



SEISMOLOGICAL BULLETIN

OF THE

IMPERIAL MARINE OBSERVATORY

AND

KOBE METEOROLOGICAL OBSERVATORY.

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KOBE JAPAN.

SEISMOLOGICAL BULLETIN

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

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

Instrument: Omori's Seismograph

Wiechert Seismograph

(Horizontal Pendulum.)

(Horizontal & Vertical)

	T_0	ξ	$\frac{r}{T_0^2}$	V		T_0	ξ	$\frac{r}{T_0^2}$	V
AN:	20	1.15		20.0	AN:	Aperiodic			80
AE:	20	1.20		20.0	AE:	"			80
AE:	25	2.70		42.7	AZ:	"			80

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No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks			
			G.	M.	T.		AE	AN	AZ					
1	Jan. 3	P	h	m	s	s	μ	μ	μ	km.	Local shock.			
		L	3	47	45									
		F	3	48	30									
2	Jan. 3	ME	8	29	13	14.0	± 5			109	Faint record. From Omori's tromo- meter.			
		FE	8	33	\pm									
3	Jan. 8	P	16	20	53					525	Near the lake of Immba in Chiba province.			
		L	16	21	08									
		F	16	22	\pm									
4	Jan. 8	P	20	53	01		± 13				508	In Bōsō peninsula.		
		S	20	53	50									
		L	20	54	08									
		ME	20	54	09								1.3	
		MN	20	54	40								1.8	± 10
		FE	20	57	\pm									
FN	20	57	\pm											
5	Jan. 9	P	7	02	30									
		S	7	03	19									

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE "	AN "	AZ "		
6	Jan. 18	L	7 03 35					3272	Trace of a distant earthquake.
		ME	7 03 39	1.4	±23				
		MN	7 03 38	1.4		±9			
		CE	7 04 41	2.8	±10				
		FE	7 07 ±						
		FN	7 08 ±						
		P	12 10 18						
S	12 13 52								
7	Jan. 20	L	12 16 49				14	Local shock.	
		ME	12 17 42	14.2	±25				
		MN	12 17 35	16.4		±38			
		FE	12 32 ±						
		FN	12 32 ±						
		FZ	12 19 ±						
		P	16 02 04						
L	16 02 06								
F	16 02 30								
8	Jan. 22	P	10 18 59				576	Near Mito in Ibaraki province, the weak shocks were felt in the epicentral region.	
		L	10 20 13						
		ME	10 20 14	2.0	±38				
		MN	10 20 19	2.0		±40			
		FE	10 25 ±						
FN	10 25 ±								
9	Jan. 24	eP	8 28 33				2.8	Near Tsukuba Mt. in Ibaraki province, at the epicentral region the shocks were felt weakly.	
		eL	8 28 55						
		ME	8 30 16		±5				
		MN	8 29 10			±6			
		FE	8 34 ±						
		FN	8 33 ±						
10	Jan. 25	P	10 46 33				596	In Kashima sea.	
		S	10 47 09						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE "	AN "	AZ "		
11	Jan. 27	L	10 47 50				73	In Kii channel.	
		ME	10 48 09	2.3	±6				
		MN	10 48 21	1.9		±4			
		FE	10 52 ±						
		FN	10 51 ±						
		FZ	10 49 ±						
		P	3 27 53						
12	Jan. 28	L	3 28 03				2222	SE off Hokkaido.	
		F	3 29 ±						
		P	4 08 40						
		S	4 11 07						
		L	4 12 30						
		ME	4 14 37	16.2	±50				
		MN	4 12 56	18.2		±21			
FE	4 44 ±								
FN	4 42 ±								
13	Jan. 31	P	9 27 52				65	In Kii channel.	
		L	9 28 00						
		F	9 29 ±						
14	Feb. 1	P	5 03 18				76	Local shock, slight shocks were felt.	
		L	5 03 28						
		F	5 04 ±						
15	Feb. 1	P	5 27 20				1510	SE off Hokkaido.	
		L	5 31 01						
		ME	5 34 00	16.1	±16				
		MN	5 34 03	13.9		±13			
		MZ	5 33 48	13.4		±4			
		FE	5 38 ±						
		FN	5 38 ±						
		FZ	5 38 ±						

No.	Date	Phase	Time			Period	Amplitude			J	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
16	Feb. 2	eP	13	32	17						Ditto.
		L	13	35	27						
		ME	13	37	52	20.9	± 13				
		MN	13	36	35	15.9		± 6			
		MZ	13	38	16	16.6			± 8		
		FE	13	57	\pm						
		FN	13	57	\pm						
		FZ	13	48	\pm						
17	Feb. 2	ME	14	22	10	15.2	± 4			Faint record.	
		MN	14	23	14			± 3			
		FE	14	26	\pm						
		FN	14	26	\pm						
18	Feb. 2	P	19	50	07				2064	Trace of a distant earthquake. SE off Hokkaido.	
		L	19	53	33						
		ME	19	55	27	19.5	± 19				
		MN	19	56	06	16.1		± 15			
		FE	20	18	\pm						
		FN	20	18	\pm						
19	Feb. 3	ME	22	22	36	14.5	± 4			Faint record.	
		MN	quite slight.								
		FE	22	27	\pm						
		FN	22	27	\pm						
20	Feb. 4	P	23	59	\pm				At Sumoto the shocks were felt. Local shocks.		
21	Feb. 6	P	17	12	36				662	In Kashima sea.	
		S	17	13	41						
		L	17	14	01						
		M ₁ E	17	14	35	2.7	± 129				
		MN	17	14	15	4.1		± 156			
		MZ	17	14	29	3.2					± 56
		M ₂ E	17	15	32	2.7	± 150				
		FE	17	23	\pm						

No.	Date	Phase	Time			Period	Amplitude			J	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
			FN	17	23	\pm					
			FZ	17	20	\pm					
22	Feb. 6	eP	18	44	00					Near Wakayama.	
		L	18	44	09						
		F	18	45	\pm						
23	Feb. 13	ME	7	15	14	4.8	± 4				
		MN	7	15	13	4.8		± 5			
		FE	7	18	\pm						
		FN	7	18	\pm						
24	Feb. 14	P	0	43	27				374	Near Kasumigaura.	
		L	0	44	19						
		ME	0	44	21	2.2	± 6				
		MN	0	44	20	1.9		± 8			
		FE	0	47	\pm						
25	Feb. 15	P	7	48	34				60	Near Kyoto.	
		L	7	48	43						
		ME	7	48	43		± 65				
		MN	7	48	43			± 71			
		MZ	7	48	43	1.3			± 65		
		FE	7	53	\pm						
		FN	7	53	\pm						
		FZ	7	52	\pm						
26	Feb. 20	P	1	05	06				2387	By Omori's tromometer E far off Hokkaido	
		S	1	08	12						
		L	1	09	21						
		ME	1	11	34	15.6	± 495				
		MN	1	12	13	17.2		± 380			
		FE	1	29	\pm						
		FN	1	29	\pm						

No.	Date	Phase	Time			Period	Amplitude			J	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
27	Mar. 5	P	9	53	05	1.0	±20	±28		203	Near Hamamatsu, in Shizuoka province.
		L	9	53	33						
		ME	9	53	36						
		MN	9	53	47						
		FE	9	55	±						
		FN	9	55	±						
		FZ	9	54	±						
28	Mar. 8	eP	23	33	25		±11				Faint record.
		L	23	33	27						
		ME	23	33	29						
		F	23	34	±						
29	Mar. 9	P	19	49	40						Ditto.
		F	19	45	±						
30	Mar. 16	P	4	29	50		±20	±19		1602	In Yunnan, China.
		S	4	30	46						
		L	4	32	05						
		ME	4	32	06						
		M ₁ N	4	32	10						
		M ₂ N	4	32	36						
		FE	4	38	±						
		FN	4	38	±						
FZ	4	34	±								
31	Mar. 16	P	8	54	28	3.5	±5			1624	Ditto.
		S	8	55	34						
		L	8	56	46						
		ME	8	56	56						
		MN	quite slight.								
		FE	8	59	±						
		FN	8	59	±						
32	Mar. 16	eP	14	54	31						From Omori's Tromometer.
		L	14	59	34						

No.	Date	Phase	Time			Period	Amplitude			J	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
		ME	15	02	26	12.4	±470				
		MN	15	00	47	8.0		±810			
		FE	15	25	±						
		FN	15	25	±						
33	Mar. 19	P	8	48	26					61	Local shock.
		L	8	48	35						
		F	8	49	30						
34	Mar. 19	P	17	55	42		±60	±60		86	Near Lake Biwa, in Shiga province.
		L	17	55	54						
		ME	17	55	55						
		MN	17	55	55						
		MZ	17	55	55						
		FE	17	58	30						
		FN	17	58	30						
FZ	17	57	±								
35	Mar. 22	ME	9	18	25	16.7	±3				
		MN	9	18	31	16.7		±3			
36	Mar. 27	P	4	18	20					591	In Kwanto provice.
		L	4	19	36						
		ME	4	19	41						
		MN	4	19	40						
		FE	4	25	±						
		FN	4	25	±						
37	Mar. 31	P	1	07	39	1.9	±8			1619	S off Hokkaido. Faint record.
		S	1	08	42						
		L	1	09	57						
		ME	1	10	05						
		FE	1	13	±						
		FN	1	12	±						

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

of the Branch Station of the Kobe Meteorological Observatory of Japan.

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

Instruments: Wiechert Seismograph.


(Horizontal)

	T_0	f	$\frac{r}{T_0^2}$	V
AE:	3.3	0.15		80
AN:	3.3	0.15		80

No.	Date	Phase	Time	Period	Amplitude			J	Remarks
					AE	AN	AZ		
			G. M. T.						
			h m s	s	μ	μ	μ	km.	
1	Jan. 1	P	5 43 40					63	In Kii channel.
		L	5 43 43						
		M	5 43 43		± 4	± 7			
		F	5 44 02						
2	Jan. 2	P	7 28 45					68	Ditto.
		L	7 28 49						
		M	7 28 50		$+9$	± 9			
		eF	7 29 08						
3	Jan. 6	P	3 57 28					77	Central part of Wakayama province.
		L	3 57 33						
		M	3 57 34		-11	-18			
		eF	3 58 03						
4	Jan. 9	eP	7 02 34						
		L	7 03 34						
		eF	7 12 \pm						
5	Jan. 9	eP	7 17 41						Local shock.
		L	7 18 45						
		eF	7 26 \pm						

No.	Date	Phase	Time	Period	Amplitude			J	Remarks
					AE	AN	AZ		
			G. M. T.						
			h m s	s	μ	μ	μ	km.	
6	Jan. 9	eP	7 29 38						
		L	7 30 47						
		eF	7 36 \pm						
7	Jan. 9	P	16 20 42					103	East coast of Biwa Lake in Shiga province.
		L	16 20 51						
		M	16 20 51		-38	-93			
		eF	16 22 01						
8	Jan. 13	eP	12 39 49						Local shock.
		L	12 39 51						
		M	12 39 53		± 5	± 6			
		eF	12 40 14						
9	Jan. 13	eP	17 23 48						Ditto.
		L	17 23 50						
		M	17 23 50		$+3$	$+6$			
		eF	17 24 10						
10	Jan. 14	P	12 41 02					60	In Kii channel.
		L	12 41 05						
		M	12 41 06		± 13	$+20$			
		eF	12 41 23						
11	Jan. 15	P	18 17 47					56	Ditto.
		L	18 17 50						
		M	18 17 50		± 4	$+6$			
		eF	18 18 08						
12	Jan. 15	P	20 47 06					63	Ditto.
		L	20 47 10						
		M	20 47 11		± 8	-5			
		eF	20 47 27						
13	Jan. 18	P	12 00 26					93	In Wakayama province.
		L	12 00 33						

No.	Date	Phase	Time			Period	Amplitude			J	Remarks		
			G.	M.	T.		AE	AN	AZ				
			h	m	s	s	μ	μ	μ	km.			
14	Jan. 18	M	12	00	35		-4	+9		2172	E far off Hokkaido.		
		eF	12	00	50								
		P	12	11	20								
		S	12	12	41								
		L	12	15	02								
		M ₁ N	12	15	15		3.0	-21					
		M ₁ E	12	15	33		4.2	-73					
		M ₂ N	12	18	47		18.0	+16					
		M ₂ E	12	19	02		10.5	-39					
		CN	12	29	29			+4					
CE	12	29	32		+6								
eF	13	03	±										
15	Jan. 18	eP	19	10	19						Local shock.		
		L	19	10	25								
		M	19	10	26							±5	-10
		eF	19	10	43								
16	Jan. 18	P	20	27	16					76	Ditto.		
		L	20	27	21								
		M	20	27	21							-5	-7
		eF	20	27	40								
17	Jan. 20	eP	8	15	45						Ditto.		
		L	8	15	49								
		M	8	15	49							-15	-14
		eF	8	16	04								
18	Jan. 20	P	16	01	53					65	In Wakayama province.		
		L	16	01	57								
		M	16	01	57							±16	±17
		F	16	02	48								
19	Jan. 22	P	0	40	18						Central part of Waka- yama province.		
		L	0	40	25								



No.	Date	Phase	Time			Period	Amplitude			J	Remarks		
			G.	M.	T.		AE	AN	AZ				
			h	m	s	s	μ	μ	μ	km.			
20	Jan. 22	M	0	40	26					61	Near Wakayama.		
		eF	0	40	34							+17	±30
		P	16	06	47								
		L	16	06	50								
		M	16	06	51							±5	-10
21	Jan. 25	eF	16	07	01					74	Local shock.		
		P	10	46	31								
		L	10	46	36								
		M	10	46	37							±4	±10
		eF	10	47	09								
22	Jan. 25	eP	10	47	09						Ditto.		
		L	10	47	12								
		M	10	47	14							-48	-35
		eF	10	48	±								
23	Jan. 25	P	21	32	24					149	Central part of Kii peninsula.		
		L	21	32	39								
		M	21	32	40							±8	+11
		eF	21	33	14								
24	Jan. 26	P	1	59	22					19	Local shock.		
		L	1	59	24								
		M	1	59	24							±3	±5
		eF	1	59	38								
25	Jan. 25	P	2	12	42					19	Ditto.		
		L	2	12	44								
		M	2	12	44							±8	±10
		eF	2	13	±								
26	Jan. 27	P	3	27	35						Ditto.		
		L	3	27	43								
		M	3	27	44							±23	+20

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks			
			G.	M. T.		AE	AN	AZ					
			h	m s	s	μ	μ	μ	km.				
27	Jan. 28	eF	3	28 26					2164	SE off Hokkaido.			
		P	4	08 49									
		S	4	09 53									
		L	4	12 30									
		ME	4	15 ±	17.4	-45							
		MN	4	15 05	14.2		+15						
*28	Jan. 31	P	9	27 52				106	Slight shocks were felt, In Kii channel.				
		L	9	28 02									
		M	9	28 02	0.5	±35	±56						
		eF	9	29 ±									
29	Jan. 31	eP	10	03 23				106	Local shock.				
		L	10	03 24									
		M	10	03 24		±7	±8						
		eF	10	30 39									
30	Feb. 1	eP	5	27 17				106	SE off Hokkaido.				
		L	5	31 14									
		ME	5	34 03	3.2	+18							
		MN	5	34 27	2.2		-4						
		eF	5	49 ±									
31	Feb. 2	eP	13	32 ±				106	Ditto.				
		eS	13	35 30									
		L	13	36 38									
		eMN	13	37 46	20.0								
		ME	13	39 40	30.0	+31	-8						
		CN	13	42 08	24.0								
		CE	13	44 49	27.0		-4						
		eF	13	57 ±		+8							
		32	Feb. 2	eP	14	17 46						106	Faint record.
				L	14	22 21							

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G.	M. T.		AE	AN	AZ		
			h	m s	s	μ	μ	μ	km.	
33	Feb. 2	eF	14	30 ±					106	SE off Hokkaido.
		eP	19	50 09						
		eS	19	52 09						
		L	19	53 46						
		ME	19	56 12	34.0	+30				
		MN	19	57 12	28.0		-11			
		CE	20	01 57	28.0	+9				
		CN	20	02 31	27.0		-4			
34	Feb. 3	P	5	57 42				61	In Wakayama province.	
		L	5	57 45						
		M	5	57 45		±13	±20			
		eF	5	58 11						
*35	Feb. 4	P	23	59 12				106	Local shock.	
		L	23	59 13						
		M	32	59 14		±16	-24			
		eF	23	59 59						
36	Feb. 6	eP	17	13 03				106	In Kashima sea.	
		S	17	13 42						
		L	17	14 09						
		M ₁ N	17	14 32	3.8		+18			
		M ₁ E	17	14 51	5.2	±18				
		M ₂ E	17	15 17	4.7	±15				
		M ₂ N	17	15 21	4.1		±9			
		C ₁ E	17	16 45	5.7	±6				
		C ₁ N	17	16 56			+3			
		C ₂ E	17	18 33	4.7	-3				
C ₂ N	17	18 21			+3					
eF	17	28 ±								
37	Feb. 6	P	18	43 59				84	In Wakayama province.	
		L	18	44 06						

No.	Date	Phase	Time G. M. T. h m s	Period s	Amplitude			Δ km.	Remarks	
					AE μ	AN μ	AZ μ			
34	Feb. 8	M	18 44 06		-10	-11			Ditto.	
		eF	18 44 44							
		eP	5 44 54							
		L	5 44 59							
		M	5 45 00		± 10	-15				
eF	5 45 18									
39	Feb. 9	P	3 44 34				56	Ditto.		
		L	3 44 36							
		M	3 44 37						-10	-15
		eF	3 45 11							
40	Feb. 9	P	12 38 29				63	Ditto.		
		L	12 38 32							
		M	12 38 33						-7	± 11
		eF	12 38 57							
41	Feb. 9	P	12 50 59				56	Ditto.		
		L	12 51 01							
		M	12 51 02						± 6	± 7
		eF	12 51 23							
42	Feb. 13	eP	12 56 35					Ditto.		
		L	12 56 38							
		M	12 56 40						+6	+6
		eF	12 56 56							
*43	Feb. 15	P	7 48 40				132	Near Kyoto.		
		L	7 48 53							
		MN	7 48 53							
		ME	8 48 55							± 57
		eF	7 50 \pm						+54	
44	Feb. 17	P	8 10 23				69	Near Wakayama.		
		L	10 28							

No.	Date	Phase	Time G. M. T. h m s	Period s	Amplitude			Δ km.	Remarks	
					AE μ	AN μ	AZ μ			
45	Feb. 18	M	8 10 29		± 8	-10			Local shock.	
		eF	8 10 59							
		eP	22 44 31							
		L	22 44 36							
		M	22 44 37		± 7	-9				
eF	22 45 16									
46	Feb. 20	P	0 19 15				3167	E for off Hokkaido.		
		S	0 23 20							
		L	0 25 29							
		MN	0 26 26							-20
		ME	0 26 29						-26	
		eF	0 39 \pm							
47	Feb. 24	P	18 32 39				74	Near Wakayama.		
		L	18 32 44							
		M	18 32 44						± 3	-6
		eF	18 33 02							
48	Feb. 26	P	17 35 10				60	Ditto.		
		L	17 35 13							
		M	17 35 13						± 6	-9
		eF	17 35 31							
49	Mar. 4	P	16 11 20				58	Near Wakayama. Slight shocks were felt at Wakayama.		
		L	16 11 23							
		M	16 11 24						-21	± 19
		eF	16 11 57							
50	Mar. 5	eP	7 07 52					Ditto.		
		L	7 08 00							
		M	7 08 01						± 11	± 14
		eF	7 09 02							
51	Mar. 8	P	15 05 15				68	Ditto.		

