						
		i _N	20 56 48			-10			
		i _Z	20 56 46						-3
		e _N	20 58 39			+12			



No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks		
			G.	M.	T.		A _E	A _N	A _Z				
			h	m	s	s	μ	μ	μ	km.			
65	April 13	e _E	20	58	43		+10						
		eL _N	21	01	07	27.0							
		eL _Z	21	01	10								
		eL _E	21	01	27	28.0							
		M ¹ _Z	21	04	34	20.0				±7			
		M ¹ _E	21	04	39	15.8	±18						
		M ¹ _N	21	04	49	19.5		±25					
		M ² _E	21	13	01	17.0	±16						
		M ² _N	21	13	36	16.0		±15					
		M ² _Z	21	13	40	16.0				±5			
		eF	21	57	±								
		P _Z	3	06	30						-1	65	In the Wakanoura Bay, Kii Channel.
		eP _E _N	3	06	31								
iS _E	3	06	40			+5							
S _N	3	06	40				+2						
M _E _N	3	06	40	0.5		-8	-5						
M _Z	3	06	43	0.7				±2					
F	3	07	16										
66	April 13	eP _E	12	34	09						72	Middle basin of the Hidaka River, Wakayama Prefecture.	
		P _N	12	34	09			+1					
		iP _Z	12	34	09					+1			
		eS _E	12	34	18								
		eS _N _Z	12	34	19								
		M _N	12	34	20	0.5			-3				
F	12	35	12										
67	April 19	eP _E	5	15	23						4210	Eastern part of New Guinea.	
		P _N	5	15	44			+3					
		P _Z	5	15	45					+4			
		eS _N	5	21	22								
		eS _Z	5	21	38								
		e _N	5	22	27								
		e _E	5	22	30								
		eL _N	5	25	40								

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
68	April 19	L _E	5	26	08	55.0						
		eM _N	5	27	52	31.0			+30			
		eM _E	5	27	57	31.0	-50					
		eM _Z	5	30	59	24.0				±7		
		eF	6	58	±							
		eP _Z	9	12	22							
		eP _N	9	17	51							
		e _N	9	17	20							
		e _N	9	19	19							
		eL _N	9	23	46							
69	April 23/24	M _N	9	30	04	21.0			±3			
		M _Z	9	33	45	20.0				±2		
		M _E	9	35	18	16.0	±4					
		eF	10	05	±							
		eP [?] _N	23	20	41							
		e _Z	23	25	39							
70	April 26	e _N	23	26	49							
		eL _N	23	28	33							
		M _E	23	33	38	14.0	±1					
		M _N	23	34	20	12.5			±2			
		M _Z	23	34	27	12.0				±1		
		eF	0	03	±							
70	April 26	eP	14	55	26						59	Near the mouth of Arita River, Wakayama Prefecture.
		i _Z	14	55	27	0.6				+7		
		iS _E _N	14	55	34		+12	-17				
		S _Z	14	55	34					-4		
		M _E	14	55	39	0.8	+24					
		M _N	14	55	40	0.7			-21			
		M _Z	14	55	41	0.7				±9		
		e _N	14	57	09	3.0			±3			
		e _E	14	57	11	3.0	±6					
eF	15	01	±									

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	S.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
71	April 27	eP _N	0	04	50					3240	Heavy damages at Suikiang, Yunnan, China; 28°3'N 103°30'E; according to Nanking's report.
		eP _E	0	04	51						
		S _N	0	09	51			+8			
		S _E	0	09	56		-6				
		eL _N	0	12	50	31.0					
		i _E	0	13	40	7.2	-37				
		M _N	0	14	53	13.0		+50			
		M _E	0	17	51	7.7	-63				
eF	0	58	±								
72	April 27	eP _Z	1	39	13					An after-shock of the previous earthquake.	
		eP _{EN}	1	39	14						
		e _E	1	44	00						
		e _N	1	44	35						
		eM _Z	1	51	55	8.0			±2		
		eF	2	02	±						
73	April 27	eP _{EN}	12	52	27					680	In the Kasima-nada. Felt in Kwantō and S. Oou districts.
		eP _Z	12	52	32						
		eS _N	12	53	40						
		S _Z	12	53	42			-2			
		eS _E	12	53	44						
		M _N	12	54	02	2.6		±13			
		M _Z	12	54	03	2.9			±6		
		M _E	12	54	31	3.3	±12				
eF	13	06	±								
74	April 27	eP _E	14	38	14					61	Near the Hidaka River, Wakayama Prefecture.
		eP _N	14	38	15						
		S _E	14	38	23		+4				
		M _{EN}	14	38	26	0.7	±4	-6			
		F	14	38	53						
75	April 28	eP _N	5	53	27					15.0	Coral Sea, to the NE of Australia.
		M _N	6	06	17			±2			
		eF	6	16	±						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	S.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
76	April 28	e _Z	13	42	53					970	To the NE of Hatizyō Isl.
		e _N	13	43	18						
		e _Z	13	43	58						
		e _E	13	49	20	4.8	±7				
		e _E	13	49	39	4.6	±6				
		eF	13	57	±						
77	April 29	eP _Z	16	48	28					970	To the NE of Hatizyō Isl.
		eP _E	16	48	32						
		eP _Z	16	48	33						
		e _N	16	49	36						
		S _E	16	50	17		+8				
		eS _N	16	50	15						
		eS _Z	16	50	56						
		M _E	16	53	16	8.8	±3				
M _Z	16	53	22	9.5			±2				
eF	17	06	±								
78	May 5	eP _{NZ}	19	50	46					11.0	To the east of New Guinea.
		eM _Z	20	06	10						
		eF	20	13	±						
79	May 8	eP _{NZ}	9	20	55					2575?	In the Java Sea. Felt in Java Isl.; according to Batavia's report.
		eS _Z	9	25	01						
		iS _E	9	25	05		-13				
		S _N	9	25	06				-5		
		eF	9	36	±						
80	May 8	e _N	15	35	02					12.0	Chengtu, Szechwan, China. Faint record.
		e _Z	15	37	04						
		M _N	15	39	51			±1			
		M _Z	15	41	45	14.4			±1		
		eF	15	52	±						
81	May 11	eP _Z	17	35	24					3965?	Near New Ireland, Melanesia.
		eP _N	17	35	27						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
82	May 13	eP _E	17	35	40					272	Near Okinosima, to the SW of Kōti Prefecture.
		eS _Z	17	41	09						
		M _Z	17	51	26	22.0			±1		
		M _N	17	51	30	19.5		±2			
		eF	18	21	±						
		eP	11	10	35						
		S _Z	11	11	10				+3		
		S _N	11	11	11			-6			
		S _E	11	11	12		+5				
		M _Z	11	11	23	1.5			+14		
M _E	11	11	26	1.2	±13						
M _N	11	11	27	1.3		±8					
eF	11	23	±								
83	May 16	eP _N	7	11	30					3140	Felt at Chungking, Szechwan, China.
		eP _Z	7	11	31						
		eP _E	7	11	33						
		P _Z	7	11	32				-2		
		P _E	7	11	36		+3				
		iP _N	7	11	37			-5			
		i _Z	7	11	37				+9		
		i _E	7	11	39	4.2	-11				
		S _N	7	16	23			+7			
		S _Z	7	16	26				-3		
		S _E	7	16	27		-15				
		iS _N	7	16	26	6.4		-28			
		iS _Z	7	16	28				+18		
		iS _E	7	17	30	11.0	+70				
		PcS _E	7	18	29	6.7	+33				
		M ¹ _N	7	21	24	14.5		+70			
		M ² _N	7	22	51	11.5		+70			
		M _Z	7	23	20	11.0			+20		
M _E	7	23	23	10.0	-85						
eF	8	19	±								

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
84	May 19	eP _E	7	29	53					4350	Java Sea. Felt in eastern part of Java and Bali Isl.; according to Batavia's report.
		P _Z	7	30	01				-3		
		P _N	7	30	02			-5			
		eS _Z	7	35	53						
		S _E	7	36	00		-9				
		S _N	7	36	01			+7			
		eF	7	51	±						
85	May 19	eP _{NZ}	20	58	18					4775	Felt in NW Sumatra.
		S _{EZ}	21	04	47		+8		+2		
		eF	21	17	±						
86	May 20	eP _N	3	13	57					4945	To the N of Solomon IIs., SW Pacific Ocean.
		eP _E	3	14	04						
		eS _N	3	20	36						
		e _E	3	24	05						
		eL _N	3	24	53						
		M _E	3	31	51	15.5	±13				
		M _N	3	32	24	15.5		±15			
eF	3	59	±								
87	May 25	eP _Z	3	09	10					4280?	Near New Ireland IIs., Melanesia?
		eP _E	3	09	12						
		eP _N	3	09	13						
		eS _Z	3	15	02						
		eS _E	3	15	15						
		eM _N	3	23	16	23.0		±1			
		eF	3	44	±						
88	May 26	e _E	15	37	31						In the Kagosima Bay, Kyūsyū.
		e _N	15	37	33						
		e _Z	15	38	25						
		e _{EN}	15	38	26						
		eM _N	15	38	42	1.2		±2			
		eF	15	40	±						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
89	May 27	eP _E	6 27 19					4905	Near Mt. Himalaya.
		eP _Z	6 27 21						
		P _Z	6 27 23			+2			
		P _{EN}	6 27 24	+2	+2				
		iP _E	6 27 27	-15					
		ePP _Z	6 29 08						
		S _N	6 33 55		+7				
		eS _E	6 33 56						
		eS _Z	6 34 01						
		iS _N	6 34 04	10.0	+23				
		iS _E	6 34 07	-15					
		ScS _N	6 37 21		-8				
		ScS _E	6 37 22	-16					
		ez	6 37 21						
		M _N	6 44 02	16.0	+30				
		M _Z	6 47 34	12.5		+10			
M _E	6 47 37	12.5	-50						
eF	7 24 ±								
90	May 28	eP _Z	12 32 44					In the Bashee Channel, south of Formosa.	
		eP _E	12 32 45						
		eF	12 50 ±						
91	May 30	P _Z	20 40 14			-12	71	Middle basin of the Kino- kawa, northern part of Wakayama Prefecture.	
		P _{EN}	20 40 15	+1	-3				
		iS	20 40 24	+19	+24	+19			
		M _{EN}	20 40 25	0.6	-27	-46			
eF	20 43 ±								
92	June 3	eP	2 57 45					To the east of the Siritia Cape, Aomori Prefecture. Moderate shocks were felt at Hakodate City. Felt in S. Hokkaidō and Oou district.	
		eM _Z	3 00 47	4.1		-9			
		eM _E	3 00 48	6.0	±20				
		eM _N	3 00 49	4.4		+20			
eF	3 17 ±								
93	June 4	eE	13 09 48					Off Hatizyō Isl.	

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
94	June 4	eNZ	13 09 49					236	Near Takayama City, Hida Province.
		eS _N	13 11 03						
		eS _Z	13 11 04						
		eS _E	13 11 05						
		eN	13 11 44						
		eS _E	13 11 54						
		eS _Z	13 12 11						
		eM _N	13 12 10	12.0		±5			
		eM _Z	13 13 00	11.0		±5			
		eM _E	13 13 04	11.0	±15				
		eF	13 25 ±						
		ePEZ	18 25 53						
		iP	18 25 56	+5.4	-3.4	+5.6			
iE	18 26 20	-9							
iS _Z	18 26 24			-11					
S _E	18 26 25	+19							
iS _N	18 26 25			+15					
M _Z	18 26 33	2.0		-25					
M _N	18 26 35			-40					
M _E	18 26 40	4.4	+65						
M _N	18 26 50	4.0		±30					
eF	18 40 ±								
95	June 5	eP	13 12 01					Ditto.	
		eP _N	13 12 03						
		eP _Z	13 12 04						
		eE	13 12 47						
		eN	13 12 52						
eF	13 26 ±								
96	June 5	eP _E	14 44 14					Felt in N. Moluccas and N. Celebes; according to Batavia's report.	
		P _Z	14 44 17			+2.7			
		P _N	14 44 18			+2.9			
		P _E	14 44 19	+1.9					
		eN	14 49 38						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
97	June 8	eE	14	49	39						
		eF	15	01	±						
		iP	9	13	45		-2.4	+3.2	+3.3	300	To the NW of Hatizyō Isl. Deep focus earthquake.
		iS	9	14	27		+4	-7	-3		
eF	9	24	±								
98	June 9	e	16	45	11						Felt in W. Sumatra. Faint record.
		iz	16	45	12						
		eE	16	45	12						
		iN	16	45	12			+4			
		eMz	17	08	44	17.5					
		eF	17	20	±			±1			
99	June 10	eP _N	8	30	54						New Guinea. S phase is not distinct.
		eP _Z	8	30	56						
		eP _E	8	30	57						
		iP _N	8	30	58			+6.0			
		i _N	8	31	35			-10			
		i _E	8	31	40		-9				
		i _N	8	33	18	3.9		-18			
		eS _E	8	37	00						
		eS _Z	8	37	21						
		e _E	8	38	01						
		e _N	8	38	07						
		iL ^(Q) _E	8	41	11						
		eL _Z	8	41	13						
		eL _N	8	41	48						
M _N	8	45	02	18.0		±3					
M _Z	8	51	00	20.0			±2				
eF	9	12	±								
100	June 12	eE	5	12	05					Upper basin of the Ooyadori River, Miyazaki Prefecture. Faint record.	
		ez	5	12	21						
		eE	5	12	27						
		eF	5	20	±						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
101	June 16	e _N	3	27	35			+2			Near Hinomisaki, Wakayama Prefecture.
		M _E	3	27	37	0.7	+2				
		M _E	3	27	37	0.5		±2			
		eF	3	28	01						
102	June 16	eS _{EN}	23	01	33					Near the Arita River, Wakayama Prefecture.	
		M _N	23	01	34	0.5		-5			
		M _E	23	01	36	0.6	-6				
103	June 17	eE	4	51	41					Near Kōti City, Sikoku.	
		ez	4	51	45						
		eS	4	51	58						
		M _N	4	52	00	0.7		+4			
		M _Z	4	52	00	0.9			+2		
		M _E	4	52	01	0.8	+4				
e _N	4	53	21	2.5		±2					
eF	4	55	±								
104	June 19	eP _{EN}	16	39	54					66	Off the mouth of Yosino River, Tokushima Prefecture.
		P _Z	16	39	54						
		S _E	16	40	02		-6				
		iS _N	16	40	03			+9			
		eS _Z	16	40	03				+9		
		M _{EN}	16	40	07	0.6	+15	-11			
		eM _Z	16	40	07	0.7			±2		
		eF	16	48	±						
105	June 20	eP	22	13	12					82	Lower basin of the Arita River, Wakayama Prefecture.
		S _N	22	13	22				-2		
		S _E	22	13	23		-3				
		M _E	22	13	23	0.6	+7				
		M _N	22	13	23	0.4		-3			
eF	22	15	±								
106	June 25	iP	16	52	57		-16.2	+25.3	+19.8	373	To the SW of Hatizyō Isl.

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
107	June 27	iS	16	53	47		-66	-43	+4	62	Near Kyōto City.
		M ¹ _E	16	53	49	2.8	+113				
		M _N	16	53	49	3.9		+53			
		M _Z	16	53	49	2.2			-13		
		M ² _E	16	55	29	3.7	-58				
		eF	17	07	±						
		P _{EN}	17	19	30.1						
		iP	17	19	30.3		+4.2	-5.0	-2.2		
		iS _N	17	19	38			+5			
		iS _{EZ}	17	19	39		+6		-6		
108	June 28	M _Z	17	19	39	0.5			-7	910	To the SE of Hatizyō Isl.
		M _{EN}	17	19	40	0.6	+15	+15			
		eF	17	24	±						
		P	8	12	02		+9.5	-6.0	-3.1		
		S _N	8	13	41						
		S _Z	8	13	42				+6		
		L _Z	8	13	59	16.5					
		eL _E	8	14	00						
		L _N	8	14	11	16.0					
		M _Z	8	15	19	11.5			-7		
109	June 28	M _E	8	15	28	10.0	-28				An after-shock of the previous earthquake.
		M _N	8	15	35	10.2		+25			
		eS _N	8	35	10						
		eL _E	8	35	44						
		eL _N	8	35	57						
		eL _Z	8	36	12						
		M _N	8	37	13	12.6		+10			
		M _Z	8	38	42	10.5			±3		
		M _E	8	38	43	8.9	-12				
		eF	8	54	±						
110	June 29	eE	14	38	51					Turkestan.	
		ez	14	38	54						Very faint record.

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
111	June 30	eE	14	39	36					85	Upper basin of the Hidaka River, Wakayama Prefecture.
		ez	14	39	46						
		ex	14	39	47						
		eE	14	45	58						
		eF	15	00	±						
		P _Z	11	20	43				+1.3		
		eP _E	11	20	44						
112	June 30	eP _N	11	20	45					2850	Kamchatka.
		eS _N	11	20	55						
		eS _{EZ}	11	20	56						
		M _E	11	20	58	0.5	-2				
		M _N	11	20	58			+3			
		eF	11	22	±						
		iP _N	15	12	03				-13.8		
		iP _{EZ}	15	12	04		-22.2		+22.5		
		iE	15	12	17	4.1	-145				
		iz	15	12	18	3.4			+120		
		i _N	15	12	21	4.1		±100			
		iE	15	12	46	3.8	-150				
		i _N	15	13	01	4.4		±110			
		iS _N	15	16	29			+118			
		iS _E	15	16	33		+114				
		iS _Z	15	16	35				-55		
		SM _N	15	16	41	6.3		+230			
		SM _E	15	16	46	4.2	-440				
		SM _Z	15	16	47	3.7			+115		
		eL _N	15	19	13						
		eL _Z	15	19	21						
		M _Z	15	22	14	20.0			+2200		
		M ¹ _E	15	22	47	16.0	-3330				
		M	15	23	26	15.0		±2670			
		M ² _E	15	24	45	13.0	-3138				
eF	17	03	±								

From No. 109 to No. 222, 1936.

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kōbe Meteorological Observatory of Japan.
 $\varphi=34^{\circ} 21'$ $\lambda=134^{\circ} 53'$ $h=109.0$ m. Underground: Cretaceous.

Instrument: Omori's Seismograph.
 (Horizontal)

Wiechert Seismograph.
 (Horizontal & Vertical)

April

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	16.3	2.6	0.0002	20
AN:	19.9	3.5	0.0004	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	4.9	Aperiodic	0.002	113
AN:	4.3	"	0.001	113
Az:	4.2	"	0.002	61

May

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	16.3	2.6	0.0002	20
AN:	19.9	3.5	0.0004	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	4.9	Aperiodic	0.001	116
AN:	4.3	"	0.003	115
Az:	4.2	"	0.002	62

June

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	16.8	2.0	0.0003	20
AN:	19.6	3.9	0.0003	20

	T_0	ε	$\frac{r}{T_0^2}$	V
AE:	5.0	Aperiodic	0.001	110
AN:	3.9	"	0.001	107
Az:	4.3	"	0.002	60

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE	AN	Az		
109	April 1	PEN	2 15 34					3370	Destructive shock on Talaud Isl., to the NE of Celebes; according to Batavia's report.
		Pz	2 15 35						
		eN	2 17 01						
		eE	2 17 05						
		SEN	2 20 43						
		ez	2 21 27						
		Lz	2 23 59						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks				
					AE	AN	Az						
110	April 1	LE	2 24 09	20.4	+321	-733	-550	42	In the Kii Channel.				
		LN	2 24 22										
		M ¹ N	2 25 53										
		ME	2 26 25										
		Mz	2 29 04										
		M ² N	2 29 35										
		eF	4 11 ±										
		ePEN	12 55 55							0.4	+5	-14	±3
		S	12 56 00										
		ME	12 56 00										
MN	12 56 01												
Mz	12 56 02												
F	12 56 56												
111	April 1	SEN	18 33 24	0.4	+1			Ditto.					
		ME	18 33 24										
		MN	18 33 25										
		F	18 33 48										
112	April 1	iPNZ	20 17 14	13.0	+0.9	+1.6	3515	An after-shock of No. 109.					
		iPE	20 17 17										
		eSN	20 22 31										
		eSE	20 22 37										
		eLEN	20 26 54										
		ME	20 29 04										
		Mz	20 31 47										
		MN	20 31 51										
		eF	21 03 ±										
113	April 1	P	23 12 06	0.4	±4	+6	45	Lower basin of the Arita River, Wakayama Prefecture.					
		S	23 12 12										
		ME	23 12 13										
		Mz	23 12 14										
		F	23 13 02										

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE μ	AN μ	Az μ		
114	April 2	ePE	6 24 29					3875	To the east of New Guinea.
		ePz	6 24 31						
		ePN	6 24 32						
		eSN	6 30 02						
		eSE	6 30 19						
		ME	6 34 21	8.0	± 4				
		MN	6 34 57	12.0		± 9			
		eF	6 55 \pm						
115	April 2	P	20 59 44				165	Off the mouth of Simandō R., Sikoku district.	
		eSz	21 00 05						
		SEN	21 00 06						
		Mz	21 00 08			± 2			
		MN	21 00 09	0.4		-5			
		ME	21 00 10	0.4	± 3				
		F	21 01 15						
116	April 3	P	14 49 08				97	Near Kyōto City.	
		S	14 49 22			-1.6			
		MEZ	14 49 22	0.7	± 11	+3			
		MN	14 49 22	0.6		-9			
		F	14 50 42						
117	April 5	PN	14 29 19				530	To the south of Hatizyō Isl.	
		PEZ	14 29 20			+0.9			-0.8
		SE	14 30 29						
		Sz	14 30 31						
		ME	14 30 32	2.2	-5				
		SN	14 30 32						
		Mz	14 30 33	2.2		+2			
		MN	14 30 35	3.2		± 3			
		eF	14 37 \pm						
118	April 6	PEN	4 12 25				225	To the east of the mouth of Simandō R., Sikoku district.	
		ePz	4 12 28						
		Sz	4 12 56						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE μ	AN μ	Az μ		
119	April 8	SEN	4 12 57				47	Basin of the Hidaka River, Wakayama Prefecture.	
		Mz	4 13 00	1.0		+7			
		ME	4 13 01	0.5	-12				
		MN	4 13 01	0.4		+12			
		ePEN	0 30 27						
120	April 9	S	0 30 33				23	Near Wakayama City.	
		ME	0 30 33	0.4	± 4				
		MN	0 30 34	0.4		+6			
		Mz	0 30 34			± 1			
		F	0 31 30						
121	April 11	PEN	2 17 38				23	Near Wakayama City.	
		SEN	2 17 41						
		ME	2 17 41		+3				
		MN	2 17 42	0.4		+4			
		F	2 18 18						
122	April 11	eSEN	16 30 53				23	Local shock.	
		F	16 31 36						
123	April 12	iPz	23 43 20				2020	Moderate shocks were felt in Palau Isl., West Caroline IIs., Pacific Ocean.	
		PEN	23 43 21		-1.8	-1.8			+1.6
		eEN	23 47 34						
123	April 12	eF	23 55 \pm						
		ePz	20 56 40				-3.2		
		PEN	20 56 41		-2.7	-2.7?			
		Sz	21 01 13						
		SE	21 01 19						
		SN	21 01 20						
		LN	21 03 23						
		LE	21 03 45						
		Lz	21 04 35						
		Mz	21 05 15	17.8			-175		
		MN	21 05 29	18.8			-300		

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
124	April 12	M _E	21	06	20	12.0	+80				
		eF	21	56	±						
		i _N	21	24	57	2.0		-3.5			
		iz	21	24	57	1.6			-1.6		
125	April 13	i _E	21	24	58	1.6	+7.1				
		iP	3	06	24		+0.9	-3.1	-1.6	31	In the Wakanoura Bay, Kii Channel.
		iS	3	06	28						
		M _E	3	06	28	0.4	+22				
126	April 13	M _N	3	06	29	0.4		-19			
		M _Z	3	06	30	0.4			+4		
		F	3	08	00						
		P _{EN}	12	34	02					48	Middle basin of the Hidaka River, Wakayama Prefecture.
		iS	12	34	08						
		M _E	12	34	08	0.4	+4				
127	April 14	M _N	12	34	09	0.4		-7			
		M _Z	12	34	10				±2		
		F	12	35	01						
		P _E	1	20	45					305	Upper basin of the Oono River, Ōita Prefecture, Kyūsyū.
		P _N	1	20	46						
		S _E	1	21	26						
128	April 14	S _N	1	21	28						
		M _N	1	21	29	2.2		-4			
		M _E	1	21	30	2.4	+3				
		eF	1	25	±						
129	April 14	eS _{EN}	2	50	58						Local shock.
		F	2	51	13						
129	April 14	P	3	25	09					36	Near Wakayama City.
		S	3	25	14						
		M	3	25	15	0.4	-5	+8	+2		
		F	3	26	15						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
130	April 14	eP _{EN}	12	38	16						35	Basin of the Arita River, Wakayama Prefecture.
		S _{EN}	12	38	21							
		M _{EN}	12	38	22	0.4	-1	+2				
		F	12	39	03							
131	April 15	eP _E	19	00	50							Near Palau, West Caloline IIs., Pacific Ocean.
		eP _N	19	00	51							
		P _N	19	01	25							
		P _E	19	01	31							
		e	19	09	46							
		M _E	19	11	02	10.9	±4					
		M _N	19	11	20	10.9		±5				
132	April 15	eF	19	23	±							Ditto.
		e _N	19	21	01							
		e _E	19	21	18							
		eS _N	19	23	07							
		eS _E	19	23	11							
133	April 16	eF	19	27	±							Ditto.
		eP _N	1	03	47							
		eP _E	1	03	53							
		e _Z	1	11	±							
		e _{EN}	1	12	05							
		L _N	1	13	02							
134	April 16	eF	1	23	±							Lower basin of the Arita River, Wakayama Prefecture.
		P _{EN}	7	41	14					32		
		S	7	41	18							
		M _{EN}	7	41	18	0.4	+3	-4				
		M _Z	7	41	19							
135	April 17	e _N	7	41	20							
		F	7	42	05							
		P _{EN}	0	03	11					86	Near Mt. Dainiti, Nara Prefecture.	
135	April 17	S	0	03	23							

