朝鮮總督府觀測所

地震年報

昭和拾貳年

The Seismological Bulletin

of

Weather Bureau of Tyōsen

For the Year

1937

Compiled

By

Weather Bureau of Tyōsen
The Government General of Tyōsen
Zinsen, Tyōsen, Nippon.

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Preface.

The present volume is the fifth one of the new series of the Seismological Bulletin of Weather Bureau of Tyōsen, the Government General of Tyōsen, which was put in circulation once a year quite independent of the Annual Report of the Meteorology of this bureau since the year 1933. Now-a-days, in Tyōsen, slight attention is given to the study of earthquake owing to a minority of local shocks. Nevertheless, about 300 years ago, at an active period, frequent strong shocks were experienced all over the peninsula and inflicted severe damage to the buildings and human beings. Therefore, the seismological observation must not be neglected even in the present time of less activity.

Accordingly, in this report, whole the local shocks which occured in the peninsula and its neighbouring seas are described with minute description of their seismometrical elements observed at this bureau and the other local observatories.

The present report is compiled by K. Hayata and T. Takeisi, the seismological experts of this bureau.

M. Kawano,

Director,

December 1. 1938

Weather Burau of Tyōsen, Nippon.

I. Introduction.

The present publication contains the results of the seismometrical observations made at Weather Bureau of Tyōsen, Zinsen, and the local meteorological observatories in Tyōsen in the year 1937.

Symbols and Notations:–

P Normal first phase (longitudinal waves).

P' First preliminary tremors which have penetrated the earth's core.

PRn Longitudinal waves n–times reflected at the earth's surface.

S Normal second phase (transverse waves).

SRn Transverse waves n–times reflected at the earth's surface.

PS Waves changed from longitudinal to transverse oscillation on reflecting at the earth's surface.

L Long waves at the beginning of the surface waves.

M Largest motion in the surface phase.

C Tail or end portion.

PcP Longitudinal waves reflected at the earth's core.

ScS Transverse waves reflected at the earth's core.

F End of the discernible movement.

i Sudden or distinct commencement of a phase.

e Gradual or indistinct commencement of a phase.

AN N–S component of amplitude.

AE E–W component of amplitude.

AZ Vertical component of amplitude.

\+ Displacement toward north, east or zenith.

– Displacement toward south, west or nadir.

(r) Remarkable earthquake; Major radius of the felt area is greater than 300km.

(m) Moderate earthquake; Major radius of the felt area is less than 300km. and greater than 200km.

Time:– Time is referred to Greenwich Mean Time.

2. Seismological stations in Tyōsen.

(1) Weather Bureau of Tyōsen, Zinsen.

Longitude λ; 126° 38′E Latitude φ; 37° 29′N

Height above mean sea level; 69.7m.

Geological nature of the ground; Grey Granite–gneiss.

Instruments and constants (approximate):—

M; Mass of the pendulum. V; Static Magnification.

T; Proper period of the pendulum. $\frac{r}{T^2}$; Coefficient of friction.

ε; Damping coefficient.

Instrument	Component	M kg	V	T sec	$\frac{r}{T^2}$ mm/sec^2	ε
Wiechert's Seismograph	N–S	200	93	5.3	0.012	3.7
	E–W		104	5.5	0.017	3.8
	Z	80	76	5.1	0.019	3.6
Oomori's Portable Seismograph	N–S	12	50	4.0	0.02	
	E–W	12	50	4.0	0.03	
Seismograph of low magnification	N–S	2.3	2	4.0	0.03	2
	E–W	2.3	2	4.0	0.03	2
	Z	1.5	2	4.0	0 03	2
Oomori's Tromometer	N–S	50	150	15.0	0.05	
	E–W	50	150	15.0	0.05	

(2) Keizyō Meteorological Observatory.

Longitude λ; 126° 58′E Latitude φ; 37° 34′N

Height above mean sea level; 85.5m.

Geological nature of the ground; Granite.

Instruments and constants (approximate);–

Instrument	Component	M kg	V	T sec	$\frac{r}{T^2}$ mm/sec^2	ε
Wiechert's Seismograph	N–S	200	99	4.7	0.023	4.8
	E–W		99	4.7	0.015	4.8
Oomori's Portable Seismograph	N–S	12	50	3.5	0.03	
	E–W	12	50	3.5	0.03	

(3) Taikyū Meteorological Observatory.

Longitude λ; 128° 36′E Latitude φ; 35° 52′N

Height above mean sea level; 50.5m.

Geological nature of the ground; Shale.

Instruments and constants (approximate);–

Instrument	Component	M kg	V	T sec	$\frac{r}{T^2}$ mm/sec^2	ε
Wiechert's Seismograph	N–S	200	90	5.8	0.018	2.9
	E–W		92	5.8	0.017	3.2
Oomori's Portable Seismograph	N–S	12	50	4.0	0.02	
	E–W	12	50	4.0	0.02	
Seismograph of Low Magnification	N–S	2.3	2	4.0	0.03	2
	E–W	2.3	2	4.0	0.03	2
	Z	1.5	2	4.0	0.03	2

(4) Husan Meteorological Observatory.

Longitude λ; 129° 02′E Latitude φ; 35° 06′N

Height above mean sea level; 70.5m.

Geological nature of the ground; Porphyrite.

Instruments and constants (approximate):–

Instrument	Component	M kg	V	T sec	$\frac{r}{T^2}$ mm/sec^2	ε
Wiechert's Seismograph	N-S E-W	200	88 80	5.2 5.4	0.08 0.03	5.5 4.4

(5) Heizyō Meteorological Observatory.

Longitude λ; 125° 45′E Latitude φ; 39° 02′N

Height above mean sea level; 51.0m.

Geological nature of the ground; Diorite.

Instrument and constants (approximate):—

Instrument	Component	M kg	V	T sec	$\frac{r}{T^2}$ mm/sec^2	ε
C. M. O. Portable Seismograph	N–S	17.7	50	6.0	0.024	
	E–W	17.9	50	6.0	0.023	
Seismograph of Low Magnification	N–S	2.0	2	6.0	0.02	2
	E–W	2.0	2	6.0	0.02	2
	Z	0.2	2	2.0	0.03	2

(6) Syūhūrei Meteorological Observatory.

Longitude λ; 128° 00′E Latitude φ; 36° 13′N

Height above mean sea level; 210.0m.

Geological nature of the ground; Granite.

Instrument and constants (approximate):—

Instrument	Component	M kg	V	T sec	$\frac{r}{T^2}$ mm/sec^2	ε
C. M O. Portable Seismograph	N–S E–W	18 18	40 40	4.5 3.8	0.01 0.12	2.9 2.6

3. The Earthquakes which occurred in Tyōsen in the Year 1937.

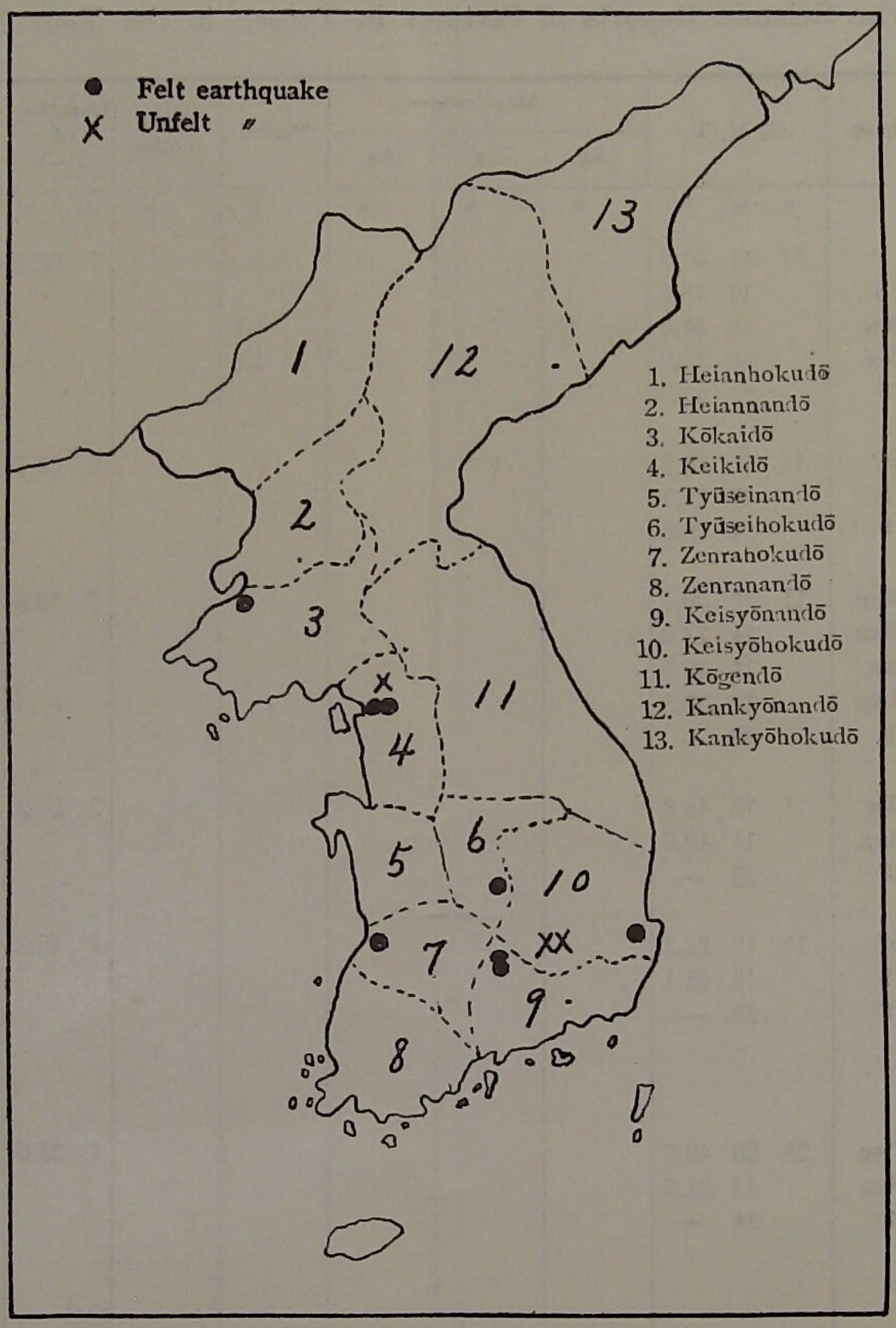
The number of the earthquakes which occurred in Tyōsen and its neighbouring in this year amounted to 11, and 8 of them were felt by person in the epicentral region. The number of unfelt earthquakes amounted to 3. Their scales were very small.

The felt earthquakes which occurred in Tyōsen in the year 1937.

No.	Date	G.M.T. h m	Intensity	Earth Sound	Epicenter
1	Jan. 24	19 00	III; Kaizyō, Hōtoku, Hasyū etc. II; Keizyō, Hōsen, Kōka etc. I; Zinsen, Anzyō, Suigen etc. (Felt over Keikidō and western part of Kōgendō.)	Strong	Lower reaches of the river of Kankō. 37°43′N, 126°47′E.
2	Feb. 1	22 43	III; Tirei. I; Kan'yō.	Feeble	NW part of Keisyōnandō.
3	Feb. 21	19 43	III; Kyōsen, Kan'yō. II; Sansei.	Feeble	Ditto.
4	Mar. 15	17 45	III; Syariin. II; Kōsyū, Sin'in, Sainei etc. I; Zinsen, Keizyō, Kaizyō etc. (Felt over Kōkaidō and in southern part of Heiannandō, northern part of Keikidō.)	Strong	The mouth of the river of Sainei. 38°31′N, 125°40′E.
5	May 26	4 45	II; Yokukōgun.	—	Yokukōgun, Zenrahokudō.
6	Jul. 29	0 55	I; Keisyū.	—	Keisyū, Keisyōhokudō.
7	Sept. 8	13 39	I; Zinsen.	—	Lower reaches of the river of Kankō.
8	Dec. 17	13 50	II; Eidō.	Feeble	Eidō, Tyūseihokudō.

The unfelt earthquakes which occurred in Tyōsen in the year 1937.

No.	Date	G. M. T. h m	Epicenter
1	Mar. 14	7 50	Vicinity of Taikyū? Local.
2	Mar. 23	16 19	Vicinity of Taikyū. Local.
3	Sept. 8	13 40	Lower reaches of the rives of Kankō.



The map of distribution of the epicenters of earthquakes which occurred in Tyōsen in the Year 1937.