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE	AN	AZ		
					μ	μ	μ		
			h m s						
		L	15 05 19		±20	±20			
		M	15 05 20						
		eF	15 05 34						
52	Mar. 16	P	4 29 46				1653	In Yunnan, China.	
		PR ₁	4 30 15						
		S	4 30 37						
		SR ₁	4 31 12						
		L	4 32 06						
		eF	4 38 ±						
53	Mar. 16	eP	14 56 55					Ditto.	
		eL	14 57 40						
		MN	15 03 04			-11			
		ME	15 04 20		+15				
		eF	15 18 ±						
54	Mar. 18	eP	1 38 42					Faint record.	
		L	1 38 44						
		M	1 38 45		+6	-11			
		eF	1 39 02						
55	Mar. 19	P	8 48 21						
		L	8 48 26				77	Near Wakayama at which slight shocks were felt.	
		M	8 48 27		+36	-50			
		eF	8 49 27						
56	Mar. 19	P	17 55 44						
		L	17 55 58				139	Near the lake of Biwa in Shiga province.	
		M	17 55 59		+16	+25			
		eF	17 56 51						
57	Mar. 23	P	2 32 26						
		L	2 32 30				66	In Kii channel.	
		M	2 32 40		+8	+9			
		eF	2 32 40						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE	AN	AZ		
					μ	μ	μ		
			h m s						
58	Mar. 23	eP	21 11 50					Ditto.	
		L	21 11 55						
		M	21 11 57		+5	±8			
		eF	21 12 00						

MACROSEISMIC OBSERVATION.

January, 1925.

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm.	
					Long. E	Lat. N		
1	2	—	—	—				A high pressure area situated in Yangtse-valley, and covered W part of Japan.
	6	—	—	—				
	10	1.0	0.6	0.8				
	14	1.1	0.7	1.5	149°	41°	750	
	18	1.0	0.7	0.7	143°	35°	755	
	22	—	—	—				
2	2	—	—	—				Ditto.
	6	1.0	0.6	0.6	145°	36°	757	
	10	0.9	0.7	0.8				
	14	1.1	0.7	1.1				
	18	1.0	—	0.6				
	22	—	—	—				
3	2	—	—	—				Ditto.
	6	—	—	—				
	10	0.9	0.6	0.6				
	14	1.1	0.7	0.7	147°	40°	757	
	18	0.9	0.6	0.6	151°	45°	752	
	22	—	—	—				
4	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	1.0	0.7	0.8				
	18	—	—	—				
	22	—	—	—				
5	2	—	—	—				A small cyclone appeared in Japan sea.
	6	0.9	—	0.6	136°	38°	762	
	10	1.1	0.6	0.7				
	14	1.1	0.7	0.7	135°	39°	762	
	18	1.0	0.7	0.8	135°	39°	762	
	22	—	—	—				
6	2	—	—	—				A high pressure area situated in North China and covered W part of Japan ils.
	6	—	—	—				
	10	1.0	0.8	1.2				
	14	1.1	0.7	0.9				



International
Seismological
Centre

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm.	
					Long. E	Lat. N		
7	18	1.1	0.7	0.7				Ditto.
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	1.1	0.8	1.3				
	14	1.0	0.8	0.8				
8	18	—	—	—				Ditto.
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	1.0	0.6	0.6				
	14	1.0	0.7	1.0				
9	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	0.9	0.6	0.7				
	14	—	—	—				
10	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	0.9	0.6	0.6				
11	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
12	18	—	—	—				A continental cyclone travelled through Japan sea in E direction.
	22	0.9	0.6	1.1				
	2	—	—	—				
	6	0.9	—	0.6	142°	38°	750	
	10	1.1	0.9	1.2				
	14	1.0	0.7	0.7	144°	42°	746	

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm	
					Long. E	Lat. N		
13	18	1.0	—	0.6				A high pressure area situated in Manchuria and covered W part of Japan.
	22	—	—	—				
	2	—	—	—				
	6	0.9	—	0.6				
	10	—	—	—				
	14	0.9	0.6	0.6				
14	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	0.9	—	0.6				
	14	1.0	0.7	0.8				
15	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	0.9	—	0.6				
	14	0.9	0.6	0.6			Ditto.	
16	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	1.0	—	0.6				
17	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	1.2	0.9	1.2				
	14	1.0	0.7	0.8			Ditto.	
18	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	0.9	—	0.8				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm.	
					Long. E	Lat. N		
19	18	0.9	—	0.6				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	0.9	—	0.6				
	14	—	—	—				
20	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	0.9	—	0.7				
	14	1.0	0.8	0.8				
21	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	1.0	—	0.7	136°	31°	760	Ditto.
	10	—	—	—				
	14	1.0	0.6	0.9				
22	18	1.0	0.9	1.1				
	22	—	—	—				
	2	1.1	—	0.6				
	6	1.0	—	0.6				
	10	1.0	0.6	0.7				
	14	0.9	—	0.5				
23	18	—	—	—				
	22	0.9	—	0.6				
	2	—	—	—				
	6	1.0	0.6	0.8	137°	30°	760	A small cyclone was travelling through S off of coast in E direction.
	10	0.9	0.6	0.8				
	14	0.9	—	0.6	139°	29°	758	
24	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	1.0	0.6	0.6	137°	31°	756	
	14	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		
25	18	0.9	—	0.5				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
26	22	—	—	—				
	2	—	—	—				
	6	1.0	0.8	0.7	134°	32°	758	Ditto.
	10	1.2	1.1	1.2				
	14	1.0	0.7	0.8	138°	33°	758	
	18	1.1	0.6	0.7	145°	36°	756	
27	22	1.0	0.7	0.9				
	2	—	—	—				
	6	—	—	—				
	10	1.0	0.6	0.7				
	14	1.2	0.8	0.9	147°	40°	752	
	18	—	—	—				
	22	—	—	—				
28	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	1.0	—	0.6				
	18	1.0	0.6	0.8	141°	29°	752	Two small cyclone appeared near Hachijo isl. and Japan sea.
	22	1.1	0.7	0.8				
29	2	1.1	0.6	1.0				
	6	1.1	0.6	0.6	140°	32°	758	
	10	1.0	—	0.7				
	14	1.0	0.6	0.8	140°	32°	758	
	18	—	—	—				
	22	—	—	—				
30	2	—	—	—				
	6	—	—	—				
	10	1.0	0.6	0.6				
	14	1.0	0.6	—	140°	32°	748	

Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
				Long. E	Lat. N		
18	—	—	—				
22	—	—	—				
2	—	—	—				
6	1.0	—	0.7				A high pressure area situated in China con- tinent and covered W part of Japan ils.
10	0.9	—	0.6				
14	0.9	0.6	0.7				
18	—	—	—				
22	—	—	—				
February 1925.							
1	2	—	—	—			
	6	3.0	1.1	1.1			High pressure area 780mm. situated in North China and also covered W part of Japan.
	10	3.6	—	0.7			
	14	—	—	—			
	18	—	—	—			
22	—	—	—				
2	2	—	—	—			
	6	—	—	—			Ditto.
	10	3.0	—	0.6			
	14	1.2	0.6	0.7			
	18	1.0	0.6	0.6			
22	—	—	—				
3	2	—	—	—			
	6	—	—	—			
	10	—	—	—			
	14	1.2	0.6	0.8			
	18	—	—	—			
4	22	—	—	—			
	2	—	—	—			
	6	—	—	—			
	10	—	—	—			
	14	—	—	—			
18	—	—	—				

Date.	Hour. (135° E)	period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position. Long. E	Lat. N		
5	22	—	—	—				
	2	—	—	—				
	6	1.0	0.7	0.8	124°	28°	764	A cyclone appeared in Eastern sea and approached, to S coast of Japan.
	10	1.3	2.3	2.5				
	14	1.0	0.7	1.1	126°	29°	764	
	18	1.0	—	0.6	134°	31°	767	
22	1.0	0.6	0.8					
6	2	1.1	0.7	0.6				
	6	1.2	0.7	0.8	128°	33°	762	
	10	1.2	0.9	0.7				
	14	1.1	0.6	0.6	133°	34°	762	
	18	—	—	—				
	22	—	—	—				
7	2	—	—	—				
	6	0.9	0.7	0.6	136°	32°	753	A cyclone travelled along the pacific coast of Japan in NE direction.
	10	3.0	0.6	0.7				
	14	1.1	0.6	0.6	139°	33°	753	
	18	3.0	—	0.7				
	22	3.0	0.6	0.6	140°	33°	757	
8	2	—	—	—				
	6	—	—	—				
	10	1.1	0.6	0.6				
	14	1.0	0.6	0.7	147°	33°	758	
	18	—	—	—				
	22	—	—	—				
9	2	—	—	—				
	6	—	—	—				
	10	1.1	0.9	1.1				
	14	1.0	—	0.6	129°	41°	761	
	18	—	—	—				
	22	1.1	0.6	1.3				
10	2	3.0	—	0.6				
	6	2.9	0.6	1.0	140°	34°	753	At W part of Japan, the pressure gradient very large.
	10	3.0	—	0.6				
	14	1.2	—	0.9	144°	37°	748	
	18	1.2	0.8	1.1	147°	40°	748	

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.	
					Position. Long. E	Lat. N			
11	22	1.0	0.6	0.8					
	2	1.0	0.6	0.8					
	6	—	—	—					
	10	1.2	—	0.6				High pressure area located at North China indicate 780mm and covered W part of Japan.	
	14	1.5	—	0.6					
	18	1.5	0.6	0.7					
22	1.0	0.8	0.7						
12	2	—	—	—					
	6	—	—	—					
	10	1.5	0.6	0.6					
	14	1.2	0.6	0.9					
	18	1.0	—	0.6					
	22	—	—	—					
13	2	—	—	—					
	6	—	—	—					
	10	1.0	—	0.7					
	14	1.0	—	0.6					
	18	0.9	0.6	0.6					
	22	—	—	—					
14	2	—	—	—					
	6	—	—	—					
	10	—	—	—					
	14	0.9	—	0.6					
	18	—	—	—					
	22	—	—	—					
15	2	—	—	—					
	6	—	—	—					
	10	—	—	—					
	14	—	—	—					
	18	—	—	—					
	22	—	—	—					
16	2	—	—	—					
	6	—	—	—					
	10	—	—	—					
	14	—	—	—					
	18	—	—	—					
	22	0.9	0.6	—					
16	2	0.9	0.7	0.6					
	6	0.9	0.6	—	128°	28°	760	A cyclone was travelling far off of S coast.	
	10	1.0	1.1	0.6					
	14	1.0	0.8	1.0	131°	28°	759		
	18	—	—	—					

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position. Long. E	Lat. N		
17	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	1.0	0.6	0.6				
	14	1.0	—	0.7	139°	31°	755	
	18	—	—	—				
	22	—	—	—				
18	2	—	—	—				
	6	—	—	—				
	10	0.9	0.6	0.6				
	14	1.0	1.0	0.8	142°	33°	756	
	18	—	—	—				
	22	—	—	—				
19	2	—	—	—				
	6	1.0	—	0.6	138°	33°	757	A cyclone situated near Okinawa and Hatijo isl.
	10	0.9	0.6	0.8				
	14	0.9	0.8	0.8	134°	28°	756	
	18	1.0	0.6	0.7	137°	29°	755	
	22	0.9	1.0	0.6				
20	2	0.9	0.8	—				
	6	1.0	—	0.8	144°	31°	753	Ditto.
	10	0.9	1.0	0.7				
	14	0.9	0.9	0.6	145°	31°	753	
	18	—	—	—				
	22	—	—	—				
21	2	—	—	—				
	6	—	—	—				
	10	1.0	1.0	0.8				
	14	0.9	—	0.6				
	18	—	—	—				
	22	—	—	—				
22	2	0.9	—	0.7				
	6	1.0	0.8	0.6				
	10	1.1	1.0	0.9	134°	40°	750	
	14	1.1	0.9	0.6				
	18	1.0	1.0	0.6	135°	41°	750	A cyclone in Japan sea induced a secondary one off of E coast and both travelling in

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm	Remarks
					Position. Long. E	Lat. N		
	22	1.0	0.7	0.6	134°	41°	752	NE direction.
23	2	—	—	—				
	6	—	—	—				
	10	1.0	0.8	0.6				
	14	1.0	0.7	0.7	137°	43°	752	Ditto.
	18	1.1	1.2	0.9	138°	42°	756	
	22	—	—	—				
24	2	—	—	—				
	6	—	—	—				
	10	1.0	1.0	0.9				
	14	1.2	1.1	0.9	140°	44°	752	High pressure area (780mm) partly covered
	18	1.1	1.1	1.2	140°	43°	752	W part of Japan.
	22	1.0	—	0.6				
25	2	—	—	—				
	6	—	—	—				
	10	0.9	0.8	0.7				
	14	0.9	0.6	0.6				
	18	—	—	—				
	22	—	—	—				
26	2	—	—	—				
	6	0.9	—	0.6				
	10	0.9	—	0.6				
	14	0.9	0.6	—				
	18	—	—	—				
	22	—	—	—				
27	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	1.0	0.8	0.7	142°	29°	748	A cyclon located near Hatijo isl.
	18	1.1	1.2	1.1	143°	33°	754	
	22	1.2	1.9	2.0				
28	2	1.0	0.6	—				
	6	—	—	—				
	10	1.0	0.6	0.6				
	14	0.9	0.8	0.9				

March 1925.



Date.	Hour. (135° E)	period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position. Long. E	Lat. N		
1	2	—	—	—				
	6	—	—	—				
	10	1.0	0.6	0.6				
	14	—	—	—				
	18	—	—	—				
2	2	—	—	—				
	6	0.9	0.6	0.8	136°	41°	752	A continental cyclone was travelling through Japan sea.
	10	0.9	1.3	0.8				
	14	1.0	1.1	1.0	142°	36°	752	
	18	1.0	0.8	0.7	144°	36°	748	
22	0.8	0.5	0.6					
3	2	0.8	0.6	—				
	6	0.9	0.5	—	148°	38°	754	
	10	0.9	0.6	—				
	14	0.9	0.6	—				
	18	—	—	—				
4	2	—	—	—				
	6	—	—	—				
	10	1.9	0.6	0.8				
	14	1.0	0.7	—				
	18	—	—	—				
5	2	—	—	—				
	6	0.9	—	0.6	139°	36°	756	A cyclone had been appeared in Yellow sea travelled through Japan sea.
	10	1.6	—	0.8				
	14	1.5	0.8	0.9	143°	36°	753	
	18	1.5	0.8	0.6	146°	41°	752	
22	1.0	0.6	—					
6	2	—	—	—				
	6	—	—	—				
	10	0.9	0.5	—				
	14	0.9	0.7	0.8				
	18	—	—	—				

Date.	Hour. (135° E)	period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position. Long. E	Lat. N		
7	2	—	—	—				
	6	0.9	0.6	0.6	136°	38°	756	Ditto.
	10	1.0	—	0.5				
	14	1.0	1.1	1.2	144°	38°	752	
	18	1.0	0.7	1.0				
22	1.0	—	0.6	146°	39°	752		
8	2	1.0	0.5	—				
	6	—	—	—				
	10	—	—	—				
	14	0.9	0.9	0.7				
	18	0.9	0.7	—				
9	2	—	—	—				
	6	0.9	0.6	—	130°	40°	752	A continental cyclone travelled off through Japan sea.
	10	0.9	0.6	0.7				
	14	1.0	0.5	0.8	135°	41°	750	
	18	—	—	—				
22	—	—	—					
10	2	—	—	—				
	6	—	—	—				
	10	0.9	0.6	—				
	14	0.9	0.6	0.6				
	18	—	—	—				
11	2	—	—	—				
	6	—	—	—				
	10	0.9	0.8	1.1				Ditto.
	14	0.9	0.8	0.8	142°	40°	750	
	18	0.9	0.6	0.7	141°	41°	746	
22	1.0	1.0	0.9					
12	2	1.2	0.8	0.7				
	6	1.2	1.0	0.9	136°	34°	748	A cyclone appeared Japan sea moved in E direction across the Main land.
	10	1.3	1.9	2.3				
	14	1.1	1.0	1.2	141°	35°	742	
	18	1.0	0.6	0.8	145°	37°	748	
22	—	—	—					

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm	
					Long. E	Lat. N		
13	2	—	—	—				
	6	—	—	—				
	10	0.9	0.6	0.7				
	14	0.9	0.6	0.5				
	18	—	—	—				
	22	—	—	—				
14	2	1.2	1.0	1.2				
	6	1.0	0.8	0.9	136°	39°	752	A continental cyclone was moving through Japan sea.
	10	0.3	—	0.7				
	14	3.2	—	0.7	141°	39°	750	
	18	—	—	—				
	22	—	—	—				
15	2	0.8	0.7	1.0				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
16	2	—	—	—				
	6	0.9	—	0.6				
	10	0.9	0.7	0.8				
	14	1.0	—	0.6				
	18	1.0	—	0.7				
	22	—	—	—				
17	2	—	—	—				
	6	—	—	—				
	10	1.0	0.6	0.8				
	14	1.0	0.8	0.8				
	18	—	—	—				
	22	—	—	—				
18	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	0.9	—	0.6				
	18	0.9	0.6	0.6				
	22	—	—	—				

Date.	Hour. (135° E)	period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm.	
					Long. E	Lat. N		
19	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	0.9	0.7	0.7				
	18	—	—	—				
	22	—	—	—				
20	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	0.9	0.7	0.6				
	18	0.9	0.8	0.6				
	22	—	—	—				
21	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	0.9	0.6	0.8				
22	2	0.9	—	0.8				
	6	0.9	—	0.7	120°	33°	754	A cyclone travelled through the peninsula of Korea.
	10	1.0	0.7	1.0				
	14	1.0	—	0.7	123°	34°	754	
	18	—	—	—				
	22	1.0	—	0.6				
23	2	—	—	—				
	6	1.0	0.9	0.7	131°	37°	752	Ditto.
	10	0.9	0.7	1.0				
	14	0.9	0.6	0.8	134°	39°	752	
	18	—	—	—				
	22	—	—	—				
24	2	—	—	—				
	6	—	—	—				
	10	0.9	—	0.7				
	14	—	—	—				
	18	—	—	—				
	22	0.9	0.8	1.0				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks
					Position.		Depth. mm	
					Long. E	Lat. N		
25	2	—	—	—				Two cyclones with small energy were moving through Japan sea and N. Pacific.
	6	—	—	—				
	10	0.9	0.6	0.8			754	
	14	0.9	0.5	0.7	140°	34°		
	18	0.9	—	0.6	142°	35°	751	
	22	—	—	—				
26	2	—	—	—				A high pressure area covered W part of Japan.
	6	—	—	—				
	10	0.9	0.6	0.6				
	14	0.9	0.6	0.8				
	18	—	—	—				
	22	1.2	1.4	0.8				
27	2	1.0	0.6	0.6				
	6	1.0	—	0.6				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	1.0	1.0	1.0				
28	2	—	—	—				
	6	—	—	—				
	10	1.0	—	0.8				
	14	—	—	—				
	18	—	—	—				
	22	1.5	1.0	1.0				
29	2	1.0	0.9	0.8				A cyclone situated in Japan and a secondary one was induced at S coast.
	6	1.2	1.0	0.8				
	10	1.5	1.0	1.3	128°	34°	757	
	14	1.2	0.9	0.9	132°	36°	753	
	18	—	—	—				
	22	1.0	—	0.6				
30	2	1.0	—	0.6				Ditto.
	6	1.1	0.6	0.8				
	10	0.9	—	0.7	143°	37°	742	
	14	1.5	0.8	0.9	143°	41°	742	
	18	1.1	0.6	0.7	145°	42°	729	
	22	—	—	—				

Date.	Hour. (135° E)	period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm.	
					Long. E	Lat. N		
31	2	—	—	—				
	6	—	—	—				
	10	1.0	0.7	0.7				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				

SEISMOLOGICAL BULLETIN

OF THE

IMPERIAL MARINE OBSERVATORY

AND

KOBE METEOROLOGICAL OBSERVATORY.

KOBE, JAPAN.

VOL. I. No. 2.