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
136	April 18	M _E	0 03 23	0.4	-4			50	Middle basin of the Hidaka River, Wakayama Prefecture.
		M _N	0 03 23	0.5		+5			
		M _Z	0 03 23				± 2		
		F	0 04 16						
		P _{EN}	19 55 45						
		S	19 55 52						
		M _N	19 55 52	0.3		+7			
137	April 19	M _E	19 55 53	0.4	+4			Eastern part of New Guinea.	
		M _Z	19 55 53						
		F	19 56 39						
		P _N	5 15 40			+1.8			
		P _{EN}	5 15 42		-2.7		+3.3		
		e _N	5 19 53						
		e _E	5 19 55						
138	April 19	e _{LE}	5 25 43					Eastern part of the Bengal Bay.	
		e _{LN}	5 25 46						
		M ¹ _N	5 27 40	18.9		+333			
		M _E	5 27 41	24.0	+460				
		M ² _N	5 35 41	15.6		+222			
		M _Z	5 35 47	14.8			± 167		
		e _F	7 04 ±						
139	April 19	e _E	9 20 38					Eastern part of the Bengal Bay.	
		e _N	9 20 56						
		e _{LN}	9 27 34						
		e _{LE}	9 28 34						
		e _Z	9 31 29						
		M _N	9 32 26	15.5		+20			
		M _E	9 32 30	18.4	± 31				
139	April 21	e _N	4 16 49					Near Nogami, Saitama Prefecture.	
		e _E	4 16 51						
		e _{SE}	4 17 13						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
140	April 21	e _{SNZ}	4 17 14					Local Shock.	
		M _E	4 17 14	2.0	± 1				
		M _N	4 17 16	2.0		+2			
		F	4 18 25						
		S _{EN}	8 09 05						
141	April 21	M _N	8 09 05		± 1			In the Aki-nada, Inland Sea.	
		M _E	8 09 05			+2			
		F	8 09 20						
		e _{PN}	9 08 22						
		e _{PE}	9 08 27						
142	April 23	e _{SE}	9 08 44					Near Wakayama City.	
		e _{SN}	9 08 45						
		M _E	9 08 46	1.4	-1				
		M _N	9 08 49	1.0		± 1			
		F	9 10 08						
143	April 23	S _{EN}	15 31 08					Aleutian IIs.	
		M _E	15 31 09		-2				
		M _N	15 31 09	0.4		-2			
		F	15 31 26						
		P _E	23 21 21		+0.9				
144	April 26	P _N	23 21 22			-0.9		Mouth of the Arita River, Wakayama Prefecture.	34
		P _Z	23 21 23				+1.6		
		e _{SEN}	23 29 34						
		M _N	23 22 45	11.6		± 3			
		M _E	23 33 54	11.6	± 5				
144	April 26	e _F	23 45 ±					Mouth of the Arita River, Wakayama Prefecture.	34
		i _P	2 17 40						
		i _S	2 17 45						
		M _{EZ}	2 17 45	0.4	+6		-3		
		M _N	2 17 46	0.4		-11			
144	April 26	F	2 18 57					Mouth of the Arita River, Wakayama Prefecture.	34

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
145	April 26	SEN	12	12	40	0.4	-1	+2			Near Gobō, Wakayama Prefecture.
		MEN	12	12	41						
		F	12	13	09						
*146	April 26	iP	14	55	20	0.4	+8.0	-11.5	-16.4	33	Perceptible. Near the mouth of Arita River, Wakayama Prefecture.
		iS	14	55	24						
		M _N	14	55	24						
		M _Z	14	55	25						
		M _E	14	55	25						
		F	15	01	19						
147	April 27	P _E	0	04	51	12.4	-0.4	-0.9	+0.8	3110	Heavy damages at Suikiang, Yunnan, China.
		P _N	0	04	52						
		P _Z	0	04	54						
		S _E	0	09	41						
		S _N	0	09	42						
		eS _Z	0	09	46						
		L _N	0	13	48						
		M _N	0	14	40						
		L _E	0	14	57						
		M _E	0	16	51						
		M _Z	0	16	59						
		eF	1	21	±						
148	April 27	P _{EN}	12	52	39	3.5	-7	-3	+5	525	In the Kasima-nada. Felt in Kwantō and S. Oou districts.
		P _Z	12	52	40						
		S _{NZ}	12	53	50						
		S _E	12	53	51						
		M _Z	12	54	06						
		M _E	12	54	07						
		M _N	12	54	16						
eF	13	02	±								
149	April 27	P	14	38	06	-2				53	Near Hidaka River, Wakayama Prefecture.
		S	14	38	13						
		M _{EZ}	14	38	13						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
150	April 28	M _N	14	38	13	0.4		+3			Felt in Babar Isl., to the ENE of Timor IIs.; according to Batavia's report.
		F	14	38	59						
		eP _{NZ}	13	43	14						
		e _E	13	44	00						
		e _N	13	44	42						
151	April 28	e _E	13	44	58	0.3	-3	+4		67	Near Gobō, Wakayama Prefecture.
		e _{EN}	13	49	13						
		eF	13	58	±						
		P _{EN}	21	07	12						
		S _{EN}	21	07	21						
152	April 29	M _E	21	07	21	9.0	-7	+5		1410	To the NE of Hatizyō Isl.
		M _N	21	07	21						
		F	21	08	00						
		P _E	16	48	25						
		P _{NZ}	16	48	27						
		S _E	16	50	53						
		S _{NZ}	16	50	54						
		M _N	16	52	50						
		M _E	16	52	58						
		M _Z	16	52	59						
eF	17	11	±								
153	May 2	P _{EN}	5	40	22	0.4	±1	+1		50	Lower basin of the Hidaka River, Wakayama Prefecture.
		S _{EN}	5	40	28						
		M _N	5	40	29						
		M _E	5	40	31						
		F	5	41	25						
154	May 2	eP _{EN}	22	03	47	0.6	-3	-5		44	Ditto.
		S	22	03	53						
		M _{EN}	22	03	53						
		F	22	05	06						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
155	May 2	ePEN	23 46 53	0.4	-2	+2		39	Lower basin of the Hidaka River, Wakayama Prefecture.
		SEN	23 46 59						
		ME	23 46 59						
		MN	23 46 59						
		F	23 47 31						
156	May 2	SEN	23 49 19		± 1	± 0.4			Local shock.
		ME _N	23 49 19						
		F	23 49 34						
157	May 4	ePEN	9 35 42	0.4	+2	± 3	± 1	29	Near Wakayama City.
		S	9 35 46						
		ME	9 35 46						
		MN	9 35 47						
		MZ	9 35 47						
F	9 36 22								
158	May 4	SEN	14 54 25	0.3	+0.9	+1.7			Ditto.
		ME	14 54 25						
		MN	14 54 25						
		F	14 55 08						
159	May 8	P	9 20 55	4.5	-4	-3		2485?	In the Java Sea. Felt in Java Isl.; according to Batavia's report.
		SEN	9 24 59						
		Sz	9 25 01						
		ME	9 25 01						
		MN	9 25 01						
		Mz	9 25 03						
F	9 34 \pm								
160	May 8	P	10 34 30	0.6	-7	+7		44	Near Wakayama City.
		S	10 34 36						
		Mz	10 34 36						
		ME _N	10 34 37						
		F	10 37 27						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
161	May 8	eE	15 34 42	7.0	+3	+2			Chengtu, Szechwan, China.
		eN	15 34 55						
		S _N	15 39 28						
		M _N	15 41 03						
		ME	15 41 46						
		eF	15 51 \pm						
162	May 10	ePEN	0 22 36	0.6	+3	-3			Near Wakayama City.
		S	0 22 42						
		ME	0 22 42						
		MN	0 22 42						
163	May 11	ePEN	17 34 38	1.7	+0.9	-0.9			Near New Ireland, Melanesia.
		eZ	17 35 25						
		eE	17 36 57						
		eN	17 37 05						
		eE	17 45 21						
		eN	17 45 23						
164	May 13	eLE	17 49 44	2.0	-12	-10			Near Okinosima, to the SW of Kōti prefecture.
		eLN	17 50 46						
		eF	18 11 \pm						
		PEN	11 10 23						
		Pz	11 10 24						
		SEN	11 10 57						
165	May 13	Sz	11 11 00	0.4	+6	± 5			In the Kitan Strait.
		Mz	11 11 09						
		MN	11 11 14						
		ME	11 11 17						
		eF	11 18 \pm						
		PEN	16 36 38						
166	May 13	S	16 36 43	0.4	+6	± 5			In the Kitan Strait.
		ME	16 36 43						
		MN	16 36 44						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
166	May 16	M _Z	16	36	44				±2	3070	Felt at Chungking, Szechwan, China.
		F	16	37	35						
		iP	7	11	29		-1.3	+0.4	-1.6		
		iS _N	7	16	15						
		iS _{EZ}	7	16	18						
		M _N	7	21	11	11.6		-294			
		eE	7	22	58						
		M _Z	7	23	13	10.6			+183		
M _E	7	23	14	10.5		-339					
eF	8	06	±								
167	May 17	eP _{EN}	5	54	48					40	Near Gobō, Wakayama Prefecture.
		S _{EN}	5	54	53						
		M _{EN}	5	54	54	0.4	-3	-3			
		F	5	55	30						
168	May 18	S _{EN}	16	43	33						In the Tanabe Bay, Kii Channel.
		M _E	16	43	33	0.4	-3				
		M _N	16	43	34	0.4		+4			
		F	16	43	53						
169	May 20	eP _E	3	14	05					5490	To the N of Solomon Isl., SW Pacific Ocean.
		P _Z	3	14	06				-0.8		
		eP _N	3	14	10						
		S _E	3	21	15						
		S _N	3	21	17						
		L _E	3	26	28						
		L _N	3	27	01						
		M _N	3	31	49	18.0		-86			
		M _Z	3	31	55	19.9			±50		
		M _E	3	32	19	15.8		-50			
		eE	3	58	45						
		eN	3	59	01						
eF	4	19	±								

} Other shock?

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
170	May 22	S _{EN}	1	27	55						Near Gobō, Wakayama Prefecture.
		M _E	1	27	55	0.5	+1				
		M _N	1	27	56	0.4		±1			
		F	1	28	20						
171	May 24	P _{EN}	8	22	40					31	Near Wakayama City.
		S	8	22	44						
		M _E	8	22	45	0.2	-3				
		M _N	8	22	45	0.4		-3			
F	8	23	18								
172	May 25	e _Z	3	10	07						Near New Ireland, Melanesia?
		e _N	3	10	08						
		e _E	3	10	12						
		e _L	3	19	36						
		e _L	3	21	46						
		e _L	3	22	55						
		e _F	3	44	±						
173	May 25	P _{EZ}	12	06	28		+0.9		+1.6	298	In the Kumano-nada, to the SE of the Kii Peninsula.
		P _N	12	06	29				-0.4		
		S _{EN}	12	07	09						
		M _N	12	07	10	2.0		-4			
		M _E	12	07	10	2.2	+2				
		e _Z	12	07	11						
e _F	12	10	±								
174	May 26	eP _N	5	12	02					28	Near Gobō, Wakayama Prefecture.
		S _{EN}	5	12	05						
		M _{EN}	5	12	06		-1	±2			
		F	5	12	23						
175	May 26	P _{EN}	15	37	24		+0.5	-0.5		376	In the Kagosima Bay, Kyūsyū.
		P _Z	15	37	24				(-)		
		S _{EN}	15	38	14						
		S _Z	15	38	16						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km	
176	May 27	Mz	15	38	20	1.0			± 1	8590	Near Mt. Himalaya. Horizontal component by Omori's Seismograph.
		ME	15	38	34	1.9	± 1				
		MN	15	38	51	2.3		± 2			
		eF	15	42	\pm						
		PE	6	27	19		-35				
		Pz	6	27	22				+2		
		ePN	6	27	25			+5			
		eSN	6	37	13						
		eSz	6	37	15						
		LN	6	42	37						
Mz	6	47	23	11.2			± 50	25	Near Yuasa, Wakayama Prefecture.		
MN	6	47	27	13.3		+185					
ME	6	48	04	13.5	+170						
eF	7	25	\pm								
PEN	14	55	15								
S	14	55	19								
ME	14	55	19	0.6	+5						
MN	14	55	19	0.4		-9					
Mz	14	55	19				-1				
F	14	55	57								
178	May 28	eEZ	12	32	33					In the Bashee Channel, to the S of Formosa.	
		eN	12	32	34						
		eF	12	50	\pm						
179	May 28	eN	22	12	23					Near Mt. Sirane, west of Kai Province.	
		eSN	22	12	32						
		SE	22	12	33						
		ME	22	12	37	0.8	± 1				
		MN	22	12	37	1.6		-1			
		F	22	13	20						
180	May 28	SEN	23	45	43					Near Gobō, Wakayama Prefecture.	
		ME	23	45	44		-2				

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
181	May 30	MN	23	45	44	0.3		-3		65	Middle basin of the Kino- kawa, northern part of Waka- yama Prefecture.
		F	23	46	01						
		iP	20	40	13		-2.7	+3.8	-2.5		
		S	20	40	22						
		ME	20	40	22	0.6	+8				
		MN	20	40	22	0.4		-15			
Mz	20	40	22	0.8			+3	27	Near Yuasa, Wakayama Prefecture.		
F	20	41	33								
ePEN	8	45	48								
S	8	45	52								
MN	8	45	52	0.4		± 1					
ME	8	45	53	0.6	-1						
F	8	46	17								
183	June 1	ePN	9	09	25				48	Near Gobō, Wakayama Prefecture.	
		S	9	09	31						
		MEN	9	09	32	0.4	-2	-4			
		F	9	10	08						
184	June 1	ee	11	32	13					To the S of South America?	
		ez	11	32	14						
		eN	11	32	16						
		eF	11	37	\pm						
185	June 1	ePN	11	39	38				24	Near Gobō, Wakayama Prefecture.	
		SEN	11	39	41						
		ME	11	39	41		± 1				
		MN	11	39	42	0.4		± 1			
		F	11	40	05						
186	June 2	P	6	30	18		+0.5	(+)	40	In the Kitan Strait.	
		S	6	30	23						
		MEZ	6	30	24		-3				± 2
		MN	6	30	24	0.4		+8			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
187	June 3	F	6	31	35						
		ePz	2	57	51						
		PEN	2	57	53					942	To the east of the Siritaya Cape, Aomori Prefecture. Moderate shocks were felt at Hakodate City. Felt in S. Hokkaido and Oou districts.
		eSz	2	59	58						
		SEN	3	00	00						
		Mz	3	00	44	3.9			+3		
		MN	3	00	49	2.2					
ME	3	00	58	5.8	-4		-4				
eF	3	11	±								
188	June 4	ePEZ	13	09	09						1420 Off Hatizyo Isl.
		ePN	13	09	14						
		eN	13	10	53						
		eSz	13	11	32						
		eSE	13	11	35						
		eSN	13	11	51						
		Mz	13	12	22	8.4			±2		
		MN	13	12	25	2.8			±2		
		ME	13	13	20	6.6	-2				
		eF	13	26	±						
189	June 4	ePN	18	26	02						266 Near Takayama City, Hida Province.
		PEZ	18	26	04		(+)	(-)			
		eSz	18	26	38						
		SEN	18	26	40						
		ME	18	26	44	3.6	+13				
		MN	18	26	45	3.8			-15		
		Mz	18	26	51	5.5			±3		
		eN	18	30	00						
		eE	18	30	02						
eF	18	40	±								
190	June 4	ePN	23	42	40						385 To the NW of Hatizyo Isl.
		ePEZ	23	42	41						
		S	23	43	33						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
		ME	23	43	33	1.6	+1				
		MN	23	43	33	2.3		-2			
		eF	23	47	±						
191	June 5	eEN	1	58	37						Local shock
		MEN	1	58	38		±1	±1			
		eEN	1	58	41						
		F	1	59	00						
192	June 5	PEN	3	34	41					45	In the Kii Channel.
		S	3	34	47						
		ME	3	34	47	1.0	-2				
		MN	3	34	47	0.4		-5			
		Mz	3	34	48				+1		
193	June 5	ePEN	13	12	01					430	Off Hatizyo Isl.
		ez	13	12	41						
		SE	13	12	58						
		SN	13	12	59						
		MN	13	13	09	2.4		-4			
		ME	13	13	13	2.4	-1				
		eF	13	18	±						
194	June 5	i	14	44	14		+0.9	+1.9	+2.5		Felt in N. Moluccas and N. Celebes.
		MN	14	44	16	2.0		-4			
		Mz	14	44	16	1.8			-4		
		ME	14	44	17	1.8	+1				
		eEN	14	49	33						
		eF	14	57	±						
195	June 7	P	2	29	53					61	In the Kii Channel.
		SEN	2	30	01						
		MEN	2	30	01	0.4	±6	+9			
		Sz	2	30	02						
		Mz	2	30	02	0.6			+2		

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
196	June 8	F	2	30	39					306	To the NW of Hatizyō Isl. Deep focus earthquake.
		P	9	13	46		-0.9	+0.9	+1.7		
		SEN	9	14	27						
		ME	9	14	29	1.5	+2				
		MN	9	14	29	1.7		-3			
		F	9	17	01						
197	June 9	ez	16	45	07						Felt in W. Sumatra.
		eEN	16	45	09						
		MZ	16	45	32	1.8			+2		
		ME	16	45	43	2.6	-1				
		MN	16	45	51	2.6		+1			
		eF	16	48	±						
198	June 9	eEN	19	21	18						Southern part of Hyūga- nada, to the SE of Kyūsyū.
		eSN	19	21	26						
		eSE	19	21	31						
		ME	19	21	35	1.4	+1				
		MN	19	21	35	1.6		+1			
		F	19	22	09						
199	June 10	P	8	30	55		+0.5?	-1.4	-1.7	4195	New Guinea.
		enz	8	31	29						
		eE	8	31	30						
		eSE	8	36	52						
		eSN	8	36	55						
		in	8	37	57						
		ie	8	38	32						
		LE	8	40	57						
		LN	8	41	34						
		MN	8	41	46	11.0		-17			
		ME	8	41	54	14.6	+83				
		MZ	8	42	39	11.0			+11		
		eF	9	06	±						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
200	June 12	ePEN	5	11	27					371	Upper basin of the Ooya- dori River, Miyazaki Pre- fecture.
		ez	5	12	12						
		eSN	5	12	14						
		eSE	5	12	20						
		MZ	5	12	26	2.0			-2		
		ME	5	12	26	1.7	+1				
		MN	5	12	27	1.7		-3			
201	June 12	SEN	23	25	26						Near Tadotu, Kagawa Prefecture.
		MN	23	25	28	0.5		+1			
		F	23	26	14						
202	June 16	PEN	3	27	17					50	Near Hinomisaki, Wakayama Prefecture.
		S	3	27	24						
		ME	3	27	24	0.4	+4				
		MN	3	27	25	0.4		-7			
		MZ	3	27	25				+1		
203	June 16	P	23	01	16		+0.9	-0.9		48	Near the Arita R., Wakayama Prefecture.
		S	23	01	23						
		MN	23	01	23	0.4		+9			
		ME	23	01	24	0.5	-5				
		MZ	23	01	24				+1		
204	June 17	SEN	1	35	56						Local shock.
		MEN	1	35	56		+1	+1			
		F	1	36	22						
205	June 17	PEN	4	51	27					143	Near Kōti City, Sikoku.
		ez	4	51	34						
		SEN	4	51	46						
		SZ	4	51	47						
		ME	4	51	47	0.8	+4				

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
206	June 18	M _N	4	51	47	0.4		-12				
		M _Z	4	51	47	1.0			+3			
		F	4	52	43							
207	June 18	SEN	0	32	25						Local shock.	
		MEN	0	32	26		±1	+2				
		F	0	32	50							
208	June 18	eEN	5	51	17						Ditto.	
		MEN	5	51	17		±1	±1				
		F	5	51	27							
209	June 18	eEN	6	40	59						Ditto.	
		MN	6	40	59			-1				
		ME	6	41	00		±1					
210	June 19	PEN	16	12	52					28	Ditto.	
		S	16	12	56							
		MEZ	16	12	56		-5	±1				
*211	June 19	MN	16	12	56	0.3		+9				
		F	16	13	47							
		eEN	1	34	00						Ditto.	
212	June 20	MEN	1	34	00		±1	±1				
		eN	1	34	09			+2				
		F	1	34	22							
*211	June 19	iP	16	39	45		+2.7	-4.7	-3.3	28	Perceptible.	
		iSEZ	16	39	48						Off the mouth of Yosino	
		ME	16	39	48	0.4	-29				River, Tokushima Prefecture.	
		MZ	16	39	48	0.5		+8				
		iSN	16	39	49							
		MN	16	39	50	0.4		-31				

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
212	June 20	ePEN	11	48	00						22	Local shock.
		SEN	11	48	03							
		ME	11	48	03		±1					
		MN	11	48	03	0.4		+3				
21	June 20	F	11	48	27							
		PEN	21	50	54						36	Lower basin of the Arita
		S	21	50	59							River, Wakayama Prefecture.
		ME	21	50	59	0.4	-6					
214	June 20	MZ	21	50	59						±1	
		MN	21	51	00	0.6		-11				
		F	21	51	56							
		P	22	13	04						46	Ditto.
215	June 20	S	22	13	10							
		ME	22	13	10	0.4	-7					
		MN	22	13	11	0.4		-16				
		MZ	22	13	11						±1	
216	June 21	F	22	14	35							
		ePEN	22	51	25						27	Local shock.
		SEN	22	51	29							
217	June 25	MN	22	51	30			+2				
		F	22	51	55							
		SEN	1	39	24							Ditto.
216	June 21	MN	1	39	24	0.4		-2				
		ME	1	39	25	0.4	+1					
		F	1	39	49							
217	June 25	iP	16	52	55		-5.5	+4.7	+1.7	373	To the SW of Hatizyō Isl.	
		PMZ	16	52	56	2.0			+25		Focol depth about 320 km.	
		iS	16	53	45						Felt abnormally in Kwantō	
		MZ	16	53	46	2.0			±7		district.	
		ME	16	53	47	2.4	+25					
		MN	16	53	47	2.7		+73				

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
218	June 27	P	17	19	36	0.4	-11	-3	97	Near Kyōto City.	
		S	17	19	39						
		M _N	17	19	50						
		M _Z	17	19	50						
		M _E	17	19	51						
		F	17	21	01						
219	June 28	eP _{EN}	8	12	02	10.0	±7	-12	905	To the SE of Hatizyō Isl.	
		S _E	8	14	00						
		S _N	8	14	08						
		M _E	8	18	04						
		M _N	8	18	04						
		eF	8	41	±						
220	June 29	P _Z	14	38	55	10.0	±7	-12	905	Turkestan.	
		P _N	14	38	56						
		ez	14	39	46						
		en	14	39	49						
		en	14	47	18						
		ez	14	47	26						
		eF	14	51	±						
221	June 30	P _N	11	20	39	0.4	-11	±2	42	Upper basin of the Hidaka River, Wakayama Prefecture.	
		S	11	20	44						
		M _E	11	20	45						
		M _Z	11	20	45						
		M _N	11	20	46						
		F	11	22	24						
222	June 30	P	15	12	07	6.7	-114	+50	2930	Kamchatka.	
		S _E	15	16	43						
		S _N	15	16	45						
		S _Z	15	16	48						
		M _E	15	16	52						
		M _Z	15	16	54						
		M _N	15	16	55						
		eF	17	05	±						

From No. 28 to No. 56, 1936.

TOYOOKA JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kōbe Meteorological Observatory of Japan.
 $\varphi=35^{\circ} 32'$ $\lambda=134^{\circ} 49'$ $h=32.2$ m. Underground: Tertiary.

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

April

	T_0	ϵ	$\frac{r}{T_0^2}$	V	T_0	ϵ	$\frac{r}{T_0^2}$	V
A _E :	20.7	3.0	0.001	20	5.9	10.0	0.005	90
A _N :	20.0	3.0	0.001	20	6.1	10.0	0.006	106
A _Z :					2.7	3.8	0.006	86

May

	T_0	ϵ	$\frac{r}{T_0^2}$	V	T_0	ϵ	$\frac{r}{T_0^2}$	V
A _E :	20.7	3.0	0.001	20	5.9	10.0	0.005	90
A _N :	20.0	3.0	0.001	20	6.1	10.0	0.006	106
A _Z :					2.7	3.8	0.006	86

June

	T_0	ϵ	$\frac{r}{T_0^2}$	V	T_0	ϵ	$\frac{r}{T_0^2}$	V
A _E :	20.7	3.0	0.001	20	5.6	10.0	0.006	98
A _N :	20.0	3.0	0.001	20	6.3	10.0	0.006	96
A _Z :					2.7	3.3	0.008	88

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
28	April 1	P _N	2	15	56	6.7	-114	+50	3280	-5.9	Destructive shock at Talaud Isl., to the NE of Selebes; according to Batavia's report.
		P _Z	2	15	57						
		eP _E	2	16	00						
		iz	2	17	09						
		i _E	2	17	16						
		S _E	2	21	00						
		S _N	2	21	01						

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G	M. T.		AE	AN	Az		
			h	m		s	μ	μ		
		LE	2	22	40					
		M ¹ Z	2	26	21	16.3		+23		
		M ¹ N	2	26	31			-66		
		M ¹ E	2	26	32		+56			
		M ² N	2	28	42			-66		
		M ² Z	2	28	47	16.2		-26		
		M ³ N	2	30	12			-61		
		M ⁴ N	2	32	00			-64		
		M ⁵ N	2	32	47			-76		
		M ⁷ Z	2	32	59	16.2		+23		
		eF	3	21	±					
29	April 3	Pz	14	49	05			-1.9	86	Near Kyōto City.
		PEN	14	49	06		-1.1	(-)		
		S	14	49	17					
		M ¹ E	14	49	18		-18			
		M ¹ NZ	14	49	18	0.6		-16	-6	
		F	14	50	40					
30	April 5	P ¹ NZ	14	29	31				581	To the South of Hatizyō Isl.
		P ¹ E	14	29	33					
		S ¹ N	14	30	50					
		S ¹ E	14	30	51					
		M ¹ N	14	31	03			-4		
		M ¹ E	14	31	15		-2			
		eF	14	32	±					
31	April 6	Pz	4	12	47				278	Off the mouth of Simandō River, Sikoku district.
		eP ¹ E	4	12	49					
		P ¹ N	4	12	49					
		S ¹ EZ	4	13	26					
		S ¹ N	4	13	27					
		M ¹ Z	4	13	29			-5		
		M ¹ E	4	13	31		-6			
		M ¹ N	4	13	33			-8		
		F	4	15	02					

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G	M. T.		AE	AN	Az		
			h	m		s	μ	μ		
32	April 8	eP ¹ E	15	48	57				465	Northern part of the Tokyo Bay.
		eP ¹ N	15	49	00					
		eP ¹ Z	15	49	06					
		S ¹ EN	15	50	01					
		M ¹ N	15	20	25			-3		
		F	15	51	29					
33	April 12	P ¹ N	20	56	48					Moderate shocks were felt in Palau Isl., West Caroline IIs., Pacific Ocean.
		P ¹ Z	20	56	49					
		eP ¹ E	20	57	25					
		L ¹ N	21	01	42					
		L ¹ E	21	02	22					
		M ¹ N	21	06	09	18.2		-28		
		M ¹ Z	21	06	12					-7
		eF	21	25	±					
34	April 19	P ¹ N	5	15	52				5165	Eastern part of New Guinea.
		P ¹ EN	5	15	53					
		S ¹ N	5	22	43					
		eS ¹ E	5	22	58					
		L ¹ N	5	27	55					
		L ¹ E	5	27	58					
		M ¹ N	5	30	01			-27		
		M ¹ E	5	30	11	17.8	+25			
		M ² N	5	31	29	15.8		+19		
		M ³ N	5	34	04			+19		
		M ⁴ N	5	35	59	15.8		+28		
		M ⁵ N	5	37	26	13.8		-28		
		eF	6	45	±					
35	April 19	eL ¹ N	9	28	00					Eastern part of the Bengal Bay.
		eF	9	46	±					
36	April 26	Pz	14	55	41				-1.2	124 Very faint record.
		P ¹ EN	14	55	44			+0.9		Near the mouth of Arita River, Wakayama Prefecture.
		S	14	56	00					

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
37	April 27	M _E	14	56	03		-9					
		M _N	14	56	06			-7				
		M _Z	14	56	09				-5			
		F	14	57	23							
		P _Z	0	04	53						2890	Heavy damages at Suikiang, Yunnan, China.
		P _{EN}	0	05	00							
		e _{SN}	0	04	35							
		e _{SE}	0	10	05							
		L _N	0	13	11							
		M _N	0	15	40	13.0			-55			
M _Z	0	17	53	8.0				+10				
M _E	0	17	57	10.0			-22					
e _F	0	43	±									
38	April 27	P _{EZ}	12	52	49						482	In the Kasima-nada. Felt in Kwantō and S. Oou districts.
		P _N	12	52	50							
		S _Z	12	53	41							
		S _N	12	53	55							
		e _{ME}	12	54	16			-4				
		M _N	12	54	18				-12			
		M _Z	12	54	25					-5		
		F	14	56	40							
39	April 29	P _Z	16	48	46							To the NE of Hatizyō Isl.
		e _{PE}	16	48	55							
		P _N	16	49	02							
		S _N	16	50	09							
		L _N	16	50	49							
		M _N	16	52	18				-2			
		e _F	16	59	±							
40	May 3	P _{EN}	1	45	29						15	Local shock.
		S _{EN}	1	45	31							
		M _Z	1	45	30					±6		
		M _E	1	45	32							
								-6				

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
		M _N	1	45	33				-4			
		F	1	45	54							
41	May 8	e _{LN}	15	39	±						Chengtū, Szechwan, China.	
		e _F	15	49	±							
*42	May 10	P	12	23	23						14	Perceptible. Local shock.
		S _{EN}	12	23	25							
		M _{EN}	12	23	45			-6	±6			
		e _F	12	23	48							
43	May 13	P _Z	11	10	33						352	Near Okinosima, to the SW of Kōti Prefecture.
		P _N	11	10	40							
		P _E	11	10	43							
		S _E	11	11	27							
		S _Z	11	11	29							
		S _N	11	11	30							
		M _Z	11	11	34					+23		
		M _{EN}	11	11	36			-20	-22			
e _F	11	15	±									
44	May 16	P _{EZ}	7	11	29						3095	Felt at Chungking, Szechwan, China.
		e _{PN}	7	11	40							
		S _N	7	16	18							
		S _E	7	16	19							
		e _{SZ}	7	16	27							
		L _N	7	20	03							
		L _E	7	20	52							
		L _Z	7	21	00							
		M ¹ _N	7	22	04	12.9				-138		
		M ² _N	7	23	32	11.9				-109		
45	May 20	M _Z	7	23	38	10.9					-22	
		M _E	7	23	41	9.9			+75			
		e _F	7	52	±							
		P _Z	3	14	15					5510	To the N of Solomon Isl. SW Pacific Ocean.	