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N μ	Amplitude A_E μ	Amplitude A_Z μ	Period s	First motion μ	Duration of P~S m s	Remarks
1	Jan. 5		h m s							
	Husan	P	11 11 41.5						1 58.7	Tōkyō ; 28.°0N, 139.°6E. Depth=500km. (r)270km. WNWoff Titizima(Bonin Isl). Abnormally felt at Titizima Utunomiya and others.
		S	13 40.2							
		M_N	13 44.9	— 12			4.8			
		M_E	13 44.9		— 19		4.8			
		F	28 11.9							
	Taikyū	eP	11 11 50.0						2 06.7	
		S	13 56.7							
		F	24 39.0							
	Keizyō	eP_{NE}	11 12 09.1						2 18.8	
		eS_{NE}	14 27.9							
		i_{NE}	14 40.5							
		eL_{NE}	17 23.9							
		F	29 —							
	Zinsen	eP_N	11 12 16.8						2 26.2	
		iS_{NE}	14 43.0							
		F	23 —							
	Heizyō	eP	11 12 27.3						2 40.8	
		S	15 08.1							
		F	28 —							
2	Jan. 5									
	Keizyō	eP_{NE}	21 09 40.3						1 52.0	Tōkyō ; 31.°6N, 132.°3E. Southern part of Hyūganada, Kyūsyū. I ; Oita.
		eS_{NE}	11 32.3							
		F	14 —							
3	Jan. 5									
	Taikyū	eP	21 38 00.6						4 22.3	Tōkyō : 31.°0N, 132.°4E. Southern part of Hyūganada, Kyūsyū. Felt over Kyūsyū Sikoku and Tyūgoku districts.
		S	42 22.9							
		M_E	43 49.5		+ 22		11.1			
		M_N	44 29.5	— 68			10 2			
		F	22 11 14.							
	Syūhūrei	P	21 39 47.2						1 31.3	
		S	41 18.5							
		F	22 06 —							
	Zinsen	eP_N	21 39 50.0						1 58.2	
		eP_E	39 51.2							
		eS_E	41 48.2							
		eS_N	41 48.9							
		M_N	44 56.9	+ 63			8.4			
		M_E	44 59.2		— 55		8.4			
		i_{NE}	57 06.0							
		F	22 27 —							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude AN	Amplitude AE	Amplitude AZ	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s		m s	
	Keizyō	eP_{NE}	21 39 58.0						2 11.8	
		i_{NE}	41 34.2							
		eS_{NE}	42 09.8							
		eL_{NE}	44 02.6							
		M_E	44 59.7		+ 54		8.8			
		M_N	45 37.8	— 46			8.0			
		e_{NE}	56 23.8							
		F	22 21 —							
	Heizyō	eP	21 40 22.5						2 30.0	
		S	42 52.5							
		F	22 14 —							
4	Jan. 7									
	Husan	e	4 31 32.0							After shock of No.3.
		F	41 39.8							
	Taikyū	e	4 32 04.0							
		F	42 —							
	Zinsen	eS_N?	4 33 10.							
		F	40 —							
	Keizyō	eP_E	4 33 11.6							
		F	41 —							
5	Jan. 7									
	Husan	P	6 14 43.8						2 07.3	Tōkyō ; 38.°8N, 142.°0E. (r)40km E off Koizumi Bay, Miyagi Prefecture. Felt over Tōhoku, Kantō, Hokkaidō and Tyūbu districts.
		S	16 51.1							
		eL	18 17.8							
		F	32 39.3							
	Taikyū	P	6 14 47.1						2 09.9	
		S	16 57.0							
		F	29 00.0							
	Keizyō	eP_E	6 14 58.2						2 20.2	
		eS_{NE}	17 18.4							
		eL_{NE}	18 14.6							
		F	34 —							
	Zinsen	eP_E	6 14 58.4						2 17.3	
		eS_N	17 15.7							
		F	37 —							
	Heizyō	eP	6 14 58.5							
		I.	18 16.5							
		F	30 —							
6	Jan. 7									
	Heizyō	iP_{NE}	13 25 42.3					E —	4 00.0	Zinsen ;

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		iSNE	13 29 42.3							32.°0N, 100.°E, Chuan Pien, China J.S.A ; 36.°1N, 98.°6E. H=13h 20m40s Depth=Normal. Koko-Nor, China. U. G. E. G. I ; 34.°5N, 95.°5E. Thibet. U. S. C. G. S; 35.°5N, 97.°5E. Nanking ; 35.°N,97°E.
		L	33 21.3							
		MN	34 57.3							
		ME	35 48.3							
		C	45 54.3							
		F	56 —							
	Zinsen	iPZ	13 25 48.4					N +3.0	4 05.8	
		iSZ	29 54.2					E—60.0		
		MZ1	30 09.0			+ 1610	11.5	Z—53.3		
		iLZ	32 15.6							
		MZ2	35 39.4			— 5350	14.0			
		ME	unknown		>±3000					
		MN	unknown	>+2000						
		F	15 43 —							
	Syūhūrei	P	13 26 01.5						4 24.2	
		S	30 25.7	+ 5	+ 21					
		L	33 25.9	+ 10	+ 4					
		MN1	34 25.7	— 30						
		MN2	35 48.4	+ 16			12.			
		F	14 29 —							
	Taikyū	P	13 26 06.6						5 48.6?	
		S?	31 55.2							
		L	34 14.2							
		F	15 18 28.6							
	Husan	iP	13 26 10.0							
		S	30 29.3						4 19.3	
		MN1	30 51.3	— 891			15.7			
		ME1	30 51.3		+ 1623		13.9			
		?	33 37.6							
		MN2	36 30.7	+ 1089			12.0			
		ME2	36 30.7		+ 1590		15.4			
		F	15 43 37.1							
7	Jan. 20									
	Husan	e	0 05 54.4							Tōkyō ; 42.°0N, 142.°8E. (m)30km, South off Urakawa, Hokkaidō, Felt in Hokkaidō and Tōhoku districts.
		F	14 30.4							
	Taikyū	eP	0 05 57.4							
		F	14 34.4							
	Keizyō	ePNE	0 05 59.0						3 12.0	
		eSNE	09 11.0							
		F	14 —							
8	Jan. 21									
	Taikyū	eP	2 02 10.5							?
		F	09 —							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude AN	Amplitude AE	Amplitude AZ	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
9	Jan. 23									
	Taikyū	e	8 47 36.6							Tōkyō ; 33.°3N, 131.°6E. Depth=100km. (m) Vicinity of Ooita City. Felt in Kyūsyū, Sikoku and Tyūgoku districts.
		F	58 19.							
	Husan	P	8 50 32.0						48.8	
		S	51 20.8							
		F	54 11.8							
10	Jan. 23									
	Husan	P	11 04 11.2						6 47.7	U. G. E. G. I ; 1°S, 157°E. North of Solomon Isl.
		eS	10 58.9							
		eL	17 53.4							
		F	40 11.0							
	Taikyū	eP	11 04 20.9						6 49.3	
		eS	11 10.2							
		F	43 10.2							
	Keizyō	eP_{NE}	11 04 39.6						7 03.0	
		eS_{NE}	11 42.6							
		eL_{NE}	15 22.0							
		F	32 —							
	Zinsen	eP_{NEZ}	11 04 41.9						7 09.0	
		iS_{NEZ}	11 50.9							
		F	41 —							
11	Jan. 24									
	Heizyō	eP	16 22 24.9							Mongolia ?
		F	31 —							
	Keizyō	eP_{NE}	16 22 26.0						49.8	
		eS_{NE}	23 15.8							
		F	30 —							
	Zinsen	eS_{NE}	16 23 21.8							
		F	30 —							
	Taikyū	eP	16 24 — ?							
		F	31 — ?							
	Husan	eP	16 24 40.6						31.8	
		eS	25 12.4							
		F	32 05.0							
12	Jan. 24									
	Keizyō (Intensity) (Ⅱ)	iP_N	19 00 21.5					N +10	3.5	137°43′N, 126°47′E. NE Lower reaches of the River of Kankō. Felt in Keikidō and Kōgendō.
		iP_E	00 21.8					E −18		
		eS_{NE}	00 25.0							
		M_N	00 29.0	+ 19			0.4			
		M_E	00 30.8		— 21		0.4			

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
		F	h m s 19 02 —	μ	μ	μ	s	μ	m s	
	Zinsen (Intensity) (I)	iPz	19 00 22.9					N —	4.5	
		iP_{NE}	00 23.4					E —		
		iS_{NEZ}	00 27.9					Z +		
		M_N	00 28.4	± 13			—			
		M_E	00 28.4		+ 27		—			
		M_Z	00 28.4			+ 16	—			
		F	02 10.							
	Heizyō	eP	19 00 42.8						21.6	
		S	01 04.4							
		F	07 —							
	Taikyū	eP	19 00 52.?							
		F	01 — ?							
	Husan	eP	19 01 16.0						42.5	
		eS	01 58.5							
		F	04 04.5							
13	Jan. 25									
	Syūhūrei	P	6 43 39.8						7 54.5	J. S. A; 10.°6S, 163.°3E. H=6h34m00s U. S. C. G. S; 12°S, 164°E
		S	51 34.3							
		F	7 48 —							
	Husan	P	6 43 41.4						7 44.4	Region of Solomon Isl.
		S	51 25.8							
		L	57 47.1							
		F	8 13 01.8							
	Taikyū	P	6 43 55.0?						8 05.7	
		S	52 00.7							
		L	58 24.3							
		F	8 12 46.1							
	Zinsen	eP_{NE}	6 43 56.6						8 03.4	
		iS_{NE}	52 00.0							
		eL_E	58 58.0							
		M_E	7 02 56.1		± 200		24.3			
		M_N	05 13.8	± 137			17.0			
		F	8 30 —							
	Keizyō	eP_{NE}	6 43 59.6						8 02.8	
		eS_{NE}	52 02.4							
		eL_{NE}	7 00 10.4							
		M_N	02 12.2	+ 150			23.0			
		M_E	02 52.8		± 150		23.4			
		F	8 02 —							
	Heizyō	eP	6 44 12.1						8 15.0	