From April 1, 1925 to June 30, 1925.

KOBE

September, 1925.

KÔBE JAPAN.

SEISMOLOGICAL BULLETIN

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

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

Instrument: Omori's Seismograph
(Horizontal Pendulum.)

Wiechert Seismograph
(Horizontal & Vertical)

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	T_0	ϵ	$\frac{r}{T_0^2}$	V		T_0	ϵ	$\frac{r}{T_0^2}$	V
AN:	20	0.84		20.0	AN:	Aperiodic			80
AE:	20	0.53		20.0	AE:	"			80
AE:	25	0.29		42.7	AZ:	"			80

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		AE	AN	AZ			
38	Apr. 2	P	h	m	s	s	μ	μ	μ	km.	In Kii channel, at Sumoto slight shock was felt.	
		L	1	30	04							
		ME	1	30	12							± 18
		MN	1	30	19							
		FE	1	30	16							
		FN	1	31	\pm							
		FZ	1	31	\pm							
39	Apr. 7	P	18	11	34	3.1	± 4	± 4	757	Flat wave form.		
L	18	13	13									
ME	18	13	49									
MN	18	13	39									
FE	18	25	\pm									
FN	18	25	\pm									
40	Apr. 9	P	6	21	38						10.7	± 8
F	6	22	\pm									
41	Apr. 11	ME	22	31	56	10.7	± 8	± 6		P and S phases were not distinct.		
		MN	22	31	56							
		FE	22	40	\pm							

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
42	Apr. 16	FN	22	40	±					3753	Between Formosa and Luzon. At some place in S part of Formosa the shocks were felt strongly.
		P	19	56	51						
		S	20	00	18						
		L	20	04	35						
		ME	20	07	18	14.7	±8				
		MN	20	07	18	14.7		±19			
		FE	20	34	±						
		FN	20	34	±						
		FZ	20	14	±						
43	Apr. 18	P	0	04	01					91	In Wakayama province
		L	0	04	13						
		F	0	05	±						
44	Apr. 18	eP	8	06	59						
		L	8	07	12						
		F	8	08	±						
45	Apr. 18	P	10	53	14					101	Ditto.
		L	10	53	27						
		ME	10	53	27						
		MN	10	53	27	0.4		±506			
		FE	10	59	±						
		FN	10	59	±						
46	Apr. 19	P	15	47	38					356	Near Noto peninsula. The first displacement of P phase was very large and its commencement was very sharp.
		L	15	48	22						
		ME	15	48	23	3.1	±543				
		MN	15	48	23	3.1		±738			
		MZ	15	48	33	2.5			±155		
		FE	16	07	±						
		FN	16	07	±						
		FZ	16	05	±						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
47	Apr. 19	P	20	43	37					649	E off Kinkwazan at every where in N part of Japan, the shocks were felt.
		S	20	44	23						
		L	20	45	01						
		ME	20	47	02	2.7	±50				
		MN	20	45	06	3.4		±34			
		MZ	20	45	30	2.1			±25		
		FE	20	53	±						
		FN	20	53	±						
		FZ	20	49	±						
48	Apr. 20	ME	2	04	21	1.5	±6				Ditto.
		MN	2	04	11	1.5		±6			
		FE	2	09	±						
		FN	2	09	±						
49	Apr. 25	eP	6	39	40						Flat wave form. Local shock.
		L	6	39	44						
		F	6	40	±						
50	Apr. 25	eP	7	55	07						Near Wakayama.
		L	7	55	15						
		F	7	56	±						
51	Apr. 25	eP	12	39	16						Ditto.
		L	12	39	24						
		F	12	40	±						
52	May 1	P	6	07	10					317	In N part of Bungo channel. Near the epicenter strong shocks were felt.
		L	6	07	48						
		ME	6	07	52						
		MN	6	07	56	0.6	±5				
		FE	6	08	±			±10			
		FN	6	09	±						
53	May 1	P	8	18	90					311	Ditto.
		L	8	18	37						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
54	May 3	ME	8	18	43	0.6	± 54			4640	Trace of a distant earth quake. From Omori's trmometer.
		MN	8	18	44	0.6		± 40			
		FE	8	25	\pm						
		FN	8	24	\pm						
		P	17	28	30						
		PR ₁	17	30	17						
		S	17	33	54						
		L	17	38	30						
		eME	17	39	52		± 25				
		M ₁ N	17	39	33	28.8		± 295			
M ₂ N	17	41	09	24.3		± 240					
CN	17	47	35								
FN	18	09	\pm								
55	May 5	P	10	11	56				3760	Ditto.	
		PR ₁	10	12	33						
		PR ₂	10	13	25						
		PR ₃	10	14	22						
		S	10	16	46						
		SR ₁	10	18	26						
		L	10	19	41						
		ME	10	20	26	1.6	± 6				
		MN	10	20	25	2.5		± 8			
		CE	10	23	46						
		CN	10	24	19						
		FE	10	48	\pm						
		FN	10	48	\pm						
56	May 6	P	5	28	28				61	In Kii channel.	
		L	5	28	36						
		ME	5	28	37	0.6	± 28				
		MN	5	28	38	0.6		± 28			
		MZ	5	28	36						
		FE	5	30	15						
		FZ	5	30	20			± 8			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
57	May 6	eP	7	30	54					4640	S part of Shig province.
		L	7	31	03						
		M ₁ E	7	31	05	0.6	± 10				
		M ₁ N	7	31	04	0.6		± 14			
		M ₁ Z	7	31	04						
		M ₂ E	7	31	08	0.6	± 11				
		M ₂ N	7	31	08	0.6		± 13			
		M ₂ Z	7	31	08						
		FE	7	31	41						
		FN	7	31	41						
FZ	7	31	40								
58	May 6	eP	17	04	42				3760	Flat wave orm.	
		eME	17	05	20		± 2				
		FE	17	05	35						
59	May 12	P	1	49	08				97	In Wakayama province.	
		L	1	49	16						
		ME	1	49	17		± 9				
		MN	1	49	17			± 4			
		MZ	1	49	17						
		FE	1	50	\pm						
		FN	1	50	\pm						
60	May 13	P	6	55	16				97	Ditto.	
		L	6	55	29						
		ME	6	55	39		± 1				
		MN	6	55	39			± 3			
		FE	6	56	\pm						
		FN	6	56	\pm						
61	May 15	P	18	27	12				870	Near Fatsijio Isl.	
		PR ₁	18	27	19						
		PR ₂	18	27	29						
		PR ₃	18	27	44						
		L	18	29	07						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		AE	AN	AZ			
			h	m	s	s	μ	μ	μ	km.		
62	May 17	M ₁ E	18	29	10	3.0	±71			45	On the course of Kizu river.	
		M ₁ N	18	29	13	3.3		±33				
		M ₂ E	18	29	35	3.2	±60					
		M ₂ N	18	29	35	2.7		±36				
		CN	18	29	54							
		FE	18	34	±							
		FN	18	34	±							
		P	11	29	35							
		L	11	29	41							
		M ₁ E	11	29	45	1.0	±60					
M ₁ N	11	29	43	0.7		±90						
M ₁ Z	11	29	45	0.6			±51					
FE	11	33	±									
FN	11	32	±									
FZ	11	32	±									
63	May 18	eP	16	03	50				1.2	±4	In Uruga channel.	
		ME	16	05	12							
		FE	16	08	40							
64	May 20	P	11	06	31				2650		From Omori's tromometer. NE far off Bonin IIs.	
		PR ₁	11	07	03							
		PR ₂	11	07	44							
		S	11	08	07							
		SR ₁	11	08	41							
		L	11	11	26							
		M ₁ E	11	11	44	9.6	±24					
		M ₂ E	11	14	39	9.5	±14					
		CE	11	15	09							
		FE	11	28	±							
65	May 22	P	9	41	54				1140		Trace of a distant earthquake.	
		S	9	43	16							
		L	9	44	28							
		ME	9	44	59	12.9	±28					

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
66	May 23	MN	9	45	±	12.9		±16		99	Near the mouth of Maruyama river in Tajima province. In the epicentral region the shocks were very violent and about 4000 houses were destroyed or burnt down, and also the number of the killed and wounded men were amounted to about 900. The detailed report of the earthquake will be seen in the moirs of the Imperial Marine Observatory before long.
		CE	9	47	04	9.7	±19				
		FE	9	56	±						
		FN	9	57	±						
		P	2	10	02						
67	May 23	L	2	10	15				2.3	2.9	
		M ₁ Z	2	10	22						
		M ₂ Z	2	11	07						
		M ₃ Z	2	12	06						
		C ₁ Z	2	14	28						
		C ₂ Z	2	15	22						
		FZ	2	27	±						
P	2	19	53								
68	May 23	P	2	21	09					Ditto.	
69	May 23	P	2	21	41					Ditto.	
70	May 23	P	2	24	34					Ditto.	
71	May 23	eP	2	37	39					Ditto.	
72	May 23	P	2	38	40				1.0	1.0	±84
		L	2	38	51						
		M ₁ Z	2	38	53						
		M ₁ N	2	38	55			±68			
		ME	2	38	56						
		FE	2	40	±						
		FN	2	42	±						
FZ	2	40	±								
73	May 23	ME	2	59	18					85	Ditto.

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
74	May 23	P	3	02	42					102	One of the great after shocks of No 66. Near the epicenter the shocks were felt strongly.
		L	3	02	56						
		ME	3	03	09	1.4	±954				
		MN	3	02	58	1.4		±437			
		MZ	3	02	54	1.4			±277		
		C ₁ E	3	04	18						
		C ₁ N	3	04	17						
		C ₂ E	3	04	49						
		C ₂ N	3	04	56						
		FE	3	08	±						
FN	3	08	±								
75	May 23	P	3	08	51					99	After shock of No 66
		L	3	09	04						
		ME	3	09	06	1.2	±36				
		MN	3	09	06	1.		±26			
		MZ	3	09	06	1.1			±20		
		FE	3	11	±						
		FN	3	11	±						
		FZ	3	11	±						
76	May 23	P	3	23	15					99	Ditto.
		L	3	23	28						
		ME	3	23	29	1.0	±9				
		MN	3	23	29	1.0		±11			
		MZ	Very slight.								
		F	?								
77	May 23	P	3	32	09					92	Ditto.
		L	3	32	22						
		F	?								
78	May 23	P	3	35	18						
		MZ	Very slight.								
79	May 23	P	3	40	43					100	Ditto.

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks				
			G.	M.	T.		AE	AN	AZ						
			h	m	s	s	μ	μ	μ	km.					
		L	3	40	57										
		ME	3	41	00	1.1	±23								
		MN	3	41	01	0.8		±12							
		MZ	3	40	59				±6						
		FE	3	42	±										
		FN	3	42	±										
		80	May 23	ME	4	15	25								Ditto.
		81	May 23	P	4	52	54							102	Ditto.
L	4			53	08										
ME	4			53	15	1.9	±66								
MN	4			53	18	1.1		±59							
MZ	4			53	10	1.2			±26						
FE	4			58	±										
FN	4			58	±										
82	May 23	P	5	00	52						Ditto.				
		L	5	01	05										
		ME	5	01	13	1.5	±115								
		MN	5	01	13	1.5		±71							
		MZ	5	01	08	1.2			±24						
		FE	5	04	±										
83	May 23	P	5	03	30						Ditto.				
		L	5	01	05										
		ME	5	01	13	1.5	±115								
		MN	5	01	13	1.5		±71							
84	May 23	P	5	47	39					99	Ditto.				
		L	5	47	52										
		ME	5	47	53	1.1	±39								
		MN	5	47	53	1.1		±35							
		MZ	5	47	57	1.2			±20						
		FE	5	49	±										
FN	5	49	±												

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
85	May 23	P	7	26	24					101	Ditto.
		L	7	26	38						
		ME	7	26	39	1.0	±15				
		MN	7	26	39	1.0		±14			
		MZ	7	26	39	0.9			±12		
		FE	7	27	±						
		FN	7	27	±						
86	May 23	ME	7	30	54						Ditto.
87	May 23	ME	8	09	22						Ditto.
88	May 23	P	8	09	29					91	Ditto.
		L	8	09	42						
		ME	8	09	49		±8				
		MN	8	09	47			±6			
		MZ	Very slight.								
		FE	8	11	±						
		FN	8	11	±						
89	May 23	ME	8	20	07						Ditto.
90	May 23	ME	8	32	04						Ditto.
91	May 23	ME	8	38	11						Ditto.
92	May 23	L	9	05	14						Ditto.
93	May 23	P	9	28	39					99	Ditto.
		L	9	28	52						
		ME	9	28	52		±9				
		MN	9	28	53			±10			
		MZ	Very slight.								
		FE	9	30	±						
		FN	9	30	±						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
94	May 23	P	9	38	57					99	Ditto.
		L	9	39	10						
		ME	9	39	11	1.2	±33				
		MN	9	39	11	1.0		±18			
		MZ	9	39	11	0.9			±8		
		FE	9	42	±						
		FN	9	42	±						
95	May 23	ME	9	46	52						Ditto.
96	May 23	P	13	26	25					92	Ditto.
		L	13	26	37						
		ME	13	26	37		±6				
		MN	13	26	37			±9			
		MZ	13	26	39						
		FE	13	27	±						
		FN	13	27	±						
97	May 23	ME	13	27	23						Ditto.
98	May 23	P	14	45	21					412	Ditto.
		L	14	46	12						
		ME	14	46	22	1.3	±41				
		MN	14	46	30	3.0		±24			
		MZ	14	46	31						
		FE	14	49	±						
		FN	14	51	±						
99	May 23	ME	14	54	40						Ditto.
		FE	14	55	±						
100	May 23	ME	16	50	20						Ditto.
101	May 23	ME	17	15	59						Ditto.
102	May 23	ME	21	05	54						Ditto.

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.	
103	May 24	ME	0	55	59						Ditto.
104	May 24	P	0	56	21					97	Ditto.
		L	0	56	34						
		ME	0	56	34		±1				
		MN	0	56	34			±1			
		MZ	0	56	37				±1		
		FE	0	57	±						
		FN	0	57	±						
105	May 24	P	3	53	06					960	Near Karenko in Formosa.
		PR ₁	3	53	30						
		S	3	54	02						
		L	3	55	13						
		ME	3	55	26	2.7	±115				
		MN	3	55	28	2.4		±94			
		CE	3	56	20						
		CN	3	56	40	2.4			±28		
		FE	4	02	±						
FN	4	03	±								
106	May 24	ME	7	47	23						An after shock of No 66
		FE	7	48	±						
107	May 24	ME	7	50	48						Ditto.
		FE	7	51	±						
108	May 24	P	10	55	35					103	Ditto.
		L	10	55	49						
		ME	10	55	56		±78				
		MN	10	55	54			±69			
		MZ	10	55	54				±34		
		CE	10	56	15						
		CN	10	56	21		±16				
		FE	11	02	±				±25		
FN	11	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.	
109	May 24	FZ	10	57	±					90	Ditto.
		P	12	54	29						
		L	12	54	41						
		ME	12	54	46	1.0	±31				
		MN	12	54	45	0.8		±21			
		MZ	12	54	47	1.1			±15		
		FE	12	59	±						
		FN	12	58	±						
110	May 24	ME	22	32	43						Ditto.
111	May 25	P	3	48	42					3400	Trace of a distant earthquake. From Omori's seismograph.
		S	3	50	49						
		L	3	55	35						
		F	4	00	±						
112	May 25	L	13	25	01						An after shock of No 66.
		ME	13	25	02	0.9	±6				
		MN	13	25	01	1.0		±6			
		MZ	Very slight.								
113	May 25	FE	13	26	±					89	Ditto.
		P	14	18	33						
		L	14	18	45						
		ME	14	18	49	1.2	±36				
		MN	14	18	48	1.0		±15			
114	May 25	MZ	14	18	47	0.9			±13		Ditto.
		FE	14	23	±						
		FN	14	23	±						
		P	14	41	23						
		L	14	41	37						
114	May 25	ME	14	41	46	1.8	±137				Ditto.
		MN	14	41	44	1.4		±62			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks		
			G.	M.	T.		AE	AN	AZ						G.	M.	T.		AE	AN	AZ				
			h	m	s	s	μ	μ	μ	km.				h	m	s	s	μ	μ	μ	km.				
115	May 25	MZ	14	41	45	1.4			± 31	Ditto.	124	May 26	MN	5	49	10	1.3		± 21		Ditto.				
		FE	14	43	\pm								± 10												
		FN	14	43	\pm																				
116	May 25	P	14	44	41				96			P	6	57	28					106	Ditto.				
117	May 25	P	16	22	34				The greatest after shock of No 66. Horizontal component was scale out in the L phase.	96	125	May 26	L	6	57	42					Ditto.				
		M ₁ Z	16	22	53	2.3		± 1075						± 39		± 19									
		M ₂ Z	16	23	07	3.3		± 788								± 18									
		C ₁ Z	16	24	17	3.3		± 256																	
		C ₂ Z	16	25	29	2.7		± 200																	
		FZ	16	31	\pm																				
		MZ	6	57	45	1.0																			
118	May 25	P	18	10	49						126	May 26	ME	12	36	39						99	Ditto.		
119	May 25	P	18	14	17						127	May 26	L	10	29	34									
		P	18	14	17										ME	10	29	36	1.0	± 1					
120	May 25	P	18	32	14						128	May 26	MN	10	29	35	1.1		± 1						
		F	18	33	\pm										MZ	Very slight.									
121	May 25	P	20	39	11				Ditto.	92	127	May 26	FE	10	30	\pm									
		L	20	39	23																				
		MZ	20	39	23			± 5																	
122	May 25	P	23	42	39				Ditto.	92	127	May 26	ME	12	47	48	2.4	± 109							
		L	23	42	52																				
		MZ	23	42	57	1.4		± 46										MN	12	47	47	1.8		± 36	
123	May 26	P	5	48	57				Ditto.	97	128	May 26	MZ	12	47	47	1.2			± 28					
		L	5	49	10																				
		ME	5	49	11	1.3	± 16											FE	12	50	\pm				
123	May 26	P	5	48	57				Ditto.	97	128	May 26	FN	12	50	\pm									
		L	5	49	10																				
		ME	5	49	11	1.3	± 16											MN	13	33	55		± 3		± 4

No.	Date	Phase	Time	Period	Amplitude			Δ	Remarks
					AE	AN	AZ		
			G. M. T.		μ	μ	μ	km.	
			h m s	s	μ	μ	μ	km.	
129	May 26	P	16 40 49					111	Ditto.
		L	16 41 04						
		ME	16 41 06	1.2	± 18				
		MN	16 41 06	1.2		± 16			
		MZ	16 41 07	0.9			± 1		
		FE	16 42 \pm						
130	May 26	P	16 44 48					87	Ditto.
		L	16 45 00						
131	May 27	P	2 30 54					400	In Japan sea. W off Kanazawa.
		S	2 31 24						
		L	2 31 48						
		M ₁ E	2 31 54	3.3	± 693				
		M ₁ N	2 32 13	2.7		± 239			
		M ₁ Z	2 31 57	2.9			± 139		
		M ₂ E	2 32 23	2.8	± 519				
		M ₂ N	2 32 32	2.2		± 319			
		M ₂ Z	2 32 10	2.9			± 90		
		M ₃ E	2 33 20	3.0	± 498				
		M ₃ N	2 33 14	2.7		± 278			
		M ₃ Z	2 32 34	2.9			± 110		
		CE	2 35 05	2.9	± 205				
		CN	2 34 30	2.7		± 98			
		FE	2 42 \pm						
		FN	2 40 \pm						
FZ	2 36 \pm								
132	May 27	ME	5 39 01						An after shock of No 66.
133	May 27	P	7 11 18						Ditto.
134	May 27	P	7 11 35					127	Ditto.
		L	7 11 52						
		ME	7 11 58	1.2	± 73				
		MN	7 11 57	1.3			± 46		