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE μ	AN μ	Az μ		
46	May 27	PN	3 14 21	17.4	-8			8970	Near Mt. Himalaya.
		ePE	3 14 23						
		SN	3 21 30						
		SE	3 21 31						
		eLN	3 27 17						
		eLE	3 28 15						
		ME	3 31 57						
		MN	3 33 06						
		eF	3 53 ±						
47	May 28	PE	6 27 20	12.9	+17			97	To the SE of Central America.
		Pz	6 27 21						
		PN	6 27 24						
		iN	6 33 50						
		eSE	6 37 16						
		Sz	6 37 28						
		SN	6 37 29						
		LN	6 42 04						
		MN	6 47 24						
		ME	6 47 46						
48	May 30	ME	6 47 46	16.3					Middle basin of the Kinokawa, northern part of Wakayama Prefecture.
		Mz	6 47 53						
		eF	7 15 ±						
		LE	19 39 27						
		LN	19 39 42						
49	June 3	eF	20 25 ±						To the east of the Siriya Cape, Aomori Prefecture. Moderate shocks were felt in Hakodate City.
		ePE	20 40 30						
		ePN	20 40 31						
		S	20 40 43						
		ME	20 40 44						
49	June 3	MNZ	20 40 45						
		F	20 41 44						
49	June 3	Pz	2 57 39						
		PEN	2 57 40						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE μ	AN μ	Az μ		
50	June 4	eF	3 07 ±						Off Hatizyō Isl.
		ePE	13 08 56						
		Pz	13 09 49						
		ePN	13 09 58						
		eF	13 19 ±						
51	June 4	ePz	18 25 48						Near Takayama City, Hida Province.
		ePEN	18 25 49						
		iPz	18 25 49						
		iPEN	18 25 50						
		S	18 26 15						
		MN	18 26 16						
		ME	18 26 18						
Mz	18 26 19								
52	June 10	eF	18 32 ±						New Guinea. Faint record.
		PNZ	8 31 04						
		ePE	8 31 07						
		iN	8 31 42						
		SE	8 38 14						
		eSN	8 40 05						
		ME	8 41 44						
		MN	8 41 46						
		eF	9 03 ±						
		53	June 25						
Pz	16 53 05								
SEN	16 53 59								
Sz	16 54 01								
MN	16 54 26								
Mz	16 54 27								
ME	16 54 32								
eF	17 02 ±								
54	June 27	P	17 19 33						Near Kyōto City.

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
55	June 28	S	17	19	43							
		M _E	17	19	43		-16					
		M _N	17	19	46			+14				
		eM _Z	17	19	50				+6			
		F	17	20	58							
		P _Z	8	12	09							To the SE of Hatizyō Isl.
		eP _N	8	12	21							
		eP _E	8	12	23							
		S _N	8	14	19							
		eL _N	8	14	51							
eL _E	8	14	57									
M _E	8	15	52	11.8		-15						
M _N	8	16	10	9.8			+19					
eF	8	47	±									
56	June 30	P _Z	15	11	58				+6.8	2810	Kamchatka.	
		P _E _N	15	11	59		-6.1	-10.4				
		Pr ¹ _{NZ}	15	12	09							
		Pr ¹ _E	15	12	18							
		Pr ² _N	15	12	46							
		Pr ² _E	15	12	47							
		Pr ³ _E	15	13	16							
		S _E	15	16	27							
		S _N	15	16	29							
		S _Z	15	16	30							
		SM _N	15	16	39				196			
		SM _E	15	16	40			-200				
		L _E	15	18	51							
		M _Z	15	20	45					-15		
		M _E	15	21	25	20.0		+102				
M _N	15	21	41	20.0			+36					
eF	16	38	±									



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OF THE

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AND

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KOBE, JAPAN.

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KŌBE JAPAN.

SEISMOLOGICAL BULLETIN

of the Imperial Marine Observatory and the Kōbe Meteorological Observatory of Japan.
 $\varphi=34^{\circ} 41' 18''N$ $\lambda=135^{\circ} 10' 51''E$ $h=58.3$ m Underground: Diluvial Series.

Instruments: Omori's Seismograph.
(Horizontal)

Wiechert Seismograph.
(Horizontal & Vertical)

July

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	19.7		0.001	20
AN:	20.4		0.001	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	6.2	6	0.005	105
AN:	6.0	6	0.005	110
Az:	4.7	7	0.004	83

Aug.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	19.6		0.001	20
AN:	19.9		0.001	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	5.9	5	0.004	118
AN:	5.9	7	0.007	115
Az:	4.3	7	0.004	85

Sept.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	19.3		0.001	20
AN:	19.4		0.001	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	5.9	5	0.003	108
AN:	5.7	7	0.004	110
Az:	4.3	7	0.004	89

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	Az		
113	July 2	iP	0	47	13		μ	μ	μ	93 km.	Near Hinomisaki, Wakayama Prefecture. Pz phase is conspicuous.
		iz	0	47	23				-4		
		iSEN	0	47	26		-5	-20			
		MN	0	47	26	0.5		± 16			
		ME	0	47	27	0.6	± 8				
		MZ	0	47	27	0.3			± 5		
		eF	0	52	\pm						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
114	July 3	ez	21	05	20						Southern foot of Mt. Tii. Moderate shocks were felt in southern part of Korea Peninsula. P phases is not distinct.
		ex	21	05	24						
		eE	21	05	28						
		Mz	21	05	47	1.6			± 2		
		ME	21	05	48	1.3	± 3				
		MN	21	06	01	2.4		± 3			
		eF	21	15	\pm						
115	July 4	eP	20	41	58					550	Off the Kuzyū-kuri-hama, Tiba Prefecture.
		eSz	20	42	59						
		eSN	20	43	01						
		eSE	20	43	02						
		MN	20	43	29	3.2		± 9			
		Mz	20	43	29	1.8			± 3		
		ME	20	43	31		-6				
eP	20	56	\pm								
116	July 5	ePNZ	19	01	17					3030	To the SW of Palau Isl., west Caroline IIs., Pacific. Moderate shocks were felt in Palau Isl., felt in Mindanao and Moluccas.
		ePE	19	01	19						
		iPR2N	19	02	18	4.6		+33			
		PR2Z	19	02	18	3.7			+11		
		eSE	19	06	09						
		eSNZ	19	06	18						
		MN	19	10	36	25.0			+770		
		ME	19	11	43	25.5	-460				
Mz	19	12	03	23.5			± 500				
eF	20	05	\pm								
117	July 9	PN	8	13	43					241?	Off the Ensyū-nada, to the south of Sizuoka Prefecture. Deep focus earthquake.
		iSz	8	14	15						
		iSEN	8	14	16		-4	+5			
		Mz	8	14	15	1.6			± 4		
		ME	8	14	16	1.3	-4				
		MN	8	14	16	1.0		± 5			
eF	8	22	\pm								

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
118	July 13	ePNZ	11	32	10						Northern part of Chile. S phase is not distinct.
		ePE	11	32	22						
		Pz	11	32	25				+7.6		
		eE	11	51	25						
		eL?E	11	56	18	40.0					
		eL?z	11	56	05	27.0					
		ME	12	25	20	28.5	± 640				
		Mz	12	27	15	25.0			± 40		
		MN	12	31	24	23.0		± 330			
eF	13	58	\pm								
119	July 15	ePN	1	56	10					710	In the Kasima-nada. Weak shocks were felt in the Pacific coast of Kwantō district.
		ePE	1	56	11						
		ePz	1	56	12						
		eS?N	1	57	23						
		eSE	1	57	29						
		eSz	1	57	30						
		MN	1	57	46	4.3		± 20			
		Mz	1	57	57	3.5			± 10		
ME	1	59	04	3.2	± 18						
eF	2	12	\pm								
120	July 15	ePE	11	52	10						To the south of Hatizyō Isl.
		ePN	11	52	15						
		Mz	11	54	47	14.0			± 15		
		ME	11	54	53	15.0	± 36				
		MN	11	55	19	12.5		± 15			
		oF	12	05	\pm						
121	July 18	PN	17	50	12					-1.2	To the east of Iwaki Province. Moderate shocks were felt in the Pacific coast of S. Oou district.
		ePEZ	17	50	12						
		eSz	17	51	13						
		eSN	17	51	14						
		eSE	17	51	18						
		MN	17	51	50	2.4		± 4			
		Mz	17	51	51	2.0			± 2		

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
122	July 22	ME	17 51 53	2.2	± 4			Near the Arita R., Wakayama Prefecture.	
		eF	17 59 \pm						
		eZ	9 46 45						
		iEN	9 46 48		+3	+2			
		MEN	9 46 51	0.5	-3	-3			
123	July 23	eF	9 47 21						
		ME	7 10 02	14.4	+70		To the east of Hatizyō Isl.		
		MN	7 10 05	12.1		+37			
		M ₂ E	7 12 11	9.2	-32				
eF	7 22 \pm								
124	July 24	ePEZ	20 39 11				73 Near the Arita R., Wakayama Prefecture.		
		iSEN	20 39 21		+8	+3			
		MN	20 39 22	0.5		+5			
		ME	20 39 24	0.7	-1.2				
		eF	20 42 \pm						
125	July 28	ePE	5 25 46				New Guinea.		
		ePN	5 25 49						
		ePZ	5 25 51						
		eLE	5 34 45						
		MZ	5 38 44	20.0		± 70			
		eF	5 58 \pm						
126	July 28	ePZ	8 00 01				Ditto.		
		ME	8 10 06	14.4	+70				
		MN	8 10 09	12.2		+37			
		MZ	8 12 41	20.0		± 70			
		eF	8 25 \pm						
127	Aug. 1	ePZ	6 29 45				2730 Destructive at Tien-sui and Si-hō, Kansu, China; according to Nanking's report.		
		ePE	6 29 48						
		eSE	6 34 09						
		eSZ	6 34 13						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
		MN	6 37 56	19.0		+335			
		MZ	6 38 40	17.0			+130		
		eF	6 52 \pm						
128	Aug. 4	eN	9 30 08					To the NW of Bonin Isl.	
		eEZ	9 30 09						
		eF	9 34 \pm						
129	Aug. 4	eE	14 14 02					Near Babuyan IIs, to the north of Luzon, Philippine.	
		eN	14 14 08						
		eZ	14 14 11						
		eF	14 33 \pm						
130	Aug. 9	eE	16 11 34					Felt in northern part of Luzon, Philippine.	
		eN	16 11 35						
		eZ	16 11 42						
		eF	16 20 \pm						
131	Aug. 10	ePNZ	12 59 46				71	Near Syōdo Isl., Inland Sea.	
		PE	12 59 48						
		SEZ	12 59 55						
		iSN	12 59 56			+2			
		MN	12 59 57	0.5		+4			
		MZ	12 59 57	0.8		± 2			
		M ₁ E	12 59 58	0.5	+5				
132	Aug. 13	M ₂ E	13 00 00	0.5	+5			Near Wakayama City.	
		eF	13 01 \pm						
		ePZ	12 41 52						
		ePN	12 41 53						
		ePZ	12 41 54						
		SE	12 42 00			-2			
		eSZ	12 42 00						
		iSN	12 42 01			-4			
		MZ	12 42 04	0.3		± 2			
		ME	12 42 05	0.4	+7				

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		AE	AN	Az			
			h	m	s	s	μ	μ	μ	km.		
133	Aug. 13	MN	12	42	05			+8				
		eE	12	43	39	3.4	± 1					
		eF	12	45	\pm							
		ePE	20	08	19					2890	Felt in Mindanao and southern Leyte, Philippine.	
		ePN	20	08	21							
		eSE	20	12	54							
		eLE	20	13	56							
134	Aug. 17	eMN	20	17	37	20.0		+180				
		eF	21	10	\pm							
		eE	14	16	39						SE of New Guinea.	
		eMN	14	31	50	17.5						
		eME	14	32	49	15.5						
135	Aug. 20	eF	14	45	\pm							
		SE	9	49	14		+3				Near Kyōto City.	
		eS _Z	9	49	14						P phase is not distinct.	
		ME	9	49	15		-3					
		MN	9	49	15	0.5		± 3				
136	Aug. 20	F	9	49	54							
		ePEZ	11	59	53						Southern part of the Kii channel.	
		SE	11	59	58		+2					
		eS _Z	11	59	58							
		ME	11	59	58	0.5		-5				
137	Aug. 22	MN	11	59	58			+5				
		eF	12	02	\pm							
		PZ	6	55	42.4				-2.3	2010	Small damage in southern part of Takao-syū, Formosa.	
		ePE	6	55	43.2			-1.6			Felt in all over the Formosa and the southern Ryūkyū.	
		PN	6	55	43.2				-3.3		Epicenter 121°.2E 22°.1N.	
		PE	6	55	43.7			+3.1				
		PMZ	6	55	46	3.5			+65			
		PM _E	6	55	49	4.6		+60				
		PM _N	6	55	49	4.8		+65				

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		AE	AN	Az			
			h	m	s	s	μ	μ	μ	km.		
		iN	6	57	30	4.3			-70			
		iE	6	57	37	3.9			-80			
		SE	6	59	09			+100				
		SZ	6	59	11					-25		
		SN	6	59	28					-45		
		ME	7	01	35	27.0		+480				
		MZ	7	01	53	25.0				± 195		
138	Aug. 22	MN	7	01	59	23.0			-410			
		eF	8	05	\pm							
		ePE	11	13	24	1.3		+4				An after-shock of No. 137.
		ePZ	11	13	24	2.0				+3		P phases in minute gap.
		eF	11	28	\pm							
139	Aug. 23	PZ	21	20	45					+5.5	5105	Destructive in Atjeh, Northern part of Sumatra; according to Batavia's report.
		PEN	21	20	46		+2.8	+2.9				
		iNZ	21	20	48				-20	-39		
		iE	21	20	49				-27			
		PRZ	21	22	43	5.1					-28	
		PRN	21	22	44	5.1				-24		
		PRE	21	22	45	5.4		-60				
		eSN	21	27	32							
		eSE	21	27	34							
		eS _Z	21	27	38							
140	Aug. 25	eN	21	30	54							
		ez	21	32	32							
		ME	21	38	11	23.5		-85				
		MN	21	38	21	24.0			+150			
		MZ	21	40	03	23.0				± 80		
		eF	22	20	\pm							
		eP?N	9	22	59							Near Saizyō, Hirosima Prefecture.
		MEN	9	23	11	0.8		± 2	-3			
		MZ	9	23	11	0.9				-2		
		F	9	23	35							

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
141	Aug. 28	eS ₂ EN	1	37	07						Southern part of the Kii Channel. Confused by microseisms.
		eS ₂ Z	1	37	08						
		F	1	37	45						
142	Aug. 29	P _Z	2	14	02				-1.2	58	Western part of Hyōgo Prefecture.
		P _E	2	14	03		+1.0				
		iP _N	2	14	03			-26			
		S _{EN}	2	14	11						
		eS _Z	2	14	11						
		M _N	2	14	14	0.5		±3			
		M _Z	2	14	14	0.4			±2		
		M _E	2	14	15	0.5		-4			
143	Aug. 30	e _N	19	51	21						Basin of the Arita R., Wakayama Prefecture.
		S _E	19	51	24		-2				
		M _{EN}	19	51	24		+3	+3			
		F	19	52	05						
144	Aug. 31	P	17	18	48		-0.7	-15	-1.1	119	Near Waki, middle basin of the Yosino R., Tokushima Prefecture.
		i _S	17	19	04		+20	+24	-5		
		M _Z	17	19	04	1.0			+10		
		M _E	17	19	05	0.5	-22				
		M _N	17	19	06	0.5		+21			
		e _N	17	20	16	2.1		±2			
		e _Z	17	20	17	2.5			±2		
		e _E	17	20	19	2.4	±4				
		e _E	17	21	10	2.1	±3				
145	Sept. 2	P _Z	5	03	31				-0.9	129	Mouth of the Kiso R., Ise Bay.
		eP _E	5	03	32						
		P _N	5	03	32			+1.0			
		iS _{EN}	5	03	49		-3	+6			
		M _E	5	03	50	0.6	+9				
		M _N	5	03	50	0.5		-7			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
146	Sept. 2	eM _Z	5	03	50	0.6					-2	To the NE of Etrofu Isl., Kulire Is.
		e _F	5	07	±							
147	Sept. 3	P _Z	9	19	34						-2	To the east of Hatizyō Isl.
		P _{EN}	9	19	35		+3	+1				
		eS _E	9	22	43	5.0	±4					
		eS _N	9	22	46							
		eS _Z	9	22	47							
148	Sept. 4	eP _Z	19	53	26							To the SE of Hatizyō Isl.
		eP _N	19	53	27							
		eP _E	19	53	28							
		e _Z	19	55	57							
		e _E	19	56	02							
		M _Z	19	56	44	14.0			±5			
149	Sept. 4	M _E	19	56	47	13.0	±8					Lower basin of the Arita R., Wakayama Prefecture.
		e _F	20	14	±							
		eP _{NZ}	8	11	17						970	
		eP _E	8	11	18							
		iP _E	8	11	20		+7					
		e _Z	8	12	46							
		e _E	8	12	53		+19					
149	Sept. 4	e _Z	8	12	57							Lower basin of the Arita R., Wakayama Prefecture.
		eS _N	8	13	02							
		eL _E	8	13	19							
		eL _N	8	13	22							
		M _Z	8	14	28	14.0			±75			
		M _E	8	14	33	14.0	+210					
149	Sept. 4	M _N	8	14	45	12.5		±100				Lower basin of the Arita R., Wakayama Prefecture.
		e _F	9	25	±							
		eP _Z	18	14	07						58	
149	Sept. 4	eP _E	18	14	08							Lower basin of the Arita R., Wakayama Prefecture.
		eP _N	18	14	09							

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
150	Sept. 6	eSN	18	14	16							
		eSE	18	14	17							
		MN	18	14	20	0.4		± 2				
		ME	18	14	21	0.7	± 2					
		eF	18	16	\pm							
		iPz	1	46	27					+1	76	Near Hinomisaki, Wakayama Prefecture.
		eP	1	46	29							
		eSE	1	46	37							
		eSz	1	46	38							
		ME	1	46	39	0.8	± 3					
151	Sept. 6	MN	1	46	39	0.5		± 3				
		eF	1	49	\pm							
		eP	4	36	10						82	Near Hinomisaki, Wakayama Prefecture.
		PEN	4	36	12		+2	+1				
		iPz	4	36	12					-4		
		SEN	4	36	21		+5	+3				
		eSz	4	36	21							
		M	4	36	24							M phases in minute gap.
		eE	4	38	15	2.8	± 2					
		eF	4	40	\pm							
152	Sept. 7	SNZ	22	02	36			+2	-2		Upper basin of the Takatoki R., Siga Prefecture.	
		SE	22	02	37		+3					
		MEN	22	02	37	0.6	± 4	-4				
		F	22	03	04							
153	Sept. 8	eN	2	43	37						To the south of the Inubō Cape, Tiba Prefecture.	
		eE	2	43	40							
		eMz	2	44	32	2.7			± 2			
		eMN	2	44	33	2.8		± 2				
		eME	2	44	38	4.0	± 3					
		eF	2	55	\pm							
154	Sept. 8	Pz	7	35	35.7				+1.1	71	Lower basin of the Hidaka	

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
		iPz	7	35	35.9							R., Wakayama Prefecture.
		iPEN	7	35	37		+2.0	-1.8				
		iSEN	7	35	45		+5	-3				
		eSz	7	35	45							
		MEZ	7	35	48	0.6	+7		+3			
		MN	7	35	48	0.8			-15			
		eF	7	38	\pm							
155	Sept. 8	eSEN	7	47	40							Lower basin of the Hidaka R., Wakayama Prefecture.
		MEN	7	47	41	0.5	± 3	± 2				
		F	7	48	54							
156	Sept. 9	eN	2	52	43							Felt at Sorong, NW of New Guinea.
		eEZ	2	53	24							
		eE	2	58	56	4.5	± 1					
157	Sept. 12	eF	3	08	\pm							
		ePE	10	58	21							Kuzyūkuri-hama, Tiba Prefecture.
		Sz	10	59	16				+2			
		SE	10	59	17		-2					
		SN	10	59	18			+2				
		Mz	10	59	40	1.6			± 3			
		ME	10	59	42	4.0	± 10					
158	Sept. 12	MN	10	59	43	3.5		± 5				
		eF	11	07	\pm							
		eE	18	04	02							Near Taiko, Sintiku, Formosa.
		eE	18	08	42							Weak shocks were felt in central part of Formosa.
		eN	18	08	52							
159	Sept. 18	MN	18	11	24	13.5		± 45				
		eF	18	26	\pm							
		ePN	18	40	10			+0.5			1060	To the SE of Hatizyō Isl.
		ePEZ	18	40	11		-1		+1			
		P	18	40	13		+6	-2	-3			
		eSE	18	42	02							

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
160	Sept. 19	eSN	18	42	04							
		eSZ	18	43	06							
		eLN	18	42	11							
		eLZ	18	42	12							
		M _{1E}	18	43	03	13.0	-165					
		M _Z	18	43	21	14.5			± 60			
		M _N	18	43	39	12.5		+190				
		eF	20	02	\pm							
		eP _Z	1	10	03					5310	Destructive in Karo district, N. Sumatra.	
		eP _N	1	10	10						Probable epicenter 97°3E 3°6N. according to Batavia's report.	
		eP _E	1	10	11							
		ez	1	16	04							
		eS _{EN}	1	17	02							
		i _E	1	17	37	7.8	+23					
		ez	1	17	50	7.8			± 3			
		eS _{R1Z}	1	20	36							
		S _{R1E}	1	20	44							
		S _{R1N}	1	20	46							
		L _{(Q)N}	1	22	29	41.0						
		L _{(Q)E}	1	22	30	38.5						
M _{1E}	1	27	30	22.0	-180							
M _{1N}	1	27	43	21.5		+420						
M _Z	1	28	39	18.3			-105					
M _{2E}	1	30	17	15.5	-220							
M _{2N}	1	30	53	13.5		± 235						
eF	2	57	\pm									
161	Sept. 19	eP _N	6	39	14						Felt in Atjeh and Tapanoeli, N. Sumatra.	
		eP _E	6	39	15							
		ez	6	39	45							
		eS _{?EZ}	6	46	18							
		e _E	6	49	15							
		M _N	6	57	21	19.0		+140				
		M _Z	6	57	35	19.0						
		eF	7	15	\pm				± 85			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
162	Sept. 20	eE	10	22	12							To the NE of Hatizyō Isl.
		eN	10	22	36							Faint record.
		eM _E	10	25	30	11.5	-6					
		eM _N	10	25	32	10.5		+6				
		eF	10	32	\pm							
163	Sept. 23	P _{EN}	9	17	28		-1.8	+2.5		53		Off the mouth of Arita R., Wakayama Prefecture.
		iP _Z	9	17	28				+4.4			Pz phase is conspicuous.
		S _{EN}	9	17	35		+2	+3				
		M _E	9	17	37	0.7	± 3					
164	Sept. 23	ez	19	38	29							Off the Inubō Cape, Tiba Prefecture.
		eN	19	38	32							Faint record.
		e _E	19	38	33							
		eM _Z	19	38	54	3.9			± 2			
		eM _E	19	39	04		± 3					
		eM _N	19	39	07	2.1		± 3				
		eF	19	46	\pm							
165	Sept. 25	eE	13	21	22							To the NW far of San Francisco.
		eN	13	22	33							Pacific Ocean.
		eM _{?N}	13	24	24							
		eM _{?E}	13	24	47							
		eM _{?Z}	13	26	55							
		eF	13	52	\pm							
166	Sept. 25	eP	21	15	51					•128		Near Sikui, in the coast of Kii Channel, Tokushima Prefecture.
		S _E	21	16	08		+3					
		M _N	21	16	16	0.5		± 6				
		M _E	21	16	17	0.5	+10					
167	Sept. 30	eP _N	3	45	12					409?		Near Torite, Ibaraki Prefecture.
		eP _Z	3	45	13							Felt in Kwantō district.
		eP _E	3	45	17							

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	Az		
			h	m	s	s	μ	μ	μ	km.	
		eS	3	46	07						
		MZ	3	46	32				+3		
		ME	3	46	34	2.0	± 5				
		MN	3	46	35			± 5			
		eF	3	52	\pm						

From No. 223. to No. 313, 1936.