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude AN	Amplitude AE	Amplitude AZ	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		S	6 52 27.1							
		L	7 00 24.1							
		ME	08 57.1		+ 80		16.			
		F	37 —							
14	Jan. 27									
	Husan	P	7 05 36.2						34.8	Tōkyō ; 32.°7N, 130.°8E. (m)Vicinity of Kumamoto City. Felt over Kyūsyū district.
		S	06 11.0							
		F	16 51.5							
	Taikyū	P	7 05 52.8						46.1	
		iS	06 38.9							
		F	17 —							
	Syūhūrei	P	7 06 00.6						49.8	
		S	06 50.4							
		F	10 —							
	Keizyō	ePN	7 06 37.0						55.6	
		eSE	07 32.6							
		F	16 —							
	Zinsen	eN	7 07 10.4							
		eSE	07 47.9							
		F	10 —							
	Heizyō	eP?	7 07 27.4						1 12.0?	
		S	08 39.4							
		F	18 —							
	Jan. 28									
15	Husan	P	0 44 33.3						35.1	After shock of No. 14. 32.°7N, 130.°8E. Felt over Kyūsyū district.
		S	45 08.4							
		F	53 47.3							
	Taikyū	eP	0 44 37.3						57.2	
		SN	45 34.5							
		SE	45 37.2							
		F	51 —							
	Keizyō	ePN	0 45 34.6						1 03.6	
		eSE	46 38.2							
		F	56 —							
	Zinsen	eNE	0 46 13.6							
		eSNE	46 44.7							
		F	49 —							
	Heizyō	eP?	0 46 50.5							
		F	52 —							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
16	Jan. 29									
	Keizyō	eP_{NE}	14 10 39.1						4 43.8	East of Karenkō, Formosa.
		eS_{NE}	15 22.9							
		F	23 —							
17	Jan. 29									
	Husan	P	17 29 56.1						3 45.7	SE off Titizima.
		S	33 41.8							
		F	52 39.4							
	Taikyū	eP	17 29 59.1						3 57.8	
		eS	33 56.9							
		F	46 32.							
	Syūhūrei	P	17 30 14.9							
		F	33 —							
	Zinsen	iP_{NE}	17 30 24.4					N —	4 08.5	
		eS_N	34 32.9					E +		
		F	46 —					Z —		
	Keizyō	eP_{NE}	17 30 25.3						4 08.8	
		eS_{NE}	34 34.1							
		eL_{NE}	37 42.3							
		F	49 —							
	Heizyō	iP_{NE}	17 30 43.1							
		F	44 —							
18	Jan. 29									
	Keizyō	eP_E?	21 24 29.5						1 51.6?	Vicinity of Yonakunizima.
		eS_E	26 21.1							
		eL_E	28 42.9							
		F	33 —							
19	Jan. 30									
	Husan	e	1 14 10.8							Tōkyō ; 35.°5N, 138.°2E. (m)South off the cape of Omae, Sizuoka Prefecture, Felt in Tyūbu and Kinki districts.
		F	23 38.6							
	Taikyū	e	1 14 21.6							
		F	25 23.8							
	Zinsen	eL	1 14 57.							
		F	24 —							
	Keizyō	eL	1 16 38.							
		F	23 —							
20	Jan. 30									
	Husan	e	6 30 45.4							?
		F	48 38.0							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
	Taikyū	e	6 35 02.1							
		F	42 31.0							
	Zinsen	e	6 37 —							
		F	7 00 —							
21	Feb. 1									
	Taikyū	P	22 43 23.5						7.6	NW part of Keisyōn-andō. Felt in epicentral region.
		S	43 31.3							
		F	43 41.8							
22	Feb. 8									
	Husan	eP	12 19 07.1						28.4	Tōkyō ; 33.°5N, 132.°0E. Bungo Strait. Felt in Sikoku, Kyūsyū and Tyūgoku districts.
		eS	19 35.5							
		F	21 47.9							
	Taikyū	P	12 19 26.6						1 06.8	
		S	20 33.4							
		F	23 04.0							
	Keizyō	eP_{NE}	12 20 52.9						46.0?	
		eS_{NE}?	21 38.9							
		F	24 —							
23	Feb. 10									
	Keizyō	e_E	2 53 30.							?
		eL_E	57 26.							
		F	3 02 —							
24	Feb. 12									
	Zinsen	eP_N?	5 42 10.8						3 02.1?	Distant.
		eS_N?	45 12.9							
		F	56 —							
	Keizyō	eS_{NE}?	5 46 19.4							
		eL_{NE}	47 45.8							
		F	57 —							
25	Feb. 12									
	Keizyō	e_E	19 36 54.							Distant.
		F	47 —							
26	Feb. 13									
	Keizyō	e_E	5 16 07.							Southern part of Hyūganada.
		F	23 —							
27	Feb. 14									
	Husan	P	1 06 05.5						34.0	Tōkyō ; 33.°3N, 132.°1E. Bungo Strait. Felt in Sikoku, Kyūsyū and Tyūgoku districts.
		S	06 39.5							
		M_E	06 56.2	— 1		2.5				
		F	09 41.5							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
	Taikyū	P	1 06 15.4						57.7	
		S	07 13.1							
		F	09 20.0							
	Keizyō	ePNE	1 06 56.3						55.6	
		eSNE	07 51.9							
		F	12 —							
	Zinsen	ePE?	1 07 27.7						51.2?	
		eSE	08 18.9							
		F	10 —							
28	Feb. 16									
	Taikyū	eP	7 20 29.4							?
		F	26 —							
29	Feb. 17									
	Husan	P	9 19 38.2						3 28.1	Vicinity of Etrō Isl.
		eS	23 06.3							
		F	36 20.7							
	Keizyō	ePNE	9 19 42.1						3 24.6	
		eSNE	23 06.7							
		eLNE	25 16.7							
		F	34 —							
	Taikyū	eP	9 19 53.9							
		F	36 52.0							
	Zinsen	eN(L)	9 23 —							
		F	35 —							
30	Feb. 18									
	Heizyō	iPNE	10 44 50.2							Vicinity of Sinkyō, Manchoukuo. Felt at Sinkyō.
		F	46 20.2							
	Keizyō	ePNE	10 45 37.6							
		F	48 —							
	Taikyū	eP	10 46 41.1							
		F	48 33.5							
31	Feb. 21									
	Taikyū	P	7 06 50.2					N −7.1	4 14.0	Tōkyō ; 44.°5N, 150.°0E. (r)SE off Etrō Isl. Felt in Hokkaidō, Tōhoku and Kantō districts.
		S	11 04.2					E−10.4		
		LE	12 34.0							
		LN	12 44.9							
		MN	13 04.9	— 3060			22.4			J. S. A ; 45.°2N, 148.°6E. H=7h02m45s Depth=50~60km.
		ME	15 06.9		— 1714		17.9			
		C	24 21.9							
		F	Lost in next quake.							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
	Husan	P	7 06 50.9						3 41.7	U. S. C. G. S.; 45°N, 148°E. U. G. E. G. I.; 47°N, 143°E.
		S	10 32.6							
		L	11 25.0							
		M_E	14 20.2		± 1886		18.8			
		F	Lost in next quake.							
	Keizyō	eP_{NE}	7 06 52.5						3 22.0	
		iS_N	10 14.5							
		M_E	15 08.1		+ 1950		17.0			
		M_N	15 16.1	— 810			17.0			
		F	Lost in next quake.							
	Zinsen	iP_N	7 06 54.9					N —	3 31.8	
		iP_Z	06 56.8					E —		
		iS_N	10 26.7					Z +		
		eS_Z	10 35.2							
		eL_N	12 24.2							
		eL_Z	12 34.7							
		M_Z	15 19.0			— 2420	15.2			
		M_N	15 25.0	— 1270			16.0			
		F	Lost in next quake.							
	Syūhūrei	P	7 06 55.2						3 39.0	
		S	10 34.2							
		L	11 33.0							
		M_E	13 43.8		± 100		21.6			
		F	8 28 —							
	Heizyō	iP_E	7 06 58.5					E —	3 33.0	
		iS_N	10 31.5							
		L	12 01.5							
		M_E	15 02.4		— 120		16.8			
		M_N	16 52.5	+ 86			15.0			
		F	Lost in next quake.							
32	Feb. 21 Husan	P	7 30 41.2						2 35.5	After shock of No. 31
		eS	33 16.7							
		F	9 46 59.8							
	Taikyū	P	7 30 42.3						2 44.4	
		eS	33 26.7							
		L	35 26.7							
		M_E	37 08.5		+ 454		18.5			
		M_N	37 08.7	— 753			20.2			
		C	41 26.7							
		F	9 57 —							
	Keizyō	eP_{NE}	7 30 42.9						3 29.2	
		eS_{NE}	34 12.1							
		F	Lost in next quake.							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
	Heizyō	P	7 30 46.5						3 49.5	
		S	34 36.0							
		L	36 52.5							
		M_{NE}	38 22.5	— 18	— 40		15.0			
		F	8 53 —							
	Zinsen	eP_Z	7 30 48.4						3 46.8	
		eP_N	30 48.9							
		eS_N	34 35.2							
		eL_N	35 46.7							
		M_N	36 49.0	+ 500			21.6			
		eL_Z	37 07.3							
		M_Z	38 36.5			+ 722	17.0			
		F_N	9 00 —							
		F_Z	22 —							
33	Feb. 21									
	Keizyō	eP_{NE}	10 56 22.9						3 42.0	Tōkyō ; 44.°5N, 150.°0E. (m)SE off Etorō Isl. Felt at Kusiro.
		eS_{NE}	11 00 04.9							
		eL_{NE}	02 31.2							
		F	18 —							
	Husan	P	10 56 23.8						3 36.9	
		S	11 00 00.7							
		L	02 19.2							
		F	14 59.6							
	Taikyū	P	10 56 26.0						3 43.2	
		S	11 00 09.2							
		L	02 09.2							
		F	18 —							
	Zinsen	iP_N	10 56 27.1						3 58.6	
		eS_N	11 00 15.7							
		F	11 10 —							
34	Feb. 21									
	Husan	eP	19 43 31.9						14.4	NW part of Keisyō-nandō Tyōsen. Felt in epicentral region.
		eS	43 46.3							
		F	44 02.6							
	Taikyū	P	19 43 33.6							
		F	44 00.3							
35	Feb. 21									
	Taikyū	eP	22 32 22.9							Off Etorō Isl.
		L	39 22.9							
		F	23 01 —							
	Husan	eP	22 33 39.6							
		eL	39 41.1							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion	Duration of P~S	Remarks
				A_N	A_E	A_Z				
			h m s	μ	μ	μ	s	μ	m s	
		F	22 52 57.0							
	Zinsen	eP_E?	22 33 47.0						3 19.5?	
		eS_E?	37 06.5							
		F	50 —							
	Keizyō	eL	22 39 02.5							
		F	50 —							
36	Feb. 22									
	Zinsen	eP_N?	2 58 00.							Ditto
		eL_N	3 03 13.							
		F	25 —							
	Husan	eP	2 58 06.4						3 36.9	
		eS	3 01 43.3							
		eL	05 15.0							
		F	18 55.9							
	Keizyō	eP_{NE}	3 01 34.5						3 18.2	
		eS_{NE}	04 52.7							
		F	18 —							
37	Feb. 22									
	Keizyō	eL	4 46 27.							Ditto
		F	52 —							
38	Feb. 22									
	Zinsen	eP_N?	13 28 13.7						3 46.1?	Ditto
		eS_N	31 59.8							
		F	57 —							
	Keizyō	eP_{NE}	13 28 16.3						3 52.0	
		eS_{NE}	32 08.3							
		eL_{NE}	33 56.5							
		F	58 —							
	Husan	eP	13 28 17.0						4 06.7	
		eS	32 23.7							
		F	51 53.6							
	Taikyū	eP	13 28 27.8						3 20.3	
		eS	31 48.1							
		eL	34 27.8							
		F	55 —							
39	Feb. 23									
	Keizyō	eP_E	0 19 56.1						2 50.2	Region of China.
		eS_E	22 46.3							
		F	31 —							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
	Zinsen	eI_E	0 23 —							
		F	28 —							
40	Feb. 23									
	Taikyū	eP	0 51 38.4						4 45.5	Tōkyō ; 44.°3N, 149.°5E. (r)SE off Etorō Isl. Felt at Kusiro.
		eS	56 23.9							
		eL	57 23.4							
		F	1 51 —							
	Heizyō	eP	0 52 16.8							
		L	57 46.8							
		F	1 16 —							
	Keizyō	eP_{NE}	0 52 27.1						3 48.4	
		eS_{NE}	56 15.5							
		eL_{NE}	57 29.5							
		F	2 11 —							
	Husan	P	0 52 28.0						3 31.4	
		S	55 59.4							
		L	57 34.5							
		F	1 54 51.1							
	Zinsen	eP_{EN}	0 52 28.9						3 46.2	
		eS_{EN}	56 15.1							
		eL_E	58 22.7							
		M_E	1 00 52.6	± 75			16.9			
		F	2 13 —							
41	Feb. 23									
	Taikyū	e	14 00 27.2							Off Etorō Isl.
		F	14 09 14.3							
	Keizyō	eL_E	14 01 54.0							
		F	10 —							
42	Feb. 25									
	Keizyō	eL	20 19 11.0							Distant.
		F	27 —							
43	Feb. 26									
	Husan	P	4 18 40.4						3 27.1	Off Etorō Isl.
		eS	22 07.5							
		L	26 13.4							
		F	46 35.0							
	Zinsen	eP_N?	4 18 47.6						3 45.8?	
		eS_N?	22 33.4							
		eL_N?	24 13.2							
		F	44 —							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion	Duration of P~S	Remarks
				A_N	A_E	A_Z				
			h m s	μ	μ	μ	s	μ	m s	
44	Feb. 26									
	Keizyō	ePE	23 23 27.6						4 37.2	Ditto.
		eSE	28 04.8							
		F	34 —							
45	Feb 27.									
	Zinsen	ePN?	1 17 09.5						3 58.0?	Tōkyō ; 36.°4N, 141.°6E. Kasimanada. Felt in Kantō and Tōhoku districts.
		ePPE	18 20.6							
		eSN?	21 07.5							
		F	40 —							
	Husan	eP	1 18 02.8						2 50.6	
		eS	20 53.4							
		F	47 32.1							
	Taikyū	P?	1 18 10.4							
		L	21 28.2							
		F	51 50.0							
	Keizyō	ePNE	1 18 25.6						2 59.4	
		eSNE	21 25.0							
		F	40 —							
	Heizyō	P?	1 18 53.6							
		L	22 41.6							
		F	34 —							
46	Feb. 27									
	Husan	P	14 42 43.0						32.4	Tōkyō ; 33.°7N, 132.°1E. (r)Off Murotu, Yamaguti Prefecture. Felt in Tyūgoku, Sikoku, Kyūsyū, Kinki and Tyūbu districts.
		SN	43 15.4				N 4.8	E –7.5		
		M	43 31.8	— 63	— 77		E 5.3			
		?	52 04.7							
		F	15 03 29.4							
	Taikyū	iP	14 42 55.8						53.3	
		S	43 49.1							
		MN	43 51.3	+ 61			3.6			
		ME	43 51.3		+ 51		4.0			
		F	15 05 33.5							
	Syūhūrei	P	14 43 00.5						34.1	
		S	43 34.6							
		F	52 —							
	Keizyō	ePNE	14 43 23.3						59.4	
		eSNE	44 22.7							
		F	59 —							
	Zinsen	iPE	14 43 27.7					N +	1 06.5	
		iPZ	43 28.0					E —		
		iPN	43 28.2					Z +		

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		iS_Z	14 44 34.2							
		iS_E	44 36.4							
		iS_N	44 36.9							
		iL_N	44 47.2							
		iL_E	44 47.7							
		iL_Z	44 48.2							
		M_Z	44 50.3			— 9	3.6			
		M_N	45 03.5	— 22			3.8			
		M_E	45 10.3		+ 15		3.8			
		F	15 05 —							
	Heizyō	eP	14 43 48.0						1 46.2	
		S	45 34.2							
		M_{NE}	46 08.7							
		F	15 03 —							
47	Mar. 12									
	Zinsen	eL_N	9 47 39.							Distant.
		F	10 05 —							
	Keizyō	eE	9 49 34.							
		eL_E	53 26.							
		F	10 03 —							
48	Mar. 14									
	Taikyū	P	7 50 31.7							Local?
		F	51 08.0							
49	Mar. 15									
	Heizyō	eP_E?	17 45 02.2						3.0?	38°31′N, 125°40′E. Mouth of the River Saineikō, Felt in Kōkaidō, Heiannandō and Keikidō.
		S_E?	45 05.2							
		F?	45 56.2							
	Zinsen	iP_{NE}	17 45 40.2					N —	16.6	
	(Intensity	iP_Z	45 41.1					E +		
	I	iS_{NE}	45 56.8					Z +		
		iS_Z	45 57.2							
		M_N	45 58.4	+ 11		—				
		M_E	45 59.2		— 11	—				
		F	46 35.							
	Keizyō	eP_{NE}	17 45 42.7						17.4	
	(Intensity)	iS_{NE}	46 00.1							
	I	I_{NE}	46 00.8							
		M_N	46 01.1	+ 7		0.2				
		M_E	46 01.5		— 6	0.2				
		F	46 52.							
	Taikyū	P	17 47 08.0						29.6	
		eS	47 37.6							
		F	50 04.8							

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No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
	Husan	e	17 47 30.7							
		F	47 57.0							
50	Mar. 16									
	Husan	P	15 50 02.6						1 24.6	Manila ; Felt in northern Luzon and slightly in Manila. Manila ip $15^h 46^m 40^s$.
		eS	51 27.2							
		F	16 07 00.1							
	Taikyū	P	15 50 08.7						3 22.0	Tōkyō ; West of Bashi Channel.
		S	53 30.7							
		F	16 08 —							
	Zinsen	iP_N	15 50 15.9					N −3.4	3 44.8	
		eS_N	54 04.7							
		F	16 06 —							
	Keizyō	iP_{NE}	15 50 18.5					N −1.6	3 42.2	
		eS_{NE}	54 00.7					E −1.3		
		F	16 04 —							
51	Mar. 21									
	Zinsen	eI_N	16 26 56.							Distant.
		F	38 —							
52	Mar. 21									
	Husan	eP?	19 32 12.2							Tōkyō ; 40.°2N, 142.°2E. (r)35km east off Kuzi, Iwate prefecture. Felt in Tōhoku, Hokkaidō and Kantō districts.
		eL	37 22.7							
		F	47 33.7							
	Taikyū	P	19 32 12.5							
		F	50 —							
	Keizyō	eP_{NE}	19 32 20.5						2 26.6	
		eS_{NE}	34 47.1							
		eL_{NE}	36 11.7							
		F	44 —							
	Zinsen	eI_N	19 34 47.							
		i_N	35 08.	Incidence of short period wave.						
		F	45 —							
53	Mar. 22									
	Keizyō	eP_{NE}	10 01 22.0						1 58.2	South off Yakuzima, Kagosima Prefecture.
		eS_{NE}	03 20.2							
		F	09 —							
	Husan	e	10 01 51.1							
		F	13 31.3							
54	Mar. 22									
	Husan	eP	17 00 35.8						54.0	Hyūganada, Miyaza-