No.	Date	Phase	Time	Period	Amplitude			Δ	Remarks
					AE	AN	AZ		
			G. M. T.		μ	μ	μ	km.	
			h m s	s	μ	μ	μ	km.	
		MZ	7 11 57	1.0			± 28		
		FE	7 15 \pm						
		FN	7 15 \pm						
		FZ	7 14 \pm						
135	May 27	P	7 35 29					94	Ditto.
		L	7 35 41						
		ME	7 35 43		± 1				
		MN	7 35 44			± 1			
		MZ	7 35 43				± 1		
		FE	7 37 \pm						
FN	7 37 \pm								
136	May 27	P	16 38 53					97	Ditto.
		L	16 38 06						
		ME	16 39 07	1.0	± 11				
		MN	16 39 07	0.9		± 9			
		MZ	Very slight.						
		FE	16 40 \pm						
		FN	16 40 \pm						
137	May 28	P	6 46 15					99	Ditto.
		L	6 46 29						
		ME	6 46 32	1.0	± 9				
		MN	6 46 32	1.1		± 11			
		FE	6 47 \pm						
		FN	6 47 \pm						
138	May 28	ME	17 52 49						Ditto.
139	May 28	P	22 40 19					97	Ditto.
		L	22 40 32						
		ME	22 40 34	1.0	± 306				
		MN	22 40 33	1.1		± 134			
		MZ	22 40 33						
		FE	22 45 \pm						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
140	May 28	FN	22	45	±					102	Ditto.
		FZ	22	45	±						
		P	23	24	25						
		L	23	24	39						
		ME	23	24	45	1.0	±10				
		MN	23	24	45	0.9		±9			
		FE	23	26	±						
		FN	23	26	±						
141	May 29	ME	1	54	12						Ditto.
142	May 29	ME	3	30	20						Ditto.
143	May 29	P	8	47	59					102	Ditto.
		L	8	48	12						
144	May 29	P	8	48	20					95	Ditto.
		L	8	48	33						
		ME	3	48	36	1.2	±46				
		MN	8	48	36	0.9		±36			
		MZ	8	48	34				±24		
		FE	8	50	±						
		FN	8	50	±						
145	May 29	P	13	07	03					89	In Kii province.
		L	13	07	15						
		ME	13	07	24	1.0	±19				
		MN	13	07	25	0.9		±32			
		MZ	13	07	23				±6		
		FE	13	08	±						
		FN	13	08	±						
146	May 31	L	5	19	53						An after shock of No 66.
		F	5	20	10						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
147	May 31	L	23	50	47						Ditto.
		M	23	50	50						
148	June 2	P	5	20	26					1500	The amplitude of N S component was very small. In Japan deep.
		S	5	21	23						
		L	5	23	52						
		ME	5	24	01	16.8	±16				
		CE	5	24	38						
		FE	5	46	±						
		FN	5	46	±						
149	June 2	eP	14	30	26						An after shock of No 66.
		L	14	30	36						
150	June 3	P	4	40	37					6700	From Omori's seismometer. Trace of a distant earthquake.
		S	4	46	16						
		SR ₁	4	48	35						
		SR ₂	4	51	10						
		L	4	55	54						
		ME	4	59	58	16.8	±70				
		MN	4	59	37	16.9		±110			
		CE	5	06	17						
		FE	5	41	±						
FN	5	29	±								
151	June 3	P	8	40	21					88	An after shock of No 66.
		L	8	40	32						
		ME	8	40	36		±15				
		MN	8	40	33			±14			
		MZ	8	40	36				±3		
		FE	8	41	±						
		FN	8	41	±						
		FZ	8	41	±						
		FN	8	41	±						
152	June 4	eL	5	26	16						Ditto.
		ME	5	26	18		±4				
		MN	5	26	18			±3			

No.	Date	Phase	Time	Period	Amplitude			Δ	Remarks
					AE	AN	AZ		
			G. M. T.		μ	μ	μ	km.	
153	June 4	FE	5 26 32					84	Not an after shock of No 66. In Kii channel.
		FN	5 26 32						
		P	15 08 08						
		L	15 08 19						
		ME	15 08 20	± 4					
		MN	15 08 19		± 4				
		FE	15 09 \pm						
FN	15 09 \pm								
154	June 9	P	13 43 23				133	An after shock of No 66.	
		L	13 43 41						
		ME	13 43 46	± 10					
		MN	13 43 46		± 15				
		FE	13 45 \pm						
		FN	13 45 \pm						
155	June 9	P	13 48 06				5100	From Omori's seismometer. Trace of a distant earthquake.	
		S	13 53 58						
		L	13 59 20						
		M ₁ E	14 01 26	20.4	± 130				
		MN	14 01 12	20.8		± 500			
		M ₂ E	14 03 54	21.6	± 150				
		FE	14 39 \pm						
		FN	14 41 \pm						
156	June 10	eP	13 58 46					After shock of No 66.	
		ME	13 58 49		± 6				
		MN	13 58 49			± 5			
		FE	13 59 20						
		FN	13 59 \pm						
157	June 11	eP	6 46 47				400	Near Shimonoseki strait.	
		eL	6 47 41						
		ME	6 47 46	1.1	± 8				
		MN	6 47 52	1.0		± 5			

No.	Date	Phase	Time	Period	Amplitude			Δ	Remarks
					AE	AN	AZ		
			G. M. T.		μ	μ	μ	km.	
158	June 14	FE	6 50 \pm					110	An after shock of No 66.
		FN	6 50 \pm						
		P	0 33 23						
		L	0 33 38						
		ME	0 33 45	1.9	± 70				
		MN	0 33 54	2.2		± 49			
		MZ	0 33 43	1.6		± 24			
		FE	0 38 \pm						
		FN	0 39 \pm						
159	June 15	eP	1 03 57					In Kii channel.	
		L	1 04 07						
		ME	1 04 10		± 5				
		MN	1 04 11			± 6			
		FE	1 06 \pm						
		FN	1 06 \pm						
160	June 15	P	17 10 49				634	In Kashima sea.	
		L	17 12 14						
		ME	17 12 17	1.8	± 8				
		MN	17 12 32	1.8		± 9			
		FE	17 17 \pm						
		FN	17 16 \pm						
161	June 17	P	7 54 39				74	Near Wakayama.	
		L	7 54 49						
		ME	7 54 49		± 8				
		MN	7 54 49			± 9			
		FE	7 55 \pm						
		FN	7 55 \pm						
162	June 17	eP	10 06 32					Ditto.	
163	June 17	eP	13 43 38					Faint record.	

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
164	June 19	F	13	44	38						An after shock of No 6
		ME	0	47	10		± 5				
		MN	0	47	10			± 6			
		FE	0	47	50						
165	June 19	FN	0	47	50						110 Ditto. Felt at Kobe weakly.
		P	4	03	14						
		L	4	03	28						
		M ₁ E	4	03	30	0.6	± 93				
		M ₁ N	4	03	30	0.9		± 150			
		MZ	4	03	29				± 78		
		M ₂ E	4	03	35	0.6	± 92				
		M ₂ N	4	03	35	0.9		± 100			
		FE	4	07	\pm						
		FN	4	06	\pm						
166	June 20	FZ	4	06	\pm						Ditto.
		ME	7	52	38		± 9				
		MN	7	52	38			± 8			
		FE	7	52	53						
167	June 21	FN	7	52	53						Ditto.
		ME	6	18	27						
168	June 21	FE	6	18	38						101 Ditto.
		P	15	04	58						
		L	15	05	12						
		M ₁ E	15	05	12	1.0	± 216				
		M ₁ N	15	05	12	1.2		± 218			
		M ₁ Z	15	05	13	1.1			± 65		
		M ₂ E	15	05	18	1.2	± 216				
		M ₂ N	15	05	18	1.3		± 173			
		M ₂ Z	15	05	15	1.1					
		CE	15	05	28				± 105		
CN	15	05	26								

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
169	June 21	CZ	15	05	26						100 Ditto.
		FE	15	09	\pm						
		FN	15	09	\pm						
		FZ	15	08	\pm						
170	June 22	P	18	21	31						98 Ditto.
		L	18	21	44						
		ME	18	21	46		± 28				
		MN	18	21	46			± 20			
		MZ	18	21	45				± 26		
		FE	18	23	40						
		FN	18	22	26						
171	June 23	FZ	18	22	50						100 One of the great after shocks of No 66. In the coda phase. A few numbers of the slight shocks were recorded.
		eP	12	13	20						
		L	12	13	34						
		ME	12	13	34	0.6	± 8				
		MN	12	13	34	0.6		± 11			
171	June 23	FE	12	14	\pm						100 One of the great after shocks of No 66. In the coda phase. A few numbers of the slight shocks were recorded.
		FN	12	14	\pm						
		P	3	58	15						
		L	3	58	29						
		M ₁ E	3	58	36	1.5	± 1825				
		M ₁ N	3	58	36	1.6		± 930			
		M ₁ Z	3	58	31	1.3			± 463		
		M ₂ E	3	58	49	1.6	± 1825				
		M ₂ N	3	58	49	1.5		± 1825			
		M ₂ Z	3	58	43	3.0			± 530		
		C ₁ E	3	59	49	3.0	± 198				
		C ₁ N	3	59	42	2.0		± 225			
		C ₂ E	4	00	08	2.0	± 345				
C ₂ N	4	00	03	2.0		± 250					
C ₃ E	4	01	04	3.6	± 280						
C ₃ N	4	01	00	3.9		± 248					
C ₄ E	4	01	54	3.6	± 460						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
172	June 23	C ₄ N	4	01	28	3.3		±405		An after shock No 66,	
		FE	4	11	±						
		FN	4	11	±						
		FZ	4	04	±						
		L	4	19	27						
		ME	4	19	30		±3				
		MN	4	19	30			±3			
173	June 23	P	22	10	05				128	S part of Shiga province	
		L	22	10	22						
		ME	22	10	37	0.7	±11				
		MN	22	10	37	0.7		±12			
		FE	22	11	20						
		FN	22	11	20						
174	June 24	eP	3	12	02					Faint record.	
		F	3	12	24						
175	June 24	P	21	58	23				97	In Wakayama province.	
		L	21	58	36						
		ME	21	58	38		±4				
		MN	21	58	38			±4			
		FE	21	59	±						
		FN	21	59	±						
176	June 25	eME	16	02	39		±5			Near Wakayama.	
		eMN	16	02	39			±10			
		FN	16	02	47						
177	June 25	eME	16	03	08		±5			Ditto.	
		eMN	16	03	08			±8			
		FN	16	03	16						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		AE	AN	AZ			
			h	m	s	s	μ	μ	μ	km.		
178	June 26	eME	7	38	16		±5				Ditto.	
		eMN	7	38	16			±13				
		FN	7	38	21							
179	June 26	eP	12	24	33				2.4	±6	An after shock of No 66.	
		L	12	24	48							
		ME	12	24	51							
		MN	12	24	51			±5				
		FE	12	25	33							
		FN	12	25	33							
180	June 26	eP	17	28	46				1.2	±6	The seismogram of N S component was very faint.	
		L	17	29	32							
		ME	17	29	39							
		FE	17	32	±							
181	June 28	P	6	15	52				3.6	±46	1260	Near Nase in Riukiu IIs.
		S	6	17	29							
		SR ₁	6	17	57							
		SR ₂	6	18	11							
		L	6	18	42							
		ME	6	18	43							
		MN	6	18	47			±40				
		CE	6	20	13							
		CN	6	20	05							
FE	6	28	±									
FN	6	28	±									

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

of the Branch Station of the Kobe Meteorological Observatory of Japan.

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

Instruments: Wiechert Seismograph.

(Horizontal)

	T_0	ξ	$\frac{r}{T_0^2}$	V
AE:	3.3	0.15		80
AN:	3.3	0.15		80

No.	Date	Phase	Time	Period	Amplitude			Δ	Remarks
					AE	AN	AZ		
			G. M. T.						
			h m s	s	μ	μ	μ	km.	
59	Apr. 2	P	1 29 55		+			47	Slight shocks were felt. In Kii channel.
		L	1 30 02						
		M ₁	1 30 02		+21	-38			
		M ₂	1 30 05		+23	-42			
		M ₃	1 30 06		+23	+37			
		F	1 30 43						
60	Apr. 3	P	11 23 47					17	Local shock.
		L	11 23 49						
		M	11 23 51		+6	± 13			
		F	11 24 09						
61	Apr. 4	P	22 44 17					20	Ditto.
		L	22 44 19						
		M	22 44 20		± 5	± 8			
		F	22 44 37						
62	Apr. 5	P	14 15 00					33	Ditto.
		L	11 15 04						
		M	11 15 05		-6	-14			
		F	11 15 24						



No.	Date	Phase	Time	Period	Amplitude			Δ	Remarks
					AE	AN	AZ		
			G. M. T.						
			h m s	s	μ	μ	μ	km.	
63	Apr. 9	P	6 21 23					31	Slight shock was felt. Near Wakayama.
		L	6 21 27						
		M _E	6 21 27		+34				
		M _N	6 21 28			-51			
		eF	6 22 09						
64	Apr. 10	P	16 54 15					12	Local shock.
		L	16 54 17						
		M	16 54 18		± 38	+31			
		F	16 54 34						
65	Apr. 16	P	19 56 35	5.2				3663	Between Formosa and Luzon. At some place in S part of Formosa the shocks were felt strongly.
		S	19 57 11	5.2					
		SR ₁ N	20 00 02	6.5					
		SR ₁ E	20 00 10	5.8					
		L	20 05 13	13.2					
		M ₁ E	20 05 49	12.6	-25				
		M ₁ N	20 05 55	17.4		+11			
		M ₂ E	20 08 27	12.1	+11				
		M ₂ N	20 07 57	15.2		-10			
		CE	20 18 25	11.1	+5				
eCN	20 17 38			+3					
eF	20 33 \pm								
66	Apr. 18	P	0 04 00					34	Near Wakayama.
		L	0 04 05						
		M	0 04 05		-14	+58			
		F	0 04 47						
67	Apr. 18	P	6 01 25					34	Ditto.
		L	6 01 30						
		M	6 01 31		-8	+14			
		F	6 01 48						
68	Apr. 18	P	10 53 08					54	Ditto.
		L	10 53 16						

No	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G.	M. T.		AE	AN	AZ		
			h	m s	s	μ	μ	μ	km.	
69	Apr. 18	M	10	53 16		-169	-487		30	Ditto.
		F	10	54 56						
		eP	11	43 38						
		L	11	43 43						
		M	11	43 43		-9	-15			
70	Apr. 19	F	11	43 59					359	Near Noto peninsula.
		P	15	47 34						
		L	15	48 18	2.5	+135	+75			
		ME	15	48 19	3.5	-275				
		MN	15	48 20	3.5		± 325			
		C ₁ N	15	49 30	2.8		-44			
		C ₁ E	15	49 43	3.2	-56				
		C ₂ E	15	50 16	3.5	± 48				
		C ₂ S	15	50 19	3.8		-20			
eF	16	00 \pm								
71	Apr. 19	P	20	43 46					796	E off Kinkwazan.
		L	20	45 30						
		MN	20	45 38	2.2		-14			
		ME	20	46 03	2.2	± 24				
		eF	21	03 \pm						
72	Apr. 23	P	11	21 00					30	Local shock.
		L	11	21 04						
		M	11	21 04		± 13	-17			
		F	11	21 19						
73	Apr. 23	eP	16	12 15					249	
		L	16	12 49						
		M	16	12 54		± 5	+11			
		F	16	13 39						
74	Apr. 24	P	14	06 57					30	Ditto.
		L	14	07 00						

No.	Date	Phase	Time		Period	Amplitude			Δ	Remarks
			G.	M. T.		AE	AN	AZ		
			h	m s	s	μ	μ	μ	km.	
75	Apr. 25	M	14	07 07		± 3	± 6			Ditto.
		F	14	07 26						
		P	6	39 34						
		L	6	39 35						
76	Apr. 25	M	6	39 37		+21	-29		67	Ditto.
		F	6	39 55						
		P	7	54 59						
		L	7	55 08						
77	Apr. 25	M	7	55 08					36	Ditto.
		F	7	55 36						
		P	12	39 17						
		L	12	39 22						
78	Apr. 27	M	12	39 24		± 3	+6		32	Ditto.
		F	12	39 46						
		P	6	22 33						
		L	6	22 37						
79	Apr. 28	M	6	22 38		± 18	-28		64	Ditto.
		F	6	22 46						
		P	16	26 45						
		L	16	26 54						
80	Apr. 28	M	16	26 55		+14	± 25		21	Ditto.
		F	16	28 \pm						
		eP	16	37 29						
		L	16	37 31						
81	May 1	M	16	37 32		-7	± 5			In N part of Bungo channel. Near the epicenter strong shocks were felt.
		F	16	38 35						
		eP	6	07 24						
		L	6	07 44						
81	May 1	M	6	07 45		± 9	± 15			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
82	May 1	F	6	08	47					In N part of Bungo channel.	
		P	8	17	50						
		eL	8	18	11	1.2	+26	+20			
		M	8	18	38	9.2	± 45	+73			
83	May 2	F	8	19	49					60	
		P	11	39	39						
		L	11	39	48						
		M	11	39	51		+4	+8			
84	May 3	F	11	40	11					3163	Trace of a distant earthquake. Very small amplitude.
		P	17	28	26						
		L	17	34	40						
85	May 5	F	17	51	\pm					4216	Ditto.
		P	10	11	48						
		S	10	14	08						
		eSR ₁	10	16	39						
		eL	10	19	43						
86	May 6	eF	10	46	\pm					34	In Kii channel.
		P	5	28	25						
		L	5	28	29						
		M	5	28	30		± 113	-169			
87	May 6	F	5	29	32					82	S part of Shiga province.
		eP	7	30	11						
		L	7	30	21						
		M	7	30	22		-4	+10			
88	May 6	eF	7	31	\pm					67	Ditto.
		eP	17	04	52						
		L	17	05	01						
		eMN	17	05	15						
		eME	17	05	29			+9			
						-5					