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kōbe Meteorological Observatory of Japan.
 $\phi = 34^{\circ} 21'$ $\lambda = 134^{\circ} 53'$ $h = 109m$. Underground: Cretaceous.
 Instrument: Omori's Seismograph. (Horizontal) Wiechert Seismograph. (Horizontal & Vertical)

July

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	17.0	2.3	0.0003	20
AN:	20.4	2.2	0.0003	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	2.3	Aperiodic	0.001	88
AN:	3.5	"	0.003	92
Az:	4.3	"	0.001	60

Aug.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	17.1	2.2	0.0003	20
AN:	19.9	3.0	0.0002	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	3.0	Aperiodic	0.003	98
AN:	3.6	"	0.002	106
Az:	4.3	"	0.002	60

Sept.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	17.8	2.1	0.0002	20
AN:	20.0	2.4	0.0002	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	3.0	Aperiodic	0.002	99
AN:	3.5	"	0.001	107
Az:	4.4	"	0.002	60

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	Az		
			h	m	s	s	μ	μ	μ	km.	
*223	July 2	iP	0	47	08		+2.3	-5.5	-6.7	63	Near Hinomisaki, Wakayama Prefecture.
		iS	0	47	17						Perceptible.
		ME _N	0	47	17	0.5	-69	+81			
		MZ	0	47	18	0.4			-18		
		F	0	50	21						
224	July 3	eP _{EN}	21	04	26					519	Southern foot of Mt. Tii.

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
		ez	21	05	14						Moderate shocks were felt in S.Korea Peninsula.
		SEZ	21	05	35						
		SN	21	05	36						
		ME	21	05	44	2.6	+2				
		MN	21	05	44	3.0		+6			
		MZ	21	06	08	2.0			±2		
		eF	21	11	±						
225	July 5	PEN	19	01	06						To the SW of Palau Isl, west Caroline Is, Pacific. Moderate shocks were felt in Palau Isl, felt in Mindanao and Moluccas.
		PZ	19	01	12						
		iEN	19	02	09						
		iz	19	02	11						
		Lz	19	09	05						
		LE	19	09	08						
		LN	19	09	09						
		eN	19	12	23						
		eE	19	12	24						
		eF	19	49	±						
226	July 9	iPE	8	14	14		-2.3				Off the Ensyū-nada, to the south of Sizuoka Prefecture. Deep focus earthquake.
		iPNZ	8	14	15			-2.2	+3.3		
		eEN	8	14	59						
		eF	8	18	±						
227	July 13	P	11	31	30						Northern part of Chile.
		ez	11	36	25						
		eE	11	36	45						
		eN	11	56	06						
		eE	11	56	49						
		ez	11	56	55						
		eE	12	23	22						
		ez	12	24	43						
		eN	12	25	44						
		Mz	12	30	20	21.0				±67	
ME	12	46	11	17.6	±25						
MN	12	58	23	19.1				±50			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
		eNZ	13	07	22						
		eF	13	48	±						
		PEN	23	19	36						
		S	23	19	40						
228	July 14	ME	23	19	40	0.4	+4	+5			29 Local shock.
		F	23	20	11						
229	July 15	P	1	56	05					640	Time is uncertain. In the Kasima-nada. Weak shocks were felt in the Pacific coast of Kwantō district.
		S	1	57	31						
		Mz	1	57	32	3.4			+7		
		MN	1	57	33	2.8			-5		
		ME	1	57	40	3.2	-7				
		eF	2	06	±						
230	July 15	ePEN	7	32	18					39	Near Wakayama City.
		SEN	7	32	23						
		ME	7	32	24	0.5	±1				
		MN	7	32	30	0.6		-1			
231	July 16	PEN	1	46	28					43	Near the Arita R., Wakayama Prefecture.
		SEN	1	46	34						
		ME	1	46	34	0.4	-7				
		MN	1	46	36	0.4		-7			
232	July 18	F	1	47	27						
		ePEN	17	02	19					24	
		SEN	17	02	22						
		MN	17	02	23	0.4		±4			
233	July 18	ME	17	02	24	0.4	-2				
		F	17	02	57						
		ePN	17	50	47					418	
		ePE	17	50	50					To the east of Iwaki Province. Moderate shocks were felt in	
eSE	17	50	42								

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	Az		
			h	m	s	s	μ	μ	μ	km.	
234	July 23	eSN	17	51	47						the Pacific coast of S. Oou district.
		ME	17	51	47	2.0	-2				
		MN	17	51	50	2.8		-2			
		F	17	55	±						
234	July 23	ee	7	07	09						To the east of Hatizyō Isl.
		ez	7	07	11						
		eN	7	07	12						
		ez	7	09	06						
		ee	7	09	27						
		eN	7	10	17						
		eF	7	27	±						
235	July 24	SEN	4	18	37		+2.0	-0.9			Local shock.
		ME	4	18	37	0.4	+2				
		MN	4	18	38	0.4		+3			
		F	4	19	05						
236	July 24	PEN	20	39	04					45	Near the Arita R., Wakayama Prefecture.
		SEN	20	39	10						
		MN	20	39	11	0.4		-6			
		ME	20	39	11	0.5	-7				
237	July 25	SEN	11	16	50						In the Kii Channel.
		ME	11	16	51	0.4	-1				
		MN	11	16	51	0.3		-2			
		F	11	17	07						
238	July 27	ePEN	12	16	04					84	Near Hōno Tokusim Prefecture
		SEN	12	16	15						
		ME	12	16	16		±1				
		MN	12	16	17	0.4		±1			
		eN	12	16	19						
F	12	17	11								

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	Az		
			h	m	s	s	μ	μ	μ	km.	
239	July 27	SEN	13	19	02						Near Yuasa, Wakayama Prefecture.
		ME	13	19	02	0.6	+2				
		MN	13	19	03	0.4		-1			
		F	13	19	36						
240	July 27	eN	20	09	18						Unknown?
		SNZ	20	09	48						
		SE	20	09	49						
		ME	20	09	49	1.6	±1				
		MZ	20	09	50	2.0			-2		
		MN	20	09	51	2.2		±1			
F	20	14	±								
241	July 28	ePN	3	37	06					70	In the Kii Channel.
		SEN	3	37	16						
		ME	3	37	16		±1				
		MN	3	37	16	0.4		±1			
		F	3	37	51						
242	July 28	PZ	5	25	49						New Guinea.
		PEN	5	25	50		+0.5	-1.9			
		ee	5	31	45						
		eN	5	31	46						
		eLz	5	34	46						
		eLe	5	34	54						
		eLN	5	36	10						
		ME	5	36	49	14.0	+8				
		Mz	5	37	50	15.0			±8		
MN	5	39	21	16.4		±6					
F	6	01	±								
243	July 28	SEN	5	57	30						In the Kii Channel.
		ME	5	57	31	0.3	±1				
		MN	5	57	31	0.4		±1			
		F	5	57	54						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
244	July 28	ePz	7	59	58						New Guinea.
		ePEN	8	00	00						
		eN	8	10	20						
		eLE	8	10	50						
		eLN	8	11	57						
		eF	8	27	±						
245	Aug. 1	ePE	6	29	39						Destructive at Tien-su iand Si-hō, Kansu, China.
		ePN	6	29	41						
		ePz	6	29	42						
		S _N	6	33	57						
		S _E	6	34	03						
		S _Z	6	34	05						
		eN	6	37	24						
		eE	6	37	34						
		eZ	6	37	40						
		ME	6	40	22	11.0	±4				
		MZ	6	40	27	12.6			±6		
		MN	6	40	32	12.0		±6			
		eF	6	52	±						
246	Aug. 2	P	4	21	49						26 Near Wakayama City.
		S	4	21	52						
		ME	4	21	53	0.3	-6				
		MN	4	21	54	0.3		-7			
		MZ	4	21	54	0.4			±2		
		F	4	22	26						
247	Aug. 4	eP	4	19	33						Near Simotu, south of Wakayama City.
		S	4	19	36						
		MNZ	4	19	36	0.4		-7	-2		
		ME	4	19	37	0.6	-4				
		F	4	20	03						
248	Aug. 4	eE?	9	29	58						To the NW of Bonin Isl.
		eN	9	29	59						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
249	Aug. 4	F	9	34	±							
		eFN	14	14	06							Near Babuyan IIs., to the north of Luzon, Philippin.
		eZ	14	14	08							
		eEN	14	17	50							
		eF	14	21	±							
250	Aug. 7	S _{EN}	0	30	23						NW of Gobō, Wakayama Prefecture.	
		M _E	0	30	23	0.5	+1					
		M _N	0	30	23			+2				
		F	0	30	43							
251	Aug. 8	ePE	21	15	11						62 Near Gobō, Wakayama Prefecture.	
		S _{EN}	21	15	19							
		M _E	21	15	20		±1					
		M _N	21	15	20	0.4		+2				
		F	21	15	42							
252	Aug. 9	e	16	11	32						Felt in northern part of Luzon, Philippine.	
		eN	16	15	10							
		e	16	21	±							
253	Aug. 10	iP	12	59	37		-1.0	+2.8?	-1.7?	51	Near Syōdo Isl., Inland Sea.	
		PM _E	12	59	37		+3					
		PM _N	12	59	38	0.4		-5				
		iS	12	59	44							
		M _{EN}	12	59	44	0.4	+7	+9				
		MZ	12	59	45					-3		
		F	13	01	06							
254	Aug. 10	iP	14	36	26		+1.0	-0.9		51	In the Kii Channel.	
		iS	14	36	33							
		M _{EN}	14	36	33	0.4	-17	-14				
		MZ	14	36	33					+3		
		F	14	37	50							

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	S.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
255	Aug. 11	ePN	6	14	54					29	Near Simotu, south of Wakayama City.
		S	6	14	58						
		ME	6	14	58		-3				
		MN	6	14	59	0.3		-3			
		F	6	15	19						
256	Aug. 12	ePN	2	15	08					38	Near Wakayama City.
		SEN	2	15	13						
		ME	2	15	14		± 1				
		MN	2	15	14	0.3		± 1			
		F	2	15	39						
257	Aug. 12	SEN	14	30	57						In the Kii Channel.
		ME	14	30	57		± 1				
		MN	14	30	57	0.4		-1			
		F	14	31	21						
258	Aug. 13	en	1	53	48						Eastern foot of Mt. Tukuba, Ibaraki Prefecture.
		ee	1	53	52						
		en	1	54	11						
		eF	1	59	\pm						
259	Aug. 13	P	12	41	43		-0.5	+0.9		39	Time is uncertain. Near Wakayama City.
		S	12	41	48						
		MN	12	41	49	0.4		-9			
		MZ	12	41	49	0.6			-3		
		ME	12	41	50	0.4		-7			
260	Aug. 13	ePEN	12	44	21					33	Near Yuasa, Wakayama Prefecture.
		S	12	44	25						
		ME	12	44	26		-2				
		MN	12	44	26	0.3		-1			
		F	12	44	57						
261	Aug. 13	P	14	50	40				58	Time is uncertain.	

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	S.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
		S	14	50	48						Near Tokushima City.
		MEN	14	50	48	0.4	± 14	-11			
		MZ	14	50	48				+3		
		F	14	51	40						
262	Aug. 13	P	20	07	32					2640	Felt in Mindanao and southern part of Luzon.
		S	20	11	48						
		L	20	14	02						
		F	21	11	\pm						
263	Aug. 14	SEN	1	42	51						Near Wakayama City.
		MEN	1	42	51	0.4	± 1	-2			
		F	1	43	16						
264	Aug. 14	ePN	22	40	30						Felt in southern and eastern Mindanao, Philippine.
		ePz	22	40	36						
		ee	22	45	13						
		en	22	50	17						
		ez	22	50	52						
265	Aug. 15	S?	8	54	57					40	Local shock.
		F	8	55	07						
266	Aug. 16	ePEN	4	33	57					31	Near Siga, NW of Gobō, Wakayama Prefecture.
		S	4	34	01						
		MN	4	34	01	0.4		-1			
		ME	4	34	02	0.6		-1			
		F	4	34	15						
267	Aug. 18	ePEN	7	32	31						Basin of the Arita R., Wakayama Prefecture.
		SEN	7	32	35						
		MEN	7	32	36		-2	-3			
		F	7	33	05						
268	Aug. 20	P	11	59	42		+1.0	-0.9	65	Southern part of the Kii	

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
269	Aug. 21	S	11 59 51					51 Channel. Basin of the Arita R., Wakayama Prefecture.	
		MNZ	11 59 52	0.5	-16	+3			
		ME	11 59 52	0.4	+8				
		F	12 01 13						
		ePN	15 38 17						
270	Aug. 22	SEN	15 38 24				2010 Small damage in southern part of Takao-syū, Formosa. Felt in all over the Formosa and the southern Ryūkyū. Epicenter 121°2E 22°1N.		
		ME	15 38 25	0.4	±1				
		MN	15 38 26	0.4		±1			
		F	15 38 57						
		iPz	6 55 36					-2.5	
271	Aug. 22	iPEN	6 55 37		-1.0	-0.9	An after-shock of No. 270.		
		PMZ	6 55 41	3.5		+67			
		PME	6 55 42	3.0	+46				
		PMN	6 55 84	3.5		-42			
		iSEN	6 59 00						
		iSz	6 59 01						
		SMN	6 59 23	3.5		-30			
		Lz	6 00 13						
		eLE	6 00 46						
		LN	6 01 04						
		Mz	6 02 10	24.7				+433	
		MN	6 05 22	10.9		+142			
272	Aug. 23	ME	6 05 35	14.0	-139		5125 Destructive in Atjeh, north of Sumatra; according to Batavia's report.		
		eF	7 08 ±						
		PEN	11 13 19		-1.0	-1.9			
		Pz	11 13 20			-1.7			
273	Aug. 24	eN	11 16 56				31 Near Wakayama City.		
		eF	11 30 ±						
		ePN	21 20 43						
		eEZ	21 22 36						
274	Aug. 25	S	21 27 31				27 Local shock. In the Kii Channel.		
		iPEZ	21 20 42		+1.5	+0.9		+2.5	
		ME	21 20 43						
		MEN	23 00 54	0.4	±1	±2			
		F	23 01 13						
275	Aug. 27	SEN	22 38 25				72 Southern part of the Kii Channel.		
		ME	22 38 26		±1				
		MN	22 38 26	0.3		±1			
		F	22 38 45						
		ePN	23 00 50						
276	Aug. 28	SEN	23 00 54				53 Western part of Hyōgo Prefecture.		
		MEN	23 00 54	0.4	±1	±2			
		F	23 01 13						
		iP	1 36 47		+3.0	-0.9		-2.5	
		iS	1 36 56						
277	Aug. 29	MEN	1 36 57	0.4	-8	+23	277		
		MZ	1 36 57	0.5				±3	
		F	1 37 43						
		PEN	2 14 01			+0.9			
		S	2 14 08						
278	Aug. 29	ME	2 14 08	0.4	-4		53 Western part of Hyōgo Prefecture.		
		MN	2 14 08	0.5		+9			
		MZ	2 14 08					+2	
		F	2 15 00						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
269	Aug. 21	eLE	21 34 42				51 Channel. Basin of the Arita R., Wakayama Prefecture.		
		eLN	21 35 05						
		eLZ	21 35 39						
		MN	21 41 47	14.6		-83			
		MZ	21 43 32	15.5		+167			
		ME	21 44 23	13.8	+77				
273	Aug. 24	eF	22 11 ±				31 Near Wakayama City.		
		ePEN	21 06 59						
		SEN	21 07 03						
		MN	21 07 03	0.3		-3			
		ME	21 07 04	0.4	-2				
274	Aug. 25	F	21 07 23				27 Local shock. In the Kii Channel.		
		SEN	22 38 25						
		ME	22 38 26		±1				
		MN	22 38 26	0.3		±1			
		F	22 38 45						
275	Aug. 27	ePN	23 00 50				72 Southern part of the Kii Channel.		
		SEN	23 00 54						
		MEN	23 00 54	0.4	±1	±2			
		F	23 01 13						
276	Aug. 28	iP	1 36 47		+3.0	-0.9	-2.5	53 Western part of Hyōgo Prefecture.	
		iS	1 36 56						
		MEN	1 36 57	0.4	-8	+23			
		MZ	1 36 57	0.5			±3		
		F	1 37 43						
277	Aug. 29	PEN	2 14 01			+0.9	53 Western part of Hyōgo Prefecture.		
		S	2 14 08						
		ME	2 14 08	0.4	-4				
		MN	2 14 08	0.5		+9			
		MZ	2 14 08					+2	
278	Aug. 29	F	2 15 00				53 Western part of Hyōgo Prefecture.		

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
278	Aug. 30	ePEN	11 47 23					27	In the Kii Channel.
		SEN	11 47 26						
		ME	11 47 26	0.4	+2				
		MN	11 47 27	0.5		-2			
		F	11 47 50						
279	Aug. 30	ePEN	18 28 53					28	Near Wakayama City.
		S	18 28 56						
		M	18 28 57	0.4	-3	± 4	-3		
		F	18 29 43						
280	Aug. 30	ePEN	19 51 04					53	Basin of the Arita R., Wakayama Prefecture.
		S	19 51 11						
		ME	19 51 12	0.4	+4				
		MN	19 51 12	0.3		-6			
		MZ	19 51 12				± 2		
		F	19 51 56						
281	Aug. 31	SEN	4 10 37						Near Wakayama City.
		ME	4 10 37	0.4	-1				
		MN	4 10 38	0.3		-2			
		F	4 10 57						
*282	Aug. 31	e	17 18 41		+0.5?	-0.5	(+)	68	Near Waki, middle basin of the Yosino R., Tokushima Prefecture.
		P	17 18 42		+1.0	(+)	+1.7		
		S	17 18 51						
		MN	17 18 51	0.5		-71			
		MEZ	17 18 53	0.4	-30		+1.2		
		F	17 22 49						
283	Sept. 1	ePEN	17 24 11						Middle basin of the Arita R., Wakayama Prefecture.
		SEN	17 24 12						
		MEN	17 24 12		± 1	-1			
		F	17 24 25						
284	Sept. 2	ePNZ	5 03 36				141	Mouth of the Kiso R., Ise	

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
285	Sept. 2	ePE	5 03 37					1920	To the NE of Etrofu Isl., Kurile IIs.
		eSE	5 03 55						
		eSN	5 03 56						
		MEN	5 04 08	0.9	± 1	± 1			
		MZ	5 04 10				± 1		
		F	5 05 17						
286	Sept. 2	ePEN	14 36 37					21	Near Siga, NW of Gobō, Wakayama Prefecture.
		SEN	14 36 40						
		MN	14 36 40	0.5		+2			
		MZ	14 36 40	0.4		-	± 1		
		ME	14 36 41	0.4	-2				
287	Sept. 3	P	19 53 25					1700	To the east of Hatizyō Isl.
		Sz	19 56 14						
		SN	19 56 20						
		SE	19 56 21						
		eF	20 14 \pm						
288	Sept. 4	PEN	8 11 18					745	To the SE of Hatiyō Isl.
		Pz	8 11 20						
		eSN	8 12 48						
		eSE	8 13 04						
		eSz	8 13 05						
		Lz	8 13 48						
		LE	8 14 08						
		LN	8 14 14						
		MZ	8 14 47	12.0			-78		
		MN	8 15 14	9.7			-79		
		ME	8 15 49	11.3	+42				
eF	9 05 \pm								

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
289	Sept. 4	P	18	14	00				49	Lower basin of the Arita R., Wakayama Prefecture.	
		S	18	14	07						
		MEN	18	14	07	0.4	-4	-6			
		MZ	18	14	08	0.4		-2			
		F	18	15	22						
290	Sept. 5	ePEN	3	21	49				64	Ditto.	
		S	3	21	58						
		MZ	3	21	58			± 1			
		MEN	3	21	59	0.5	-3	-4			
		F	3	22	39						
291	Sept. 5	ePEN	7	06	50				50	Local shock?	
		S	7	06	57						
		ME	7	06	57	0.5	-1				
		MN	7	06	57	0.2		-2			
		F	7	07	26						
292	Sept. 6	PEN	1	46	20				42	Near Hinomisaki, Wakayama Prefecture.	
		SEN	1	46	26						
		MN	1	46	26	0.6		-8			
		ME	1	46	27	0.4	-5				
		MZ	1	46	28	0.6		± 2			
		F	1	48	09						
293	Sept. 6	iP	4	36	07		+2.0	-1.9	49	Near Hinomisaki, Wakayama Prefecture.	
		iS	4	36	13						
		ME	4	36	14	0.6	-8				
		MZ	4	36	15	0.7		-3			
		MN	4	36	17	0.4		± 8			
		F	4	38	23						
294	Sept. 7	eEN	22	02	40					Upper basin of the Takatoki R., Siga Prefecture.	
		SEN	22	02	47						
		ME	22	02	50	0.6	± 1				
		MN	22	02	50	1.0		± 1			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
295	Sept. 8	F	22	03	46				50	Lower basin of the Hidaka R., Wakayama Prefecture.	
		iP	7	35	30		+20	-1.9			-1.7
		iS	7	35	37						± 2
		MZ	7	35	38	0.6					
		ME	7	35	38	0.4	-5				
		MN	7	35	41	0.4					± 8
296	Sept. 8	F	7	37	13				43	Ditto.	
		PEN	7	47	24						
		SEN	7	47	30						
		MN	7	47	31	0.4					± 1
		ME	7	47	32	0.4	± 1				
297	Sept. 9	F	7	48	06				15	Local shock.	
		ePEN	2	09	41						
		SN	2	09	43						
		MN	2	09	43						
298	Sept. 9	F	2	09	55				4	Local shock.	
		SEN	4	07	19						
		MN	4	07	20	0.4		-1			
299	Sept. 9	F	4	07	35				4	Ditto.	
		SEN	4	12	46						
		MEN	4	12	47		± 1	+1			
300	Sept. 9	F	4	13	06				4	Ditto.	
		SEN?	6	50	28						
		MEN	6	50	29	0.2	+2	± 1			
301	Sept. 11	F	6	50	43				354	In the Kumano-nada, to the SE of Kii Peninsula.	
		ePz	5	20	30						
		ePEN	5	20	31						
		SEN	5	21	18						
301	Sept. 11	F	5	24	\pm				301		

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
302	Sept. 12	ePEN	10	58	50						Kuzyūkuri-hama, Tiba Prefecture.
		eZ	10	59	01						
		SEN	10	59	35						
		MZ	10	59	49	2.4			+2		
		MN	10	59	57	2.6		+1			
		ME	10	59	58	2.6	+2				
		F	11	07	±						
303	Sept. 12	ePEN	18	02	58						Near Taiko, Sintiku, Formosa. Weak shocks were felt in central part of Formosa.
		eZ	18	03	03						
		eN	18	03	12						
		eF	18	25	±						
304	Sept. 18	ePE	18	40	01					1320	To the SE of Hatizyō Isl.
		ePN	18	40	04						
		ePz	18	40	09						
		eEN	18	41	36						
		SE	18	42	24						
		SNZ	18	42	26						
		LE	18	43	30						
		LN	18	43	36						
		MZ	18	43	42	11.0			±36		
		ME	18	45	03	9.4	-21				
		MN	18	45	04	10.5		-57			
eF	19	24	±								
305	Sept. 19	ePz	1	10	10					5105	Destructive in Karo district, N, Sumatra.
		ePE	1	10	12						
		ePN	1	10	14						
		SN	1	17	00						
		SE	1	17	02						
		eZ	1	17	39						
		LEN	1	20	33						
		M _{1N}	1	27	46	14.1		+209			
		M _{2N}	1	30	35	13.5		-192			
		ME	1	30	46	13.1	+93				

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
306	Sept. 19	MZ	1	31	15	14.0				+171	Near Gobō, Wakayama Prefecture.
		eF	2	09	±						
		SEN	8	32	59						
		ME	8	33	01		±2				
307	Sept. 23	MN	8	33	01	0.4		-3			Off the mouth of Arita R, Wakayama Prefecture.
		F	8	33	30						
		iP	9	17	22		+3.0	-3.7	-5.0	21	
		iS	9	17	25						
308	Sept. 25	ME	9	17	25	0.3	+20				To the NW far of San-Francisco, Pacific Ocean.
		M _{NZ}	9	17	25	0.4		-47	-8		
		F	9	20	05						
		eN	13	23	59						
309	Sept. 25	eE	13	24	31						Near Sikui, in the coast of Kii Channel, Tokushima Prefecture.
		eN	13	26	04						
		eZ	13	28	±						
		eF	13	53	±						
		PEN	21	15	41					109	
		PZ	21	15	42						
310	Sept. 27	SEN	21	15	56						In the Kasima-nada.
		SZ	21	15	57						
		MEN	21	15	59	0.4	±5	-8			
		MZ	21	16	01	0.7			+3		
		F	21	18	08						
		eE	13	05	18						
311	Sept. 28	eN	13	05	19						In the Wakaura Bay, south of Wakayama City.
		eE	13	05	44						
		eF	13	09	±						
		PEN	1	29	22					45	
311	Sept. 28	SEN	1	29	28						In the Wakaura Bay, south of Wakayama City.
		ME	1	29	28	0.4	+2				

From No. 57 to No. 79, 1936.

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G.	M. T.		A _E	A _N	A _Z		
			h	m s	s	μ	μ	μ	km.	
312	Sept. 30	M _N	1	29 29	0.4		-3		618? Near Torite, Ibaraki Prefecture.	
		F	1	30 12						
		PEN	3	45 07						
		e _Z	3	45 31						
		e _{SN}	3	46 29						
		e _{SE}	3	46 32						
313	Sept. 30	M _E	3	46 51	2.0	+2		18 Local shock.		
		M _N	3	47 07	2.4		±2			
		F	3	52 ±						
		P _N	12	28 40						
		S _N	12	28 43						
		F	12	29 01						

TOYOOKA JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kōbe Meteorological Observatory of Japan.
 =35° 32' λ=134° 49' h=32.2 m. Underground: Tertiary.

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

July

	T ₀	ε	$\frac{r}{T_0^2}$	V	T ₀	ε	$\frac{r}{T_0^2}$	V
A _E :	20.7	3.0	0.001	20	5.8	10.0	0.005	98
A _N :	20.0	3.0	0.001	20	6.0	10.0	0.006	95
A _Z :					2.9	3.4	0.006	85

Aug.

	T ₀	ε	$\frac{r}{T_0^2}$	V	T ₀	ε	$\frac{r}{T_0^2}$	V
A _E :	21.8	3.0	0.001	20	5.5	10.0	0.006	113
A _N :	20.8	3.0	0.001	20	6.9	10.0	0.005	81
A _Z :					2.8	3.3	0.005	78

Sept.