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude AN μ	Amplitude AE μ	Amplitude AZ μ	Period · μ	First motion	Duration of P~S m s	Remarks
		eS	h m s 17 01 29.8							ki Prefecture.
		F	07 29.8							
	Keizyō	ePNE	17 02 06.1							
		F	08 —							
55	Mar. 23									
	Taikyū	P	16 19 57.7							Local.
		F	20 12.0							
56	Mar. 30									
	Zinsen	ePN	11 45 14.1						1 43.0?	Taihoku ; 24.°6N, 121.°1E. Sintikusyū, Formosa
		eSN?	46 57.1							
		F	54 —							
57	Apr. 3									
	Husan	eP	11 23 45.0						4 38.9	Tōkyō ; 23.°3N, 121.°0E, S. E foot of Mt. Ari, Formosa. Felt in Formosa.
		S	28 23.9							
		F	57 30.0							
	Taikyū	eP	11 23 46.3						4 41.5	
		S	28 27.8							
		F	12 10 06.9							
	Zinsen	ePN?	11 24 05.2						4 24.5	
		eSE	28 29.7							
		F	47 —							
	Keizyō	ePNE	11 24 07.2						2 55.6	
		eSNE	27 02.8							
		eLNE	28 39.6							
		F	58 —							
58	Apr. 3									
	Husan	eP	21 15 24.1						3 57.3	Manila ; Felt in western Luzon Manila iP 21h 11m 06s.
		eS	19 21.4							
		F	30 28.0							
	Taikyū	eP	21 15 26.2						4 40.0	
		eS	19 30.2							
		F	35 41.2							
	Zinsen	iPN	21 15 40.7					N —	4 09.0	
		eSN	19 49.7							
		eSE	19 49.9							
		F	32 —							
	Keizyō	ePNE	21 15 42.4						4 09.2	
		eSNE	19 51.6							
		F	27 —							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N μ	Amplitude A_E	Amplitude A_Z μ	Period s	First motion	Duration of P~S m s	Remarks
59	Apr. 5		h m s							
	Husan	P	7 03 49.4						5 22.8	Tōkyō ; N. W off New Guinea.
		S	09 12.2							
		F	8 08 20.8							Manila ; Deep focus. Netherlands East Indies.
	Taikyū	P	7 03 50.4						5 19.5	
		iPP	05 10.4							
		S	09 09.9							
		i_E	12 30.0							
		i_N	12 44.2							
		F	8 12 02.4							
	Syūhūrei	P	7 03 53.5						4 38.4	
		PP	05 13.1							
		S	09 31.9							
		F	36 —							
	Zinsen	iP_N	7 03 56.2					N +	5 43.1	
		iP_Z	03 57.3					E +		
		iP_E	03 58.5					Z +		
		iPP_Z	05 32.8			— 4.7	4.9			
		iPP_N	05 33.8	— 6.0			4.7			
		eS_N	09 39.3							
		eS_E	09 51.3							
		M_N	09 57.9	— 64			14.2			
		iSS_N	12 14.8							
		eI_N	14 13.6							
		M_E	15 48.5		+ 134		18.6			
		F	8 27 —							
	Keizyō	eP_{NE}	7 03 59.0						5 50.8	
		e_N	05 31.4							
		eS_{NE}	09 49.8							
		eI_{NE}	12 42.6							
		F	8 16 —							
	Heizyō	eP	7 04 14.6						6 00.0	
		eS	10 14.6							
		F	47 —							
60	Apr. 9									
	Taikyū	eP	14 11 14.0							Tōkyō ; 23.°4N, 120.°9E. S E foot of Mt Ari, Formosa. Felt in Formosa
		F	23 59.4							
	Husan	eP	14 11 14.6						1 38.6	
		S	12 53.2							
		F	26 58.6							
	Zinsen	eP_E	14 11 31.5						1 32.5	
		e_E	12 02.7							
		eS_E	13 04.0							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		F	14 19 —							
	Keizyō	eP_{NE}	14 11 39.5						1 54.6	
		eS_{NE}	13 34.1							
		F	26 —							
61	Apr. 14									
	Keizyō	eP_{NE}	14 02 03.8						3 04.8	W off Okinawa Isl.
		eS_{NE}	05 08.6							
		F	12 —							
62	Apr. 14									
	Keizyō	eP_{NE}	15 08 29.0						3 43.8	Tōkyō ; 24.°2N, 123.°1E. South off Yonakuni Isl. Felt in Formosa
		eS_{NE}	12 12.8							
		F	17 —							
63	Apr. 16									
	Husan	P	3 12 38.9						9 16.8	J. S. A ; 22.°2S, 179.°0E. H=3h01m34s. Depth=390km. U. G. E. G. I ; 22.°S, 174°W. Region between Samoa and Tonga Isl.
		iS	21 55.7							
		F	5 06 24.3							
	Taikyū	P	3 12 48.4						9 23.8	
		S	22 12.2							
		F	5 09 12.2							
	Zinsen	iP_Z	3 12 55.4					N —	9 23.8	
		iP_N	13 00.0					E +		
		iP_E	13 00.0					Z —		
		$iPcP_N$	13 08.5	+ 5.0			4.9			
		$iPcP_E$	13 09.6		— 3.6		3.9			
		$iPcP_Z$	13 10.3			+ 9.7	5.0			
		M_E(PcP)	13 12.2		+ 9		3.9			
		M_N(PcP)	13 12.2	— 13			3.9			
		Mz(PcP)	13 12.5			— 37	4.7			
		epP_E	14 48.2							
		ipP_Z	15 12.2			to D				
		iPP_N	16 06.0	to S						
		iPP_Z	16 14.8			to up				
		$ePPP_N$?	18 08.0							
		eS_N	22 23.2							
		$iScS_{NE}$	22 38.0							
		M_N	22 44.2	— 44			5.5			
		M_E	22 53.4		— 40		6.0			
		iSS_N	24 25.3							
		iSS_E	24 26.8							
		eL_N	33 47.6							
		F	5 20 —							
	Keizyō	eP_{NE}	3 13 00.0						9 29.4	
		ePPP?	18 26.2							
		eS_{NE}	22 29.4							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		M_N	3 22 42.9	— 33			5.8			
		M_E	22 52.8		— 65		6.8			
		F	4 58 —							
	Heizyō	eP	3 13 09.9						9 39.0	
		S	22 48.9							
		F	4 03 —							
64	Apr. 26									
	Keizyō	eP_E	7 16 22.3							Southern part of Sintikusyū, Formosa.
		F	23 —							
65	Apr. 29									
	Heizyō	eP	19 01 28.2							U. G. E. G. I ; 57°N, 157°W. H=18h 52m43s. Alaska.
		F	35 —							
	Keizyō	eP_{NE}	19 01 30.9						7 09.0	U. S. C. G. S ; 53°N, 157°W
		eS_E	08 39.9							Tōkyō ; Aleutian.
		e_E	11 15.9							J. S. A ; 53.°8N, 160.°5W. H=18h 52m43s. Depth=40km.
		eL_E	17 15.9							
		F	46 —							
	Zinsen	iP_{NE}	19 01 32.0					N –1.0	7 12.2	
		iP_Z	01 32.4					E –0.9		
		eS_N	08 44.2					Z +1.5		
		eL_N	15 14.							
		F	20 00 —							
	Husan	P	19 01 35.5						7 14.4	
		S	08 49.9							
		F	56 28.7							
	Taikyū	eP	19 01 37.8							
		F	12 24.8							
66	Apr. 29									
	Heizyō	iP_{NE}	20 21 27.3					N —	1 58.5	Tōkyō ; 45.°7N, 137.°3E. (r) Maritim Province. (North of Japan Sea) Depth=370km.
		iS_{NE}	23 25.8					E —		
		F	49 —							
	Keizyō	iP_{NE}	20 21 31.5					N –6	2 04.4	Felt in Hokkaidō and Tōhoku districts.
		iS_{NE}	23 35.9					E –6		
		M_E	23 37.4		— 33		5.8			
		F	44 —							
	Zinsen	iP_Z	20 21 33.3					N –5.3	2 06.5	
		iP_{NE}	21 33.7					E –4.6		
		ipP_N	21 56.4	+ 5.0				Z +5.9		
		ipP_E	21 56.6		+ 6.5					
		ipP_Z	21 58.3			— 4.7				
		iS_{NE}	23 39.8							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		M_{E1}	20 23 41.8		— 23		5.7			
		M_N	24 10.1	— 11			4.7			
		M_{E2}	24 10.8		+ 9		4.7			
		F	46 —							
	Taikyū	iP	20 21 38.5						2 09.4	
		iS	23 47.9							
		F	43 19.9							
	Syūhūrei	eP	20 21 35.7						2 12.3	
		eS	23 48.0							
		F	30 00.							
	Husan	P	20 21 44.3						2 14.6	
		S	23 58.9							
		F	40 28.5							
67	May 3									
	Taikyū	eP	15 50 55.7						59.2	Tōkyō ; 33.°4N, 132.°1E. Hōyo Strait. Felt in Sikoku, Kyūsyū and Tyūgoku distr-icts.
		S	51 54.9							
		F	56 54.							
	Husan	eP	15 51 28.8						27.5	
		eS	51 56.3							
		F	54 10.2							
	Keizyō	eP_{NE}	15 53 28.6							
		F	59 —							
	Zinsen	eS_{NE}?	15 53 43.4							
		F	56 —							
68	May 4									
	Zinsen	eI_N	5 39 —							J. S. A ; 59.°4N, 152.°9W. H=$5^h 08^m 53^s$.
		F	56 —							
	Keizyō	eI_E	5 40 08.4							U. G. E. G. I ; 59.°5N, 154°W. Alaska.
		F	52 —							
	Husan	e	5 41 07.7							
		F	53 07.6							
69	May 6									
	Keizyō	eP_{NE}	18 24 09.9							North China ? Chiufeng ep $18^h 20^m 48^s$ iS 21 59
		F	29 —							
	Zinsen	e_N	18 24 10.2							
		F	29 —							
	Husan	eP	18 25 43.7						34.8	
		eS	26 18.5							
		F	29 57.0							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion	Duration of P~S	Remarks
				A_N	A_E	A_Z				
			h m s	μ	μ	μ	s	μ	m s	
70	May 7									
	Zinsen	eL_N	18 15 —							ENE off Miyako.
		F	24 —							
71	May 9									
	Taikyū	eP?	14 50 44.1							Vicinity of Etorō Isl.
		eI.	55 42.1							
		F	15 54 —							
	Keizyō	eP_{NE}	14 50 57.5						3 36.2	
		eS_{NE}	54 33.7							
		eL_{NE}	56 59.9							
		M_E	59 14.4		± 43		16.4			
		M_N	59 21.8	± 19			18.4			
		F	16 02 —							
	Husan	eP	14 51 01.0						3 51.0	
		eS	54 52.0							
		eL	57 05.4							
		F	16 00 47.5							
	Zinsen	eP_E	14 51 01.8						3 50.6	
		eP_Z	51 01.8							
		eS_N	54 52.4							
		eL_N	56 27.4							
		F	15 28 —							
	Heizyō	eP_{NE}	14 51 01.4						4 51.0	
		S	55 52.4							
		F	15 10 —							
72	May 12									
	Zinsen	iP_N	2 53 01.3					N +	5 30.1	Chiufeng ; 3°S, 142.°5E. New Guinea.
		ePP_N	54 47.5							
		eS_N	58 31.4							
		F	3 08 —							
	Keizyō	eP_{NE}	2 53 01.8						6 25.2	
		eS_{NE}	59 27.0							
		F	3 13 —							
	Husan	e	2 55 58.0							
		F	3 15 38.4							
73	May 12									
	Zinsen	e_N	13 32 —							Distant.
		F	54 —							
74	May 20									
	Keizyō	eI'_{NE}	12 17 52.7							Distant.
		eL_{NE}	22 25.7							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion	Duration of P~S	Remarks
				A_N	A_E	A_Z				
		F	h m s 12 31 —	μ	μ	μ	s		m s	
75	May 21	eP_{NE}	2 00 43.8							S E off Katuura, Tiba Prefecture.
	Keizyō	eL_{NE}	04 54.6							
		F	20 —							
	Zinsen	eP_E	2 00 50.0							
		eL_E	05 00.0							
		F	12 —							
	Husan	eL	2 04 01.3							
		F	20 19.0							
76	May 22									
	Keizyō	e_E	0 19 20.							?
		F	29 —							
77	May 24									
	Taikyū	e?	13 32 45.2							?
		F	38 —							
78	May 27									
	Keizyō	eP_E	4 38 13.1						2 44.6	ENE off Hatizyō Isl.
		eS_E	40 57.7							
		eL_{NE}	43 04.3							
		F	57 —							
	Taikyū	eL?	4 41 46.4							
		F	56 12.4							
	Husan	L	4 42 08.2							
		F	5 01 55.9							
79	May 28									
	Husan	eP	19 59 26.3						2 36.5	Tōkyō ; 24.°0N, 142.°5E. Depth=450km. (r)SSE off Titizima. Abnormally felt at Titizima, Tōkyō ; Katuura, Utunomiya, etc.
		S	20 02 02.8							
		M_E	02 10.9		+ 32		4.3			
		F	20 54.0							
	Taikyū	P	19 59 32.0						2 45.9	
		S	20 02 17.9							
		F	26 13.9							
	Keizyō	iP_{NE}	19 59 51.8					N +3	3 04.2	
		iS_{NE}	20 02 56.0					E –3		
		M_E	02 57.2		+ 19		6.4			
		M_N	02 57.5	— 18			4.2			
		F	21 —							
	Zinsen	iP_Z	19 59 52.6					N +1.4	3 06.2	