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
89	May 9	eF	17	05	45					24	Near Wakayama.
		P	17	24	48						
		L	17	24	52						
		M	17	24	53		± 5	± 7			
90	May 12	F	17	25	29					22	Ditto.
		P	1	48	59						
		L	1	49	02						
		M	1	49	03		-44	-69			
91	May 13	F	1	50	14					32	Ditto.
		P	6	55	16						
		L	6	55	21						
		M	6	55	21						
92	May 15	F	6	55	51					535	Near Fatizio Isl.
		P	18	27	03						
		L	18	28	12		+9	-22			
		M	18	28	13	3.5	-33	-30			
		F	18	34	\pm						
93	May 15	P	21	34	28					21	Local shock.
		L	21	34	31						
		M	21	34	31		+16	+4			
		F	21	34	54						
94	May 16	P	21	34	54					53	Ditto.
		P	8	20	49						
		L	8	20	56						
		M	8	20	57		+36	-61			
95	May 16	F	8	21	57					257	In Aki sea.
		P	17	50	19						
		S	17	50	26						
		L	17	50	54						
		M	17	51	03		-4	-8			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
96	May 16	F	17	52	±					31	In Kii channel.
		P	21	48	11						
		L	21	48	16						
		M	21	45	16	-5	+5				
		F	21	48	57						
97	May 17	P	11	29	44					89	On the course of Kizuri river.
		L	11	29	56	+15	+6				
		M	11	29	56	-37	-56				
		F	11	32	±						
98	May 20	P	11	06	41	2.9				814	NE off of Bonin Is.
		S	11	07	56	3.5					
		L	11	08	28	3.2					
		ME	11	09	09	12.9	+5				
		MN	11	09	47	9.4		-7			
		eF	11	46	±						
99	May 20	P	22	19	01					33	Local shock.
		L	22	19	06						
		M	22	19	06						
		F	22	19	27	±9	±8				
100	May 22	eP	9	42	24					773	In Pacific ocean.
		eL	9	44	05						
		MN	9	46	27	8.5		-8			
		ME	9	46	35	10.0	-6				
		F	10	05	±						
101	May 23	P	2	10	09					120	Near the mouth of Maruyama river. In L phase the instruments were scaled out. By the repair of the seismometer, the instrumental observations could not be done.
		L	2	10	25						
102	May 23	P	3	02	52						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
103	May 24	P	0	56	28					126	After shock of No. 101.
		L	0	56	45						
		F	0	57	17						
104	May 24	P	3	53	08					383	Near Karenko in Formosa.
		S	3	53	32	0.6	+20	-23			
		L	3	53	55	0.6	+30	-28			
		M	3	54	09	1.1	±72	±125			
		F	3	56	33						
105	May 24	P	10	55	43					125	After shock of No. 101.
		L	10	55	59						
		M	10	56	00		±20	-26			
		F	10	57	35						
106	May 24	P	12	53	35					131	Ditto.
		L	12	53	53						
		M	12	53	54		±6	-15			
		F	12	56	32						
107	May 24	P	22	32	38					130	Ditto.
		L	22	32	55						
		M	22	32	56		±4	±4			
		F	22	33	15						
108	May 25	P	2	13	44					131	Ditto.
		L	2	14	01						
		M	2	14	03		±7	+10			
		F	2	14	52						
109	May 25	P	13	24	55					113	Ditto.
		L	13	25	10						
		F	13	25	44						
110	May 25	P	14	18	36					126	Ditto.
		L	14	18	53						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
111	May 25	M	14	18	55		± 16	± 13		129	Ditto.
		F	14	20	06						
		P	14	41	26						
		L	14	41	47	9.5	-10	+10			
		M	14	41	51	9.5	-49	+34			
112	May 25	F	14	44	07					115	Ditto.
		P	14	44	31						
		L	14	44	46						
113	May 25	F	14	47	\pm					139	One of the great after shocks of No. 101. In L phase scaled out.
		P	16	22	35						
114	May 25	L	16	22	54					118	After shock of No 101.
		P	17	56	02						
115	May 25	L	17	56	18					125	Ditto.
		F	17	57	\pm						
		P	18	10	44		+15	-9			
		L	18	11	01						
116	May 25	M	18	11	03					139	Ditto.
		F	18	11	45						
		P	18	32	18						
		L	18	32	36						
117	May 25	M	18	32	38		± 8	± 8		131	Ditto.
		F	18	33	\pm						
		P	20	39	19						
		L	20	39	36						
118	May 25	F	20	40	\pm					141	Ditto.
		P	23	42	44						
		L	23	43	03						
		M	23	43	05		± 54	-35			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
119	May 26	F	23	46	\pm					119	Ditto.
		P	5	49	04						
		L	5	49	20						
120	May 26	F	5	50	30					141	Ditto.
		P	6	57	34						
		L	6	57	53						
121	May 26	M	6	57	55		-20	± 23		126	After shock of No. 101.
		F	6	59	21						
		eP	6	59	46						
122	May 26	L	7	02	05					131	Ditto.
		eF	7	04	30						
123	May 26	P	10	29	23					137	Ditto.
		L	10	29	40						
		F	10	30	25						
124	May 26	P	12	36	20					134	After shock of No. 101.
		L	12	36	38						
		F	12	36	53						
		P	12	47	32						
125	May 26	L	12	47	51					119	Ditto.
		M	12	47	56		+61	+21			
		F	12	50	04						
		eP	12	50	04						
126	May 26	L	12	50	22					131	Ditto.
		F	12	52	55						
		P	13	34	45						
127	May 26	L	13	35	01					137	Ditto.
		F	13	35	34						
		P	13	35	34						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
127	May 26	P	16	40	59					141	Ditto.
		L	16	41	18						
		M	16	41	20		± 9	-10			
		F	16	42	37						
128	May 26	P	23	47	53					119	Ditto.
		L	23	48	09						
		F	23	48	26						
129	May 27	P	2	30	53					452	In Japan sea W off Kanazawa.
		S	2	31	00	2.7	± 63	± 100			
		SR ₁	2	31	10	1.2	± 38	± 75			
		SR ₂	2	31	20	1.5	-75	$+69$			
		L	2	31	49	2.1	-70	$+53$			
		M	2	31	57	4.2	± 456	± 250			
		C	2	37	20	3.0	$+3$	± 37			
		F	2	47	23						
130	May 27	P	5	38	43					33	In Kii channel.
		L	5	38	48						
		M	5	38	48		$+9$	-11			
		F	5	40	\pm						
131	May 27	P	7	11	43					134	An after shock of No 101.
		L	7	12	01						
		M	7	12	02		$+25$	$+28$			
		F	7	13	\pm						
132	May 27	P	7	35	32					120	Ditto.
		L	7	35	49						
		M	7	35	49		± 8	± 12			
		F	7	37	04						
133	May 27	P	16	39	03					118	Ditto.
		L	16	39	19						
		M	16	39	20		± 4	± 7			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
134	May 28	F	16	40	25					120	Ditto.
		P	6	46	38						
		L	6	46	54						
135	May 28	P	18	37	46					117	Ditto.
		L	18	38	01						
		F	18	39	\pm						
136	May 28	P	22	40	21					129	Ditto.
		L	22	40	38						
		M	22	40	43		$+181$	± 106			
		F	22	45	\pm						
137	May 28	P	23	34	37					127	Ditto.
		L	23	24	54						
		F	23	25	26						
138	May 29	P	8	14	44					148	Ditto.
		L	8	15	05						
		F	8	16	\pm						
139	May 29	P	13	06	54					80	In Kii province.
		L	13	07	05						
		M	13	07	07						
		F	13	09	21						
140	May 30	eP	22	53	27					19	In Kidan channel.
		L	22	53	30						
		M	22	53	30		-3	$+7$			
		F	22	54	\pm						
141	June 2	eP	5	20	38					889	In Japan deep, E off of Miyako.
		L	5	22	35						
		eF	5	31	\pm						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
142	June 3	P	8	40	28					103	An after shock of No. 101.
		L	8	40	42						
		M	8	40	43		+9	-8			
		eF	8	41	33						
143	June 4	P	15	08	02					46	In Kii channel.
		L	15	08	08						
		M	15	08	08		± 8	± 13			
		eF	15	09	39						
144	June 4	P	20	39	17					24	Near Wakayama.
		L	20	39	20						
		M	20	39	20		-8	+13			
		eF	20	40	10						
145	June 5	P	3	02	18					25	Ditto.
		L	3	02	22						
		M	3	02	22		± 10	± 12			
		eF	3	03	\pm						
146	June 6	eP	11	53	13					25	Ditto.
		L	11	53	17						
		M	11	53	17		-4	-5			
		eF	11	54	\pm						
147	June 9	eP	13	43	29					161	An after shock of No 101.
		L	13	43	46						
		M	13	43	47		+20	+21			
		eF	13	45	\pm						
148	June 9	P	13	48	10					4158	Trace of a distant earthquake.
		eL	13	56	56						
		M	14	01	06	15.0					
		eF	14	20	\pm		-16				
149	June 10	P	7	12	37				57	In Kii channel.	

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
		L	7	12	44						
		M	7	12	45		-4	± 9			
		eF	7	13	\pm						
150	June 10	eP	17	30	42					70	In Kii channel.
		L	17	30	51						
		M	17	30	52		+6	-4			
		eF	17	31	39						
151	June 11	eP	6	46	44					322	Near Shimonoseki strait.
		L	6	47	23						
		eF	6	48	\pm						
152	June 13	eP	16	52	14					46	In Kii channel.
		L	16	52	20						
		M	16	52	21		+9	-8			
		eF	16	53	01						
153	June 14	P	0	33	15					156	
		L	0	33	36						
		M	0	33	38		+18	-19			
		eF	0	37	\pm						
154	June 14	eP	1	04	39					65	Near Kii strait.
		L	1	04	48						
		M	1	04	49		± 4	± 5			
		eF	1	06	\pm						
155	June 14	P	18	57	48					47	Ditto.
		L	18	57	54						
		M	18	57	54		± 5	± 9			
		eF	18	59	\pm						
156	June 14	eP	20	28	33					33	Ditto.
		L	20	28	38						
		eF	20	30	\pm						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
157	June 15	P	1	03	51					47	Ditto.
		L	1	03	58						
		M	1	03	59		-33	+56			
		eF	1	05	±						
158	June 15	P	13	38	03					25	Ditto.
		L	13	38	07						
		M	13	38	08		+20	±26			
		eF	13	38	54						
159	June 17	P	7	54	35					65	Ditto.
		L	7	54	44						
		M	7	54	45		+19	+38			
		eF	7	55	21						
160	June 17	P	10	06	20					19	Ditto.
		L	10	06	22						
		M	10	06	23		-25	-43			
		eF	10	07	23						
161	June 19	P	4	03	19					120	An after shock of No 101.
		L	4	03	35						
		M ₁	4	03	39	0.6	-31	+38			
		M ₂	4	03	42	0.6	+23	-38			
		eF	4	05	±						
162	June 21	P	15	05	04					160	Ditto.
		L	15	05	21						
		M ₁	15	05	22	1.2	+175	-119			
		M ₂	15	05	28	1.2	+213	+73			
		C	15	05	47		+10	-23			
		eF	15	08	14						
163	June 21	P	18	21	35					170	Ditto.
		L	18	21	53						
		M	18	21	54		-25	-21			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
164	June 22	eF	18	23	11					165	Ditto.
		P	12	13	27						
		L	12	13	45						
		M	12	13	45		+8	+13			
165	June 23	P	3	58	19					166	One of the great after shocks of No 101.
		L	3	58	37						
		M	3	58	40	1.5	-706	±369			
		C	4	02	57	4.4	±13	±137			
166	June 23	eP	4	19	16					124	An after shock of No 101.
		L	4	19	32						
		eF	4	20	03						
167	June 23	eP	22	10	19					114	S part of Shiga province.
		L	22	10	34						
		eF	22	10	47						
168	June 24	eP	3	11	46					158	Faint record.
		L	3	12	16						
		eF	3	13	±						
169	June 24	eP	21	58	28					24	Near Wakayama.
		L	21	58	31						
		eF	21	59	09						
170	June 25	eP	2	55	30					26	Ditto.
		L	2	55	33						
		M	2	55	34		-8	-18			
		eF	2	55	45						
171	June 25	P	16	02	27					28	Ditto.
		L	16	02	31						



MICROSEISMIC OBSERVATIONS.

April, 1925.

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
172	June 25	M	16	02	32		-10	-9		28	Ditto.
		F	16	02	50						
		P	16	02	57						
		L	16	03	01						
		M	16	03	02		+8	-8			
		F	16	03	30						
173	June 26	P	7	38	07				27	Ditto.	
		L	7	38	11						
		M	7	38	12		-5	-10			
		F	7	38	38						
174	June 26	P	12	24	40				119	An after shock of No 101.	
		L	12	24	56						
		M	12	24	57		-2	+4			
		F	12	25	28						
175	June 26	P	17	28	36				166	In W part of Shikoku.	
		L	17	28	54						
		M	17	28	56		± 8	-8			
		eF	17	30	10						
176	June 29	P	19	14	56				30	Near Wakayama.	
		L	19	15	00						
		ME	19	15	00		-4				
		MN	19	15	01			± 5			
		F	19	15	06						
177	June 30	P	7	01	22				33	Ditto.	
		L	7	10	26						
		M	7	01	27		± 10	± 9			
		F	7	01	53						

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.	
					Position. Long. E	Lat. N			
1	2	—	—	—					
		6	—	—					
		10	—	—					
		14	—	—					
		18	—	—					
		22	—	—					
2	2	0.9	0.6	1.0				A High pressure area situated at the E coast of Japan.	
		6	1.0	0.6	0.7				
		10	0.9	0.5	0.7				
		14	—	—	—				
		18	—	—	—				
		22	—	—	—				
3	2	—	—	—					
		6	—	—	—				
		10	—	—	—				
		14	—	—	—				
		18	—	—	—				
		22	—	—	—				
4	2	—	—	—				A typhoon appeared near Riukiu, and travelled in E along the S coast.	
		6	1.1	0.5	1.0	128°	30°		750
		10	1.2	0.6	0.8				
		14	1.3	0.6	0.9	131°	31°		748
		18	1.1	0.6	0.7	133°	32°		746
		22	1.0	1.0	0.5				
5	2	1.0	—	0.5					
		6	—	—	—				
		10	2.2	0.3	0.3				
		14	1.1	—	0.6				
		18	2.1	—	0.3				
		22	—	—	—				
6	2	—	—	—					
		6	—	—	—				
		10	—	—	—				
		14	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks
					Position.		Depth. mm	
					Long. E	Lat. N		
7	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	1.0	0.6	0.6				
	14	—	—	—				
	18	—	—	—				
8	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
9	2	—	—	—				
	6	—	—	—				
	10	1.0	0.5	0.5				
	14	1.0	0.5	0.5				
	18	—	—	—				
	22	1.2	0.5	—				
	2	—	—	—				
10	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
11	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
12	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	3.3	—	—	0.6			

A High pressure area situated in Yang-tse valley, and covered the W part of Japan.

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm.	
					Long. E	Lat. N		
13	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	0.8	0.7	0.6	134°	40°	750	A continental cyclone travelled into Japan sea.
	18	1.2	0.6	—				
14	22	1.1	0.5	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	1.2	1.0	0.6				
	18	—	—	—				
	22	—	—	—				
15	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	0.9	0.9	0.6				
	18	0.9	0.8	0.9				
	22	—	—	—				
	2	—	—	—				
16	6	—	—	—				
	10	—	—	—				
	14	1.0	0.6	0.6				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
17	10	—	—	—				
	14	—	—	—				
	18	0.9	0.5	0.5				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
18	14	—	—	—				
	18	0.9	0.7	0.6				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	0.9	0.7	0.6				

A High pressure area located in Yang-tse valley, and covered the W part of Japan.

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position.			
					Long. E	Lat. N		
19	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
20	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
21	2	—	—	—				
	6	—	—	—				
	10	1.0	0.9	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
22	2	—	—	—				
	6	1.0	0.9	1.0	134°	34°	754	A small cyclone was moving in E direction along the Inner sea.
	10	0.9	0.8	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
23	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
24	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position.			
					Long. E	Lat. N		
	18	—	—	—				
	22	—	—	—				
25	2	—	—	—				
	6	—	—	—				
	10	1.0	0.5	0.5				
	14	—	—	—				
	18	1.2	0.7	0.5	136°	37°	754	A small cyclone was moving in E direction over Japan sea.
	22	1.6	1.3	0.8				
26	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
27	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
28	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	1.2	0.8	1.0	138°	30°	754	A cyclone was traveling in E direction across off the S coast.
	22	1.1	1.8	2.5				
29	2	1.1	0.5	0.8				
	6	1.1	0.8	0.5	140°	30°	754	
	10	1.0	0.8	0.6				
	14	0.8	0.9	0.7	140°	31°	754	
	18	0.8	0.6	0.6	142°	32°	754	
	22	—	—	—				
30	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				

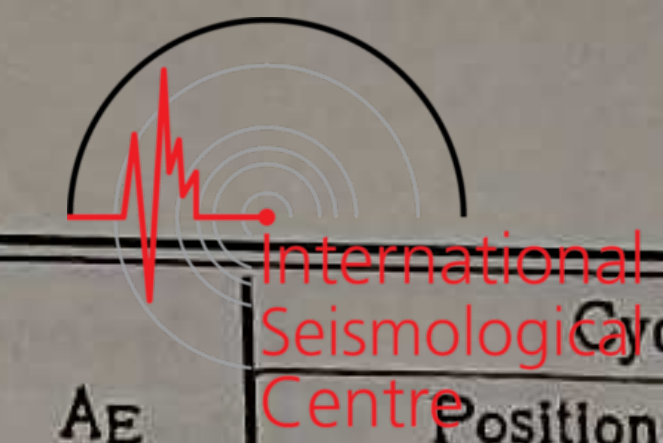
Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		

May, 1925.

1	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
2	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	0.9	0.6	—				
	22	1.1	0.6	0.5				
3	2	—	—	—				
	6	—	—	—				
	10	1.2	0.7	0.8	130°	35°	752	A cyclone appeared on the Yellow sea, and travelled easterly along the Inner sea.
	14	1.2	0.7	0.6	133°	37°	752	
	18	1.1	1.0	0.8	132°	33°	752	
	22	1.0	0.6	0.5				
4	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	1.0	0.5	0.7	138°	34°	751	A cyclone passed away across off of Kii peninsula.
	18	1.0	0.5	0.5	140°	34°	752	
	22	0.9	0.9	0.7				
5	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		

6	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	0.9	0.6	0.6				
	22	—	—	—				
7	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
8	2	—	—	—				
	6	—	—	—				
	10	1.4	3.8	1.0				A cyclone coming from the Eastern sea travelled easterly through the Inner sea.
	14	1.8	4.4	4.9	134°	34°	748	
	18	1.3	0.8	0.7	137°	33°	748	
	22	1.2	0.7	0.6				
9	2	1.2	0.6	0.5				
	6	1.2	0.6	—	140°	32°	754	
	10	1.0	1.2	1.0				
	14	1.0	0.6	0.5	140°	31°	758	
	18	—	—	—				
	22	1.1	1.1	0.8				
10	2	1.1	1.5	1.3				
	6	1.2	2.1	1.4	134°	32°	755	A cyclone travelled from Riukiu to the S coast.
	10	1.0	1.8	1.3				
	14	1.3	2.2	2.0	131°	32°	756	
	18	1.2	2.3	1.9	134°	32°	756	
	22	1.2	1.2	0.7				
11	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	1.1	—	0.5	134°	43°	754	A continental cyclone approached to Japan sea.
	22	1.1	0.7	0.5				



Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position. Long. E	Lat. N		
12	2	1.1	0.5	0.6				
	6	—	—	—				
	10	1.0	0.7	0.6				
	14	0.9	0.5	—				
	18	—	—	—				
	22	1.0	0.6	0.5				
13	2	0.9	0.6	0.7				A high pressure covered all over IIs.
	6	1.0	0.7	0.5				
	10	0.9	0.6	0.5				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
14	2	—	—	—				A cyclone appeared on Yellow sea, travelled into Japan sea, and also a secondary cyclone was induced on the S coast.
	6	0.9	1.2	0.7	142°	36°	750	
	10	1.0	1.3	0.8				
	14	0.9	1.2	0.8	128°	37°	748	
	18	0.9	0.7	—	130°	36°	748	
	22	1.1	1.9	1.4				
15	2	1.2	3.2	2.6				Ditto.
	6	1.2	1.5	2.4	134°	32°	748	
	10	1.2	1.6	2.1				
	14	1.2	1.2	1.0	136°	33°	748	
	18	1.3	1.3	2.6	137°	32°	748	
	22	0.9	0.7	0.5				
16	2	0.9	0.7	0.6				A high pressure covered the central part of Japan.
	6	1.0	0.5	0.5				
	10	1.1	0.9	1.2				
	14	1.0	1.1	0.8				
	18	0.8	0.7	0.6				
	22	0.9	0.7	0.7				
17	2	0.9	0.5	0.7				
	6	1.1	1.3	0.8				
	10	1.1	1.3	1.0				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position. Long. E	Lat. N		
18	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	0.7	—	0.7				
	18	—	—	—				
	22	—	—	—				
19	2	—	—	—				A cyclone situated off Tōtomi.
	6	0.9	0.9	0.6	140°	33°	749	
	10	0.7	0.7	0.8				
	14	0.7	0.6	0.5	141°	33°	748	
	18	—	—	—				
	22	0.9	—	1.8				
20	2	—	—	—				A continental cyclone on Japan sea and a induced secondary cyclone on Inner sea were both moving easterly.
	6	0.9	0.6	0.7	126°	37°	750	
	10	0.9	1.3	0.9				
	14	—	—	—	126°	37°	750	
	18	1.0	0.4	0.8	131°	37°	750	
	22	1.1	1.3	1.0				
21	2	1.1	1.2	0.9				
	6	1.5	3.1	3.6	134°	34°	751	
	10	1.1	1.2	0.7				
	14	1.0	1.0	0.6	136°	34°	751	
	18	1.2	1.2	1.4	138°	34°	751	
	22	1.1	0.6	0.5				
22	2	1.1	0.7	0.5				A high pressure area situated near Riukiu, and coveren the West part of Japan.
	6	—	—	—				
	10	0.9	0.6	0.4				
	14	0.9	0.6	—				
	18	0.9	0.5	—				
	22	1.0	0.6	—				
23	2	0.8	0.7	—				
	6	1.0	0.5	—				
	10	0.8	0.6	0.5				
	14	—	—	—				
	18	0.8	0.5	0.5				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position. Long. E	Lat. N		
24	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	0.9	0.7	0.7				
25	2	0.8	0.5	—				A high pressure area located on Japan sea and covered all over Japan IIs.
	6	0.9	1.3	0.8				
	10	0.9	0.9	1.0				
	14	0.9	0.6	0.5				
	18	—	—	—				
	22	0.8	0.5	—				
26	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
27	2	—	—	—				
	6	—	—	—				
	10	1.0	0.6	1.2				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
28	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
29	2	—	—	—				
	6	—	—	—				
	10	1.0	0.7	0.6				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm	Remarks
					Position. Long. E	Lat. N		
30	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
31	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
1	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
2	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
3	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				

June, 1925.