	T ₀	ε	$\frac{r}{T_0^2}$	V	T ₀	ε	$\frac{r}{T_0^2}$	V
A _E :	20.0	3.0	0.001	20	5.7	10.0	0.006	104
A _N :	21.8	3.0	0.001	20	6.5	10.0	0.005	92
A _Z :					2.8	3.0	0.005	77

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G.	M. T.		A _E	A _N	A _Z		
			h	m s	s	μ	μ	μ	km.	
57	July 2	eP _E	0	47 23					Near Hinomisaki, Wakayama Prefecture.	
		P _N	0	47 25						
		eP _Z	0	47 25						
		P _Z	0	47 26						
		S _{EN}	0	47 47						
		M _E	0	47 46		+9				
		M _{NZ}	0	48 02			-4	+3		

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	hm	
58	July 5	F	0	49	18						
		Pz	19	01	12						To the SW of Palau IIs, West Caroline IIs, Pacific. Moderate shcks were felt in Palau, felt in Mindanao and Moluccas.
		ePe	19	01	15						
		ePN	19	01	17						
		iNZ	19	02	26						
		iE	19	02	33						
		eSN	19	06	41						
		LE	19	09	25						
		MN	19	12	36			+13			
		eF	19	35	±						
59	July 11	PEN	15	20	01					88	
		SEN	15	20	13						
		MEZ	15	20	15		-2		±1		
		MN	19	20	18			+2			
		F	19	20	50						
60	July 13	Pz	11	32	14						Northern part of Chile.
		MN	12	38	08	19.4		+13			
		M	12	41	48	17.5		-19			
		eF	13	17	±						
61	July 15	Pe	1	56	13					550	In the Kasima-nada. Weak shocks were felt in the Pacific coast of Kwantō district.
		Pz	1	56	14						
		ePN	1	56	18						
		Sz	1	57	24						
		SE	1	57	27						
		SN	1	57	31						
		ME	1	57	13	2.5	+11				
		MN	1	57	56			+19			
		Mz	1	58	07				-5		
		eF	2	04	±						
62	July 15	PEN	11	52	02						To the south of Hatizyō Isl.
		eF	12	12	±						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km		
63	July 17	PEN	12	04	37						17	Local shock.
		SEN	12	04	40							
		MEN	12	04	40		+6		±4			
		F	12	05	35							
64	July 18	Pz	17	50	00						747	To the east of Iwaki Pro- vince. Moderate shocks were felt in the Pacific coast and S. Oou district.
		PEN	17	50	02							
		iN	17	51	16							
		SN	17	51	43							
		MN	17	51	55			+2				
		F	17	54	25							
65	July 23	Pe	7	07	17							To the east of Hatizyō Isl.
		PN	7	07	19							
		LE	7	09	50							
		LN	7	09	58							
		MN	7	12	02				-2			
		ME	7	12	32					-4		
66	July 28	PN	5	25	53							New Guinea. Faint record.
		eLN	5	37	00							
		eF	5	56	±							
67	Aug. 1	ePe	6	28	42							Destructive at Tien-sui and Si-hō, Kansu, China.
		LN	6	36	12							
		MN	6	39	43				+6			
		eF	6	57	±							
68	Aug. 13	Pz	20	08	34						3015	Felt in Mindanao and southern Luzon, Philippine.
		PN	20	08	35							
		ePe	20	08	50							
		SN	20	13	20							
		MN	20	21	18				+5			
		eF	20	47	±							

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
69	Aug. 22	ePZ	6	55	48				-3.8	2055	Small damage in southern part of Takao-syū, Formosa. Felt in all over the Formosa and the southern Ryūkyū. Epicenter 121°2E 22°1N.
		ePEN	6	55	49		-2.2	-4.9			
		iP	6	55	50		+20.2	+37.1	+23.0		
		S _N	6	59	16						
		eS _Z	6	59	20						
		LNZ	7	01	34						
		M _{1E}	7	02	37		+53				
		M _Z	7	02	49				-19		
		M _{1N}	7	03	09	20.0		-134			
		M ₂	7	05	08	13.4		+77			
		M _{2E}	7	05	15	16.2	+43				
eF	7	51	±								
70	Aug. 23	iz	21	20	44					5165	Destructive in Atjeh, northern part of Sumatra; according to Batavia's report.
		P _Z	21	20	46				+9.0		
		ePEN	21	20	48						
		S _E	21	27	39						
		L _N	21	35	49						
		eL _E	21	37	32						
		M _{1N}	21	39	45			+43			
		M _{1E}	21	40	32		-24				
		M _{2N}	21	41	30	13.1		+39			
		M _{2E}	21	42	34	16.9	-33				
		M _{3N}	21	44	26			-46			
eF	22	10	±								
71	Aug. 29	P _{EN}	2	14	09					56	Western part of Hyōgo Prefecture.
		S _{EN}	2	14	17						
		M _E	2	14	20		+3				
		M _N	2	14	21			+4			
		F	2	15	56						
72	Aug. 31	P _{EN}	17	18	59					127	Near Waki, middle basin of the Yosino R., Tokushima Prefecture.
		P _Z	17	19	00						
		S _{EN}	17	19	16						
		S _Z	17	19	17						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
		M _Z	17	19	24				+4		
		M _N	17	19	29			+7			
		M _E	17	19	30		+4				
		F	17	21	30						
73	Sept. 2	eP _N	5	03	41					154	Mouth of the Kiso R., Ise Bay.
		P _Z	5	03	41						
		P _E	5	03	48						
		S _{EN}	5	04	09						
		M _N	5	04	16			+2			
		M _E	5	04	17		-1				
		F	5	05	29						
74	Sept. 4	eP _E	8	11	36						Time is uncertain. To the SE of Hatizyō Isl.
		eP _Z	8	11	37						
		eP _N	8	11	38						
		eL _E	8	13	52						
		eL _Z	8	14	13						
		M _{1E}	8	15	48	9.6	+27				
		M _{2E}	8	16	52	11.6	-29				
		M _Z	8	16	59	11.2			-4		
		M _N	8	17	14	10.8		+22			
		eF	8	55	±						
75	Sept. 7	P _Z	22	02	13					116	Upper basin of the Takatoki R., NE of Siga Prefecture.
		P _{EN}	22	02	14						
		S _{EN}	22	02	29						
		S _Z	22	02	30						
		M _{EN}	22	02	30		+4	-4			
		M _Z	22	02	31				-2		
F	22	03	30								
76	Sept. 18	P _Z	18	40	21						To the SE of Hatizyō Isl.
		P _{EN}	18	40	22						
		eL _E	18	42	39						
		eL _Z	18	42	57						

No.	Date	Phase	Time			Period s	Amplitude			Δ km.	Remarks
			g.	m.	s.		A _E μ	A _N μ	A _Z μ		
		eLN	18	43	07						
		M _E	18	44	40	9.6	+19				
		M _{1N}	18	45	00	6.7		+23			
		M _Z	18	45	49	9.8			+7		
		M _{2N}	18	48	57	9.6		-19			
		eF	19	11	±						
77	Sept. 19	P _Z	1	10	16				5380		Destructive in Karo district, N. Sumatra.
		P _{EN}	1	10	18						
		S _E	1	17	21						
		S _{EN}	1	20	59						
		L _E	1	22	40						
		L _N	1	22	46						
		M _{1E}	1	28	22	19.2	-68				
		M _{1N}	1	28	22	20.3		+188			
		M _{2N}	1	29	49	17.3		-195			
		M _{2E}	1	30	18	16.4	+75				
		M _{3N}	1	30	47	13.5		-218			
		M _{1Z}	1	31	43	14.0			+6		
		M _{2Z}	1	33	03	11.2			+13		
		eF	2	10	±						
78	Sept. 25	L _N	13	24	31						To the NW far of San Francisco, Pacific Ocean.
		eL _E	13	24	41						
		eF	13	46	±						
79	Sept. 30	P _E	3	45	14				516		Near Torite, Ibaraki Pre- fecture.
		P _Z	3	45	15						
		eP _N	3	45	24						
		S _Z	3	46	21						
		S _N	3	46	23						
		M _Z	3	46	43				+5		
		M _N	3	46	51			-5			
		M _E	3	47	03		-4				
		eF	3	49	±						

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of the Imperial Marine Observatory and the Kōbe Meteorological Observatory of Japan.
 $\varphi=34^{\circ} 41' 18''N$ $\lambda=135^{\circ} 10' 51''E$ $h=58.3$ m. Underground: Diluvial Series.

Instruments: Omori's Seismograph.
(Horizontal)

Wiechert Seismograph.
(Horizontal & Vertical)

Oct.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	20.0		0.001	20
AN:	19.0		0.001	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	6.2	5	0.003	104
AN:	6.0	7	0.004	105
Az:	4.2	7	0.004	88

Nov.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	19.0		0.001	20
AN:	19.2		0.001	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	6.0	5	0.005	115
AN:	5.7	6	0.005	105
Az:	5.7	20	0.003	75

Dec.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	20.0		0.001	20
AN:	19.4		0.001	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	6.0	8	0.006	99
AN:	5.6	7	0.005	106
Az:	5.1	11	0.004	82

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No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	Az		
168	Oct. 3	ePN	h	m	s	s	μ	μ	μ	km. 3580	Felt in N. Celebes Isl.; according to Batavia report.
		ePE	21	57	12						
		ePN	21	57	18						
		eSN	22	02	34						
		eSE	22	02	38						
		eSZ	22	02	43						
		eLN	22	05	23						
eLE	22	06	48								

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
169	Oct. 5	M _{1N}	22 08 53	22.5		± 40		To the SE of Hatizyō Isl.	
		M _{1E}	22 10 07	19.0	± 20				
		M _{2N}	22 12 31	21.0		± 40			
		M _{2E}	22 14 07	19.0	± 14				
		eF	22 34 ±						
		ez	7 11 36						
		eE	7 13 12						
		eN	7 13 20						
		M _N	7 15 21	11.5		± 7			
		M _E	7 15 26	14.0	± 10				
170	Oct. 5	M _Z	7 15 49	14.0			± 15	Felt in N. Molucca and N. Celebes Isl.; according to Batavia report.	
		eF	7 34 ±						
		P _Z	9 51 04				$+5.6$		3640
		P _N	9 51 05				$+2.0$		
		P _E	9 51 08			-0.7			
		iP _Z	9 51 07	2.9					-19.1
		iP _N	9 51 08						-17
		iP _E	9 51 09			-4			
		eS _Z	9 56 24						
		eS _N	9 56 29						
171	Oct. 9	eS _E	9 56 33					67 Near Hinomisaki, Wakayama Prefecture.	
		eL _E	9 58 40						
		eL _N	9 58 42						
		eL _Z	9 58 55						
		M _{1N}	10 01 19	26.5		± 55			
		M _{1Z}	10 01 31	26.0			± 45		
		M _{2N}	10 03 24	24.0		± 65			
		M _{2Z}	10 03 37	26.0			± 60		
		eF	10 43 ±						
		eP _E	0 03 57						
171	Oct. 9	eP _N	0 03 58					67 Near Hinomisaki, Wakayama Prefecture.	
		eP _Z	0 03 59						
		iS _N	0 04 08				$+4$		

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
172	Oct. 10	M _N	0 04 09			$+5$		Near the mouth of Hidaka River, Wakayama Prefecture.	
		eF	0 08 ±						
		iS _{EN}	18 32 46		$+5$	$+2$			
		M _{EN}	18 32 46	0.5	$+5$	-2			
		eF	18 33.5						
173	Oct. 10	eS _N	22 12 36					Local shock.	
		eS _E	22 12 38						
		M _N	22 12 40	0.9		$+3$			
		M _E	22 12 41	0.9	$+4$				
		eF	22 13 38						
174	Oct. 15	eP _Z	2 42 27				71	Near the Arita River, Wakayama Prefecture.	
		eP _{EN}	2 42 28						
		S _{EN}	2 42 37		$+2$	$+1$			
		eS _Z	2 42 37						
		M _E	2 42 38	0.5	$+3$				
		M _N	2 42 39	0.5		± 3			
175	Oct. 15	eF	2 44 ±					250 Near Matuyama City, Sikoku district.	
		eP _N	4 20 38						
		eP _Z	4 20 40						
		eP _E	4 20 44						
		eS _Z	4 21 09						
		eS _N	4 21 10						
		eS _E	4 21 12						
		M _Z	4 21 17	1.6		$+7$			
		M _N	4 21 18	1.2		-8			
		M _E	4 21 19	1.7	± 13				
176	Oct. 17	eF	4 25 ±					161 In the N of Imabari City, Sikoku district.	
		eP	20 32 51						
		S _Z	20 33 12			$+1$			
		S _{EN}	20 33 13		-4	$+8$			
		M _E	20 33 14	0.7	$+12$				

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
177	Oct. 19	Mz	20 33 15	1.0			-4	3945	Southern part of Molucca Pass., Dutch East Indies.
		M _N	20 33 17	0.8		-10			
		eF	20 39 ±						
		ePz	12 11 35						
		eP _E	12 11 36						
		P _N	12 11 37			-3			
		eS _N	12 17 20						
		eS _E	12 17 23						
		Mz	12 26 27	20.0			±11		
		M _N	12 27 08	18.0		±9			
178	Oct. 19	eP	19 56 52				321	Epicenter 35°5N 135°8E. Off the mouth of Kuzuryū River, Japan Sea coast of Hukui Prefecture. Focal depth about 350 km. Abnormal felt area in Kwantō and Hokkaidō. eP phases in minute gap.	
		iS	19 57 36		-19	-24			-4
		SM _E	19 57 37	3.1	+41				
		SM _N	19 57 37	3.4		+49			
		SM _Z	19 57 37	2.0					±3
		eF	20 13 ±						
179	Oct. 20	eP _{EN}	14 24 21				295	Middle basin of the Ooi River, Sizuoka Prefecture. Felt in Tyūbu and Kwantō districts.	
		iS _{EN}	14 25 01		-51	-47			
		M _N	14 25 02	1.3		-67			
		M _E	14 25 04	1.3	+77				
		eF	14 34 ±						
180	Oct. 23	eP _E	6 33 31				5980	Near Anchorage, Alaska.	
		ePz	6 33 32						
		eP _N	6 33 33						
		eS _Z	6 40 31						
		S _N	6 41 18			-3			
		eS _E	6 41 41						
		eF	7 29 ±						
181	Oct. 24	ePz	16 04 15					To the SE of Hatizyō Isl.	
		eP?E	16 04 22						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
		eP?N	16 04 27						
		ez	16 06 10						
		eS _E	16 06 24						
		eS _N	16 06 25						
		M _N	16 07 24	11.5		±9			
		M _E	16 07 29	13.5	±9				
		Mz	16 07 41	13.5		±7			
182	Oct. 25	eP	4 59 44				284	Near Mikura Isl., to the SE of the Izu Peninsula.	
		S _N	5 00 23			+2			
		SEZ	5 00 24		-6	+4			
		eM _N	5 00 34			+5			
		eM _E	5 00 47	2.0	+8				
		eMz	5 01 09	2.1		±2			
183	Oct. 25	eL _N	11 20 57					To the SE of the Nozima Cape, Tiba Prefecture. Faint record.	
		M _N	11 23 01	13.0		±6			
		eF	11 32 ±						
184	Oct. 25	eP _N	15 31 29			-0.6	359	To the SE of the Nozima Cape, Tiba Prefecture. Focal depth about 80 km. Moderate shocks were felt in the Pacific coast of Kwantō district.	
		iP _{EN}	15 31 30		-35.4	+13.6			
		iPz	15 31 30	1.7		+29.3			
		i _E	15 32 07		-49				
		i _N	15 32 11			+36			
		iS _Z	15 32 16			-42			
		iS _E	15 32 18		+91				
		iS _N	15 32 19			-55			
		M _{1E}	15 32 30	1.9	-96				
		M _{1N}	15 32 32	1.9		-68			
		Mz	15 32 32	2.7		+105			
		M _{2N}	15 32 52	3.6		+74			
		M _{2E}	15 33 08	3.9	+107				
		M _{3E}	15 34 27	3.3	-91				
		eF	15 57 ±						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
185	Oct. 26	eP	3	59	17					46	Near Kyōto City.
		SE _N	3	59	23		+3	-3			
		Sz	3	59	24				+2		
		M _N	3	59	24	0.5		+5			
		ME _Z	3	59	25	0.5	-4		+2		
		F	3	59	49						
186	Oct. 26	PEN	9	34	19		-1.8	-3.0		271	Epicenter; 34°.5N 136°.3E.
		iP	9	34	19		-12		+17.6		Middle part of Mie Prefecture.
		iSE _N	9	34	55		-148	-100			Focal depth about 340 km.
		iSz	9	34	56				-11		Abnormal felt area in Kwantō district.
		SM _E	9	34	57	3.2	+220				
		SM _N	9	34	57	4.1		+130			
		SM _Z	9	34	57	1.3			+29		
		M _E	9	36	33	4.6	-75				
		M _Z	9	36	47	2.8			+18		
		M _N	9	36	52	3.4		+67			
eF	9	53	±								
187	Oct. 26	e	10	04	09						To the south of the Sata Cape, Kagosima Prefecture.
		eE	10	04	24						Faint record.
		eZ	10	05	52						
		eN	10	05	53						
		eE	10	05	58	2.6	±3				
		eF	10	16	±						
188	Oct. 26	eN	19	55	42						Felt in N. & W. Sumatra, according to Batavia report.
		eM _E	20	03	48	15.5	±12				
		eM _Z	20	05	08	17.0			±6		
		eM _N	20	07	48	16.0		±12			
		eF	20	16	±						
189	Oct. 29	eP _N	18	43	47					2575	Felt very strongly in Guam Isl., Pacific Ocean.
		eP _{EZ}	18	43	50						Some damage to buildings, according to Manila report.
		iP _Z	18	43	56				+13		
		iP _{EN}	18	43	57		-11	+20			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
190	Oct. 30	iE	18	45	03	4.1	+24				
		SE	18	48	01		+10				
		eS _Z	18	48	02						
		S _N	18	48	05				+10		
		iE	18	49	00	7.3	+23				
		eM _Z	18	55	04	15.5				±12	
		eF	19	40	±						
191	Oct. 30	eE	6	30	10	2.6	+4				In the Kumano-nada, to the SE of the Kii Peninsula.
		eN	6	30	11				±3		
		eZ	6	30	20						
		eE	6	31	50.0	3.5	±3				
		eF	6	42	±						
192	Oct. 30	PEN	12	12	32		-1.0	-1.2		67	Eastern part of Kagawa Prefecture, Sikoku.
		S _{NZ}	12	12	40				-3		
		SE	12	12	41		-3				
		M _{EN}	12	12	48	0.5	±7	±6			
		eF	12	17	±						
193	Oct. 31	eP _Z	17	19	23						Unknown.
		eP _E	17	19	25						Inscribed at Sumoto, Manila and Pasadena.
		eP _N	17	19	26						
		eN	17	22	56						
		eE	17	23	08						
		eF	17	45	±						
193	Oct. 31	eP _Z	5	07	00						Local shock.
		eEN	5	07	02						
		iSE _N	5	07	04		-8	-3			
		Sz	5	07	04					-1	
		M _N	5	07	04	0.5		+5			
		M _E	5	07	06	0.5	+9				
		eM _Z	5	07	07					-2	
F	5	09	15								

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
194	Nov. 2	eP _E	15	02	10					2110	Okhotsk Sea.
		eP _N	15	02	12						
		S _E	15	05	43						
		S _N	15	05	45						
		SM _N	15	05	50	5.4		+40			
		SME	15	05	52	4.9	-33				
		M _E	15	09	14	18.0	-300				
		M _N	15	10	51	17.0		+225			
		eF	16	30	±						
195	Nov. 2	Pz	20	47	36				+2.7	600	Epicenter; 38°4N 142°0E. To the east of Kinkwazan, Miyagi Prefecture. Some houses were damaged in Miyagi and Hukusima Prefectures. Moderate shocks were felt in NE Japan.
		PEN	20	47	37		-3.8	-6.9			
		i _N	20	47	53	3.4		-70			
		i _E	20	47	54	4.6	-115				
		i _N	20	48	25	3.9		-105			
		i _E	20	48	26	3.4	-150				
		i _S	20	48	42		+310	-220	-155		
		Mz	20	49	31	4.2			+3300		
		MNE	20	49	40	4.2	±3000				
		MSE	20	49	43	4.5		+3000			
eF	23	15	±								
196	Nov. 5	e _E	7	38	46						Near Bonin Is. Very faint record.
		M _N	7	41	55	12.0		±7			
		M _E	7	42	48	9.7	+15				
		eF	7	56	±						
197	Nov. 5/6	iP _{EN}	23	59	51		+2.1	-2.8		114	Eastern part of Tottori Prefecture.
		PM _E	23	59	52	0.7	-4				
		eS _E	0	00	07						
		S _N	0	00	07			-1			
		M _E	0	00	10	0.7	±2				
		M _N	0	00	10	0.4		-4			
F	0	00	41								
198	Nov. 8	e _N	6	25	27					In the Kasima-nada.	

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
199	Nov. 9	e _Z	6	35	36						760? To the SE of Yaku Isl., northern part of Ryūkyū Is.
		eM _E	6	36	03	1.5	±4				
		eM _N	6	36	10	1.4		±2			
		eM _Z	6	36	19	2.1			±2		
		eF	6	39	±						
		eP?z	6	09	49						
200	Nov. 12	e _E	6	10	01						Mariana Is., Micronesia, Pacific Ocean.
		eS _N	6	11	11						
		eS _Z	6	11	12						
		eS _E	6	11	17						
		M _E	6	11	51	2.6	+5				
		M _N	6	11	56	2.5		±3			
201	Nov. 12	eM _Z	6	12	01	3.2			±2		Near Onomiti, Hiroshima Prefecture.
		eF	6	23	±						
		ePz	2	19	59						
		eP _N	2	20	08						
		eP _E	2	20	09						
		eS _E	2	23	51						
201	Nov. 12	eS _N	2	23	57						Near Onomiti, Hiroshima Prefecture.
		eS _Z	2	23	58						
		eLz	2	26	18						
		e _E	2	27	25						
		e _N	2	27	34						
		eF	2	41	±						
201	Nov. 12	iP	6	28	24		+3.5	-5.2	+6.7	148	Near Onomiti, Hiroshima Prefecture.
		S	6	28	43				+3		
		iS _E	6	28	44		-5				
		S _N	6	28	45			+6			
		M _E	6	28	50	0.7	-16				
		M _N	6	28	51	0.6		+8			
		M _Z	6	28	52	0.8			+13		
		eF	6	34	±						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
202	Nov. 12	ePz	8	33	22					2400	Felt in Guam Isl., Pacific Ocean; according to Manila report.
		eP _N	8	33	25						
		eP _E	8	33	26						
		eS _E	8	37	17						
		eS _N	8	37	22						
		eS _Z	8	37	24						
		M _E	8	41	16	9.6	+10				
		M _N	8	43	18	11.2		-7			
		M _Z	8	45	12	11.5			+5		
		eF	9	05	±						
203	Nov. 12	eS	16	52	51		-1	-1	-1	1630	Near Gobō, Wakayama Prefecture.
		M _{EN}	16	52	52	0.5	±1	+3			
		F	16	53	14						
204	Nov. 12	iP	20	08	09		+4.3	-3.9	-6.7	1630	Epicenter; 45°N 149°E. Near Etorofu Isl., Kuril IIs. Felt in the Pacific coast of NE Japan. Deep focus earthquake.
		iEZ	20	08	13	1.3	+9		-8		
		i _N	20	08	13	1.0			-8		
		eS _Z	20	10	57						
		S _{EN}	20	10	58		-5	+6			
		S _{ME}	20	10	59	4.4	+7				
		S _{MN}	20	11	00	5.2			-12		
		eF	20	25	±						
205	Nov. 13	eP _N	12	37	24					3240	Northern part of Kamchatka.
		eP _E	12	37	25						
		Pz	12	37	27						
		eS _Z	12	42	22						
		eS _{EN}	12	42	25						
		eL _Z	12	43	54						
		eL _N	12	44	42						
		eL _E	12	45	00						
		M _{1N}	12	47	05	22.0			±300		
		M _{1E}	12	47	22	22.0	±410				
		M _{2E}	12	48	38	16.0	+400				
		M _{2N}	12	49	07	16.0			+385		

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
206	Nov. 14	M _{1Z}	12	49	11	17.0			±285	960	To the ESE of Kinkwazan, Miyagi Prefecture.
		M _{3E}	12	51	47	16.5	-460				
		M _{2Z}	12	51	48	16.0			±270		
		M _{3N}	12	52	12	13.5		+335			
		eF	14	52	±						
		eP _E	0	59	46						
		eP _Z	0	59	48						
		eP _N	0	59	49						
		S _N	1	01	24				-3		
		S _E	1	01	29			+7			
		eM _Z	1	02	04	2.6			±8		
		eM _{1E}	1	02	06	2.9	-11				
		eM _N	1	02	21	3.4		-12			
		eM _{2E}	1	02	49	3.7	±11				
		eF	1	15	±						
207	Nov. 14	eP _Z	1	25	36					900	Near Tanega-sima, northern part of Ryūkyū IIs.
		eP _N	1	25	39						
		eP _E	1	25	41						
		eS _Z	1	27	16						
		eS _N	1	27	20						
		M _E	1	27	45	2.6	±3				
		M _N	1	27	46	3.1		±2			
		M _Z	1	27	46	2.4			±2		
		eF	1	36	±						
208	Nov. 15	P _{EN}	12	23	32		-1.0	-1.2		57	Near Sumoto, Awazi Province.
		eP _Z	12	23	32						
		eS _{EZ}	12	23	40						
		M _Z	12	23	42	0.8			±2		
		M _E	12	23	43	0.5	-3				
		eF	12	24	12						
209	Nov. 16	eP _E	8	28	15					65	Near Hinomisaki, Wakayama Prefecture.
		P _N	8	28	16						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
210	Nov. 16	Pz	8	28	17					93	In the Kii Channel.
		SEN	8	28	25						
		eSz	8	28	26						
		MN	8	28	26	0.5		± 2			
		ME	8	28	27	0.5	± 2				
		F	8	28	32						
		ePz	16	48	26						
		ePN	16	48	28						
		ePz	16	48	29						
		eSN	16	48	40						
eSE	16	48	41								
eSz	16	48	42								
Mz	16	48	42				± 1				
MEN	16	48	43		-2	± 2					
F	16	49	11								
211	Nov. 16	eP	23	33	02					2030	To the south of Bonin Is.
		ez	23	35	09						
		eSN	23	36	22						
		eSE	23	36	28						
		eME	23	41	55	8.9	± 4				
		eMz	23	41	56	9.3		± 2			
		eMN	23	42	02	9.4		± 3			
eF	0	03	\pm								
212	Nov. 19	ePEZ	13	57	57					336	Eastern part of Yamanashi Prefecture. Felt in western part of Kwantō district.
		ePN	13	57	59						
		S	13	58	42		+15	+10	-6		
		Mz	13	58	45				-9		
		MN	13	58	48				-22		
		ME	13	58	55	2.4	+25				
		eF	14	09	\pm						
213	Nov. 21	eE	21	49	50						To the SE of Kinkwazan, Miyagi Prefecture.
		ez	21	49	57						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
214	Nov. 25	eSN	21	51	01					72	Near Mt. Kōya, Wakayama Prefecture.
		eSz	21	51	02						
		eSE	21	51	04						
		MN	21	51	40	2.4		+5			
		Mz	21	51	54	2.6			± 3		
		ME	21	52	21	2.9	± 7				
		eF	22	00	\pm						
		PEN	1	05	49		-1.8	+0.7			
		iP	1	05	49		+5.0	-5.8	-12.0		
		iSEN	1	05	58		-13	+8			
Sz	1	05	58				-7				
MEN	1	05	59	0.7	+60	± 52					
Mz	1	05	59	0.4			-20				
eF	1	15	\pm								
215	Nov. 27	ePz	7	52	35					53	Near Wakayama City.
		ePEN	7	52	36						
		eSEZ	7	52	42				-1		
		SN	7	52	43			-2			
		Mz	7	52	43	0.4			+4		
		MEN	7	52	44	0.5	+6	+6			
eF	7	58	\pm								
216	Nov. 30	ePz	23	53	00					4035	Western part of New Guinea.
		ePN	23	53	05						
		ePE	23	53	07						
		SN	23	58	47						
		eSz	23	58	47						
		SE	23	58	49						
		eL	0	01	19						
		ME	0	07	02	17.0	± 10				
		MN	0	10	55	15.0		± 12			
Mz	0	11	59	20.0			± 15				
eF	0	23	\pm								

No.	Date	Phase	Time			Amplitude			Δ	Remarks	
			G.	M.	T.	A _E	A _N	A _Z			
			h	m	s	μ	μ	μ	km.		
217	Dec. 1	iP	6	10	52	+21.2	+27.4	+22.5	670	Epicenter; 30°.7N 129°.0E. To the WNW of Yaku Isl., Ryūkyū Is. Focal depth about 270 km; by ScS-P travel time curve. Felt at some places in SW Japan.	
		Sz	6	12	02			-8			
		S _N	6	12	04		-12				
		S _E	6	12	05	+21					
		M _Z	6	12	10			+25			1.6
		M _N	6	12	11		+34				1.5
		M _Z	6	12	12		-30				2.0
		ScS _E	6	23	57		+5				3.6
		eF	6	32	±						
218	Dec. 8	ePz	20	16	54				247	Near Mt. Tate-yama, Toyama Prefecture.	
		eP _{EN}	20	16	55						
		eS	20	17	28						
		eM _N	20	17	38		-5				
		eM _E	20	17	46	-5					
		eM _Z	20	17	47			±2			
		eF	20	24	±						
219	Dec. 10	P	12	14	44	+1.0	+1.3	+2.7	71	Near Yura, Wakayama Pre- fecture.	
		iP	12	14	45	-3.0	-5.4	-11.6			
		iS	12	14	54	+12	+4	+4			
		M _N	12	14	56		-10				0.4
		M _E	12	14	57		±18				0.7
		M _Z	12	14	58			±4			0.5
		eF	12	19	±						
220	Dec. 10	P	13	26	53	+2.0	+1.4	-1.5	333	To the NE of Miyake Isl., south off the Izu Peninsula. Felt in Kwantō and Tyūbu districts.	
		eS _Z	13	27	07						
		S _E	13	27	38	-3					
		eS _N	13	27	40						
		M _N	13	28	17		-4				1.6
		M _Z	13	28	27			±2			1.7
		M _E	13	28	30		±5				2.5
eF	13	36	±								
221	Dec. 13	P	21	35	52	+3.5	-3.0	-5.0	2410	Felt in Guam Isl., Pacific	

No.	Date	Phase	Time			Amplitude			Δ	Remarks
			G.	M.	T.	A _E	A _N	A _Z		
			h	m	s	μ	μ	μ	km.	
222	Dec. 15	i _N	21	35	54		+17		37	Ocean; according to Manila report.
		i _Z	21	35	54			+18		
		eS _E	21	39	47					
		eS _N	21	39	49					
		eS _Z	21	39	50					
		S _{RIZ}	21	40	03					
		S _{RIN}	21	40	06					
		M _Z	21	45	08	16.5		±20		
		eF	21	58	±					
223	Dec. 23	Pz	18	44	40				71	Central part of the Ōsaka Bay.
		P _N	18	44	41					
		Sz	18	44	45					
		S _{EN}	18	44	46		+3	-3		
		M _Z	18	44	46	0.4		-3		
		M _{EN}	18	44	47	0.5	-10	±13		
		eF	18	45	42					
224	Dec. 23	ez	22	57	19				18	Off the Sioya Cape, Huku- sima Prefecture. Faint record.
		e _N	22	57	35					
		e _E	22	57	50					
		e _N	22	57	51					
		e _N	22	58	12					
		ez	22	58	13					
		eM _N	22	58	29	1.5		±3		
*224	Dec. 24	eM _E	22	58	37	2.2	+6		18	Near Iwaya, northern part of Awazi Province. Moderate shocks were felt in Kōbe City and vicinity.
		eM _Z	22	58	40	2.3		±3		
		eF	23	06	±					
		The end part in next earthquake.								
*225	Dec. 24	eP _E	13	54	04				18	An after-shock of No. 224.