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		iP$_{NE}$	19 59 53.0					E –1.9		
		iS$_{NE}$	20 02 58.8					Z +2.7		
		iS$_Z$	02 59.5							
		M$_N$	03 00.2	— 24			6.3			
		M$_E$	03 01.1		+ 20		5.8			
		eScS$_{EN}$	10 17.2							
		F	20 —							
	Heizyō	eP$_{NE}$	20 00 08.3						3 09.0	
		iS$_{NE}$	03 17.3							
		F	23 —							
80	May 29									
	Keizyō	eP$_{NE}$	2 03 50.5						2 57.2	South off Titizima. Deep focus.
		eS$_{NE}$	06 47.7							
		F	11 —							
	Zinsen	iP$_{NEZ}$	2 03 50.9					N +	3 04.8	
		iS$_{NE}$	06 55.7					E —		
		i$_{NE}$	07 51.7					Z +		
		F	11 —							
	Husan	eP	2 04 24.4						1 23.2	
		eS	05 47.6							
		F	09 53.2							
81	Jun. 8									
	Keizyō	eP$_{NE}$	18 04 52.5						3 25.0	Tōkyō ; 45°N, 149°E, (r)SE off Etorō Isl. Felt in Hokkaidō and Tōhoku districts. Deep.
		eS$_{NE}$	08 17.5							
		F	16 —							
	Husan	P	18 04 53.9						3 21.6?	
		eS?	08 15.5							
		F	15 33.2							
	Zinsen	eP$_{EN}$	18 04 55.7						3 29.0	
		eS$_{NE}$	08 24.7							
		F	14 —							
82	Jun. 10									
	Heizyō	eP$_{NE}$	16 57 30.6						1 06.0	Vicinity of Kirin, Manchoukuo. Felt at Sinkyō.
		iS$_{NE}$	58 36.6							
		F	17 09 —							
	Keizyō	eP$_{NE}$	16 57 51.3						1 29.7	
		eS$_{NE}$	59 21.0							
		L$_E$	59 31.2							
		L$_N$	59 35.4							
		F	17 10 —							
	Zinsen	e$_N$	16 58 56.9							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		iS_{NE}	16 59 23.6							
		M_E	59 25.0		— 13		4.4			
		M_N	59 33.6	— 12			4.6			
		F	17 05 —							
	Taikyū	P?	16 59 59.3						18.7?	
		S	17 00 18.0							
		L	00 37.9							
		F	08 27.6							
	Husan	eS	17 00 38.2							
		eL	01 01.9							
		F	08 28.6							
83	Jun. 12									
	Zinsen	eP_{NE}?	18 11 05.0						2 24.5?	WSW off Titizima. Deep.
		eS_{NE}?	13 29.5							
		F	20 —							
	Husan	eP	18 11 07.6						2 24.5	
		eS	13 32.1							
		F	23 25.6							
	Keizyō	e_{NE}	18 14 24.							
		F	21 —							
84	Jun. 13									
	Husan	eP	4 35 29.4						41.6	Hyūganada.
		eS	36 11.0							
		F	41 25.0							
	Taikyū	eP	4 35 43.6						55.3	
		eS	36 38.9							
		F	42 22.5							
	Zinsen	eP_N?	4 36 14.2						1 32.4?	
		eS_N?	37 46.6							
		F	40 —							
85	Jun. 21									
	Taikyū	P′	15 32 18.5							J. S. A.; 6.°8S, 79.°9W. H=15h 13m17s. Depth=50km. Felt along the western coast of Peru. Some damages to coastal cities particularly Trujillo, 500km north west of Lima. Also felt in Lima. U. G. E. G. I; 7.°0S, 78.6W. H=15h 13m04s.
		e	36 11.1							
		L	16 20 30.2							
		F	17 43 —							
	Husan	P′	15 32 31.6							
		e	35 29.6							
		e	44 54.2							
		F	17 37 35.4							
	Zinsen	eP'_{NE}	15 32 32.5							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		eP'_Z	15 32 33.9							
		e_N	35 52.1							
		L	54 —							
		M_{N_1}	16 43 —							
		M_{N_2}	17 12 —							
		F	38 —							
	Keizyō	e_{NE}	16 19 32.							
		e_{NE}	17 07 30.							
		F	28 —							
86	Jun. 23									
	Husan	eP	2 09 13.0						52.6	Mt. Osuzu, south of Miyazaki Prefecture.
		S	10 05.6							
		F	19 01.3							
	Zinsen	P	— — —							
		eS_{EN}?	2 11 33.1							
		F	14 —							
87	Jun. 23									
	Husan	eP	20 42 44.5						1 08.0	Tōkyō ; 31.°6N, 131.°6E. Mt. Osuzu, south of Miyazaki Prefecture. Felt in Kyūsyū.
		S	43 52.5							
		M_E	43 56.9		10		3.2			
		F	55 16.2							
	Taikyū	eP	20 43 01.1						1 17.0	
		S	44 18.1							
		F	57 —							
	Keizyō	eP_{NE}	20 43 25.0						2 00.4	
		eS_{NE}	45 25.4							
		F	55 —							
	Zinsen	eP_Z	20 43 32.3						2 02.3	
		eP_{NE}	43 33.5							
		iS_{NE}	45 34.6							
		iS_Z	45 38.4							
		M_E	45 41.5		± 5		4.3			
		F	54 —							
88	Jun. 28									
	Keizyō	eL_{NE}	5 24 11.3							Taihoku ; 25.°4N, 119.°7E. Felt at Amoy, China.
		F	28 —							
89	Jul. 1									
	Husan	P	11 57 54.4							U. G. E. G. I ; 5°N, 95°E. North west of Sumatra.
		L	12 14 18.1							
		F	41 36.0							
	Zinsen	iP_{NE}	11 57 56.6					N +	6 26.1?	

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		eS$_{NE}$?	12 04 22.7					E +		
		eL$_{NE}$	14 27.1							
		F	48 —							
	Keizyō	eL$_{NE}$	12 15 22.							
		F	28 —							
90	Jul. 2									
	Husan	P	2 47 24.3						8 11.0	Distant.
		S	55 35.3							
		F	3 37 24.6							
	Zinsen	iP$_{NE}$	2 47 43.8					N +	8 31.8	
		eS$_{NE}$	56 15.6					E —		
		F	3 33 —							
91	Jul. 3									
	Husan	e	13 53 12.0							Vicinity of Aburatu, Miyazaki Prefecture.
		F	56 37.9							
92	Jul. 3									
	Husan	e	15 26 44.5							Tōkyō ; 36.°88N, 138.°03E. Yakeyama, Niigata Prefecture.
		F	37 38.9							
93	Jul. 4									
	Taikyū	eP	6 04 15.0						4 16.7	U. S. C. G. S ; 13°S, 163°E. West of New Hebrides Isl.
		eS	08 31.7							
		i	19 32.2							
		F	Lost in next quake.							
	Zinsen	eP$_N$?	6 04 32.2						7 39.7?	
		eS$_N$?	12 01.9							
		F	Lost in next quake.							
	Husan	eP	6 05 14.4							
		L	19 11.8							
		F	Lost in next quake.							
	Keizyō	eP$_{NE}$	6 06 42.							
		eL$_{NE}$	19 56.							
		F	44 —							
94	Jul. 4									
	Taikyū	eP	6 48 13.2						4 12.8	After shock of No. 93
		eS	52 26.0							
		i	7 02 49.0							
		F	8 18 —							
	Husan	eP	6 48 58.7							
		L	7 02 54.3							
		F	28 45.1							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
	Keizyō	ePNE	6 49 00.							
		eLNE	7 03 55.							
		F	15 —							
	Zinsen	ePN	6 49 01.2						8 05.8	
		eSN	57 07.0							
		eLN	7 04 23.7							
		F	Lost in next quake.							
95	Jul. 4									
	Zinsen	ePN	7 36 18.1						8 03.2	Ditto.
		eSN	44 21.3							
		eLN	51 27.8							
		F	8 27 —							
	Husan	eS	7 43 43.8							
		F	8 27 45.4							
	Keizyō	eS	7 44 26.							
		F	8 35 —							
96	Jul. 9									
	Husan	iPEN	4 09 00.5				0.4	N –2.3	29.9	Tōkyō ; 32.°75N, 130.°05E. Tiziiwa Bay, Nagasaki Prefecture. Felt in Kyūsyū.
		S	09 30.4				0.4	E –1.2		
		F	18 40.3							
	Taikyū	eP	4 09 05.9						48.1	
		iS	09 54.0							
		F	16 30.9							
	Keizyō	ePNE	4 09 27.8						1 04.2	
		eSNE	10 32.0							
		eLNE	10 57.8							
		F	15 —							
	Zinsen	eN	4 10 12.3							
		eSE	10 58.8							
		F	15 —							
97	Jul. 11									
	Husan	P	13 42 08.2							ESE off Hatizyō Isl.
		L	45 26.4							
		F	14 17 00.3							
	Taikyū	iP	13 42 24.2						3 42.0	
		eS	46 06.2							
		F	14 02 48.0							
	Zinsen	ePE	13 42 40.5							
		eLE	46 51.6							
		F	14 10 —							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion	Duration of P~S	Remarks
				A_N	A_E	A_Z				
			h m s	μ	μ	μ	s	μ	m s	
	Heizyō	iP$_E$	13 42 59.3						3 22.5	
		S	46 21.8							
		L	47 45.8							
		M	49 05.8							
		F	14 12 —							
98	Jul. 12									
	Husan	eP	0 17 07.8							Distant.
		eL	24 30.7							
		F	46 05.8							
	Zinsen	eL$_E$	0 24 22.?							
		F	35 —							
99	Jul. 14									
	Husan	eP	22 28 40.8						2 12.8	ENE off Hatizyō Isl.
		S	30 53.6							
		L	34 08.5							
		F	23 05 38.8							
	Taikyū	eP	22 30 57.1						2 43.1	
		eS	33 40.2							
		L?	34 47.0							
		F	23 10 44.0							
	Keizyō	eP$_{NE}$	22 31 24.6						3 28.8	
		eS$_{NE}$	34 53.4							
		M$_N$	36 49.7	— 25			14.0			
		M$_E$	36 49.7		— 105		18.0			
		F	54 —							
	Zinsen	eP$_E$	22 31 25.6							
		eL$_E$	35 06.3							
		M$_E$	37 09.5		± 13		14.1			
		F	23 10 —							
	Heizyō	eP	22 31 48.6							
		L	36 12.6							
		F	58 —							
100	Jul. 16									
	Taikyū	eP?	10 20 56.3						4 16.0?	E off Hatizyō Isl.
		eS	25 12.3							
		F	44 31.3							
	Husan	P?	10 21 05.6							
		L	25 17.1							
		F	50 55.9							
	Keizyō	eP$_{NE}$	10 21 36.3							
		eL$_{NE}$	25 58.5							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		F	10 30 —							
	Zinsen	eI_N	10 25 53.6							
		F	35 —							
101	Jul. 17									
	Husan	e	18 43 16.5							E off Miyakezima.
		F	59 13.3							
	Taikyū	eP	18 47 23.9							
		F	57 46.0							
102	Jul. 19									
	Husan	e	3 08 58.3							Distant.
		F	25 28.4							
103	Jul. 19									
	Husan	e	19 57 47.0							J. S. A ; 1.°5N, 77.°5W. H=19h 35m50s. Depth=175km.
		F	20 14 36.6							
104	Jul. 21									
	Keizyō	eP_{NE}	0 10 53.4						2 39.0	Tōkyō ; 46°N, 145°E.
		eS_{NE}	13 32.4							(r)E off the Cape of Nakasiretoko, Sakhalin.
		F	17 —							
	Taikyū	P?	0 10 56.6						2 42.8?	Felt in Hokkaidō and Tōhoku districts.
		iS	13 39.4							
		F	19 50.0							
	Husan	eP	0 10 58.9						2 47.6	
		eS	13 46.5							
		F	20 51.0							
105	Jul. 22									
	Taikyū	eP	17 18 46.3						8 10.2	U. S. C. G. S ; 64.°5N, 145.°8W. H=17h 09m.5
		S	26 56.5							J. S. A ; 64.°5N, 145.°1W. H=17h 09m36s. Depth=Normal. Felt over a large area of Central Alaska
		L	31 52.0							
		F	19 02 40.5							
	Heizyō	eP	17 19 07.3						7 21.0	U. G. E. G. I ; 64.°9N, 146.°5W. H=17h 09m24s.
		S	26 28.3							
		L	34 37.3							
		M_E	40 40.3		+ 56		14.5			
		F	18 30 —							
	Husan	P	17 19 20.5						7 43.2	
		S	27 03.7							
		eL	31 06.6							
		F	19 11 12.6							
	Zinsen	eP_N	17 19 35.3						7 13.1	