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone. Position.		Depth. mm.	Remarks.
					Long. E	Lat. N		
4	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
5	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	1.1	0.7	0.5	135°	29°	748	A cyclone located off of the S coast.
	18	1.1	0.6	0.5	140°	30°	748	
	22	—	—	—				
6	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	0.9	0.5	0.5				
	22	0.8	0.6	—				
7	2	—	—	—				
	6	—	—	—				
	10	1.0	0.9	0.5				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
8	2	—	—	—				
	6	1.0	0.8	0.6	130°	28°	746	A typhoon strayed near Nase.
	10	0.8	1.0	0.7				
	14	0.9	0.6	0.5	130°	29°	746	
	18	1.0	1.5	1.9	131°	29°	746	
	22	1.0	1.8	0.9				
9	2	1.3	1.8	1.8				
	6	1.3	2.2	1.0	129°	29°	746	Ditto.
	10	1.3	1.8	2.2				
	14	1.2	1.3	0.8	129°	28°	746	
	18	1.0	1.3	0.8	130°	27°	746	
	22	1.0	0.8	0.7				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone. Position.		Depth. mm.	Remarks.
					Long. E	Lat. N		
10	2	1.1	1.0	1.0				
	6	1.0	1.1	1.2				
	10	0.9	0.7	0.5				A high pressure area situated on the E coast and covered all over Japan IIs.
	14	—	—	—				
	18	0.9	0.9	0.8				
	22	0.9	0.9	0.9				
11	2	0.9	0.7	0.5				
	6	0.9	0.6	0.6				Ditto.
	10	0.9	0.6	0.5				
	14	1.0	0.5	0.6				
	18	1.0	0.8	0.6				
	22	—	—	—				
12	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	1.1	1.4	1.2				
	22	1.0	0.6	0.6				
13	2	0.9	0.6	0.6				
	6	0.9	0.5	—				
	10	—	—	—				
	14	—	—	—				
	18	1.2	0.6	1.2				
	22	0.9	0.6	0.5				
14	2	0.9	0.7	—				
	6	1.1	1.3	1.2	126°	32°	752	A cyclone situated in the Eastern sea was moving easterly.
	10	0.9	0.8	0.8				
	14	—	—	—				
	18	—	—	—				
	22	1.0	0.6	0.5				
15	2	1.2	1.4	1.3				
	6	1.0	1.2	1.0	136°	33°	746	A cyclone was moving in E direction along the S coast.
	10	1.0	1.1	1.0				
	14	1.0	0.6	0.6	139°	35°	746	
	18	1.0	0.8	0.8	145°	40°	746	
	22	1.0	0.7	1.2				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position. Long. E	Lat. N		
16	2	1.0	0.8	0.5	134°	47°	742	A powerfull continents cyclone was travelling through Siberia easterly
	6	0.9	0.9	0.5				
	10	0.9	0.5	0.5				
	14	0.9	0.5	0.5	138°	49°		
	18	—	—	—				
	22	0.0	0.5	—				
17	2	—	—	—				A high pressure area situated near Bonin Is. and covered all over Japan Is.
	6	0.9	0.7	0.5				
	10	—	—	—				
	14	—	—	—				
	18	1.0	0.5	0.6				
	22	1.0	0.6	0.6				
18	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	1.0	0.7	1.2				
	22	1.0	1.0	0.6				
19	2	—	—	—				
	6	—	—	—				
	10	1.2	2.5	1.8				
	14	1.1	1.8	1.8	134°	31°	754	
	18	1.1	1.4	2.4	133°	32°	754	
	22	1.1	1.4	1.3				
20	2	1.0	1.5	1.0				A cyclone travelling through Japan sea and a secondary cyclone induced off Shikoku.
	6	1.0	1.5	1.5	132°	33°	754	
	10	1.4	3.2	3.7				
	14	0.9	0.8	0.6	133°	34°	754	
	18	0.9	0.7	0.7	135°	34°	754	
	22	—	—	—				
21	2	—	—	—				Ditto.
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position. Long. E	Lat. N		
22	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	0.9	0.5	0.5				
23	2	0.9	0.6	0.5				
	6	—	—	—				
	10	0.9	0.7	0.6				
	14	—	—	—				
	18	1.0	0.5	0.5	124°	38°	748	
	22	1.0	0.6	0.5				
24	2	—	—	—				A cyclone was travelling through Japan sea N-Ely.
	6	1.0	0.7	0.5	132°	40°	744	
	10	1.1	2.5	1.3				
	14	1.2	1.4	1.3	132°	45°	744	
	18	1.1	1.3	1.0	132°	45°	742	
	22	1.0	0.6	0.5				
25	2	0.9	0.6	0.6				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
26	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
27	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. m.	Remarks.
					Position. Long. E	Lat. N		
28	2	1.1	1.3	1.4	134°	33°	748	
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
29	2	1.1	0.7	1.1				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
30	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	0.9	0.6	0.5				



SEISMOLOGICAL BULLETIN

OF THE

IMPERIAL MARINE OBSERVATORY

AND

KOBE METEOROLOGICAL OBSERVATORY.

KOBE, JAPAN.

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KOBE
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KÔBE JAPAN.

SEISMOLOGICAL BULLETIN

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

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

Instrument: Omori's Seismograph
(Horizontal Pendulum.)

Wiechert Seismograph
(Horizontal & Vertical)

	T_0	ξ	$\frac{r}{T_0^2}$	V		T_0	ξ	$\frac{r}{T_0^2}$	V
AN:	20	0.84		20.0	AN:	Aperiodic			80
AE:	20	0.53		20.0	AE:	"			80
AE:	25	0.29		42.7	AZ:	"			80

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No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks		
			G.	M.	T.		AE	AN	AZ				
182	July. 3	P	h	m	s	s	μ	μ	μ	km.	Near Miyoshi in Hiroshima province.		
		L	17	09	03								
		M _N	17	09	24							± 23	
		FE	17	10	\pm								
		FN	17	10	\pm								
183	July. 3	P	19	21	16	1.2	± 318	± 435	± 183	156	Near Yonago in Tottori province, the strong shocks were felt in epicentral region.		
		L	19	21	38								
		M _{1E}	19	21	41							1.4	± 2900
		M _{1N}	19	21	41							1.5	± 320
		M _{1Z}	19	21	38								± 180
		M _{2E}	19	21	52								
		M _{2N}	19	21	51								
		M _{2Z}	19	21	50								
		C _{1E}	19	22	55							2.3	± 88
		C _{1N}	19	23	04							1.8	± 140
		C _{2E}	19	23	39							2.4	± 78
		C _{2N}	19	23	46							2.4	± 155
		C _{3E}	19	25	02								± 183
		FE	19	30	\pm								
		FN	19	30	\pm								


No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
184	July. 3	FZ	19	26	±					156	An after shock of No. 183.
		P	19	34	39						
		L	19	35	00						
		ME	19	35	01		±6				
		MN	19	35	02			±6			
		FE	19	36	±						
		FN	19	36	±						
185	July. 3	P	23	54	01					156	Ditto.
		L	23	54	23						
		ME	23	54	24	1.1	±55				
		MN	23	54	23	1.2		±80			
		MZ	23	54	23	1.1			±23		
		FE	23	56	±						
		FN	23	56	±						
186	July. 5	ME	11	04	00						Near Wakayama.
		MN	11	03	59						
		FE	11	04	11						
		FN	11	04	11						
187	July. 5	P	14	54	06					162	An after shock of No. 183.
		L	14	54	28						
		ME	14	54	30		±28				
		MN	14	54	29			±41			
		MZ	14	54	29				±10		
		FE	14	56	±						
		FN	14	56	±						
188	July. 6	P	16	47	13					171	At upper course of Ebi river in Gifu province. In epicentral region the shocks were felt strongly.
		S	16	47	25						
		L	16	47	36						
		M ₁ E	16	47	45	2.4	±323				

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
		M ₁ N	16	47	44	2.4		±395			
		M ₁ Z	16	47	43	2.1			±190		
		M ₂ E	16	48	47	2.4	±359				
		M ₂ N	16	40	26	2.4		±340			
		M ₂ Z	16	48	05	1.8			±116		
		M ₃ E	16	49	29	2.7	±368				
		C ₁ E	16	50	18	3.0	±236				
		C ₁ N	16	50	18	2.7		±209			
		C ₂ E	16	50	51	3.0	±110				
		C ₂ N	16	50	54	2.9		±184			
		FE	16	58	±						
		FN	16	58	±						
FZ	16	53	±								
189	July. 7	eP	17	04	25					Faint record.	
190	July. 9	eP	6	41	36					Ditto.	
191	July. 11	P	8	33	26					156	Near Yonago in Tottori province.
		L	8	33	47						
		ME	8	33	49	1.0	±28				
		MN	8	33	48	1.1		±29			
		MZ	8	33	49	1.0			±16		
		FE	8	36	±						
192	July. 13	FE	8	36	±						Faint record.
		FN	8	36	±						
		FZ	8	35	±						
193	July. 13	P	6	10	14					285	Near Sata cape.
		L	6	10	48						
		ME	6	10	58	0.3	±4				
		MN	6	10	56	0.3		±4			
		FE	6	13	±						
FN	6	13	±								

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
194	July. 14	P	4	59	20	0.6				55	Near Wakayama.
		L	4	59	28						
		MN	4	59	31			± 4			
		FE	4	59	54						
		FN	4	59	59						
195	July. 16	eL	5	21	39						Near the mouth of the Maruyama river.
		ME	5	21	40		± 3				
		MN	5	21	40			± 3			
		FE	5	22	\pm						
		FN	5	22	\pm						
196	July. 17	eP	3	19	38	7.4					Trace of a distant earthquake.
		eL	3	25	44						
		ME	3	27	27		± 4				
		FE	3	44	\pm						
197	July. 17	eP	22	40	00						Ditto.
		eF	22	59	\pm						
		eF	22	59	\pm						
198	July. 22	P	2	09	14					46	Very small amplitude. In Kii channel.
		L	2	09	21						
		ME	2	09	21		± 2				
		MN	2	09	21			± 2			
		FE	2	09	39						
		FN	2	09	39						
199	July. 22	P	13	26	17					94	Ditto.
		L	13	26	30						
		ME	13	26	30		± 16				
		MN	13	26	30			± 13			
		MZ	13	26	30				± 3		
		FN	13	27	03						
		FE	13	27	03						
		FZ	13	27	01						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
200	July. 24	P	2	09	50					25	Near Sumoto.
		L	2	09	54						
		ME	2	09	54		± 12				
		MN	2	09	54			± 10			
		FE	2	10	29						
		FN	2	10	17						
201	July. 25	P	13	40	39					55	In Kii channel.
		L	13	40	46						
		ME	13	40	48		± 8				
		MN	13	40	47			± 14			
		F	13	41	20						
		F	13	41	12						
202	July. 26	P	12	47	26	1.9				565	Near Shiōya cape in Fukushima province.
		S	12	48	10						
		L	12	48	42		± 20				
		ME	12	49	06						
		C ₁	12	50	12						
		FE	12	56	\pm						
203	Aug. 1	eP	8	49	25						Faint record.
204	Aug. 2	P	8	47	12	1.3				25	
		L	8	47	15						
		ME	8	47	17		± 6				
		MN	8	47	16			± 6			
		MZ	8	47	16		1.5		± 5		
		FE	8	47	40						
205	Aug. 6	P	10	37	19					114	Near the mouth of the Maruyama river.
		L	10	37	34						
		ME	10	37	37		± 19				
		MN	10	37	35			± 13			
		FE	10	39	\pm						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			C.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
206	Aug. 6	FN	10	39	±						Faint record.
		eP	12	33	41						
		L	12	33	49						
		MN	12	33	51			±4			
		FE	12	34	30						
		FN	12	34	30						
207	Aug. 6	P	23	09	42					157	Near Gifu.
		L	23	10	03						
		ME	23	10	04						
		MN	23	10	04			±8			
		FE	23	11	±						
		FN	23	11	±						
208	Aug. 7	P	2	53	45					507	Near the Edo river.
		L	2	54	49						
		ME	2	55	01	1.2	±5				
		MN	2	55	02	2.2		±6			
		FE	2	58	±						
		FN	2	57	±						
209	Aug. 8	eP	5	57	54						Faint record.
		L	5	57	58						
		F	5	58	±						
210	Aug. 9	eP	0	04	11						Ditto.
211	Aug. 10	P	16	26	45					22	Local shock.
		L	16	26	48						
		ME	16	26	48		±13				
		MN	16	26	48			±19			
		FE	16	27	20						
		FN	16	27	20						
212	Aug. 17	L	18	57	27						Near the mouth of



No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		AE	AN	AZ			
			h	m	s	s	μ	μ	μ	km.		
213	Aug. 19	F	18	58	±						3610	the Maruyama river. Trace of a distant earthquake. From Omori's seismometer.
		eP	11	45	42							
		eS	11	49	36							
		L	11	53	04							
		M ₁ E	12	24	28	12.9	±13					
		M ₁ N	12	23	54	10.8		±13				
		M ₂ E	12	28	48	14.0	±10					
		M ₂ N	12	29	11	12.0		±10				
214	Aug. 19	FE	12	44	±						111	S part of Shiga province.
		FN	12	44	±							
		P	12	51	40							
		L	12	51	55							
		M ₁ Z	12	51	58	1.1			±448			
		M ₂ E	12	52	17	0.6	±183					
		M ₂ N	12	52	05	1.8		±300				
		FE	12	58	±							
215	Aug. 31	FN	12	59	±						54	In Kii channel.
		FZ	12	56	±							
		P	5	56	39							
		L	5	56	47							
		ME	5	56	47		±14					
		MN	5	56	47			±23				
216	Aug. 31	FE	5	57	30						P phase was not clear.	
		FN	5	57	30							
217	Sept. 4	ME	20	09	31	1.4	±8				Faint record.	
		F	20	15	±							
218	Sept. 7	eP	10	12	34						Near Nagoya.	
		L	20	14	17							
		ME	20	14	19		±6					
		MN	20	14	19			±6				

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

of the Branch Station of the Kobe Meteorological Observatory of Japan.

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

Instruments: Wiechert Seismograph.

(Horizontal)

	T_0	ξ	$\frac{r}{T_0^2}$	V
AE:	3.3	0.15		80
AN:	3.3	0.15		80

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
219	Sept. 10	F	20	14	40					83	In Kii channel.
		P	3	28	44						
		L	3	28	55						
		ME	3	28	56		± 31				
		MN	3	28	56			± 13			
		F	3	29	50						
220	Sept. 24	eP	3	59	02						Faint record.
221	Sept. 24	P	18	50	49					55	In Kii channel.
		L	18	50	57						
		ME	18	50	57		± 15				
		MN	18	50	57			± 13			
		F	18	51	30						
222	Sept. 26	ME	13	00	10		± 5				Near Sakai in Tottori province.
		MN	13	00	09			± 9			
		F	13	00	30						
223	Sept. 29	ME	21	12	17		± 9				P phase was not distinct.
		MN	21	12	14			± 10			
		F	21	12	20						
224	Sept. 30	eP	4	07	20						
225	Sept. 30	eP	4	32	06						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
178	July. 1	P	12	31	57					20	In Kii channel.
		L	12	31	59						
		M	12	32	00		± 6	$+6$			
		F	12	32	23						
179	July. 3	P	17	09	05					148	Near Miyoshi in Hiroshima province.
		L	17	09	25						
		M	17	09	26		-15	-36			
		F	17	10	04						
180	July. 3	P	19	21	15					141	Near Yonago in Tottori province.
		L	19	21	34						
		M	19	21	36	1.6	$+535$	$+498$			
		C	19	22	01	1.3	± 18	$+23$			
		F	19	26	\pm						
181	July. 3	P	19	34	41					145	An after shock of No 180.
		L	19	35	01						
		M	19	35	02		$+8$	-15			
		F	19	35	30						
182	July. 3	P	23	54	05				148	Ditto.	

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE μ	AN μ	Az μ		
183	July. 4	L	23 54 25					Very small amplitude.	
		M	23 54 26	± 55	± 49				
		F	23 55 32						
184	July. 4	eP	2 43 03					Faint record.	
		L	2 43 23						
		F	2 44 07						
185	July. 5	P	14 54 09				156	An after shock of No 180.	
		L	14 54 30						
		M	14 54 31	-33	+30				
186	July. 6	P	16 47 22				160	Upper course of the Ebi river in Gifu province.	
		L	16 47 43						
		M	16 47 57	0.9	-250	+150			
187	July. 8	C	16 48 58	1.8	± 14	± 14		Local shock.	
		F	16 53 54						
		P	0 56 23				42		
188	July. 11	L	0 56 29					Near Yonago in Tottori province.	
		M	0 56 29	-9	+16				
		F	0 56 53						
189	July. 14	P	8 33 25				160	Near Wakayama.	
		L	8 33 47						
		ME	8 33 47	+28					
189	July. 14	MN	8 33 49					Near Wakayama.	
		F	8 34 45						
		P	4 59 05				21		
189	July. 14	L	4 59 08						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE μ	AN μ	Az μ		
190	July. 17	M	4 59 08		± 46	± 81		Ditto.	
		F	4 59 45						
		P	2 03 24			22			
191	July. 17	L	2 03 27		-13	-25		In Kii channel.	
		M	2 03 27						
		F	2 03 45						
192	July. 21	P	5 59 08		± 5	+9		In Kii channel.	
		L	5 59 12						
		M	5 59 12						
193	July. 22	F	5 59 40					In Kii channel.	
		P	11 28 25			256			
		L	11 28 59						
194	July. 22	M	11 29 02		± 6	± 8		The house rattled.	
		FE	11 29 29						
		FN	11 29 33						
195	July. 22	P	2 09 08		± 9	± 16		Near Wakayama.	
		L	2 09 10						
		M	2 09 11						
196	July. 24	F	2 09 39					Ditto. The house rattled.	
		P	13 26 11			55			
		L	13 26 18						
196	July. 24	M	13 26 19		+69	+94		Near Wakayama.	
		F	13 27 28						
		P	17 54 38			30			
196	July. 24	L	17 54 42					Ditto. The house rattled.	
		M	17 54 57						
		P	2 08 50			19			
196	July. 24	L	2 08 52					Ditto. The house rattled.	
		M	2 08 53		-48	+68			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
197	July. 24	F	2	10	±					26	Ditto.
		P	2	11	26						
		L	2	11	29						
		M	2	11	30	-13	-23				
		eF	2	12	±						
198	July. 24	P	13	14	20					62	In Kii channel.
		S	13	14	24						
		L	13	14	28						
		M	13	14	28	-9	-9				
		F	13	14	56						
199	July. 25	P	13	40	33					51	Ditto.
		L	13	40	40						
		M	13	40	40	-13	-13				
		F	13	40	56						
200	July. 28	eP	16	34	29					21	Near Wakayama.
		L	16	34	32						
		eF	16	34	51						
201	July. 29	P	22	37	48					15	Ditto.
		L	22	37	50						
		F	22	38	15						
202	Aug. 2	P	8	48	10					127	
		L	8	48	27						
		eF	8	48	45						
203	Aug. 6	P	10	37	24					126	Near the mouth of Maruyama river.
		L	10	37	42						
		M	10	37	43	+9	-14				
		F	10	38	20						
204	Aug. 6	eP	23	09	48						Near Gifu.