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
		S	13	54	07						Felt in Kōbe City.
		ME	13	54	08	0.4	±43				
		M _N	13	54	08			±55			
		M _Z	13	54	08	0.3			±13		
		F	13	54	28						
*226	Dec. 24	iP	14	40	31		+2.1	+2.2	+6.3	20	Ditto.
		S	14	40	34		+4	-5	+5		
		M	14	40	35	0.4	+51	±28	+19		
		F	14	41	18						
227	Dec. 24	eP _{EN}	15	50	50					18	Ditto.
		eP _Z	15	50	51						
		S	15	50	53		-1	-0.5	+0.5		
		M _{EN}	15	50	54	0.4	+7	-7			
		M _Z	15	50	55	0.3			+3		
		F	15	51	13						
228	Dec. 24	P _{EN}	18	27	09					18	Ditto.
		P _Z	18	27	10				+0.5		
		S	18	27	12		+1	+1	+1		
		ME	18	27	13	0.5	+13				
		M _N	18	27	13	0.4		±11			
		M _Z	18	27	13	0.3			+5		
		F	18	28	08						
229	Dec. 24	S _Z	21	16	52						Ditto.
		ME	21	16	53	0.5	+4				
		M _N	21	16	53	0.4		±3			
		M _Z	21	16	53	0.3			-1		
		F	21	18	08						
230	Dec. 25	eS _E	15	24	06						Ditto.
		M _{EN}	15	24	06	0.3	+4	±3			
		eF	15	24	37						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
231	Dec. 25	iP _{EZ}	19	21	34		+1.0		-0.8	28	Near Kyōto City.
		P _N	19	21	34						
		S _Z	19	21	37				+3		
		S _{EN}	19	21	38		-2				
		ME	19	21	40		+8				
		M _N	19	21	40	0.7		+5			
		M _Z	19	21	41				-3		
		F	19	22	57						
232	Dec. 25	eP _Z	19	53	03					58	Near Yuasa, Wakayama Prefecture.
		eS _N	19	53	10						
		eS _E	19	53	11						
		ME	19	53	14	0.5	-2				
		F	19	53	37						
233	Dec. 26	P _{EN}	0	04	56					49	Near Wakayama City.
		iP _Z	0	04	56				+1.3		
		S _{EN}	0	05	02		+1	-2			
		eS _Z	0	05	02						
		M _{EN}	0	05	04	0.3	±3	-4			
		M _Z	0	05	05	0.3			+3		
		F	0	07	47						
234	Dec. 26	eP _E	14	50	19					17	An after-shock of No. 224. Felt at Akasi, west of Kōbe City.
		P _N	14	50	19						
		iP _Z	14	50	19						
		eS _{EN}	14	50	21		-3	-2			
		S _Z	14	50	21						
		iS _{EN}	14	50	21		-6	-7			
		ME	14	50	22	0.5	+16				
		M _{NZ}	14	50	22	0.3		-15	+6		
		F	14	50	55						
235	Dec. 26	P _Z	18	35	55						Northern part of the Kasima-nada.
		P _{EN}	18	36	04						
		e _N	18	36	08						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
236	Dec. 27	Sz	18 36 41						To the NW of Nii-zima, S off the Izu Peninsula. A fore-shock of next earthquake.
		S _N	18 36 53						
		eS _E	18 36 55						
		M _Z	18 36 54	2.1		± 3			
		M _N	18 37 02	2.5	-3				
		M _{1E}	18 37 06	2.0	± 3				
		M _{2E}	18 37 56	4.4	± 3				
		eF	18 42 \pm						
		e _N	0 13 29						
		P _E	0 13 36						
		eP _N	0 13 39						
		eS _{?Z}	0 13 54						
		eS _{?E}	0 14 19						
		M _E	0 14 22	1.7	± 2				
		The end part immersed in next earthquake.							
237	Dec. 27	eP _E	0 15 34		-2.6				329 Epicenter; 34°25'N 139°10'E. 5 km off NW shore of Nii-zima. Focal depth is shallow. The main shock was attended with a few fore-shocks and many after-shocks. 3 persons were killed and 35 houses were destroyed in Nii-zima and Sikine-zima. The shocks were felt in Tyūbu and Kwantō districts.
		P _Z	0 15 34				+1.8		
		eP _N	0 15 35			+0.8			
		iP _E	0 15 35	3.6	+11				
		iP _{NZ}	0 15 35			-6	-8.5		
		e _Z	0 15 43						
		i _E	0 15 58	3.2	-38				
		i _N	0 16 00	3.1		-10			
		S _{?E}	0 16 09	3.8	-31				
		S _{?N}	0 16 12	3.6		-27			
		S _Z	0 16 18						
		i _E	0 16 29	}	Short period wave.				
		i _N	0 16 32						
		i _{S_E}	0 16 39	3.8	+62				
		i _{S_N}	0 16 39	4.4		+203			
M _{1N}	0 16 48	11.8		+870					
M _{1E}	0 16 49	4.8	-210						
i _Z	0 16 53								
M _{1Z}	0 17 06	10.4			+318				

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks	
					A _E μ	A _N μ	A _Z μ			
		M _{2E}	0 17 25	3.6	+215					
		M _{2N}	0 17 37	3.2		+200				
		M _{2Z}	0 17 56	4.2			+92			
		M _{3E}	0 19 06	5.6	-260					
		M _{3Z}	0 19 07	3.9			+89			
		eF	0 46 \pm							
		238	Dec. 27	eP _E	1 36 55					290 An after-shock of the Nii-zima Strong Shock.
				eP _Z	1 36 58					
				eP _N	1 37 00					
				e _E	1 37 19					
e _Z	1 37 24									
eS _N	1 37 36									
eS _Z	1 37 37									
S _E	1 37 39				-5					
eM _Z	1 37 54			1.7			+2			
M _E	1 37 59			1.6	± 6					
eF	1 47 \pm									
239	Dec. 27	eP _{EN}	2 13 14					284 Ditto.		
		e _N	2 13 28			+3				
		eS _Z	2 13 44							
		S _E	2 13 46		-11					
		S _N	2 13 52			-10				
		L _N	2 14 11							
		L _E	2 14 12		-32					
		M _N	2 14 31	5.2		+60				
		M _Z	2 14 37	3.1			+19			
		M _E	2 15 18	5.7	-57					
eF	2 39 \pm									
240	Dec. 27	eP _{EZ}	12 32 47					284 Ditto.		
		eP _N	12 32 50							
		e _E	12 33 20							
		S	12 33 25		+4	+3				
		eM _Z	12 33 46	2.4			± 2			

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G.	M. T.		A _E	A _N	A _Z		
			h	m s	s	μ	μ	μ	km.	
241	Dec. 27	eF	12	46 ±					289	Ditto.
		eP	13	45 18						
		eS _Z	13	45 55						
		S _{EN}	13	46 10						
		i _E	13	46 33		-12				
		M _N	13	46 50	12.4		-20			
		eM _Z	13	47 16				+4		
		M _E	13	47 21	3.5	+16				
eF	14	01 ±								
242	Dec. 27	eP _{EN}	18	20 52					299	Ditto.
		eS _E	18	21 18						
		eS _N	18	21 20						
		iS _E	18	21 21		+2				
		M _N	18	21 22	0.8		-4			
		eF	18	27 ±						
243	Dec. 28	P _Z	17	20 47				+2.5	299	Ditto.
		P _{EN}	17	20 48		-2.0	+10			
		iP	17	20 48		+5	-2	-4		
		e _N	17	21 08						
		i _E	17	21 09		-8				
		e _Z	17	21 12						
		iS _{EN}	17	21 26		+39	-16			
		iS _Z	17	21 27				-11		
		eM _Z	17	21 39	1.8			±14		
		M _E	17	21 53		+30				
		M _N	17	21 57	9.1			±55		
eF	17	40 ±								
244	Dec. 29	eP _N	14	54 30						Near Solomon IIs., SW Pacific Ocean.
		eP _E	14	54 37						
		eP _Z	14	55 44						
		e _E	14	57 35						
		e _{EN}	15	05 26						

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G.	M. T.		A _E	A _N	A _Z		
			h	m s	s	μ	μ	μ	km.	
		M _Z	15	10 30	21.1					
		M _E	15	17 57	19.0	±8				
		eF	15	49 ±				±17		
245	Dec. 30	eP _Z	4	10 26						Near Tanega-sima Isl., northern part of Ryūkyū IIs.
		eP _{EN}	4	10 27						
		eF	4	31 ±						
246	Dec. 30	eS _Z	10	07 26						An after-shock of No. 224?
		eS _{EN}	10	07 27						
		M _{EN}	10	07 28	0.4	+5	-5			
		M _Z	10	07 28	0.3			+2		
		eF	10	08 09						

From No. 314. to No. 409, 1936.

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kōbe Meteorological Observatory of Japan.

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

Instrument: Omori's Seismograph.
(Horizontal)

Wiechert Seismograph.
(Horizontal & Vertical)

Oct.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	17.0	2.0	0.0002	20
AN:	19.8	2.9	0.0002	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	2.9	Aperiodic	0.003	108
AN:	3.5	"	0.001	112
Az:	4.2	"	0.002	63

Nov.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	16.8	2.1	0.0002 ⁽⁻⁾	20
AN:	20.2	2.2	0.0001 ⁽⁻⁾	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	2.9	Aperiodic	0.001	102
AN:	3.5	"	0.002	110
Az:	4.3	"	0.002	61

Dec.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	15.8	2.0	0.0002 ⁽⁻⁾	20
AN:	20.2	3.0	0.0002 ⁽⁻⁾	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	4.6	Aperiodic	0.003	94
AN:	4.5	"	0.001	101
Az:	4.3	"	0.001	61

No.	Date	Phase	Time	Period	Amplitude			Δ	Remarks
					AE	AN	Az		
			G. M. T.	s	μ	μ	μ	km.	
314	Oct. 1	P	0 02 32					32	Near the Arita R., Wakayama Prefecture.
		S	0 02 36						
		ME	0 02 36	0.4	+4				
		MN	0 02 38	0.3		± 3			
		MZ	0 02 38			± 1			
		F	0 03 14						

No.	Date	Phase	Time	Period	Amplitude			Δ	Remarks
					AE	AN	Az		
			G. M. T.	s	μ	μ	μ	km.	
315	Oct. 3	ePEN	7 39 57					55	Near Wakayama City.
		SEN	7 40 05						
		ME	7 40 05		± 1				
		MN	7 40 05	0.6		± 1			
		F	7 40 34						
316	Oct. 3	ePEN	8 11 36					36	Ditto.
		SEN	8 11 41						
		ME	8 11 42	0.6	± 1				
		MN	8 11 42	0.4		-2			
		F	8 12 14						
317	Oct. 3	ePEZ	21 57 03					3640	Felt in N.Celebes Isl.
		PN	21 57 04						
		SN	22 02 27						
		SE	22 02 31						
		eLz	22 07 47						
		eLEN	22 08 08						
		eF	22 35 \pm						
318	Oct. 5	eEN	7 13 12						To the SE of Hatizyō Isl.
		ez	7 13 39						
		eE	7 15 04						
		eN	7 15 06						
		eF	7 32 \pm						
319	Oct. 5	P	9 51 00					3515	Felt in N. Molucca and N. Celebes Isl.
		enz	9 51 03						
		S	9 56 18						
		MZ	10 01 10	26.0		± 100			
		MN	10 03 19	18.8		± 33			
		ME	10 04 32	9.4	± 7				
320	Oct. 7	SEN	5 24 13						Lower basin of the Arita R., Wakayama Prefecture.
		MEN	5 24 14	0.4	-2	+2			

No.	Date	Phase	Time			Period	Amplitude			Δ km.	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s		μ	μ	μ		
321	Oct. 7	F	5	24					91	Western part of Tokushima Prefecture.	
		ePEN	6	01	36						
		SEN	6	01	48						
		ME	6	01	49	0.4	-2				
		MN	6	01	49	0.3		-3			
322	Oct. 8	MZ	6	01	49			± 1	59	Lower basin of the Arita R., Wakayama Prefecture.	
		F	6	02	36						
		ePEN	6	23	39						
		S	6	23	47						
		ME	6	23	49	0.5	-2				
323	Oct. 8	MN	6	23	50	0.5		-3	67	Near Hasikami, north side of the mouth of Arita R., Wakayama Prefecture.	
		F	6	24	31						
		SEN	12	33	42						
		ME	12	33	42	0.6	-1				
		MN	12	33	44			+1			
324	Oct. 9	F	12	34	09				46	Near Hinomisaki, Wakayama Prefecture.	
		P	0	03	56		-0.9	+0.9			
		S	0	04	03						
		MNZ	0	04	04	0.5		-8			
		ME	0	04	05	0.7	+7				
325	Oct. 10	F	0	05	36				67	Near the mouth of Hidaka R., Wakayama Prefecture.	
		P	18	32	30		+	-0.9			
		S	18	32	39						
		MEN	18	32	39	0.4	-5	+6			
		MZ	18	32	39			± 1			
326	Oct. 14	F	18	33	29				67	Near Siga, NW side of the mouth of Hidaka R., Wakayama Prefecture.	
		SEN	21	49	14						
		MEN	21	49	15	0.4	-1	-2			
		F	21	49	37						

No.	Date	Phase	Time			Period	Amplitude			Δ km.	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s		μ	μ	μ		
327	Oct. 15	P	2	42	22		± 1.9	-1.9	-1.6	43	Near the Arita R., Wakayama Prefecture.
		S	2	42	28						
		ME	2	42	31	0.4	-2				
		MN	2	42	31	0.3		-4			
		F	2	43	18						
328	Oct. 15	PEN	4	20	35					191	Near Matuyama City, Sikoku district.
		ePz	4	20	37						
		eEN	4	20	37						
		ez	4	20	39						
		SN	4	21	00						
		SE	4	21	01						
		ez	4	21	08						
		MZ	4	21	08	1.2		± 5			
		ME	4	21	08	1.7	+15				
		MN	4	21	08	1.0		-13			
F	4	26	59								
*329	Oct. 17	Pz	20	32	42				+	153	To the N of Imabari City, Sikoku district. Perceptible.
		PEN	20	32	43		-0.9	+0.9			
		SEN	20	33	03						
		Sz	20	33	04						
		MZ	20	33	05	0.8		+11			
		ME	20	33	06	0.8	+11				
330	Oct. 19	MN	20	33	06	0.5		+23		2945	Southern part of the Molucca Pass, Dutch East Indies.
		eF	20	36	\pm						
		Pz	12	11	32						
		PEN	12	11	33						
		e	12	13	00						
		eSE	12	17	15						
331	Oct. 19	eSN	12	17	17					332	Epicenter; 36°.5N 135°8E. Off the mouth of Kuzuryū
		eF	12	41	\pm						
		P	19	56	55						
		S	19	57	40						
								+1.6			

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G. M. T.			AE	AN	Az		
			h	m		s	μ	μ		
		MZ	19	57	41	2.1		± 5	R., Japan sea coast of Hukui Prefecture. Focal depth about 350 km. Abnormal felt area in Kwantō and Hokkaidō.	
		MN	19	57	42	3.0	-15			
		ME	19	57	44	2.4	-7			
		F	20	03	45					
332	Oct. 20	ePEN	10	36	37				30	Near Wskayama City.
		S	10	36	41					
		MEZ	10	36	42		-3	± 1		
		MN	10	36	42	0.3	-4			
		F	10	37	15					
333	Oct. 20	P	14	24	30				Middle basin of the Ooi R., Sizuoka Prefecture. Felt in Tyūbu and Kwantō districts.	
		SEN	14	25	08					
		Sz	14	25	09					
		MZ	14	25	18	1.7		± 4		
		MN	14	25	19	2.1	+28			
		ME	14	25	20	1.7	+19			
334	Oct. 23	PEN	6	33	36				Near Anchorage, Alaska.	
		eEN	6	41	23					
		eN	6	54	\pm					
		eE	6	55	\pm					
		eF	7	23	\pm					
335	Oct. 24	ePE	16	04	06				2030 To the SE of Hatizyō Isl.	
		ePN	16	04	14					
		ePz	16	04	21					
		eE	16	05	38					
		eN	16	05	46					
		eSN	16	07	34					
		eSE	16	07	38					
		MN	16	09	03	9.4		+6		
		MZ	16	09	21	11.0		± 5		
		ME	16	11	09	9.4	+3			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G. M. T.				AE	AN	Az		
			h	m	s		μ	μ	μ		
336	Oct. 24	ePEN	16	47	09				35	Near Wakayama City.	
		SEN	16	47	14						
		ME	16	47	14	0.4	-3				
		MN	16	47	15	0.3		± 3			
		F	16	47	44						
337	Oct. 25	P	4	59	44		+1.9		377	Near Mikura Isl., to the SE of the Izu Peninsula.	
		SEN	5	00	34						
		eSz	5	00	37						
		MN	5	00	40	2.7		+6			
		ME	5	00	45	2.7	+5				
		MN	5	00	49	2.0		± 2			
338	Oct. 25	iP	15	31	32		-12.0	-3.6	447	To the SSE of the Nozima Cape, Tiba Prefecture. Focal depth about 80 km. Moderate shocks were felt in the Pacific coast of Kwantō district.	
		iSE	15	32	32						
		iSEN	15	32	33						
		ME	15	32	35	2.3	+85				
		MNZ	15	32	37	2.3		-77			
		F	15	44	55			+51			
339	Oct. 26	SEN	3	59	34				Near Kyōto City.		
		ME	3	59	34		± 1				
		MN	3	59	35	0.4		+3			
		F	3	59	59						
340	Oct. 26	iP	9	34	19		-8.3	-3.6	254	Epicenter; 34°.5N 136°.3E. Middle part of Mie Prefecture. Focal depth about 340 km. Abnormal felt area in Kwantō district.	
		iS	9	34	53						
		ME	9	34	58	2.4	+80				
		MN	9	34	58	2.8		+126			
		MZ	9	34	58	2.5		+37			
341	Oct. 26	PEN	10	04	05				695	South off the Sata Cape, Kagosima Prefecture.	
		ePz	10	04	07						
		SN	10	05	29						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
342	Oct. 27	SE	10	05	44						
		eSz	10	05	45						
		Mz	10	05	48	2.5			+1		
		ME	10	05	51	2.1	+3				
		MN	10	05	55	2.4		±4			
		eF	10	13	±						
342	Oct. 27	SN	18	32	01						Local shock.
		MN	18	32	02	0.3		+1			
		F	18	32	16						
343	Oct. 29	SEN	13	16	53						Local shock.
		ME	13	16	54	1.1	+2				
		MN	13	16	56	0.4		+3			
		F	13	17	46						
344	Oct. 29	P	18	43	50						2625 Felt in very strongly in Guam Isl., Pacific Ocean. Some damage to buildings.
		SE	18	48	02						
		SN	18	48	05						
		Sz	18	48	08						
		SME	18	48	51	4.7	-15				
		SMN	18	49	14	4.9		+16			
		eLN	18	50	42						
		eLE	18	50	46						
		MN	18	53	31	8.4		±12			
		ME	18	53	54	9.4		±12			
		Mz	18	53	56	10.3				±23	
		eF	19	39	±						
*345	Oct. 30	iP	12	12	24		+2.8	-0.9?	+4.7	65	Eastern part of Kagawa Prefecture, Sikoku. Perceptible.
		iS	12	12	33						
		MEN	12	12	33	0.4		+44	+33		
		Mz	12	12	33	0.6				-8	
		F	12	15	55						
346	Oct. 30	PEN	17	19	22					2640 Unknown.	