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion	Duration of P~S	Remarks
				A_N	A_E	A_Z				
			h m s	μ	μ	μ	s	μ	m s	
		eS_N	17 26 48.4							
		eL_N	30 16.1							
		M_N	44 06.4	— 111			14.4			
		F	19 20 —							
106	Jul. 26									J. S. A ; 18.°6N, 95.°8W. H=3h 47m11s. Depth=75km. Damage at cities along the Gulf coast of Mexico.
	Husan	P	4 06 22.1							
		F	24 03.9							
107	Jul. 26									
	Husan	iP_E	19 59 12.1				2.8	E –6	2 06.9	
		S	20 01 19.0							Tōkyō ;
		M_E	03 29.7		— 338		16.8			38.°23N, 141.°97E. (r)E off Kinkazan. Felt over Tōhoku, Kantō Tyūbu and Hokkaidō districts. Some damage at the City of Isinomaki.
		F	41 06.3							
	Taikyū	iP	19 59 12.8					N –4.4	2 00.9	
		iS_N	20 01 13.7	— 41				E –6.5		
		iS_E	01 13.7		— 11					
		L?	02 27.9							
		F	50 23.5							
	Zinsen	ePz	19 59 25.1						2 20.3	
		iS_Z	20 01 45.4							
		M_Z	04 00.5		+ 144		13.8			
		F	29 —							
	Heizyō	iP_{NE}	19 59 43.2						2 15.0	
		S	20 01 58.2							
		F	27 —							
108	Jul. 31									
	Husan	e	10 51 59.2							S E off Hatizyō Isl.
		L	55 18.3							
		F	11 17 23.9							
	Taikyū	eP	10 52 07.3							
		i	55 59.3							
		F	11 12 —							
109	Jul. 31									
	Heizyō	iP_{NE}	20 38 04.0					N –?	1 45.0	Chakhar, East inner Mongolia.
		eS_{NE}	39 49.0					E —		U. G. E. G. I ; Felt at Hsou Tcheou, North of Kiang Si, China.
		L	40 28.0							
		M_N	41 10.0							
		M_E	42 16.0							
		F	21 22 —							
	Zinsen	iP_Z	20 38 06.4					Z +	1 34.2	
		iPP_Z	38 41.4							
		iS_Z	39 40.6							
		i_Z	40 10.4							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		Mz	20 41 57.6			+ 221	4.3			
		F	21 17 —							
	Taikyū	P	20 38 25.2						2 15.7	
		S	40 40.9							
		L	41 20.9							
		M_N	42 00.2	+ 195			4.4			
		M_E	42 58.3		— 243		7.8			
		F	21 44 —							
	Syūhūrei	P	20 38 25.9						2 00.0	
		S	40 25.9							
		M_E	40 56.4		± 225		3.8			
		F	21 08 56.4							
	Husan	eP	20 38 29.4						2 04.0	
		S	40 33.4							
		M_N	41 58.9	— 168			5.6			
		M_E	42 21.2		± 86		3.3			
		F	22 03 27.6							
110	Jul. 31									
	Keizyō	eP_E	22 58 47.3						49.8	Ditto
		eS_E	59 37.1							
		F	23 08 —							
	Zinsen	eZ	22 58 56.4							
		eS_Z	59 24.0							
		F	23 03 —							
	Husan	eP	23 00 13.7						2 17.3	
		eS	02 31.0							
		F	17 28.0							
	Taikyū	P	23 00 14.8							
		F	06 —							
111	Aug. 1									
	Heizyō	eP	10 43 20.3						2 03.0	Ditto about 42°N, 114°E.
		eS	45 23.3							
		L	46 08.3							
		M_{NE}	46 29.3							
		F	11 29 —							
	Taikyū	eP	10 43 42.6						2 26.0	
		eS	46 08.6							
		M_N	47 30.8	+ 189			2.6			
		M_E	48 16.0		— 104		3.6			
		F	11 35 18.0							
	Husan	P	10 43 42.8						2 38.0	

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion	Duration of P~S	Remarks
				A_N	A_E	A_Z				
			h m s	μ	μ	μ	s	μ	m s	
		S	10 46 20.8							
		M_E	48 57.4		± 750		6.1			
		F	11 37 29.9							
	Zinsen	eP'_N	10 43 43.3						2 06.0	
		iS_N	45 49.3							
		M_E	46 16.2		— 102		4.8			
		M_N	46 27.7	+ 143			4.8			
		F	11 40 —							
	Keizyō	eP'_{NE}	10 43 58.3						1 29.3	
		eS_{NE}	45 27.6							
		eL_{NE}	45 55.6							
		M_N	46 31.2	— 100			3.6			
		M_E	47 00.0		— 400		8.8			
		F	11 14 —							
	Syūhūrei	P	10 44 39.9						2 10.0	
		S	46 49.9							
		M_E	47 04.1		± 120		3.8			
		F	11 10 51.2							
112	Aug. 2									
	Taikyū	eP?	15 48 20.6						2 35.7?	Southern part of Okhotsk Sea.
		eS	50 56.3							
		F	16 00 52.2							
	Keizyō	eP'_E	15 50 49.3							
		F	16 03 —							
	Husan	e	15 50 50.5							
		F	16 05 37.0							
113	Aug. 5									
	Husan	P	14 52 07.0						6 30.5	Distant
		S	58 37.5							
		F	15 28 58.9							
	Taikyū	P	14 52 12.2						6 41.9	
		S	58 54.1							
		F	15 12 51.5							
	Zinsen	iP_N	14 52 25.1					N +	6 54.7	
		iP_Z	52 25.3					E —		
		iP_E	52 25.6					Z +		
		ePP_Z	54 15.3							
		ePP_N	54 17.0							
		eS_{NE}	59 19.8							
		eSS_{NE}	15 00 12.4							
		F	16 —							

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No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion		Duration of P~S	Remarks
				A_N	A_E	A_Z					
			h m s	μ	μ	μ	s	μ		m s	
	Keizyō	eP'E	14 52 32.2							2 31.0	
		eSE	55 03.2								
		F	15 13 —								
114	Aug. 7										
	Husan	e	20 48 46.0								Hyūganada.
		F	21 00 12.1								
115	Aug. 8										
	Husan	eP	10 17 21.6							3 19.0	Tōkyō ; Marianne Isl.
		eS	20 40.6								
		F	49 14.5								
116	Aug. 9										
	Husan	eP	12 40 35.2							2 55.9	Vicinity of Titizima.
		eS	43 31.1								
		F	13 10 19.3								
	Taikyū	P	12 40 49.5							2 56.7	
		S	43 46.2								
		F	13 04 35.3								
	Keizyō	eP'E	12 41 15.1							3 06.4	
		eSE	44 21.5								
		F	54 —								
	Zinsen	iP'EN	12 41 15.7					N	+	3 11.2	
		eSEN	44 26.9					E	—		
		eLNE	46 38.4								
		F	59 —								
117	Aug. 9										
	Husan	P	14 42 42.3							3 03.6	Ditto.
		eS	45 45.9								
		F	15 22 19.9								
	Taikyū	P	14 42 48.5							2 59.0	
		S	45 47.5								
		F	15 15 25.2								
	Keizyō	eP'E	14 43 13.7							3 04.2	
		eSE	46 17.9								
		F	15 09 —								
	Zinsen	iP'NE	14 43 14.9					N	+	3 13.1	
		eSNE	46 28.0					E	—		
		eLN	48 12.1								
		F	15 16 —								
118	Aug. 9										
	Husan	e	16 43 05.7								Ditto.
		F	17 02 20.1								

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No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
119	Aug. 9									
	Husan	eP	19 21 59.1						3 14.0	Ditto.
		eS	25 13.1							
		F	42 20.7							
120	Aug. 11									
	Taikyū	eP	1 01 52.1						6 50.3	Batavia ; 6.°5S, 116.°5E. Depth=650km Felt Java to Roti.
		eS	07 42.4							
		F	42 20.0							
	Husan	P	1 03 07.8						4 34.3	
		S	07 42.1							
		F	2 17 29.1							
	Keizyō	eP_E	1 03 18.3						6 00.8	
		eS_E	09 19.1							
		eL_E	12 34.5							
		F	36 —							
	Zinsen	eP_{NE}	1 03 22.5	in time mark.					5 56.0	
		iS_{EN}	09 18.5							
		M_E	09 26.7		+ 43		7.5			
		M_N	09 26.7	+ 57			7.5			
		F	48 —							
	Heizyō	eP	1 03 28.5						6 04.5	
		eS	09 33.0							
		F	44 —							
121	Aug. 16									Tōkyō ; 35.°23′N, 135.°51′E. (m)Takasimagun, Siga Prefecture. Felt in Kinki Tyūbu and Tyūgoku districts.
	Husan	e	16 41 03.7							
		F	51 03.8							
122	Aug. 17									ESE off Hatizyō Isl.
	Husan	eP	13 12 41.6							
		L	16 20.6							
		F	48 09.5							
	Taikyū	eP	13 12 54.3						2 43.7	
		eS	15 38.0							
		F	32 14.3							
123	Aug. 19									
	Husan	eP	20 33 14.8						47.5	Ariake Bay, Kagosima Prefecture.
		S	34 02.3							
		F	39 24.2							
	Zinsen	e_{NE}	20 35 34.1	Short pe.iod wave.						
		F	37 20.							

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No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion	Duration of P~S	Remarks
				A_N	A_E	A_Z				
			h m s	μ	μ	μ	s	μ	m s	
124	Aug. 20									
	Husan	P	12 04 14.8						4 01.3	Manila ; 14°10′N, 122°05′E. H=11h59m13s. Felt throughout southern and southeastern Luzon and northwestern Visayan Isl. Intensity IX in Epicentral area, VII in Manila. Considerable damge in Manila.
		S	08 16.1							
		M_N	10 50.8	— 1314			18.5			
		F	15 15 34.8							
	Taikyū	P	12 04 15.5					N +13	4 11.4	
		i_E	04 24.8				4.8	E + 9		
		S_N	08 26.9	+ 221			9.3			
		S_E	08 28.3		+ 208		9.6			
		i_E	13 53.7				19.4			
		L	33 56.2							
		F	13 57 —							
	Syūhūrei	P	12 04 18.3						4 05.7	
		S	08 24.0							
		F	13 09 43.1							
	Zinsen	iP_N	12 04 26.1				8.4	N +14.3	4 13.9	
		eP_E	04 28.1					E +?		
		M_N	04 38.2	— 74			5.5			
		iS_N	08 40.0	— 579			14.5			
		M_N	08 49.7	+ 448			9.8			
		M_{E_1}	08 58.2		— 147		8.1			
		M_{E_2}	14 34.0		— 508		12.6			
		M_N	16 00.7	— 889			17.8			
		F	14 20 —							
	Keizyō	eP_E	12 04 29.1						4 11.4	
		eS_E	08 40.5							
		eL_E	11 45.7							
		M_E	16 50.8		— 470		13.6			
		F	13 44 —							
	Heizyō	iP_{NE}	12 04 42.3					N +8.	4 37.0	
		iS_{NE}	09 19.3					E +1.4		
		M_N	16 51.3	+ 74			15.			
		M_E	17 33.3		+ 104		12.			
		F	13 21 —							
125	Aug. 21									
	Husan	eP	23 04 48.5						2 59.7	SE off Hatizyō Isl.
		eS	07 48.2							
		F	36 36.9							
	Taikyū	eP	23 05 02.1						3 02.1	
		eS	08 04.2							
		F	21 28.4							
126	Aug. 24									
	Zinsen	iP′z	18 40 05.4					N +		Pasadena ;

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No.	Date and Station	Phase	G. M. T.	Amplitude A_N μ	Amplitude A_E μ	Amplitude A_Z μ	Period s	First motion	Duration of P~S	Remarks
			h m s					μ	m s	
		iP'N	18 40 06.8					E —		H=18h 27m 48s Tonga Islands.
		iP'E	40 06.8					Z —		
		F	53 —							
127	Aug. 26									
	Taikyū	eP	18 55 05.3						1 31.3	Tōkyō ; 31.°4N, 131.°5E. (m) Southern part of Hyūganada. Felt over Kyū-syū district.
		S	56 36.6							
		F	19 22 56.6							
	Husan	eP	18 55 07.9						1 19.1	
		S	56 28.0							
		F	19 24 02.3							
	Syūhūrei	P	18 55 41.8						1 37.9	
		S	57 19.7							
		F	19 08 00.1							
	Keizyō	eP_{NE}	18 56 00.0						1 37.2	
		eS_{NE}	57 37.2							
		eL_E	58 01.0							
		eL_N	58 02.2							
		M_N	58 13.8	— 19			3.8			
		M_E	58 22.0		+ 41		4.4			
		F	19 15 —							
	Zinsen	iP_N	18 56 00.8					N —	1 42.0	
		eS_E	57 42.8							
		iL_E	58 03.5							
		M_E	58 16.4		— 50		5.6			
		M_N	58 16.4	— 27			4.9			
		F	19 15 —							
	Heizyō	eP	18 56 29.1						2 25.0	
		eS	58 54.1							
		F	19 15 —							
128	Aug. 29									
	Husan	eP	7 07 50.3						58.9	Ditto
		S	08 49.2							
		F	19 12.7							
	Keizyō	eP_{NE}	7 08 11.5						2 04.6	
		eS_{NE}	10 16.1							
		F	15 —							
	Taikyū	eP	7 09 10.8							
		F	13 52.8							
	Zinsen	eE	7 10 08.7	Short period wave.						
		F	13 —							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
129	Aug. 29									
	Keizyō	eP_{NE}	18 01 59.7						2 04.2	Region of China.
		eS_{NE}	04 03.9							
		F	16 —							
	Zinsen	eP_{NE}?	18 02 38.1						1 11.8?	
		eS_{NE}?	03 49.9							
		F	09 —							
	Husan	eS	18 04 22.3							
		eL	05 15.8							
		F	17 14.6							
	Taikyū	eS	18 04 24.4							
		F	12 15.2							
130	Aug. 31									
	Heizyō	eP	14 20 49.6						4 57.0	U. G. E. G. I ; Tibet ? Bombay ; 25°N, 96°E.
		S	25 46.6							
		L	30 07.6							
		M_{NE}	31 06.1	— 30	— 48		12.			NE part of Burma.
		F	15 05 —							
	Zinsen	eP_E	14 20 55.8						5 04.8	
		eS_E	26 00.6							
		eL_E	29 56.6							
		M_N	30 54.3	+ 162			14.1			
		M_E	33 20.1		+ 53		9.7			
		F	15 07 —							
	Keizyō	eP_{NE}	14 21 00.3						5 51.4	
		eS_{NE}	26 51.7							
		eL_{NE}	29 58.1							
		F	55 —							
	Taikyū	P	14 21 07.8						4 50.4	
		S	25 58.2							
		F	15 02 17.2							
	Husan	eP	14 21 10.0							
		eL	31 05.0							
		F	15 04 22.3							
	Syūhūrei	eS	14 25 46.1							
		eL	30 36.9							
		F	41 26.5							
131	Sept. 1									
	Husan	e	17 51 31.0							Distant
		e	53 32.4							
		F	18 06 26.9							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
132	Sept. 3									
	Heizyō	P	18 55 47.3						6 00.0?	J. S. A ; 52.°5N, 177.°5W. H=18h48m29s. Depth=160–180km.
		S?	19 01 47.3							
		F	33 —							
	Keizyō	eP_{NE}	18 55 50.3						6 03.6	U. S. C. G. S ; 52.°5N, 177.°5W. H=18h48.m2. Depth=160km. Aleutian Isl.
		eS_{NE}	19 01 53.9							
		F	19 —							
	Zinsen	iP_Z	18 55 50.7					N –1.0	6 04.0	
		iP_E	55 52.0					E –2.0		
		iP_N	55 52.3					Z +1.1		
		ipP_Z	56 10.3			— 30.1	3.6			
		ipP_N	56 11.3	+ 8.7			3.2			
		ipP_E	56 11.3		+ 12.0		3.2			
		i_E	57 51.2		— 8.0		3.8			
		iS_E	19 01 54.7							
		iS_N	01 55.5							
		M_E	02 12.4		+ 23		4.2			
		M_N	03 00.5	+ 43			7.0			
		F	20 12 —							
	Taikyū	eP	18 55 52.4						6 07.2	
		eS	19 01 59.6							
		F	20 12 34.6							
	Syūhūrei	P	18 55 54.1						6 02.6	
		S	19 01 56.7							
		F	10 —							
	Husan	eP?	18 56 12.5						6 12.4?	
		eS	19 02 12.4							
		F	15 35.2							
133	Sept. 4									
	Husan	e	6 28 00.7							Distant.
		F	7 00 37.1							
134	Sept. 8									
	Zinsen	iP_{ENZ}	13 39 47.3						2.8	Lower reaches of the river of Kankō. Felt at Zinsen.
	(Intensity)	iS_{NE}	39 50.1							
	I	F	40 25.							
	Keizyō	eP_{NE}	13 39 47.3						2.3	
		iS_{NE}	39 49.6							
		M_N	39 50.2	— 10			0.2			
		M_E	39 50.3		+ 10		0.2			
		F	40 44.							
145	Sept. 8									
	Zinsen	iP_{EN}	13 40 56.5						3.0	After shock of No.134