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
		L	23	10	07						
		M	23	10	08	+14	+12				
		eF	23	10	24						
205	Aug. .7	eP	12	37	56						Faint record.
		L	12	38	14						
		F	12	38	32						
206	Aug. 17	P	11	46	00					7	Local shock.
		L	11	46	01						
		M	11	46	01	±17	±14				
		F	11	46	14						
207	Aug. 19	P	12	09	53					4222	Trace of a distant earthquake.
		L	12	18	49						
		M	12	23	10		±6				
		F	12	52	00						
208	Aug. 19	P	12	51	45					117	S part of Shiga province.
		L	12	52	01						
		M ₁	12	52	04	1.1	-180	-140			
		M ₂	12	52	13	1.1	-206	+103			
		C ₁	12	52	57	0.8	±15	±24			
		F	12	57	00						
209	Aug. 19	P	16	32	36					128	Ditto.
		L	16	32	53						
		F	16	33	11						
210	Aug. 21	P	16	20	41					23	Near Wakayama.
		L	16	20	44						
		M	16	20	44	+4	+6				
		F	16	21	09						
211	Aug. 23	P	1	08	12					111	S part of Kii channl.
		L	1	08	27						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	Az		
			h	m	s	s	μ	μ	μ	km.	
212	Aug. 24	M	1	08	27		-9	+14		25	In Kii channel.
		F	1	08	48						
		P	13	14	38						
		L	13	14	41						
		M	13	14	42		-5	-8			
213	Aug. 24	F	13	14	55					31	Ditto.
		P	13	43	13						
		L	13	43	18						
		M	13	43	18		±6	±10			
214	Aug. 26	F	13	43	34					23	Ditto.
		P	12	11	50						
		L	12	11	53						
		M	12	11	54		-18	-26			
215	Aug. 28	F	12	12	00					26	Ditto.
		P	1	28	48						
		L	1	28	51						
		M	1	28	52		±13	±19			
216	Aug. 29	F	1	30	21					25	Ditto.
		P	6	44	32						
		L	6	44	35						
		M	6	44	35		+3	+10			
217	Aug. 31	F	6	45	04					25	Ditto. The house rattled.
		P	5	56	17						
		L	5	56	20						
		M	5	56	21		±85	±255			
218	Sept. 3	F	5	57	22					38	In Kii channel.
		P	9	10	38						
		L	9	10	43						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	Az		
			h	m	s	s	μ	μ	μ	km.	
219	Sept. 4	P	23	47	23					33	Ditto.
		L	23	47	27						
		M	23	47	28		+14	-7			
		F	23	48	00						
220	Sept. 7	P	14	54	25					45	Ditto.
		L	14	54	31						
		M	14	54	31		-13	+11			
		F	14	55	07						
221	Sept. 8	P	14	32	01					46	Ditto.
		L	14	32	07						
		F	14	32	38						
222	Sept. 13	P	0	16	10					36	Ditto.
		L	0	16	24						
		M	0	16	24		-6	+7			
		F	0	16	39						
223	Sept. 15	P	13	02	43					26	Ditto.
		L	13	02	46						
		M	13	02	46		-15	-35			
		F	13	03	16						
224	Sept. 16	P	19	04	43					30	Ditto.
		L	19	04	47						
		M	19	04	48		-4	-6			
		F	19	05	04						
225	Sept. 16	P	21	20	18					32	Ditto.
		L	21	20	22						
		F	21	20	53						
226	Sept. 18	P	11	28	07					25	Ditto. The house rattled a little.
		L	11	28	11						
		M	11	28	11		+20	+48			

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
227	Sept. 19	F	11	28	57					50	In Kii channel.
		P	3	29	38						
		L	3	29	45						
		M	3	29	46	±30	+38				
228	Sept. 19	F	3	30	44					25	Ditto.
		P	12	42	24						
		L	12	42	28						
229	Sept. 19	F	12	42	39					25	Ditto.
		P	14	50	15						
		L	14	50	19						
		M	14	50	19	-3	+8				
230	Sept. 19	F	14	50	55					25	Ditto.
		P	17	13	32						
		L	17	13	35						
		M	17	13	36	-9	-15				
231	Sept. 21	F	17	14	05					25	Ditto.
		P	9	56	56						
		L	9	56	59						
232	Sept. 21	F	9	57	25					24	Ditto.
		P	10	10	46						
		L	10	10	49						
233	Sept. 24	F	10	11	27					23	Ditto.
		P	9	52	06						
		L	9	52	09						
		M	9	52	09	-7	-14				
234	Sept. 24	F	9	52	32					26	Ditto. The house rattled with
		P	18	50	39						
		L	18	50	42						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
		M	18	50	43		+54	-65			considerable intensity.
		F	18	52	26						
235	Sept. 26	F	18	52	26					23	In Kii channel.
		P	1	54	03						
		L	1	54	06						
		M	1	54	06	-9	-17				
236	Sept. 26	F	1	54	39					20	Ditto.
		P	7	24	17						
		L	7	24	19						
237	Sept. 26	M	7	24	20		±6	±10		54	Ditto.
		F	7	24	40						
		P	13	00	02						
238	Sept. 27	L	13	00	10					24	Ditto.
		F	13	00	15						
		P	18	26	32						
239	Sept. 27	L	18	26	35					28	Ditto.
		F	18	26	58						
		P	20	22	47						
		L	20	22	51						
		F	20	23	05						



SEISMOLOGICAL BULLETIN

OF THE

IMPERIAL MARINE OBSERVATORY

AND

KOBE METEOROLOGICAL OBSERVATORY.

KOBE, JAPAN.

VOL. I. No. 5.

From October 1, 1925 to December 31, 1925.

KOBE
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大正十四年十二月十五日發行

神戸市中山手通七丁目
神戸測候所

印刷者 神戸市楠町三丁目一
千一五番屋敷吉

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KÔBE JAPAN.

SEISMOLOGICAL BULLETIN

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

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

Instrument: Omori's Seismograph
(Horizontal Pendulum.)

Wiechert Seismograph
(Horizontal & Vertical)

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	T_0	ξ	$\frac{r}{T_0^2}$	V		T_0	ξ	$\frac{r}{T_0^2}$	V
AN:	20	0.84		20.0	AN:	Aperiodic			80
AE:	20	0.53		20.0	AE:	"			80
AE:	25	0.29		42.7	AZ:	"			80

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
226	Oct. 12	eP	7	56	59						Local shock. Small amplitude.
		L	7	57	00						
		FN	7	57	01						
227	Oct. 18	P	17	59	06	0.9		± 13		65	In Kii channel.
		L	17	59	14						
		MN	17	59	14						
		FE	17	59	30						
		FN	17	59	30						
228	Oct. 20	P	0	42	57		± 28			69	Ditto.
		L	0	43	06						
		ME	0	43	07						
		MN	0	43	07						
		FE	0	44	\pm						
		FN	0	44	\pm						
229	Oct. 20	P	9	43	52	3.6	± 206			735	Near Hatijo isl.
		L	9	45	28						
		ME	9	45	30						
		MN	9	45	29						

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE μ	AN μ	AZ μ		
230	Oct. 21	FE	9 51 30					The phase of preliminary tremors was very small.	
		FN	9 51 30						
		ME	17 19 43		±9				
		MN	17 19 43			±8			
		FE	17 20 ±						
		FN	17 20 ±						
231	Oct. 26	P	2 06 58				56	Near Kameoka in Kyoto province.	
		L	2 07 06						
		ME	2 07 07		±63				
		MN	2 07 07	0.6		±135			
		MZ	2 07 06	0.9					
		FE	2 08 20			±20			
232	Nov. 3	FN	2 08 15					Near, Tadotsu in Kagawa province.	
		FZ	2 08 15						
		ME	5 07 10		±6				
		MN	5 07 11			±5			
		FE	5 07 40						
		FN	5 07 40						
233	Nov. 6	eP	15 14 37					Faint record. In Kashi- ma sea. N component was not recorded.	
		S	15 15 22						
		L	15 16 00						
		M ₁ E	15 16 26	3.0	±35				
		M ₂ E	15 17 25	3.0	±43				
		FE	15 21 30						
234	Nov. 10	P	13 59 13				3413	Near Philippine.	
		S	14 03 16						
		L	14 06 05						
		ME	14 08 03	13.4	±40				
		MN	14 10 25	19.1					
		FE	14 41 ±			±25			
FN	14 41 ±								

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			Δ km.	Remarks
					AE μ	AN μ	AZ μ		
235	Nov. 13	P	12 19 56				2456	In Marianne ils.	
		L	12 24 21						
		M ₁ E	12 26 22	5.3	±50				
		M ₁ N	12 26 04	6.1		±65			
		M ₂ E	12 34 21	15.5	±16				
		M ₂ N	12 34 07	12.3		±31			
		FE	13 30 ±						
		FN	13 30 ±						
236	Nov. 26	ME	15 55 41	10.0	±40			By Omori's seismo- meter P and S phases were not distinct.	
		MN	15 55 41	10.0		±40			
		FE	16 00 ±						
		FN	16 00 ±						
237	Nov. 26	P	17 00 18				111	Near the mouth of Maruyama river. One of the after shocks of the violent earthquake of May 23rd (See Bulletin vol. I No. 3)	
		L	17 00 33						
		ME	17 00 34	2.3	±375				
		M ₁ N	17 00 34	0.6		±410			
		M ₁ Z	17 00 36			±156			
		M ₂ N	17 00 40	1.6		±275			
M ₂ Z	17 00 37	1.3		±108					
238	Nov. 26	M ₁ E	17 02 12	1.9	±110			Ditto.	
		M ₁ N	17 02 12	1.6		±79			
		MZ	17 01 39	1.3		±59			
		M ₂ E	17 02 51	2.9	±79				
		M ₂ N	17 02 23	1.6		±65			
239	Nov. 26	ME	17 05 23		±15			Ditto.	
		MN	17 05 23			±10			
		FE	17 08 ±						
		FN	17 08 ±						
240	Nov. 28	ME	16 47 42	13.5	±25			Ditto.	
		MN	16 47 42	12.3		±20			
		FE	16 52 ±						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
241	Nov. 30	FN	16	52	±						By Omori's seismometer.
		ME	17	55	20	9.7	±25				
		MN	17	47	48	11.9		±40			
		FE	18	04	±						
		FN	17	59	±						
242	Dec. 1	ME	19	02	22	1.5	±6				In Miyazu Bay.
		MN	19	02	27	0.9		±8			
		FE	19	03	±						
		FN	19	03	±						
243	Dec. 4	eL	11	09	00						In Kii channel.
		F	11	10	15						
244	Dec. 7	eME	8	36	46	12.5	±20				By Omori's seismometer.
		FE	8	42	30						
245	Dec. 11	eP	7	20	30						Faint record.
		F	7	23	±						
246	Dec. 13	eP	15	31	54						In the course of Tenriu river.
		S	15	32	09						
		eL	15	32	15						
		ME	15	32	16		±13				
		MN	15	32	16	0.9		±13			
		FE	15	34	±						
247	Dec. 22	FN	15	34	±						P phase was not distinct.
		ME	5	23	59	5.7	±9				
		MN	5	23	49	4.7		±13			
		FE	5	31	±						
248	Dec. 22	P	7	06	34						Slight shocks were felt.
		L	7	06	39				40		

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
249	Dec. 26	ME	7	06	41		±103				Upper course of Hotsu river, Kyoto province.
		MN	7	06	41						
		MZ	7	06	41	1.0			±50		
		FE	7	10	±						
		FN	7	10	±						
		FZ	7	08	±						
249	Dec. 26	ME	18	38	41	18.6	±50				By Omori's seismometer.
		FE	18	49	±						

SUMOTO JAPAN.

SEISMOLOGICAL BULLETIN

of the Branch Station of the Kobe Meteorological Observatory of Japan.

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

Instruments: Wiechert Seismograph.

(Horizontal)

	T_o	ξ	$\frac{r}{T_o^2}$	V
AE:	3.3	0.15		80
AN:	3.3	0.15		80

No.	Date	Phase	Time G. M. T.	Period s	Amplitude			J km.	Remarks
					AE μ	AN μ	AZ μ		
240	Sept. 30	P	22 33 32					48	In Kii channel.
		L	22 33 39						
		F	22 34 13						
241	Oct. 4	P	16 19 10					31	Ditto.
		L	16 19 14						
		M	16 19 15						
		F	16 19 58						
242	Oct. 11	eP	8 39 34						
		eLM	8 39 35						
		F	8 39 46						
243	Oct. 12	eP	13 48 17						
		L	13 48 21						
		MEN	13 48 21						
		F	13 48 46						
244	Oct. 12	P	19 44 57					28	Ditto.
		L	19 45 01						
		ME	19 45 01						
		MN	19 45 02						



No.	Date	Phase	Time G. M. T.	Period s	Amplitude			J km.	Remarks
					AE μ	AN μ	AZ μ		
245	Oct. 13	P	16 48 10					33	Ditto.
		L	16 48 14						
		ME	16 48 14						
		MN	16 48 14						
		FE	16 48 42						
		FN	16 48 40						
246	Oct. 13	P	16 49 10					30	Ditto.
		L	16 49 14						
		ME	16 49 14						
		MN	16 49 15						
		FE	16 49 42						
		FN	19 49 45						
247	Oct. 15	P	23 43 13					130	S part of Shiga province.
		L	23 43 31						
		MEN	23 43 31						
		F	23 44 03						
248	Oct. 17	P	0 56 03					22	Near Wakayama.
		L	0 56 06						
		ME	0 56 06						
		MN	0 56 08						
		F	0 56 32						
249	Oct. 18	P	17 58 57					42	In Kii channel.
		L	17 59 02						
		MEN	17 59 03						
		FE	17 59 53						
		FN	17 59 56						
250	Oct. 20	P	0 42 45					57	Ditto.
		L	0 42 53						
		ME	0 42 54						
		MN	0 43 54						
		FE	0 43 16						

No.	Date	Phase	Time			Period	Amplitude			J	Remarks	
			G.	M.	T.		AE	AN	AZ			
			h	m	s	s	μ	μ	μ	km.		
251	Oct. 20	FN	0	43	23					682	Near Hatijo isl.	
		eP	9	43	50							
		S	9	44	43							
		L	9	45	22							
		ME	9	45	26	1.9	+54					
		MN	9	45	25	1.9		+19				
		CE	9	48	35	3.1	±3					
		CN	9	48	33	—		±3				
FEN	9	51	±									
252	Oct. 20	P	22	25	01				±10	57	In Kii channel.	
		L	22	25	09							
		ME	22	25	09							
		MN	22	25	09			±10				
		F	22	25	33							
253	Oct. 21	P	17	19	20				±21	53	Ditto.	
		L	17	19	27							
		ME	17	19	27							
		MN	17	19	27			±23				
		FE	17	20	36							
		FN	17	20	30							
254	Oct. 21	P	20	15	49				±13	39	Slight shocks were felt.	
		L	20	15	55							
		ME	20	15	55							
		MN	20	15	55							
		FE	20	16	35							
		FN	20	16	44							
255	Oct. 22	P	13	18	04				±13	41	In Kii channel.	
		L	13	18	09							
		ME	13	18	10							
		MN	13	18	10							
		FE	13	18	37			±26				

No.	Date	Phase	Time			Period	Amplitude			J	Remarks	
			G.	M.	T.		AE	AN	AZ			
			h	m	s	s	μ	μ	μ	km.		
256	Oct. 22	FN	13	18	42					±5	49	In Kii channel, felt at Wakayama.
		eP	21	42	56							
		L	21	43	03							
		ME	21	43	03							
		MN	21	43	04			±10				
		FE	21	43	32							
		FN	21	43	39							
257	Oct. 22	P	22	23	13				±21	28	Near Wakayama, felt at Wakayama.	
		L	22	23	17							
		ME	22	23	17							
		MN	22	23	18			±23				
258	Oct. 22	ME	22	24	05				±16	85	Near Kameoka, Kyoto province.	
		MN	22	24	05							
		F	22	24	14							
259	Oct. 23	eP	2	41	25				±6	±5	Local shock.	
		L	2	41	25							
		M	2	41	26							
		F	2	41	49							
260	Oct. 26	P	2	07	05				±16	±24	Local shock.	
		L	2	07	16							
		ME	2	07	17							
		MN	2	07	17							
		FE	2	09	30							
		FN	2	09	36							
261	Oct. 27	eP	5	37	17				±4	±6	Local shock.	
		ME	5	37	22							
		MN	5	37	22							
		FE	5	37	39							
		FN	5	37	41							

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		AE	AN	AZ			
			h	m	s	s	μ	μ	μ	km.		
262	Oct. 27	eL	5	55	50						Ditto.	
		ME	5	55	51		±4					
		MN	5	55	51			±3				
		FE	5	56	07							
		FN	5	56	03							
263	Nov. 1	P	20	02	42					36	Near Wakayama.	
		L	20	02	46							
		MEN	20	02	47		±14					
		FE	20	03	29			±24				
		FN	20	03	32							
264	Nov. 3	P	5	06	45					87	Near Tadotsu in Kagawa province.	
		L	5	06	56							
		ME	5	06	58		±32					
		MN	5	06	58			±37				
		FE	5	07	53							
FN	5	07	53									
265	Nov. 3	eP	8	52	05					27	Local shock.	
		L	8	52	09							
		MEN	8	52	10		±6	±9				
		FEN	8	52	36							
266	Nov. 6	P	15	14	50					1000	Faint record.	
		S	15	15	55							
		L	15	16	54							
		F	15	22	±							
267	Nov. 10	P	13	57	22					3560	Near philippine ils.	
		S	14	00	36							
		SR ₁	14	03	07							
		L	14	04	37							
		M ₁ E	14	07	41	14.3	-18					
		M ₁ N	14	10	05	17.1		-13				
		M ₂ E	14	12	50	17.1	+16					

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks	
			G.	M.	T.		AE	AN	AZ			
			h	m	s	s	μ	μ	μ	km.		
		M ₂ N	14	15	40	17.1		+15				
		F	14	50	±							
268	Nov. 12	P	13	47	47					30	In Kii channel.	
		L	13	47	50							
		F	13	48	31							
269	Nov. 13	P	12	20	05					2320	Near Marianne isl.	
		P̄	12	20	23							
		S	12	21	22							
		S̄	12	22	38							
		L	12	24	10							
		ME	12	24	19	5.9	+33					
		MN	12	25	03	13.2		+28				
		F	13	32	±							
270	Nov. 19	P	6	08	46					44	In Kii channel.	
		L	6	08	51							
		MEN	6	08	52		-4	-5				
		F	6	09	00							
271	Nov. 20	P	6	45	12					56	Ditto.	
		L	6	45	20							
		MEN	6	45	22		+5	+8				
		F	6	45	49							
272	Nov. 20	P	9	48	53					68	Ditto.	
		L	9	49	02							
		MEN	9	49	04		-3	+5				
		F	9	49	29							
273	Nov. 22	P	12	52	46					27	Local shock.	
		L	12	52	50							
		F	12	53	43							
274	Nov. 26	P	17	00	22					125	Near the mouth of	

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
275	Nov. 26	L	17	00	39					125	Maruyama river in Tajima province. Slight shock were felt.
		MEN	17	00	40		-136	-75			
		F	17	01	42						
		P	17	01	42						
		L	17	01	59						
276	Nov. 30	MEN	17	02	00		+48	+24		27	Local shock.
		F	17	05	22						
		P	7	12	19						
		L	7	12	23						
277	Nov. 31	F	7	13	04					58	In Kii channel.
		P	16	08	36						
		L	16	08	44						
278	Dec. 1	MEN	16	08	44		-15	+14		25	Local shock.
		F	16	09	18						
		eP	11	55	03						
		L	11	55	07						
279	Dec. 1	MEN	11	55	07		+10	-19		111	In Miyazu Bay.
		F	11	56	25						
		P	19	02	00						
		S	19	02	07						
280	Dec. 4	L	19	02	15					27	Local shock.
		MEN	19	02	16		-4	+5			
		eF	19	05	00						
		P	11	08	51						
		L	11	08	55						
281	Dec. 13	MEN	11	08	55		-20	-63		80	
		F	11	09	51						
		P	15	32	01						
		S	15	32	06						

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
282	Dec. 19	L	15	32	11					26	Ditto.
		F	15	33	15						
		P	9	15	47						
		L	9	15	50						
283	Dec. 19	MEN	9	15	50		±5	+13		26	Ditto.
		F	9	16	07						
		P	23	59	11						
		L	23	59	15						
284	Dec. 22	MEN	23	59	15		+14	+25		625	
		F	0	01	32						
		eP	5	22	36						
		L	5	24	00						
285	Dec. 22	MEN	5	26	12	10.0	+18	+8		82	Upper course of Hotsu river, Kyoto province.
		F	5	40	00						
		P	7	06	31						
		L	7	06	42						
286	Dec. 22	M	7	06	43		-52	-70		27	Local shock.
		F	7	10	12						
		P	12	58	05						
		L	12	58	09						
287	Dec. 25	MEN	12	58	11		+10	+10		66	In Kii channel.
		F	12	59	00						
		P	11	16	17						
		L	11	16	26						
288	Dec. 28	F	11	17	15					33	Local shock.
		P	9	07	51						
		L	9	07	55						
		MEN	9	07	56		+6	+6			
		F	9	08	25						



MICROSEISMIC OBSERVATIONS.