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
347	Oct. 31	Pz	17	19	23							Inscribed at Kōbe, Manila and Pasadena.
		eSEN	17	23	38							
		eF	17	29	±							
347	Oct. 31	SEN	5	07	15							Local shock.
		MEN	5	07	15		±1	+2				
		F	5	07	45							
348	Nov. 2	P	15	02	15							2200 Okhotsk Sea.
		SEN	15	05	53							
		Sz	15	05	58							
		LE	15	07	50							
		eLN	15	07	58							
		ME	15	10	15	16.9	-100					
349	Nov. 2	Mz	15	11	09	15.3					+112	664 Epicenter; 38°.4N 142°.0E. To the east of Kinkwazan, Miyagi Prefecture. Some damage to houses in Miyagi and Hukusima Prefectures. Moderate shocks were felt in NE Japan.
		MN	15	11	14	16.9		+163				
		eF	16	09	±							
		P	20	47	40		-1.5	-0.5	+0.8			
		eN	20	48	23							
		eE	20	48	25							
350	Nov. 2	Sz	20	49	08							An after-shock of No.349.
		SEN	20	49	11							
		M _{1Z}	20	49	41	3.7					+364	
		M _{1N}	20	50	03	4.1			-436			
		M _{1E}	20	50	11	4.1	+382					
		M _{2E}	20	50	32	3.4	-294					
		M _{2Z}	20	50	34	4.7					-315	
		M _{2N}	20	50	52	4.5			+396			
		eF	22	34	±							
		eN	22	45	45							
351	Nov. 5/6	eEN	22	47	04							
		eF	22	51	±							
		ePN	23	59	51						134 Eastern part of Tottori Pre-	

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
352	Nov. 7	S	0 00 09					35	Neri Gobō, Wakayama Prefecture.
		ME	0 00 09	0.4	+5				
		MZ	0 00 09				± 1		
		MN	0 00 09	0.6		+4			
		F	0 01 10						
		PEN	6 20 57		+1.0	-0.9			
353	Nov. 8	S	6 21 02					347	In the Kasima-nada.
		MN	6 21 02	0.3		-3			
		ME	6 21 02	0.3	± 2				
		MZ	6 21 02				± 1		
		en	6 21 10						
		en	6 21 14						
354	Nov. 9	ePN	6 35 09					828	To the SE of Yaku Isl., northern part of Ryūkyū IIs.
		ePE	6 35 11						
		SE	6 35 56						
		SN	6 35 57						
		ez	6 36 04				+1		
		MZ	6 36 26	2.3					
355	Nov. 12	ME	6 36 27		1.7	± 2		2000	Mariana IIs., Micronesia, Pacific Ocean.
		MN	6 36 29		1.9		+3		
		eF	6 40 \pm						
		P	6 09 32						
		S	6 11 23						
		ME	6 11 30	2.2	+4				
356	Nov. 12	MN	6 11 33		2.8		-5	2000	Mariana IIs., Micronesia, Pacific Ocean.
		MZ	6 11 45		2.9				
		eF	6 20 \pm				+2		
		ePz	2 20 24						
		ePEN	2 20 29		+1.0	-0.9			
		SEN	2 23 52						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
356	Nov. 12	iP	6 28 20		-3.9	+0.9	-2.5	138	Near Onomiti, Hiroshima Prefecture.
		SEN	6 28 38						
		SZ	6 28 39						
		ME	6 28 40	0.5	-20				
		MN	6 28 30	0.4		+18			
		MZ	6 28 45	1.4			+5		
357	Nov. 12	F	6 33 47						
		P	8 33 22		-1.0	-?	+3.3	2590	Felt in Guam Isl., Pacific Ocean.
		SEN	8 37 33						
F	8 52 \pm								
358	Nov. 12	SEN	11 27 24					81	Ditto.
		ME	11 27 24	0.4	+2				
		MN	11 27 24	0.3		-2			
		F	11 27 47						
359	Nov. 12	ePEN	12 01 46					55	Near Gobō Wakayama Prefecture.
		SEN	12 01 57						
		ME	12 01 57		-3				
		MN	12 01 57	0.4		± 3			
		F	12 03 35						
360	Nov. 12	PEN	16 52 32					55	Near Gobō Wakayama Prefecture.
		SEN	16 52 39						
		MN	16 52 39	0.4		-5			
		ME	16 52 40	0.4	+3				
361	Nov. 12	F	16 53 14					1690	Epicenter; 45°N. 149°E. Near Etorofu Isl., Kuril IIs. Felt in the Pacific coast of NE Japan. Deep focus earthquake.
		P _N	20 08 11			-0.9			
		PEZ	20 08 12		+1.0		-0.8		
		SE	20 11 06						
		SNZ	20 11 07						
362	Nov. 13	eF	20 20 \pm					28	Near Simotu, south of
		ePEN	12 29 53						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
363	Nov. 13	SEN	12	29	57					3310	Wakayama City.
		ME	12	29	58	0.5	+2				
		MN	12	29	58	0.3		-4			
		F	12	30	28						
		PEN	12	37	29					722	Northern part of Kamchatka.
		Pz	12	37	30						
		SN	12	42	24						
		SE	12	42	25						
		eSz	12	42	53						
		eLN	12	46	24						
		eLE	12	47	09						
		ME	12	47	29	18.8	-357				
		MN	12	50	41	15.0		+270			
Mz	12	52	26	12.7			+213				
eF	14	40	±								
364	Nov. 14	ePN	0	59	51					722	To the SSE of Kinkwazan, Miyagi Prefecture.
		ePE	0	59	52						
		eSE	1	01	26						
		eSN	1	01	31						
		ME	1	02	29	3.2	-10				
		MN	1	02	46	3.2		-9			
eF	1	12	±								
365	Nov. 14	PEN	1	25	27					863	Near Tanega-sima, northern part of Ryūkyū IIs.
		SE	1	27	22						
		SN	1	27	25						
		ME	1	27	45	2.3	+3				
		MN	1	27	49	2.3		-4			
		eF	1	33	±						
366	Nov. 15	PEN	12	23	31					47	Near Sumoto, Awazi Province.
		S	12	23	37						
		MEN	12	23	37	0.5	+5	±7			
		Mz	12	23	39				±1		

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
367	Nov. 16	F	12	24	19					42	Near Hinomisaki, Wakayama Prefecture.
		PEN	8	28	10						
		S	8	28	16						
		MN	8	28	16	0.5		-3			
		ME	8	28	17	0.4	+4				
368	Nov. 16	F	8	29	04					45	In the Kii Channel.
		ePEN	16	48	36						
		S	16	48	42						
		ME	16	48	42	0.4	+4				
		MN	16	48	42	0.3		-4			
369	Nov. 16	F	16	49	18					2390	To the south of Bonin Isl., Ogasawara IIs.
		ePE	23	32	50						
		ePN	23	32	53						
		ePz	23	33	01						
		eSE	23	36	33						
		eSz	23	36	47						
		eSN	23	37	10						
eF	23	59	±								
370	Nov. 19	ePz	13	57	51					454	Eastern part of Yamanasi Prefecture. Felt in western part of Kwantō district.
		ePE	13	57	55						
		ez	13	58	05						
		Sz	13	58	52						
		SN	13	58	53						
		SE	13	58	55						
		ME	13	59	06	2.6	-8				
		MN	13	59	06	3.4		+9			
		Mz	13	59	16	1.7			±3		
		eF	14	07	±						
371	Nov. 21	PEN	6	20	13					44	Near Siga, Wakayama Prefecture.
		SEN	6	20	19						
		ME	6	20	20	0.4	-4				

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks		
			G.	M.		T.	A _E	A _N			A _Z	
			h	m	s	s	μ	μ	μ	km.		
372	Nov. 21	M _N	6	20	20	0.3		-5		755	To the SE of Kinkwazan, Miyagi Prefecture. Felt in Oou district.	
		F	6	21	03							
		eP _N	21	49	41							
		eP _E	21	49	43							
		e _Z	21	50	12							
		S _{NZ}	21	51	23							
		S _E	21	51	24							
		M _E	21	51	46	2.6	+3					
		M _N	21	51	50	3.4		+5				
		M _Z	21	52	00	3.9			± 2			
eF	21	59	\pm									
373	Nov. 22	S _{EN}	10	27	59				0.4		Near Yuasa, Wakayama Prefecture.	
		M _E	10	28	00		± 1					
		M _N	10	28	00			± 1				
		F	10	28	24							
*374	Nov. 25	iP _Z	1	05	48				0.5	73	Near Mt. Kōya, Wakayama Prefecture. Perceptible.	
		iP _{EN}	1	05	50		+1.5	+0.9				
		iS _Z	1	05	58							
		iS _{EN}	1	06	00							
		M _E	1	06	00	0.5	+33					
		M _N	1	06	00	0.4		-66				
		M _Z	1	06	00	0.6						+10
F	1	09	17									
375	Nov. 25	eP _N	11	46	54				0.6	117	To the ESE of Nosyappu Cape, Nemuro, Hokkaidō.	
		eP _E	11	47	03							
		e _E	11	52	35							
		e _N	11	52	38							
		eF	12	02	\pm							
		P _{EN}	21	50	51							-0.9
376	Nov. 25	S	21	51	07				4.0		Near Bessi, eastern part of Ehime Prefecture, Sikoku district.	
		M _E	21	51	09		± 2					

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		A _E	A _N	A _Z			
			h	m	s	s	μ	μ	μ	km.		
		M _{NZ}	21	51	09	0.6		± 2	-1			
		F	21	52	47							
377	Nov. 27	iP	7	52	30		+2.9	-4.5	-4.2	31	Near Wakayama City.	
		iS	7	52	34							
		M _E	7	52	35	0.5	-22					
		M _N	7	52	35	0.4		-24				
		M _Z	7	52	35	0.6			± 7			
		F	7	55	59							
378	Nov. 28	P	4	37	44					55	In the Kii Channel.	
		S	4	37	52							
		M	4	37	52	0.4	-8	± 6	-2			
		F	4	38	45							
		eP _N	10	45	19							
379	Nov. 28	S _{EN}	10	45	22				0.3		Near Hunatuki, middle basin of the Hidaka R., Wakayama Prefecture.	
		M _N	10	45	23			+1				
		F	10	45	44							
		P _{EN}	23	52	59							
380	Nov. 30	P _Z	23	53	00				0.3	3910	Western part of New Guinea.	
		S _N	23	58	41							
		S _E	23	58	42							
		eF	0	26	\pm							
		iP	6	10	47		+14.6	+8.1				+14.7
381	Dec. 1	S _Z	6	11	53					496	Epicenter; 30°.7N 129°.0E. To the WNW of Yaku Isl., Ryūkyū IIs. Focal depth about 270 km. Felt in some places in SW Japan.	
		S _{EN}	6	11	54							
		M _N	6	11	58	2.4		+30				
		M _E	6	12	13	1.8	+23					
		M _Z	6	12	19	1.6			+12			
		eL _Z	6	13	46							
		iScS _{EN}	6	23	54							
		eF	6	36	\pm							

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks	
			G.	M.		T.	A _E	A _N			A _Z
			h	m	s	s	μ	μ	μ	km.	
382	Dec. 2	ePN	1	41	18					36	Near Yuasa, Wakayama Prefecture.
		SEN	1	41	22						
		ME	1	41	22		+3				
		MN	1	41	22	0.4		± 3			
		F	1	41	53						
383	Dec. 3	S	15	03	40		-1.0	+20	+0.8		Near Wakayama City.
		MN	15	03	40	0.3		-5			
		ME	15	03	41	0.4	± 3				
		F	15	04	15						
384	Dec. 7	ePN	15	14	18					0.6	Near Tōkai, Hiroshima Prefecture.
		eSEN	15	14	24		± 1				
		ME	15	14	24			± 5			
		MN	15	14	24						
		F	15	14	48						
385	Dec. 8	Pz	20	16	58					0.5	Near Mt. Tate-yama, Toyama Prefecture.
		PN	20	17	03						
		en	20	17	42						
		ez	20	17	58						
		eN	20	18	33						
		eF	20	22	\pm						
386	Dec. 10	iP	12	14	39		+1.6	-2.0	-1.7	0.4	Near Yura, Wakayama Prefecture.
		iS	12	14	45						
		ME	12	14	46	0.4	-12				
		MN	12	14	46	0.5		-15			
		Mz	12	14	46	0.6			-5		
		F	12	16	51						
387	Dec. 10	ePN	13	26	54				+1.0?	0.6	To the NE of Miyake Isl., south off the Izu Peninsula. Felt in Kwantō and Tyūbu districts.
		Pz	13	26	55						
		Pe	13	26	56		+0.9				
		eSN	13	27	42						
		eSE	13	27	49						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
		eSz	13	27	50						
		MN	13	27	57	1.7		+4			
		ME	13	28	16	1.5	-3				
		F	13	33	42						
388	Dec. 13	iPN	21	35	49					10.4	2560 Felt in Guam Isl., Pacific Ocean.
		iPEZ	21	35	50		+2.1		-3.3		
		eSz	21	39	58						
		iSN	21	39	59						
		iSE	21	40	00						
		MN	21	40	08	7.9	-7				
		ME	21	40	11	9.7					
		Mz	21	41	07						
		eF	22	04	\pm						
389	Dec. 14	ePEN	4	00	29					0.5	85 Near Seto-Kanayama, SW of Tanabe Bay, Wakayama Prefecture.
		SEN	4	00	40						
		ME	4	00	41		-3				
		MN	4	00	42			-4			
		F	4	01	34						
390	Dec. 15	iP	18	44	37					0.3	18 Central part of the Ōsaka Bay.
		iS	18	44	40						
		MEN	18	44	40		-8	+14			
		Mz	18	44	40				-3		
		F	18	45	34						
391	Dec. 23	ePz	22	57	17					2.1	469 Off the Sioya Cape, Hukusima Prefecture.
		ePEN	22	57	20						
		SE	22	58	19						
		SN	22	58	21						
		eSz	22	58	25						
		MN	22	58	40	2.1		-4			
		Mz	22	58	45	1.9			± 1		
		ME	22	58	49	2.1	-3				
		F	23	03	12						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
*392	Dec. 24	iP	13	49	27		-2.0	-3.0	+3.3	27	Near Iwaya, northern part of Awazi Province.
		iS	13	49	30						Moderate shocks were felt in Kōbe City and vicinity.
		M _E	13	49	30	0.8	+58				Perceptible.
		M _N	13	49	30	0.5		-55			
		M _Z	13	49	33	0.4			+18		
		F	13	54	02						
393	Dec. 24	eP _{EN}	13	54	05					40	An after-shock of No. 392.
		eS	13	54	10						
		M _{EZ}	13	54	10		-3		± 1		
		M _N	13	54	10	0.4		-2			
		F	13	54	52						
394	Dec. 24	eP	14	40	32					28	Ditto.
		S	14	40	35						
		M _E	14	40	35	0.4	+5				
		M _N	14	40	36	0.4		-6			
		M _Z	14	40	37				-2		
		F	14	41	20						
395	Dec. 25	eP	19	21	40					90	Near Kyōto City.
		S	19	21	52						
		M _N	19	21	52	0.5		-3			
		M _Z	19	21	54	1.0			± 1		
		M _E	19	21	55	0.8	-4				
		F	19	22	54						
396	Dec. 25	eP	19	52	54					60	Near Yuasa, Wakayama Prefecture.
		S	19	53	02						
		M _E	19	53	02	0.6	-8				
		M _Z	19	53	03	0.5			+3		
		M _N	19	53	03	0.4		-7			
		F	19	53	49						
397	Dec. 26	P	0	04	52		+1.0	-1.0		35	Near Wakayama City.
		S	0	04	57						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
		M _Z	0	04	57				+2		
		M _{EN}	0	04	58	0.4	-7	-10			
		F	0	06	31						
398	Dec. 26	eP _E	18	36	14						Northern part of the Kasima-nada.
		eP _N	18	36	16						
		eS _{EN}	18	36	55						
		eZ	18	37	03						
		M _E	18	37	05	2.5	+2				
		M _N	18	37	10	2.5		-2			
		F	18	40	53						
399	Dec. 27	eP _{EN}	0	13	04						To the NW of Nii-zima, S off the Izu Peninsula.
		eS _E	0	13	51						A fore-shock of next earthquake.
		eS _{NZ}	0	13	53						
		M _E	0	13	57	2.0	± 2				
		M _N	0	14	19	1.8		+2			
											The end part in next main shock.
400	Dec. 27	iP	0	15	36		-3.1	-1.0	+1.7	369	Epicenter; 34°25'N 139°10'E. 5km. off NW shore of Nii-zima.
		S _N	0	16	21						Focal depth is shallow.
		S _E	0	16	23						The main shock was attended a few fore-shocks and many after-shocks.
		eS _Z	0	16	32						
		eL _E	0	16	43						
		eL _N	0	16	48						
		M _{1E}	0	16	49	7.0	+75				3 persons were killed and 35 houses destroyed in Nii-zima and Sikine-zima.
		M _{1N}	0	16	59	6.4		+113			The shocks were felt in Tyūbu and Kwantō districts.
		M _{2E}	0	17	09	7.3	-67				
		M _{2N}	0	17	12	8.3		+85			
		M _Z	0	17	15	7.7			+55		
		M _{3E}	0	17	25	6.5	-95				
		M _{3N}	0	17	27	7.5		+101			
		eF	0	51	\pm						
401	Dec. 27	eE	1	27	22						An after-shock of the Nii-zima Strong Shock.
		eN	1	27	26						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
402	Dec. 27	eF	1	30	±						Ditto.
		ez	1	37	38						
		eEN	1	37	39						
403	Dec. 27	eF	1	43	±						Ditto.
		P	2	13	17		+2.1	-1.0	-	330	
		eSEN	2	14	01						
		eSz	2	14	03						
		eLN	2	14	41						
		eLE	2	14	46						
		MZ	2	14	47	7.2				±7	
		MN	2	14	58	6.6		-22			
		ME	2	15	05	9.4	-14				
		eF	2	34	±						
404	Dec. 27	ee	2	29	39						Ditto.
		ez	2	29	42						
		eN	2	29	44						
		eF	2	33	±						
405	Dec. 27	PEN	12	32	49		+0.5	+1.0		347	Ditto.
		Pz	12	32	50					-0.8	
		eS	12	33	36						
		LN	12	34	19						
		LE	12	34	32						
		Lz	12	34	32						
		eF	12	40	±						
406	Dec. 27	P	13	45	20		-1.0	+1.0?	+	333	Ditto.
		eSz	13	46	03						
		SE	13	46	05						
		SN	13	46	08						
		LEN	13	46	51						
		Lz	13	47	03						
		Mz	13	47	05	4.0				-3	

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
407	Dec. 28	MN	13	47	12	9.4		-10			Ditto.
		ME	13	48	20	7.0	+4				
		eF	14	04	±						
408	Dec. 29	P	17	20	50					312	Ditto.
		SEN	17	21	30						
		Sz	17	21	36						
		iEN	17	21	39						
		LE	17	22	11						
		LN	17	22	13						
		Lz	17	22	14						
		MEN	17	22	38	7.3	-14	-20			
		Mz	17	22	39	10.3				±6	
		eF	17	41	±						
409	Dec. 30	ePEN	14	55	40						Near Solomon IIs., SW Pacific Ocean.
		ePz	14	55	42						
		eLN	15	05	18						
		eLE	15	05	22						
		eLz	15	05	37						
409	Dec. 30	eF	15	31	±						Near Tanega-sima, northern part of Ryūkyū IIs.
		ePE	4	10	11						
		ePN	4	10	13						
		ePz	4	10	14						
		ez	4	13	15						
		ee	4	13	19						
		eN	4	13	28						
eF	4	31	±								

From No. 80 to No. 126 1936.

TOYOOKA JAPAN.

SEISMOLOGICAL BULLETIN

A Branch Station of the Kōbe Meteorological Observatory of Japan.
 $\varphi=35^{\circ} 32'$ $\lambda=134^{\circ} 49'$ $h=32.2$ m. Underground: Tertiary.

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

Oct.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	21.0	3.0	0.001	20
AN:	20.0	3.0	0.001	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	5.6	10.0	0.005	100
AN:	6.7	10.0	0.005	88
Az:	2.8	2.7	0.006	76

Nov.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	21.0	3.0	0.001	20
AN:	20.0	3.0	0.001	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	5.8	10.0	0.006	99
AN:	6.4	10.0	0.007	88
Az:	2.8	2.7	0.006	80

Dec.

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	21.0	3.0	0.001	20
AN:	20.0	3.0	0.001	20

	T_0	ϵ	$\frac{r}{T_0^2}$	V
AE:	5.8	10.0	0.005	89
AN:	6.4	10.0	0.006	98
Az:	2.5	2.5	0.008	96

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	Az		
80	Oct. 3	eLE	h	m	s	s	μ	μ	μ	km.	Felt in N. Celebes Isl.
		LN	22	02	39						
		eF	22	33	\pm						
81	Oct. 5	PEN	9	51	14	s	-1.0	-15.4	3640	km.	Felt in N. Celebes and N. Molucca Isl.
		SN	9	56	40						
		eSE	9	56	41						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	Az		
82	Oct. 15	LN	10	01	07	s	μ	μ	μ	km.	Near Matuyama City, Sikoku district.
		MN	10	04	07						
		eF	10	22	\pm						
		PNZ	4	20	47						
		ePE	4	20	50						
		S	4	21	18						
83	Oct. 17	MN	4	21	27	1.0	-12	-17	+7	197	To the N of Imabari City, Sikoku district.
		ME	4	21	28						
		Mz	4	21	29						
		F	4	24	02						
		P	20	32	51						
		SEN	20	33	17						
84	Oct. 19	Sz	20	33	18	1.1	-12	-9	+8	4050	Southern part of Molucca Pass., Dutch East Indies.
		ME	20	33	21						
		Mz	20	33	21						
		MN	20	33	22						
		F	20	34	52						
		PN	12	11	43						
85	Oct. 19	Pz	12	11	44	s	μ	μ	μ	km.	Epicenter; $36^{\circ}.5N$ $135^{\circ}.8E$. Off the mouth of Kuzuryū River, Japan Sea coast of Hukui Prefecture. Focal depth about 350 km. Abnormal felt area in Kwantō and Hokkaidō.
		PE	12	11	46						
		SN	12	17	33						
		SE	12	17	35						
		eF	12	48	\pm						
		Pz	19	56	47						
86	Oct. 19	PEN	19	56	48	s	+15	-16	-5	285	Epicenter; $36^{\circ}.5N$ $135^{\circ}.8E$. Off the mouth of Kuzuryū River, Japan Sea coast of Hukui Prefecture. Focal depth about 350 km. Abnormal felt area in Kwantō and Hokkaidō.
		SEN	19	57	26						
		Sz	19	57	27						
		MN	19	57	32						
		ME	19	57	35						
		Mz	19	57	48						
F	20	01	20								

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G.	M.		T.	A _E	A _N		
86	Oct. 20	P	h	m	s	μ	μ	μ	312	Middle basin of the Ooi River, Sizuoka Prefecture. Felt in Kwantō and Tyūbu districts.
		iz	14	24	26	+	+			
		iEN	14	24	33					
		SNZ	14	25	08					
		SE	14	25	10					
		MNZ	14	25	12		+94	-25		
		ME	14	25	15	0.5	-29			
F	14	28	43							
87	Oct. 24	PEN?	16	01	46				308	Near Mikura Isl., to the SE of the Izu Peninsula.
		eSE?	16	06	24					
		eLE	16	07	50					
		eF	16	21	±					
88	Oct. 25	PN	4	59	52				+4.6	559 To the SSE of the Nozima Cape, Tiba Prefecture. Focal depth about 80 km. Moderate shocks were felt in the Pacific coast of Kwantō district.
		Pz	4	59	55					
		PE	4	59	56					
		SE	5	00	37					
		eMN	5	00	50					
		eF	5	08	±					
89	Oct. 25	Pz	15	31	33				-7.0	287 Epicenter; 34°.5N 136°.3E. Middle part of Mie Prefecture. Focal depth about 340 km. Abnormal felt area in Kwantō district.
		PEN	15	31	34					
		SNZ	15	32	46					
		SE	15	32	52					
		Mz	15	32	52	3.8		+78		
		MN	15	32	56	4.8		+139		
		ME	15	32	58	3.9	-70			
eF	15	42	±							
90	Oct. 26	Pz	9	34	22				-1.0	+5.3
		PEN	9	34	23					
		SE	9	35	01					
		SNZ	9	35	02					
		Mz	9	35	11					
		MN	9	35	34	3.3		+36		

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
		ME	h	m	s	3.5	μ	μ	μ	km.	
			9	35	48		+20				
91	Oct. 26	eF	9	45	±				809	To the south of the Sata Cape, Kagosima Prefecture.	
		PEN	10	04	15						
		SE	10	06	05						
92	Oct. 29	eF	10	11	±				2665	Felt in very strongly in Guam Isl., Pacific. Some damage to buildings.	
		Pz	18	44	02						
		PEN	18	44	03						
		SE	18	48	20						
		SN	18	48	22						
		ME	18	54	25						
93	Oct. 30	eF	19	30	±				121	Eastern part of Kagawa Prefecture, Sikoku.	
		ePE	12	12	37						
		PN	12	12	41						
		Pz	12	12	45						
		iN	12	12	46						
		iz	12	12	50						
94	Nov. 2	S	12	12	57				-11	+4	
		MNZ	12	12	58						
		F	12	14	07						
		P	15	02	05						
		SE	15	05	35						
		Sz	15	05	37						
*95	Nov. 2	SN	15	05	38				17.5	+62	
		LE	15	07	23						
		LN	15	07	29						
		M ₁ N	15	09	43	17.5					
		Mz	15	10	37						
		ME	15	11	06	17.5	-45				
		M ₂ N	15	14	12	18.4		-45			
		eF	15	45	±						
		P _N	20	47	34						
								+18.2			564

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
		PEZ	20 47 35	4.1	+19.0	-1898	-17.1		To the east of Kinkwazan, Miyagi Prefecture. Some damage to houses in Miyagi and Hukusima Pre- fectures. Moderate shocks were felt in NE Japan. Perceptible.
		SN	20 48 43						
		SEZ	20 48 51						
		MN	20 49 45						
		MZ	20 49 50						
		ME	20 49 56						
		eF	22 12 \pm						
96	Nov. 5	P _N	7 35 24	10.0			-6		Near Bonin IIs. Very faint record. By Omori's Seismograph.
		eL _N	7 41 20						
		M _N	7 45 13						
		eF	8 07 \pm						
97	Nov. 5	P _Z	23 59 44					48	Eastern part of Tottori Pre- fecture.
		P _{EN}	23 59 45						
		S _Z	23 59 50						
		S _{EN}	23 59 52						
		M _{EN}	23 59 52						
		F	0 00 30						
98	Nov. 9	eP _Z	6 09 45					1050	To the SE of Yaku Isl., northern part of Ryūkyū IIs. Faint record.
		P _E	6 09 50						
		P _N	6 09 52						
		S _N	6 11 43						
		eS _E	6 11 45						
		S _Z	6 11 48						
		M _N	6 12 11						
		M _E	6 12 13						
eF	6 17 \pm								
99	Nov. 12	P	6 28 26		0.9			161	Near Onomiti, Hirosima Prefecture.
		S	6 28 47						
		M _E	6 28 48						
		M _Z	6 28 48						
		M _N	6 28 53						
		F	6 30 55						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					A _E μ	A _N μ	A _Z μ		
100	Nov. 12	P _{NZ}	20 08 03					1510	Epicenter; 45°N 149°E. Near Etorofu Isl., Kuril IIs. Felt in the Pacific coast of NE Japan. Deep focus earthquake.
		P _E	20 08 04						
		eS _E	20 10 37						
		S _N	20 10 41						
		eF	20 20 \pm						
101	Nov. 12	P _N	12 37 20					3405	Northern part of Kamchatka.
		P _E	12 37 22						
		eP _Z	12 37 30						
		i _{EN}	12 38 22						
		S _N	12 42 31						
		L _N	12 46 16						
		L _E	12 46 20						
		L _Z	12 46 32						
		M _{1N}	12 50 06						
		M _{1Z}	12 51 19						
M _{1E}	12 51 23								
M _{2Z}	12 53 05								
M _{2N}	12 53 22								
M _{2E}	12 53 28								
M _{3N}	12 55 31								
eF	14 18 \pm								
102	Nov. 14	P _E	0 59 46					698	To the ESE of Kinkwazan, Miyagi Prefecture.
		P _Z	0 59 51						
		eP _N	0 59 56						
		S _E	1 01 20						
		S _Z	1 01 21						
		S _N	1 01 30						
		M _E	1 02 01						
		M _Z	1 02 02						
		M _N	1 02 08						
F	1 05 36								
103	Nov. 14	P _Z	1 25 50					769	Near Tanega-sima, northern part of Ryūkyū IIs.
		P _{EN}	1 25 56						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
104	Nov. 16	iN	1	26	53						To the south of Bonin IIs.
		S _N	1	27	40						
		eF	1	29	±						
		P _N	23	33	13						
		eP _E	23	33	21						
		M _N	23	41	18		-1	+2			
		M _E	23	41	54						
eF	0	04	±								
105	Nov. 19	P _Z	13	58	03					320	Eastern part of Yamanashi Prefecture. Felt in western part of Kwantō district.
		P _{EN}	13	58	05						
		S _N	13	58	48						
		S _{EZ}	13	58	49						
		M _N	13	59	01			+15			
		M _E	13	59	02		+13				
		M _Z	13	59	16				-9		
F	14	00	52								
106	Nov. 21	P _Z	21	49	34					547	To the SE of Kinkwazan, Miyagi Prefecture. Felt in Oou district.
		P _E	21	49	35						
		eP _N	21	49	35						
		S _N	21	50	47						
		S _E	21	50	48						
		M _N	21	51	35						
		M _E	21	51	37		+5				
F	21	55	05								
107	Nov. 25	P _Z	1	06	00					131	Near Mt. Kōya, Wakayama Prefecture.
		P _{EN}	1	06	01						
		S _{EN}	1	06	18						
		M	1	06	19						
		F	1	08	33						
108	Nov. 27	eP _{EZ}	7	52	54					109	Near Wakayama City. Very small movement.
		S _{EN}	7	53	09						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
		eS _Z	7	53	12						
		M _E	7	53	09				-3		
		M _N	7	53	15			+5			
		F	7	54	18						
109	Dec. 1	P _Z	6	10	55					+3.1	586 Epicenter; 30°.7N 129°.0E. To the WNW of Yaku Isl., Ryūkyū IIs. Focal depth about 270 km. By ScS-P travel time curve. Felt in some places in SW Japan.
		P _{EN}	6	10	56			+6.1	+6.8		
		S _{NZ}	6	12	14						
		S _E	6	12	15						
		M _E	6	12	20			-18			
		M _N	6	12	23					-23	
		M _Z	6	12	43					+10	
eF	6	37	±								
110	Dec. 8	P _{EZ}	20	16	51						212 Near Mt. Tate-yama, Toyama Prefecture.
		P _N	20	16	53						
		S _{EN}	20	17	21						
		S _Z	20	17	23						
		M _E	20	17	27			+3			
		M _Z	20	17	28					+3	
		M _N	20	17	29					-7	
eF	20	19	12								
111	Dec. 10	P _Z	12	14	59						Near Yura, Wakayama Prefecture. Very small movement.
		eP _N	12	15	02						
		eP _E	12	15	06						
		S _{EN}	12	15	20						
		S _Z	12	15	21						
		F	12	16	16						
112	Dec. 10	P _Z	13	26	57						555 To the NE of Miyake Isl., south off the Izu Peninsula. Focus is deeper than normal. Felt in Kwantō and Tyūbu districts.
		eP _E	13	26	59						
		P _N	13	27	03						
		S _{NZ}	13	27	18						
		M _E	13	28	29			+2			
		M _N	13	28	30					+5	