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion	Duration of P~S	Remarks
				A_N	A_E	A_Z				
			h m s	μ	μ	μ	s	μ	m s	
		iSEN	13 40 59.5							
		F	41 25.							
	Keizyō	ePNE	13 40 57.9						1.3	
		eSNE	40 59.2							
		F	41 44.							
136	Sept. 15									
	Husan	P	12 36 58.6						7 35.2	J. S. A ; 8.°3S, 162.°0E. H=12h27m37s. Depth Normal. U. S C. G. S ; 9°S, 161°E. Solomon Isl.
		S	44 33.8							
		eL	50 42.6							
		F	13 28 00.0							
	Taikyū	P	12 37 04.4					N +7	7 41.1	
		S	44 45.5					E –5		
		F	24 —							
	Keizyō	el'NE	12 37 20.2						7 53.4	
		eSNE	45 13.6							
		eLNE	51 52.6							
		F	13 16 —							
	Zinsen	iPN	12 37 20.4				3.7	N +5.1	7 53.0	
		iPE	37 20.4				3.7	E –6.0		
		iPZ	37 20.4				3.7	Z +19.2		
		iSEN	45 13.4							
		iSZ	45 14.7							
		eLN	51 58.6							
		F	13 37 —							
	Heizyō	iPNE	12 37 29.8					N +	8 08.1	
		iS	45 37.9					E —		
		F	13 15 —							
137	Sept. 16									
	Keizyō	ePNE	10 02 52.7							SW off Horomusiro Isl. Kurile Isl.
		F	08 —							
138	Sept. 21									
	Zinsen	ePE?	7 55 08.9						5 36.4?	Distant.
		eSE?	8 00 45.3							
		F	28 —							
	Keizyō	ePNE	7 56 45.5						4 29.8	
		eSNE	8 01 15.3							
		F	31 —							
	Husan	eP	7 57 47.0						4 08.6	
		eS	8 01 55.6							
		F	28 04.8							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
	Taikyū	eP	7 57 50.7						4 27.8	
		S	8 02 18.5							
		F	17 31.7							
	Heizyō	eS	8 01 04.5							
		F	14 —							
139	Sept. 21									
	Taikyū	P	9 46 20.9						5 33.0	Batavia ; Felt in N. Celebes, Sangir Islands and Halmaheira.
		S	51 53.9							
		F	10 19 31.9							
	Husan	eP	9 46 38.8						5 05.3	
		eS	51 44.1							
		F	10 53 04.9							
	Zinsen	eP_N	9 46 45.0						5 31.4	
		eS_{EN}	52 16.4							
		F	10 13 —							
	Keizyō	eP_{NE}	9 46 47.1						5 34.6	
		eS_{NE}	52 21.7							
		F	10 12 —							
140	Sept. 22									
	Husan	P	3 16 13.4						4 18.8	Manila ; 12.°03N, 124.°03E. Felt in Eastern Visayas.
		S	20 32.2							
		F	51 06.3							
	Zinsen	eP_N?	3 16 18.8						4 46.9?	
		eS_N	21 05.7							
		F	50 —							
	Taikyū	iP	3 16 21.2						4 20.2	
		iS	20 41.4							
		F	45 32.4							
	Syūhūrei	P	3 17 24.8						4 24.5	
		S	21 49.3							
		F	30 —							
	Keizyō	eP_{NE}	3 17 51.9						4 16.0	
		eS_{NE}	22 07.9							
		F	46 —							
141	Sept. 23									
	Taikyū	P	13 14 33.3						7 11.7	J. S. A ; 6.°5S, 153.°8E. H=$13^h06^m00^s$. Depth normal. Region of Solomon Isl.
		i	14 53.9							
		S	21 45.0							
		F	14 40 20.2							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N μ	Amplitude A_E μ	Amplitude A_Z μ	Period s	First motion μ	Duration of P~S m s	Remarks
	Husan	P	h m s 13 14 37.0						6 55.5	
		S	21 32.5							U. S. C. G. S ; 6°S, 154°E. H=13h06m09s.
		M_E	21 49.9		— 75		6.8			
		F	15 22 07.7							Manila ; 6°S, 154°E.
	Syūhūrei	P	13 14 40.0						7 05.0	
		S	21 45.0							
		F	50 —							
	Keizyō	eP_{NE}	13 14 56.1						7 18.2	
		eS_{NE}	22 14.3							
		eL_{NE}	29 10.3							
		F	15 20 —							
	Zinsen	iP_Z	13 14 56.2					N —	7 16.9	
		iP_N	14 57.0					E +		
		iP_E	14 57.5					Z —		
		iS_{NE}	22 13.1							
		iS_Z	22 14.8							
		M_N	22 27.9	+ 33			4.7			
		M_E	22 33.1		— 93		6.8			
		M_Z	22 33.1			± 43	6.6			
		F	15 22 —							
	Heizyō	iP_{NE}	13 15 12.1						7 27.0	
		iS_{NE}	22 39.1							
		M_{NE}	23 00.1							
		F	14 55 —							
142	Sept. 27									
	Husan	P	9 3 44.1						6 49.4	Batavia ; Felt on Java, Bali, Lombok.
		S	10 33.5							
		F	59 11.9							U. G. E. G. I ; 7°S, 110°E.
	Taikyū	P	9 03 52.0						6 50.2	
		S	10 42.2							
		F	10 02 36 2							
	Zinsen	iP_N	9 03 55.4					N +2.0	6 52.5	
		iP_Z	03 55.7					E +		
		iP_E	03 56.1					Z +4.1		
		iS_N	10 47.9							
		eS_Z	10 52.7							
		F	10 10 —							
	Keizyō	eP_{NE}	9 03 57.8						6 55.4	
		eS_{NE}	10 53.2							
		F	53 —							
	Heizyō	P	9 04 22.4						6 46.5	
		S	11 08.9							
		F	34 —							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N μ	Amplitude A_E μ	Amplitude A_Z μ	Period s	First motion μ	Duration of P~S m s	Remarks
143	Sept. 30		h m s							
	Husan	e	13 06 32.5							Distant. ?
		F	25 15.0							
	Keizyō	eP_E	13 07 44.7							
		F	15 —							
144	Sept. 30									
	Keizyō	eP_E	13 30 44.							Distant.
		F	36 —							
145	Oct. 3									
	Husan	P	20 38 38.0							
		S	39 29.0						51.0	Northern part of Hyūganada. Felt in Kyūsyū district.
		F	45 14.3							
	Zinsen	e_Z	20 40 53.5							
		e_{NE}	41 03.4							
		F	45 —							
	Keizyō	eP_{NE}	20 41 00.6							
		F	45 —							
146	Oct. 6									
	Husan	eP	17 13 23.9						6 55.4	Pasadena ; 6°S, 154°E. H=17h04m48s. Solomon Isl.
		S	20 19.3							
		F	55 17.2							
	Taikyū	eP?	17 13 36.4							
		F	45 36.							
	Keizyō	eP_{NE}	17 13 48.6						7 14.2	
		eS_{NE}	21 02.8							
		M_E	21 11.7	— 11			5.6			
		F	18 15 —							
	Zinsen	iPz	17 13 48.8					N –2.0	7 15.0	
		iP_N	13 49.1					E +1.0		
		iP_E	13 49.1				2.8	Z –4.1		
		iSz	21 03.8							
		iS_{EN}	21 04.0							
		M_E	21 14.8	— 23			5.1			
		F	48 —							
147	Oct. 17									
	Husan	P	4 49 26.4						3 01.0	Tōkyō ; 35.°5N, 141.°0E. (r) SE off the Cape of Inubō. Felt over Kantō, Tōhoku and Tyūbu districts.
		S	52 27.4							
		M_E	52 47.1	— 65			6.1			
		F	5 21 16.9							
	Taikyū	iP	4 49 33.2					N –7.6	2 01.5	
		S	51 34.7							
		L	52 53.7							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		M_N	4 53 19.6	+ 51			5.7			
		F	5 18 —							
	Keizyō	iP_E	4 49 50.5						2 57.6	
		eS_{NE}	52 48.1							
		F	5 22 —							
	Zinsen	iP_Z	4 49 53.7				4.6	Z +6.9	2 38.0	
		iP_E	49 53.8				4.1	E −4.1		
		eP_N	49 53.8							
		eS_N	52 31.7							
		eL_N	53 03.0							
		F	5 15 —							
	Heizyō	eP_{NE}	4 50 05.7						3 00.0	
		eS_N	53 05.7							
		F	5 14 —							
148	Oct. 20									
	Husan	e	1 47 34.9							Distant.
		F	2 05 14.4							
149	Oct. 23									
	Husan	e	3 06 38.6							SE off Hatizyō Isl.
		F	19 11.2							
150	Oct. 24									
	Keizyō	e_E	12 08 12.							Off Kuzyūkurihama, Tiba Prefecture.
		F	14 —							
151	Oct. 25									
	Zinsen	iP_{NE}	23 25 53.3						4 13.9?	Pasadena ; 48°N, 154°E. H=23h20m6 Tōkyō ; South off Kamchatka.
		eS_N?	30 07.2							
		F	43 —							
	Husan	e	23 25 54.0							
		F	32 09.5							
152	Nov. 9									
	Keizyō	eP_{NE}	1 18 13.7						3 59.9	Vicinity of Noziri, Miyazaki Prefecture.
		eS_{NE}	22 13.6							
		F	30 —							
	Heizyō	eP_{NE}	1 20 17.2							
		F	30 —							
	Zinsen	eS_E?	1 21 15.2							
		F	25 —							
153	Nov. 10									
	Keizyō	eP_{NE}	21 45 31.3						4 06.0	SE off the cape of

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		eS$_{NE}$	21 49 37.3							Santyōkaku, Formosa
		F	56 —							
154	Nov. 14									
	Heizyō	iP$_E$	11 05 52.1						7 33.0?	J. S. A ; 35.°2N, 72.°8E. H=10^{h}58^{m}05^s. Depth=250km. Destructive at Chitral, in Northwestern India in the immediate neighborhood of the above epicentre. Slight damage was said to have occurred as far south as Srinagar, Abbottabad, and other places in the province of Kashmir.
		S$_{NE}$?	13 25.1							
		F	56 —							
	Zinsen	iP$_E$	11 06 00.5					N -2.7	7 47.7?	
		iP$_N$	06 00.5				4.6	E +8.7		
		iP$_Z$	06 01.6				4.6	Z 14.7		
		ipP$_Z$	06 55.0			— 10.3	4.2			
		ipP$_E$	06 55.9		+ 14.4		9.1			
		ipP$_N$	06 55.9	to S						
		iPP$_Z$	07 44.9			to D				
		iPP$_E$	07 45.6		to W					
		iPPP$_E$	09 12.8		+ 31.7		4.6			Pasadena ; 36.°5N, 70.°5E. H=10^{h}58^{m}12^s. Depth=220 km.
		iPPP$_Z$	09 13.3			+ 29.4	4.6			
		i$_E$	12 21.5		to E					
		iS$_N$	13 48.2							Bombay ; 37.°3N, 72.°0E. H=10^{h}58^{m}05^s. Depth=200km.
		eS$_E$	13 48.4							
		M$_N$	13 53.9	+ 66			7.6			
		M$_E$	14 05.0		— 81		9.5			
		M$_Z$	14 12.3			+ .22	7.9			U. G. E. G. I ; 36.°5N, 70.°5E. H=10^{h}58^{m}12^s. Depth=220km.
		is$_N$?	15 32.7	+ 32			10.8			
		is$_E$?	15 33.8		+ 9		7.2			
		F	12 20 —							
	Keizyō	P$_{NE}$	11 06 02.4						3 04.5	
		S$_{NE}$	09 06.9							
		M$_N$	13 56.8	+ 65			8.0			
		M$_E$	14 08.7		— 45		8.0			
		F	12 — —							
	Taikyū	P	11 06 17.0					N -3	3 08.8	
		PP	07 13.3					E +6		
		i	07 33.6							
		S	09 25.8							
		L	12 50.5							
		M$_N$	14 23.8	+ 33			8.1			
		F	12 11 —							
	Syūhūrei	P	11 06 07.6						8 02.5	
		S	14 10.1							
		F	41 57.2							
	Husan	iP$_{EN}$	11 06 22.0					N -3	2 55.9	
		eS	09 17.9					E +8		
		L	12 55.6							
		F	12 27 56.0							