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G.	M.		T.	A _E	A _N		
			h	m	s	μ	μ	μ	km.	
113	Dec. 13	F	13	30	47				2690	Felt in Guam Isl., Pacific Ocean.
		P _N	21	35	59					
		P _E	21	36	01					
		P _Z	21	36	05					
		S _N	21	40	20					
		eF	21	54	±					
*114	Dec. 24	P _Z	13	49	39				87	Near Iwaya, northern part of Awazi Province. Moderate shocks were felt in Kōbe City and vicinity. Perceptible.
		P _{EN}	13	49	41					
		iz	13	49	45					
		S	13	49	52					
		M _{EN}	13	49	52	-53	±29			
		M _Z	13	49	53			+15		
		F	13	52	22					
115	Dec. 25	P	19	21	40				73	Near Kyōto City.
		S _Z	19	21	49					
		S _{EN}	19	21	50					
		M _Z	19	21	50					
		M _E	19	21	52	±7				
		M _N	19	21	56			+5		
		F	19	22	30					
116	Dec. 26	P _Z	18	35	32				546	Northern part of the Kasimada.
		P _N	18	35	33					
		eP _E	18	35	49					
		S _N	18	36	47					
		M _Z	18	36	48					
		M _N	18	37	04			-4		
		F	18	38	47					
117	Dec. 27	eP _N	0	13	47					To the NW of Nii-zima, south off the Izu Peninsula. A fore-shock of next earthquake.
		eP _E	0	13	51					
		P _Z	0	13	54					
		eS _N	0	14	04					

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
118	Dec. 27	F	0	15	08					472	Epicenter; 34° 25'N 139° 10'E. 5 km. off the NW shore of Nii-zima. Focal depth is shallow. The main shock was attended a few fore-forc-shocks shocks and many after-shocks. 3 persons were killed and 35 houses destroyed in Nii-zima and Sikine-zima. The shocks were felt in Tyūbu and Kwantō districts.
		P	0	15	40		-2.2	+1.2	+2.1		
		iz	0	15	44						
		i _E	0	15	54						
		iz	0	16	24						
		i _N	0	16	28						
		i _E	0	16	30						
		S _Z	0	16	41						
		S _N	0	16	43						
		S _E	0	16	45						
		M _Z	0	17	07	3.8			+81		
		M _{1N}	0	17	14	12.1		-462			
		M _E	0	17	22		+157				
M _{2N}	0	19	04	9.8		-292					
eF	0	35	±								
119	Dec. 27	P _N	0	36	15					An after-shock of the Nii-zima Strong Shock.	
		eP _E	0	36	17						
		eF	0	38	04						
120	Dec. 27	P _N	1	37	05					Ditto.	
		P _Z	1	37	12						
		P _E	1	37	15						
		F	1	41	±						
121	Dec. 27	P _E	2	13	21				462	Ditto.	
		P _{NZ}	2	13	22						
		S _Z	2	14	22						
		S _E	2	14	23						
		S _N	2	14	25						
		M _Z	2	14	25			+15			
		M _N	2	14	46	8.9		-78			
		M _{2Z}	2	14	50	2.2		+13			
		eM _E	2	15	44		+15				
		eF	2	24	±						

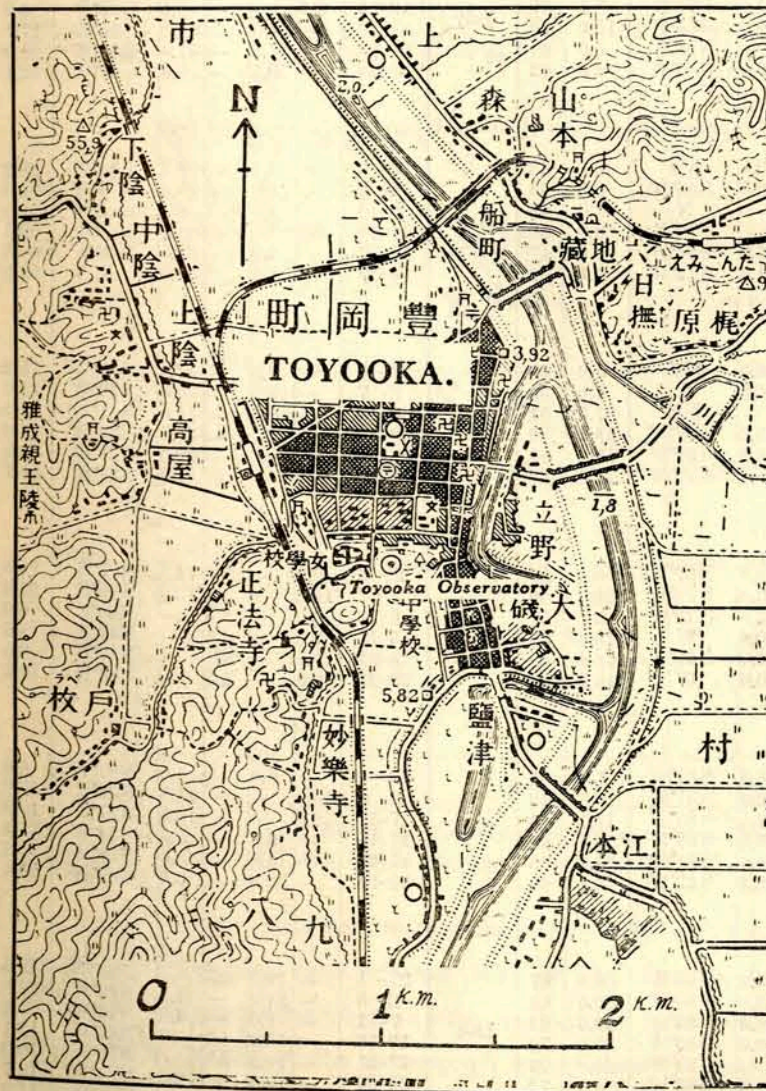
No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		A _E	A _N	A _Z		
			h	m	s	s	μ	μ	μ	km.	
122	Dec. 27	eP _N	2	29	36						Ditto.
		P _E	2	29	47						
		eF	2	31	59						
123	Dec. 27	P _Z	12	32	54						Ditto.
		P _N	12	32	59						
		P _E	12	33	03						
		eF	12	35	±						
124	Dec. 27	P _E	13	45	27						Ditto.
		P _N	13	45	28						
		S _Z	13	46	23						
		M _N	13	47	18						
		eF	13	53	±						
125	Dec. 28	P _Z	17	20	53					310	Ditto.
		P _E	17	20	56						
		P _N	17	20	57						
		S _{EZ}	17	21	38						
		S _N	17	21	46						
		M _E	17	21	54		-19				
		M _Z	17	22	00				-21		
		M _N	17	22	16			-58			
		eF	17	31	±						
126	Dec. 30	P _N	4	10	30					Near Tanega-sima, northern part of Ryūkyū IIs.	
		eP _E	4	10	49						
		eF	4	18	±						

TOYOOKA JAPAN.

The Observation of the Tilting of the Earth Crust

at the Toyooka Observatory.

On the 23rd May, 1925 there occurred a great earthquake at the northern part of the Tazima Province, the epicenter was 13 kilometers north of Toyooka, and on the 7th March, 1927 again a destructive earthquake occurred at the northern part of the Tazima and Tango Pvinces and its epicenter was about 22 kilometers east of Toyooka. To investigate the after effects of those earthquakes, the Observations of the tilting of the earth surface were made at the Toyooka Observatory by the Isimoto's tiltmeter. The details of the instrument was descibed by Dr. M. Isimoto in Jap. Journ. of Astro. and Geophys. Vol. 6, p. 83, (1928). The Toyooka



Observatory is the branch office of the Kobe Met. Observatory, and is situated at the western part of the hill Zimmu-yama, Toyooka. The instruments were installed in the seismometer house of the Observatory, in which the temperature is kept nearly constant. Topographical features of the neighbourhood of Toyooka can be seen in the figure, in which the site of the Observatory is indicated by ⊙. The next tables are the results of the observations, which were made by Mr. Hyōzirō Yamazaki, the superintendent of the Toyooka Observatory.

TOYOOKA JAPAN.

Tilting of Earth at Toyooka (1936).

$\phi = 35^\circ 32'$ $\lambda = 134^\circ 49'$ $h = 32.2\text{m}$. Underground: Diluvial Series.

Instrument: Isimoto's tiltmeter

Constants.
Component T°
E-W 15.0s
S-N 16.7s

The reading are expressed in millimeters 10m.m. corresponds to the tilting of 1".

No.	Period	Component (downward)				Tilting	No.	Period	Component (downward)				Tilting		
		E	W	N	S				E	W	N	S			
1-6	Dec. 1935	31-5	20.0	2.5	—	—	37	July	30-4	—	1.5	—	3.0	S27°W	3.4
		6-10	7.5	—	1.5	—	38		5-9	6.5	—	—	8.5	S38°E	10.8
	Jan.	11-15	6.0	—	1.0	—	39		10-14	2.5	—	—	9.5	S15°E	9.9
		16-20	12.0	—	—	9.0	40		15-19	—	13.5	—	11.5	S50°W	17.7
		21-25	3.0	—	4.0	—	41		20-24	—	17.5	—	17.0	S46°W	24.0
		26-30	—	3.5	—	3.0	42		25-29	—	10.5	—	6.0	S60°W	12.1
7-12	Feb.	31-4	—	0.5	—	0.5	43	Aug.	30-3	—	15.5	—	9.5	S49°W	18.2
		5-9	—	5.5	—	3.5	44		4-8	—	6.5	—	93.5	S4°W	99.0
		10-14	—	0.0	1.0	—	45		9-13	—	1.0	—	113.5	S1°W	116.2
		15-19	6.0	—	2.0	—	46		14-18	5.0	—	—	61.5	S5°E	62.5
		20-24	—	8.0	—	4.0	47		19-23	—	3.0	—	63.5	S3°W	64.5
		25-1	—	4.5	—	1.5	48		24-28	—	0.0	—	62.5	S	62.5
13-18	Mar.	2-6	—	3.0	—	3.0	49	Sept.	29-2	—	2.0	—	15.0	S8°W	15.2
		7-11	—	0.0	—	4.5	50		3-7	—	8.0	—	20.0	S22°W	21.6
		12-16	26.5	—	26.5	—	51		8-12	—	6.0	—	51.0	S7°W	52.0
		17-21	—	8.5	—	16.0	52		13-17	—	8.5	—	21.5	S22°W	23.2
		22-26	—	17.5	—	3.5	53		18-22	14.5	—	—	29.0	S27°E	33.0
		27-31	—	15.0	—	5.5	54		23-27	7.5	—	—	17.0	S24°E	18.7
19-24	April	1-5	—	8.0	—	3.5	55	Oct.	28-2	9.0	—	—	74.5	S7°E	75.5
		6-10	—	16.5	—	3.5	56		3-7	18.0	—	—	15.5	S49°E	23.8
		11-15	—	1.0	—	2.5	57		8-12	6.0	—	3.5	—	N60°E	6.9
		16-20	—	13.0	—	0.0	58		13-17	7.0	—	6.5	—	N47°E	9.6
		21-25	—	11.5	—	4.5	59		18-22	9.5	—	0.5	—	N87°E	9.5
		26-30	—	10.5	—	0.0	60		23-27	19.0	—	2.5	—	N83°E	19.1
25-30	May	1-5	—	4.0	—	6.5	61	Nov.	28-1	—	5.0	—	4.0	S51°W	6.4
		6-10	—	7.5	—	6.0	62		2-6	10.0	—	—	14.5	S35°E	17.7
		11-15	—	11.0	—	1.0	63		7-11	10.0	—	—	13.5	S37°E	16.9
		16-20	—	14.0	—	17.5	64		12-16	—	9.0	—	6.5	S54°W	11.1
		21-25	—	25.0	—	14.0	65		17-21	—	14.5	—	3.0	S78°W	14.8
		26-30	—	12.0	—	13.5	66		22-26	—	20.5	—	0.5	S89°W	20.6
31-36	June	31-4	3.5	—	—	8.0	67	Dec.	27-1	—	19.0	3.5	—	N80°W	19.4
		5-9	—	17.0	—	12.0	68		2-6	—	21.0	—	1.5	S86°W	21.8
		10-14	—	21.0	—	16.5	69		7-11	—	1.0	—	4.0	S14°W	4.2
		15-19	—	26.0	—	19.0	70		12-16	—	13.0	1.0	—	N86°W	13.1
		20-24	—	28.5	2.5	—	71		17-21	—	10.0	2.5	—	N76°W	10.8
		25-29	—	3.0	—	1.5	72		22-26	—	19.5	—	2.0	S84°W	19.7
						73	27-31	—	11.0	2.0	—	N80°W	11.2		

TOYOOKA JAPAN.

On the Large Southward Tilting at Toyooka during the Summer 1936.

As it is already described in the preceding article, a large amount of tilt was observed at Toyooka during the summer 1936. It was largest in August of the year and was estimated to be about 42"S, which was the largest total for a month that has ever been observed there, since the observation of this kind was commenced in October 1930.

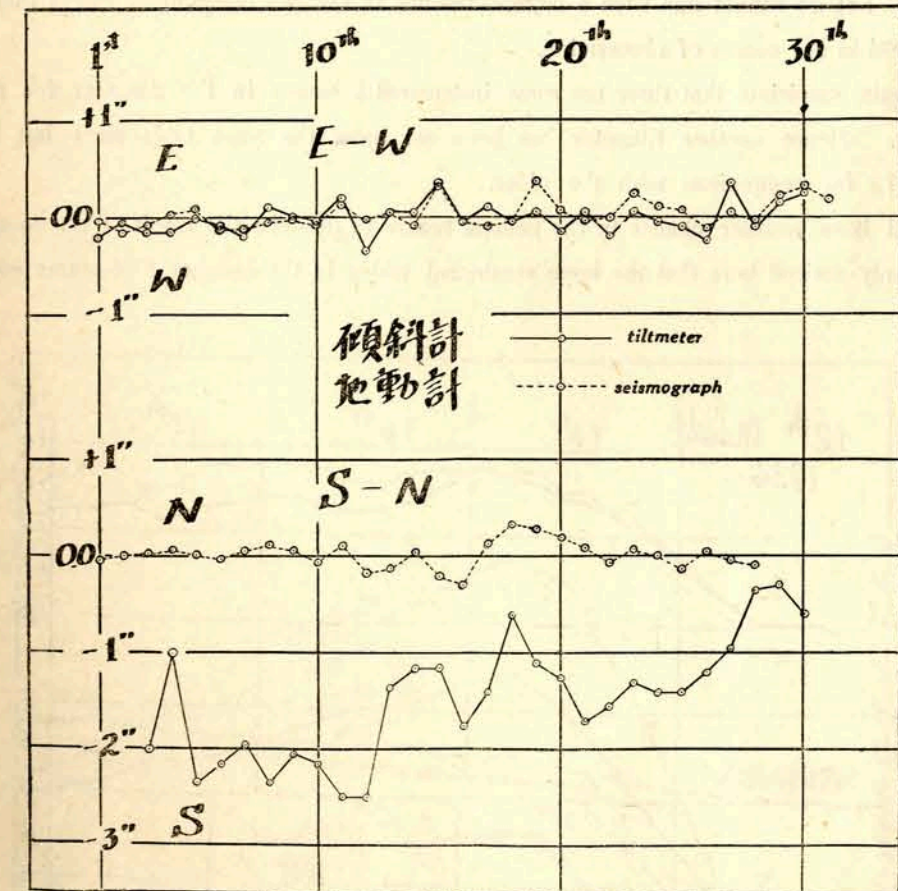


Fig. 1: Comparison of the daily variations in the tilting determined by the tiltmeter with those by the seismograph. August 1936.

A tilt of such a large amount must be detected also with the Ōmori's seismograph (horizontal pendulum type) set upon the same table as the tiltmeter, but the difference between the southward components recorded with the two kinds of instrument is too large to be admissible. The peculiar period of the seismograph being about 20 seconds, its magnification about 20 times, so that a tilt of 1" causes a displacement of 1 cm of the zero point on the recording

paper. Fig. 1 shows that the difference in the W-E components given by the both instruments was less than 0.5", the daily southward component observed by the tiltmeter was 1" to 2.5" and the total for August amounted about 42"S, while the seismograph registered the monthly total 0.4"N, the daily tilt being less than 0.3".

The comparison of the registrations for March 12, 13, 1936 and March 11, 12, 1937 when the amount of tilt was tolerably large tells us that the W-E components of tilt were of nearly the same order as observed with the both instruments. It tells us, also, that the N-S component was about 40% larger with the tiltmeter than with the seismograph as shown in Fig. 2, but the seismograph showed in these cases distinct sudden variations in tilting. Therefore it seems that the seismograph shows less amount of tilt than the tiltmeter especially for the southward component, but we cannot find such a large difference in the N-S components except that in the summer 1936 in the course of observation.

It is quite suspicious that there are some instrumental causes in the tiltmeter for the N-S component. Hence another tiltmeter has been set upon the same table since last summer (July, 1937) for comparison with the older.

I shall have another chance in the nearest future to describe the result of the comparison, and it is only noticed here that the large southward tilting in the summer 1936 seems somewhat doubtful.

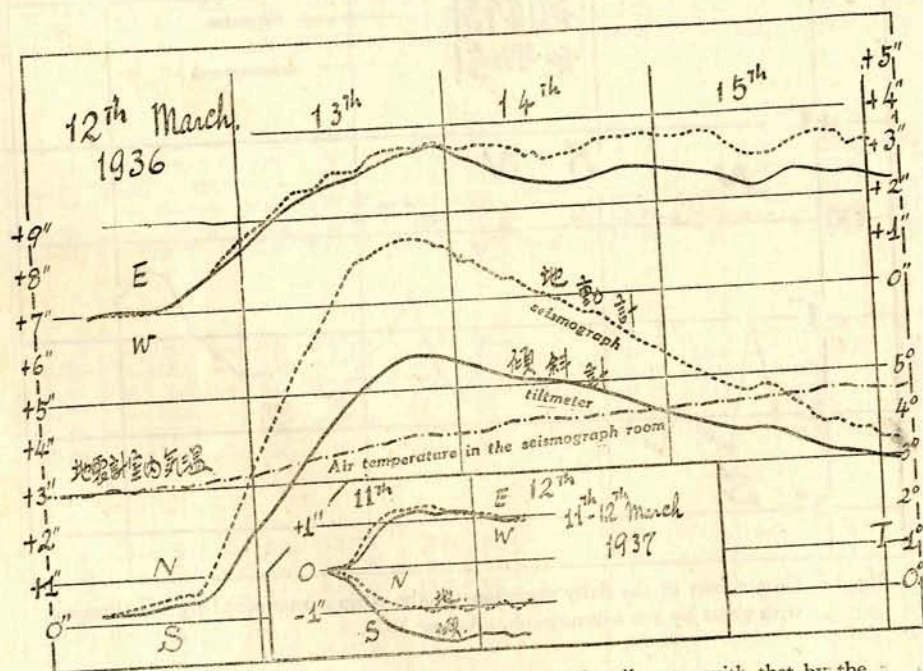
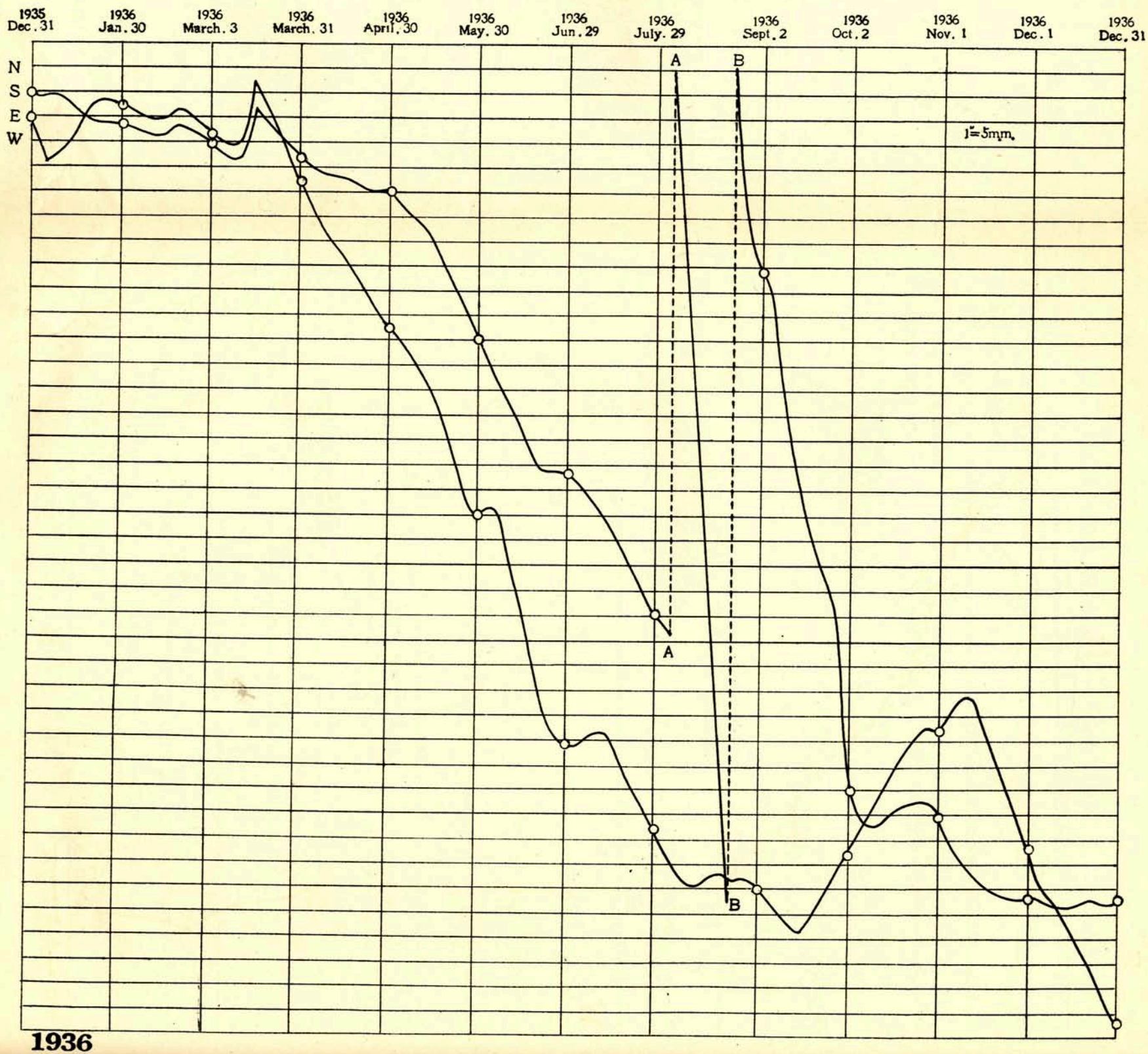
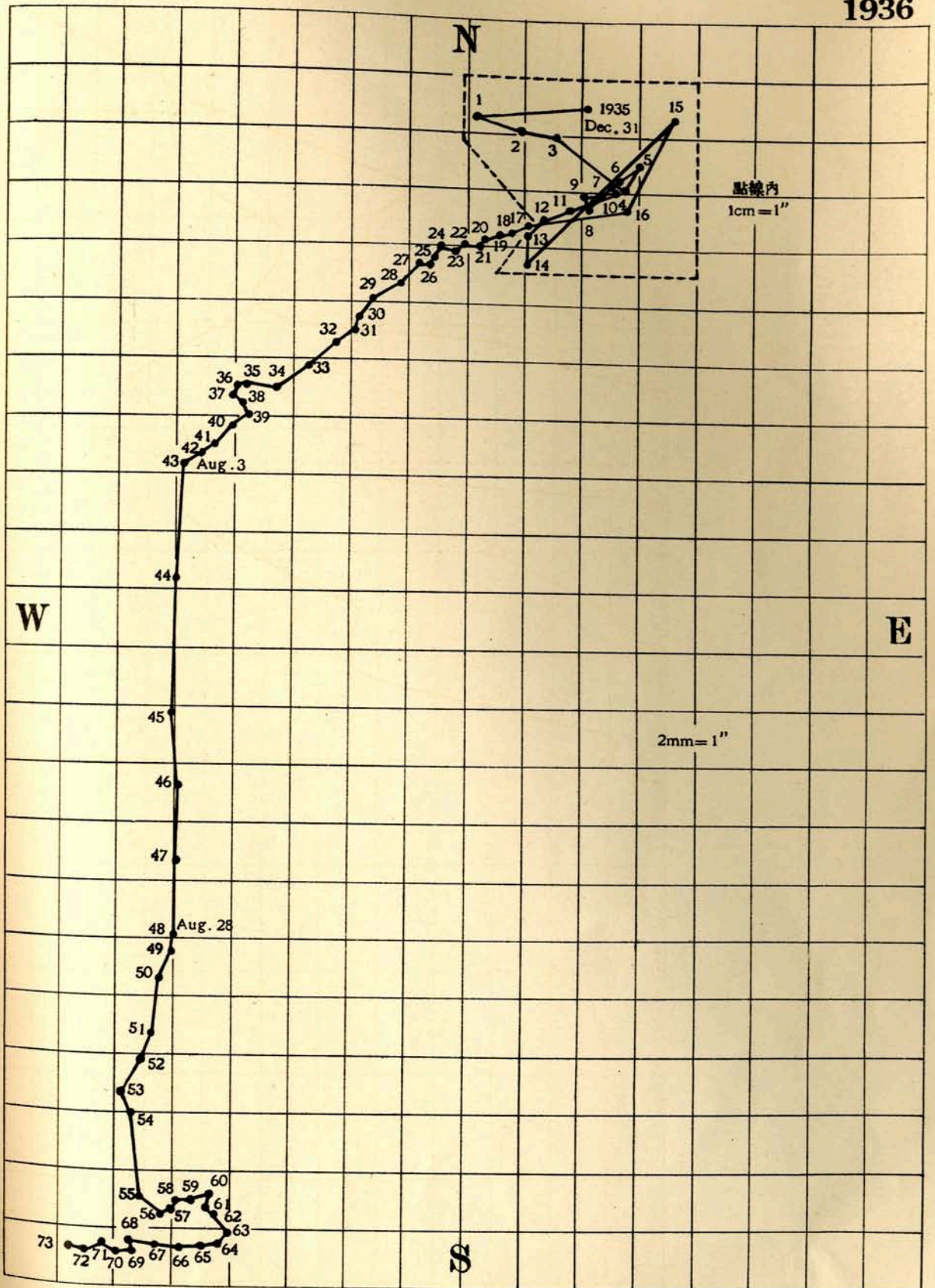


Fig. 2: Comparison of the tilting determined by the tiltmeter with that by the seismograph.



1936



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