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No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s		m s	
155	Nov. 15									
	Zinsen	iP_E	21 44 49.4					E —	5 59.2	U. G. E. G. I ; 35°N, 82°E. H=21h37.m0 Depth=200km. Tibet.
		ePP_E	46 16.1							
		eS_E	50 48.6							
		eL_N	58 27.5							
		M_N	59 58.3				16.2			Bombay ; 34.5°N, 77°.5E. Felt at Srinagar.
		F	22 27 —							
	Husan	eP	21 45 10.6							
		eL	22 00 42.1							
		F	47 54.1							
	Keizyō	eP_{NE}	21 45 11.3						5 46.0	
		eS_{NE}	50 57.3							
		F	22 15 —							
	Taikyū	eP	21 48 26.1						1 56.0	
		eS	50 22.1							
		F	22 36 11.1							
156	Nov. 22									Tōkyō ; 35°46′N, 138°15′E. (m)Mt. Komagatake. Yamanasi Prefecture Felt in Tyūbu, Kantō and Kinki districts.
	Husan	eP	17 42 04.7							
		F	49 39.3							
157	Nov. 24									
	Keizyō	eP_{NE}	8 37 28.8						26.0	?
		S_{NE}	37 54.8							
		F	39 20.0							
158	Nov. 25									
	Husan	eP	5 37 59.6						4 23.4	Vicinity of Karenkō.
		eS	42 23.0							
		F	55 31.8							
	Zinsen	e_E	5 42 25.0							
		F	48 —							
	Taikyū	e	5 42 32.0							
		F	49 —							
159	Nov. 26									
	Husan	eP	3 47 17.5						49.3	Tōkyō ; 42.°3N, 124.°4E. (m)Mouth of the River of Niikappu, Hokkaidō. Felt at Hokkaidō.
		eS	48 06.8							
		F	49 29.0							
160	Nov. 26									
	Husan	P	10 48 01.7						2 13.2	Tōkyō ; 24.°1N, 123.°1E. (r)South off Yonakuni Isl. Felt at Formosa.
		S	50 14.9							
		F	11 15 28.1							
	Taikyū	P	10 48 09.5						2 21.3	

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion	Duration of P~S	Remarks
				A_N	A_E	A_Z				
			h m s	μ	μ	μ	s	μ	m s	
		S	10 50 30.8							
		F	11 20 —							
	Zinsen	iPz	10 48 22.4					N +	2 33.9	
		iP_N	48 22.5					Z +		
		iS_E	50 56.3							
		i_E	52 41.8							
		M_E	52 59.7	— 15			4.8			
		F	11 16 —							
	Keizyō	eP_{NE}	10 48 24.2						4 28.5	
		eS_{NE}	52 52.7							
		F	11 05 —							
	Heizyō	eP_N	10 48 40.8						2 57.0	
		eS_E	51 37.8							
		M	54 37.8							
		F	11 10 —							
161	Nov. 26									
	Husan	e	15 41 48.9							Tōkyō ; 35.°7N, 141.°0E. (m) Vicinity of the cape of Inubō. Felt over Kantō district.
		F	50 27.5							
162	Nov. 28									
	Zinsen	eP_E?	5 28 11.3						10 54.7?	Bomby ; 2.°0S, 96.°6E. H=5h24m00s. Sumatra.
		eS_E?	39 06.0							
		eL_E	45 38.1							
		F	6 18 —							
	Husan	eP	5 32 28.9						7 02.5	
		eS	39 31.4							
		F	6 45 22.3							
	Taikyū	eP?	5 43 22.9						4 37.0?	
		eS	47 59.9							
		F	6 13 37.0							
163	Nov. 30									
	Zinsen	iP_Z	0 48 46.5					N +	6 43.0	U. G. E. G. I ; 5°N, 90°E. H=0h40.m5 Nicobar Isl , west of Sumatra. Bombay ; 5°N, 89°E. H=0h40m28s.
		iP_{NE}	48 47.6					E +		
		eS_{NE}	55 29.5					Z +		
		eI_{NE}	1 04 10.0							
		F	30 —							
	Taikyū	eP	0 48 51.2						6 48.0	
		eS	55 39.2							
		eL	1 02 59.2							
		F	42 —							
	Husan	eP	0 48 53.8						6 53.8	
		eS	55 47.6							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		eL	1 05 30.3							
		F	29 16.4							
164	Nov. 30									
	Keizyō	eP_{NE}	9 28 00.5						38.3	?
		eS_{NE}	28 38.8							
		F	30 10.0							
165	Nov. 30									
	Zinsen	eL_N	13 45 10.0							U. G. E. G. I: 7.°5N, 45.°0E. Abyssinia. Bombay; 6.°5N, 37.°5E. H=12h57.m9
		F	14 00 —							
	Taikyū	e	13 47 58.6							
		eI.	50 14.8							
		F	14 17 45.0							
	Husan	e	13 49 44.1							
		F	14 14 14.7							
166	Dec. 6									
	Husan	P	4 36 50.4						2 17.6	E S E off the cape of Inubō, Tiba Prefecture.
		S	39 08.0							
		F	5 05 55.2							
	Taikyū	P	4 36 55.8						2 59.8	
		S	39 55.6							
		L	42 02.6							
		F	5 11 —							
	Zinsen	eP_E	4 37 08.7						3 03.5	
		eS_N	40 12.2							
		eL_N	42 12.4							
		M_N	43 21.5				14.5			
		F	5 10 —							
167	Dec. 8									
	Husan	P	8 35 26.9						2 35.9	Tōkyō; 22.°9N, 121.°5E. (r) NE off Daitō, Formosa. Felt over Formosa. Damage at Daitō and Karenkō.
		S	38 02.8							
		L	39 32.1							
		F	9 53 47.3							
	Taikyū	P	8 35 35.5						2 48.0	
		S	38 23.5							
		M_E	42 16.7		+ 200		13.4			
		M_N	42 33.3	— 113			11.3			
		F	9 32 53.5							
	Syūhūrei	P	8 35 42.9						4 22.5	
		S	40 05.4							
		F	57 03.4							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
	Zinsen	iPz	8 35 44.7						2 57.7	
		iP_N	35 46.7							
		iS_N	38 42.4							
		eSz	38 43.9							
		iL_E	40 19.3							
		M_E	42 15.0		— 128		10.7			
		M_{N_1}	42 30.5	± 119			10.7			
		M_Z	42 31.2			— 334	13.4			
		M_{N_2}	45 35.7	± 111			10.9			
		F	9 48 —							
	Keizyō	P	8 35 48.0						3 06.4	
		S	38 54.4							
		L	40 36.4							
		M_N	42 33.4							
		F	9 10 —							
	Heizyō	iP_N	8 36 06.9					N —	3 06.9	
		iS_E	39 13.8							
		L	40 49.8							
		M_E	21 22.8							
		M_N	43 15.0							
		F	9 07 —							
168	Dec. 8									
	Husan	eP?	20 42 04.9							After shock of No. 167.
		L	46 04.5							
		F	21 19 45.5							
	Zinsen	eP_N	20 42 19.7							
		eL_E	46 52.4							
		F	21 10 —							
	Taikyū	eS	20 44 53.7							
		eL	47 54.5							
		F	21 04 —							
169	Dec. 10									
	Husan	P	13 31 27.6						2 53.4	ESE off the cape of Inubō, Tiba Prefecture.
		S	34 21.0							
		L	36 23.1							
		F	14 11 39.7							
	Taikyū	P	13 31 33.0						3 32.1	
		S	35 05.1							
		F	14 01 16.9							
	Zinsen	eP_E	13 31 57.2							
		eI_N	36 11.9							
		F	14 11 —							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
	Keizyō	eP	13 34 08.1						2 20.0	
		eS	36 28.1							
		M_N	38 55.1							
		F	45 —							
170	Dec. 13									
	Husan	P	18 57 21.5						2 41.3	Tōkyō ; 22.°7N. 121.°2E. (r) SE off Daitō, Formosa. Felt over Formosa.
		S	19 00 02.8							
		L	01 34.1							
		F	20 13 28.9							
	Taikyū	eP	18 57 30.2						2 50.7	
		S	19 00 20.9							
		M_E	04 12.1		+ 146		16.2			
		M_N	04 22.9	+ 100			12.9			
		F	44 01.9							
	Zinsen	iP_N	18 57 37.5					N —	3 02.1	
		iP_E	57 37.5					E —		
		iP_Z	57 37.5					Z —		
		iS_N	19 00 39.6	+ 6.5			4.7			
		iS_E	00 40.7		— 10.5		7.0			
		iS_Z	00 41.8			to up				
		eL_{EN}	02 35.5							
		M_{N_1}	04 22.2	— 71			11.5			
		M_Z	04 23.1			± 154	14.3			
		M_{E_1}	04 23.9		— 48		9.2			
		M_{E_2}	07 19.6		± 56		11.1			
		M_{N_2}	07 40.5	+ 43			11.1			
		F	20 10 —							
	Keizyō	P	18 57 40.3						3 04.0	
		S	19 00 44.3							
		L	03 09.3							
		F	22 —							
	Heizyō	eP_{NE}	18 57 59.3						3 09.0	
		iS_{NE}	19 01 08.3							
		L	03 02.3							
		M_E	04 08.3							
		M_N	05 08.3							
		F	24 —							
171	Dec. 14									
	Husan	P	7 17 37.8						48.2	Amakusanada, Kumamoto Prefecture.
		eS	18 26.0							
		F	24 27.3							
	Keizyō	eP	7 19 50.7							
		F	25 —							

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude			Period	First motion	Duration of P~S	Remarks
				A_N	A_E	A_Z				
			h m s	μ	μ	μ	s	μ	m s	
172	Dec. 15									
	Syūhūrei	eP	10 09 29.3							Vicinity of Daitō ?
		F	19 29.3							
173	Dec. 15									
	Syūhūrei	P	13 56 14.0							?
		F	14 01 02.7							
174	Dec. 16									
	Husan	eP	18 29 59.7						3 57.0	Region of Philippine. Manila ; Felt at Virac.
		eS	33 56.7							
		F	45 19.9							
	Zinsen	eP_N	18 30 19.5						4 13.2	
		eS_N	34 32.7							
		F	50 —							
175	Dec. 17									
	Husan	P	9 35 35.7						2 49.8	Tōkyō ; 22.°9N, 121.°4E. (m) EN off Daitō, Formosa, Felt over Formosa.
		eS	38 25.5							
		eL	39 41.5							
		F	10 14 18.0							
	Taikyū	eP	9 35 42.3						2 42.3	
		S	38 24.6							
		L	40 12.2							
		M_E	42 16.9			+ 63	10.6			
		M_N	42 45.3	— 83			12.4			
		F	10 18 02.0							
	Zinsen	iP_{NE}	9 35 52.6						3 00.0	
		eS_{EN}	38 52.6							
		eL_E	40 06.0							
		M_E	41 06.4			— 78	9.8			
		F	10 17 —							
	Keizyō	P	9 35 55.3						3 02.0	
		eS	38 57.3							
		L	40 41.3							
		M_N	42 37.3							
		F	10 00 —							
	Heizyō	eP_{NE}	9 36 13.4						3 07.5	
		eS_E	39 20.9							
		L	40 59.9							
		M	41 50.9							
		M	43 14.9							
		F	10 03 —							
176	Dec. 23									
	Husan	P	13 37 20.1						9 35.7	U. G. E. G. I ;

4. The Seismic Reports of Stations in Tyōsen in the Year 1937.

No.	Date and Station	Phase	G. M. T.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	Period	First motion	Duration of P~S	Remarks
			h m s	μ	μ	μ	s	μ	m s	
		S	13 46 55.8							17.°5N, 97.°5W.
		cL	14 12 03.9							H=13h17m56s.
		F	15 40 56.5							Destructive in Mexico.
										U. S. C. G. S ;
	Taikyū	eP?	13 44 03.8						2 51.2	15.°5N, 98.°5W.
		S	46 55.0							H=13h17m56s.
		i	14 13 59.3							J. S. A ;
		F	58 33.5							16.°6N, 98.°0W.
										H=13h17m56s.
										Depth=normal
177	Dec. 25									
	Keizyō	eP	1 18 10.1							Distant.
		F	22 —							
178	Dec. 25									
	Zinsen	eP_{NE}?	10 04 28.6						2 09.5	Distant.
		eS_{NE}	06 38.1							
		M_E	06 48.5		— 10		3.9			
		M_N	07 29.3	+ 8			4.9			
		F	19 —							
	Husan	eP	10 05 32.4						2 39.3	
		eS	08 11.7							
		F	23 50.2							
	Heizyō	eP_{NE}	10 05 34.1							
		F	15 —							
	Taikyū	eP	10 06 59.5						1 18.9	
		iS	08 18.4							
		F	17 44.1							
179	Dec. 25									
	Husan	P	13 53 08.5						32.5	Tōkyō ;
		S	53 41.0							32.°9N, 132.°2E.
		M_N	54 13.9	— 16			3.9			(m) Southern part of Bungo Strait.
		M_E	54 13.9		± 12		2.7			Felt in Kyūsyū and Sikoku districts.
		F	14 02 49.7							
	Taikyū	P	13 53 11.3						1 25.3	
		S	54 36.6							
		F	14 05 43.3							
	Zinsen	e_N	13 54 48.7							
		eS_N	55 39.7							
		F	14 03 —							
	Keizyō	eP	13 55 00.2						41.5	
		S	55 41.7							
		F	14 00 —							
	Heizyō	eP_{NE}	13 56 09.7							
		F	14 02 —							

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