July, 1925.

No.	Date	Phase	Time			Period	Amplitude			Δ	Remarks
			G.	M.	T.		AE	AN	AZ		
			h	m	s	s	μ	μ	μ	km.	
289	Dec. 28	P	17	55	07					33	Ditto.
		L	17	55	11						
		F	17	55	39						

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm.	
					Long. E	Lat. N		
1	2	0.9	0.7	0.6	132°	31°	744	A cyclone was moving in E direction along the S coast.
	6	0.9	0.8	0.6				
	10	1.4	1.9	1.9				
	14	1.0	1.3	0.9				
	18	—	—	—				
	22	—	—	—				
2	2	—	—	—	135°	33°	744	
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
3	2	—	—	—	134°	31°	753	A small cyclone was induced off of the S coast.
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
4	2	—	—	—	134°	31°	753	A small cyclone was induced off of the S coast.
	6	0.9	0.7	0.6				
	10	1.0	0.9	0.7				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
5	2	—	—	—	134°	31°	753	A small cyclone was induced off of the S coast.
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
6	2	—	—	—	134°	31°	753	A small cyclone was induced off of the S coast.
	6	1.0	1.0	0.6				
	10	0.9	0.5	—				
	14	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.	Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks
					Long. E	Lat. N	Depth. mm							Long. E	Lat. N	Depth. mm.	
7	18	0.9	0.5	0.5				A cyclone was in the S. Korea and moved easterly.	13	18	1.1	1.9	1.4	136°	34°	750	A cyclone was off of Kii peninsula and moved easterly.
	22	—	—	—						22	—	—	—				
	2	1.1	1.5	0.9						2	1.0	0.5	—				
	6	1.1	1.3	0.9	127°	35°	751			6	1.0	0.6	0.5	135°	32°	750	
	10	1.1	0.8	0.6						10	1.0	0.8	1.2				
	14	1.1	0.5	0.5	128°	37°	751			14	1.0	0.8	0.7	138°	32°	751	
8	18	1.1	1.0	0.8	128°	36°	752	A cyclone moving in Japan sea induced a secondary one near the S coast.	14	18	1.0	0.7	0.5	139°	32°	752	Ditto.
	22	1.2	1.2	1.5						22	0.9	1.1	0.5				
	2	1.2	1.3	1.2						2	0.9	0.7	—				
	6	1.2	1.5	0.8	135°	34°	756			6	0.9	0.7	0.6	135°	31°	754	
	10	0.9	0.5	0.6						10	0.9	0.6	0.6				
	14	0.9	0.6	—	140°	36°	754			14	0.9	0.7	0.6	135°	31°	754	
9	18	0.9	—	0.6				A high press. area covered all over Japan.	15	18	0.9	0.5	—	136°	31°	753	Ditto.
	22	1.0	0.7	0.9						22	—	—	—				
	2	—	—	—						2	0.9	0.5	—				
	6	0.9	0.5	—						6	0.9	0.5	—				
	10	1.0	0.6	0.6						10	0.9	0.5	0.6				
	14	1.0	0.6	0.5						14	—	—	—				
10	18	—	—	—				Ditto.	16	18	0.9	0.5	0.6				Ditto.
	22	1.0	0.5	0.5						22	1.0	0.6	0.8				
	2	—	—	—						2	—	—	—				
	6	1.0	0.5	—						6	1.0	0.7	0.5				
	10	1.0	—	0.5						10	0.9	0.6	0.5				
	14	0.9	—	0.5						14	0.9	0.8	0.8				
11	18	—	—	—				Ditto.	17	18	0.9	0.9	0.7				Ditto.
	22	—	—	—						22	—	—	—				
	2	—	—	—						2	—	—	—				
	6	—	—	—						6	—	—	—				
	10	—	—	—						10	—	—	—				
	14	—	—	—						14	0.9	0.5	0.5				
12	18	0.8	0.6	0.5	121°	34°	747	A cyclone located on Yellow sea induced a secondary one near the Inner sea.	18	18	1.2	0.5	1.3				Ditto.
	22	0.9	0.6	0.5						22	0.9	—	0.6				
	2	0.9	0.8	0.6						2	—	—	—				
	6	0.9	0.5	—	125°	35°	747			6	—	—	—				
	10	1.2	1.3	1.0						10	—	—	—				
	14	1.2	1.8	1.5	131°	35°	750			14	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm.	
					Long. E	Lat. N		
19	18	0.9	—	0.7				
	22	0.9	—	0.5				
	2	—	—	—				
	6	1.1	—	1.2				
	10	—	—	—				
	14	—	—	—				
	18	0.9	—	0.6				
	22	—	—	—				
20	2	—	—	—				
	6	—	—	—				
	10	0.9	—	0.5				
	14	—	—	—				
	18	0.9	—	0.6				
	22	—	—	—				
21	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	0.9	—	0.6				
	22	—	—	—				
22	2	—	—	—				
	6	1.0	0.6	1.2	127°	33°	751	
	10	1.0	0.7	0.8				
	14	—	—	—				
	18	—	—	—				
	22	1.0	—	0.6				
23	2	—	—	—				
	6	1.0	—	0.8	135°	31°	746	A Typhoon appeared
	10	1.2	0.6	0.8				off of Kit peninsula and
	14	1.8	4.5	5.2	135°	32°	746	induced a secondary
	18	1.5	4.0	3.8	134°	32°	746	cyclone near the Inner
	22	1.3	2.2	1.8				sea.
24	2	1.3	2.0	2.3				
	6	1.2	2.5	3.1	131°	31°	747	A cyclone located the
	10	1.2	1.6	2.1				S part of Kiushiu tra-
	14	1.4	2.0	3.2	129°	31°	747	velled into the Eastern
								sea.

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm.	
					Long. E	Lat. N		
	18	1.1	1.3	1.0	128°	31°	743	
	22	1.1	1.4	1.3				
25	2	1.2	2.3	2.0				Ditto.
	6	1.2	1.3	1.0	127°	32°	750	
	10	1.2	2.0	1.2				
	14	1.1	0.7	0.5	125°	31°	751	
	18	1.0	0.9	—	125°	31°	751	
	22	1.0	1.3	1.0				
26	2	1.0	0.5	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
27	2	1.1	—	1.2				
	6	—	—	—				
	10	1.0	0.6	—				
	14	1.0	0.5	—				
	18	—	—	—				
	22	0.9	0.5	0.5				
28	2	—	—	—				
	6	1.0	1.1	0.6				A high press. area
	10	1.0	0.6	—				located on the E coast
	14	1.0	0.6	0.5				covered over the
	18	1.0	1.3	0.9				central part of Main
	22	1.0	0.8	0.8				land and Japan sea.
29	2	1.0	0.6	0.6				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	1.0	0.6	0.8				Ditto.
	22	0.9	1.0	1.2				
30	2	0.9	0.8	0.6				
	6	—	—	—				
	10	1.0	0.6	—				
	14	1.0	0.6	0.5				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position. Long. E	Lat. N		
31	18	1.0	0.7	1.8				
	22	1.0	1.1	0.9				
	2	1.0	0.8	0.5				
	6	1.0	0.6	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	1.0	0.7	0.6				
August, 1925.								

1	2	1.0	0.5	0.5				
	6	1.0	0.5	0.6				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
2	22	1.0	—	0.6				
	2	1.1	1.4	1.4				
	6	1.1	0.8	0.6	135°	34°	752	Small cyclone was induced in Kii channel
	10	—	—	—				
	14	—	—	—				
3	18	1.2	0.8	0.8	135°	36°	757	
	22	1.3	1.3	0.6				
	2	1.2	1.6	0.7				
	6	1.1	1.5	0.8				
	10	1.1	0.9	1.2				High press. area situated at eastern coast was developed up to V part of Japan.
4	14	1.0	—	0.6				
	18	—	—	—				
	22	1.0	0.6	—				
	2	1.0	—	0.6				
	6	1.0	—	0.6				
	10	1.0	0.8	0.8				
	14	—	—	—				
	18	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position. Long. E	Lat. N		
5	22	0.9	—	1.2				
	2	0.9	0.7	0.7				
	6	1.1	1.4	1.9	136°	31°	756	A cyclone situated at Yellow sea.
	10	0.8	1.1	1.2				
	14	0.8	0.7	0.8				
	18	0.8	—	0.6				
	22	—	—	—				
	2	—	—	—				
6	6	0.8	—	0.5				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	0.9	—	0.6				
	6	0.9	—	0.7				
	10	0.9	0.8	0.7				
7	14	0.9	0.5	0.5				
	18	0.9	0.5	0.5				
	22	0.9	0.6	0.5				
	2	—	—	—				
	6	0.9	0.7	0.6				
	10	0.9	0.9	0.8				
	14	0.9	0.5	—				
	18	0.9	0.5	0.6				
8	22	0.9	—	0.5				
	2	1.0	0.8	0.9	132°	28°	750	A Typhoone strayed near Okinawa.
	6	1.1	0.6	0.6				
	10	1.0	—	2.0	132°	29°	750	
	14	1.0	0.8	1.0				
	18	1.0	0.6	0.5	133°	29°	750	
	22	1.1	—	1.1				
	2	1.2	—	0.8				
9	6	1.2	0.6	1.2	132°	29°	750	
	10	1.0	—	0.8				
	14	1.0	0.8	1.0				
	18	1.0	0.6	0.5	133°	28°	750	
	22	1.1	—	1.1				
	2	1.2	—	0.8				
	6	1.2	0.6	1.2	132°	29°	750	Above Typhoon was decreasing its energy near Ami Oshima.
	10	1.0	—	0.8				
10	14	1.0	0.7	0.8	133°	28°	750	
	18	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm.	
					Long. E	Lat. N		
11	22	1.0	0.7	0.5				
	2	1.0	0.8	0.7				
	6	1.0	0.9	0.8	123°	37°	748	A cyclone appeared in Yellow sea.
	10	1.3	1.5	2.5				
	14	1.0	1.1	1.3	123°	37°	748	
	18	1.2	1.0	0.8	124°	37°	748	
12	22	1.2	1.0	0.7				
	2	1.1	1.3	1.0				
	6	1.2	1.0	0.8	124°	37°	748	Above cyclone strayed in Yellow sea.
	10	1.1	0.8	1.0				
	14	1.0	0.5	0.5	124°	40°	748	
	18	1.0	0.5	—	125°	41°	748	
13	22	1.0	0.8	0.7				
	2	1.0	1.4	0.8				
	6	1.0	0.8	0.7	127°	42°	750	Above cyclone moved easterly.
	10	1.0	0.5	0.5				
	14	—	—	—				
	18	—	—	—				
14	22	0.9	—	0.8				
	2	1.0	0.6	0.6				
	6	0.9	0.6	0.5	137°	30°	748	A Typhoon appeared near Hachijo and moving westerly.
	10	1.0	0.5	—				
	14	1.0	0.6	0.5	136°	30°	748	
	18	1.0	0.6	0.6	134°	30°	745	
15	22	0.9	—	0.6				
	2	1.1	0.8	1.0				
	6	—	—	—				
	10	1.0	1.1	0.8				
	14	—	—	—	134°	28°	740	Above cyclone approached near Riukiu and changed its course in NNE.
	18	1.0	—	0.8	134°	28°	746	
16	22	1.1	0.8	1.1				
	2	1.0	0.5	1.0				
	6	1.2	0.5	1.8	134°	32°	746	Above Typhoon approached off of Shikoku.
	10	1.2	1.4	1.3				
	14	1.2	1.9	3.1	134°	32°	746	
	18	1.2	2.6	1.9	134°	33°	740	
17	22	1.7	3.2	3.1				
	2	2.1	5.1	3.0				
	6	1.6	7.5	7.1	135°	35°	73.0	Above Typhoon travelled through Kinki district and moving into Japan sea.
	10	1.5	2.6	1.8				
	14	1.3	0.5	0.6	136°	37°	73.0	
	18	1.1	1.8	1.9	136°	39°	730	
18	22	0.9	0.9	0.7				
	2	0.9	0.9	0.8				
	6	0.9	0.7	0.7	135°	41°	748	
	10	—	—	—				
	14	0.9	0.5	—				High press. area covered all over Japan.
	18	1.0	1.8	0.8				
19	22	1.0	1.3	—				
	2	1.1	1.0	—				
	6	1.0	0.8	0.5				Ditto.
	10	0.9	1.2	0.8				
	14	1.0	1.0	1.3				
	18	1.0	0.5	0.5				
20	22	In motion.						
	2	1.0	1.9	0.8				
	6	1.1	1.3	1.3	134°	32°	755	A cyclone appeared far off of S coast and moved westly.
	10	1.5	1.9	3.8				
	14	1.3	2.1	1.9	134°	32°	755	
	18	1.2	2.5	2.5	134°	31°	750	
21	22	1.1	2.0	2.5				
	2	1.2	2.0	1.6				
	6	1.2	1.9	1.0	128°	30°	750	Above cyclone continued westerly motion and reached off of S W coast of Kiushiu.
	10	1.3	1.8	3.1				
	14	1.5	2.5	1.8	128°	32°	752	
	18	1.2	0.6	1.0	127°	29°	752	
22	22	1.2	1.3	0.8				
	2	1.1	0.8	0.6				
	6	0.9	0.6	0.5	126°	30°	752	
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Remarks.
					Long. E	Lat. N	
	22	0.9	0.6	0.5			
23	2	—	—	—			
	6	—	—	—			
	10	—	—	—			
	14	—	—	—			
	18	—	—	—			
	22	0.9	0.5	—			
24	2	0.9	0.6	—			
	6	0.9	0.6	0.5	140°	27°	738 A Typhoon appear near Bonin ils and moved NWly.
	10	1.0	1.3	1.3			
	14	1.1	1.4	0.8	140°	27°	736
	18	1.2	0.8	1.2	140°	29°	740
	22	1.2	1.5	1.4			
25	2	1.2	1.3	0.8			
	6	1.2	0.8	0.6	130°	29°	744 Above Typho reached off of S W Hachijo ils and mov in N direction.
	10	1.1	0.8	0.8			
	14	1.1	—	0.8	137°	29°	744
	18	1.3	0.7	1.6	137°	30°	744
	22	1.0	0.8	0.7			
26	2	1.1	1.0	1.2			
	6	1.0	0.6	0.8	138°	32°	746 Ditto.
	10	1.2	1.0	0.9			
	14	1.0	0.7	0.6	137°	33°	746
	18	1.0	—	0.5	138°	34°	748
	22	1.0	—	0.5			
27	2	—	—	—			
	6	—	—	—			
	10	—	—	—			
	14	—	—	—			
	18	—	—	—			
	22	—	—	—			
28	2	—	—	—			
	6	—	—	—			
	10	—	—	—			
	14	—	—	—			
	18	—	—	—			

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Remarks.
					Long. E	Lat. N	
	22	—	—	—			
29	2	1.2	0.8	1.1			
	6	1.1	0.5	0.6	121°	34°	754 A small cyclone located in Yellow sea moved ENE.
	10	1.0	—	0.5			
	14	—	—	—			
	18	—	—	—			
	22	—	—	—			
30	2	—	—	—			
	6	—	—	—			
	10	—	—	—			
	14	1.0	—	0.5			
	18	1.0	0.8	0.8	132°	40°	750 A cyclone was located in Japan sea.
	22	1.4	0.9	1.2			
31	2	1.2	1.0	1.2			
	6	1.1	1.0	1.2	133°	41°	746 Ditto.
	10	0.9	0.7	0.6			
	14	—	—	—	140°	43°	746
	18	0.9	0.5	0.6	139°	43°	748
	22	—	—	—	—	—	—

September, 1925.

1	2	—	—	—			
	6	1.5	0.8	1.1	134°	36°	755 A small cyclone appeared near NW coast.
	10	1.2	0.8	0.8			
	14	1.2	1.0	0.8	135°	36°	756
	18	1.3	1.0	0.8			
	22	—	—	—			
2	2	—	—	—			
	6	1.2	—	0.5			
	10	—	—	—			
	14	—	—	—			
	18	—	—	—			
	22	1.1	0.5	0.8			

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.	Date	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Position.		Depth. mm.							Position.		Depth. mm	
					Long. E	Lat. N								Long. E	Lat. N		
3	2	1.1	1.5	1.2				A typhoon located near Rasa island and a secondary one was induced off Shikoku	9	2	1.2	1.2	1.3				A High press. area covered the central part of Main land.
	6	1.2	1.8	1.8	133°	32°	754		6	6	1.2	1.3	1.3				
	10	1.2	2.4	2.5					10	10	1.2	1.2	1.2				
	14	1.2	2.1	2.0	134°	32°	753		14	14	—	—	—				
	18	1.2	1.6	1.6	136°	33°	755		18	18	1.1	—	0.7				
	22	1.5	1.6	1.1					22	22	1.2	—	0.8				
4	2	1.5	1.0	0.8				Above typhoon developed gradually and approached to Okinawa ils.	10	2	—	—	—				A cyclone travelled through the central part of Main land.
	6	1.3	1.0	0.8	129°	25°	736		6	6	1.2	0.7	0.5	133°	31°	751	
	10	1.2	1.4	1.1					10	10	1.3	0.3	0.3				
	14	1.2	1.5	1.8	128°	26°	736		14	14	—	—	—	137°	32°	752	
	18	1.2	1.2	1.2	128°	26°	725		18	18	1.5	0.8	0.7	134°	33°	750	
	22	1.2	1.0	0.8					22	22	1.2	1.3	0.6				
5	2	1.1	1.2	1.2				Ditto.	11	2	1.8	2.0	2.0				Ditto.
	6	1.1	1.0	1.1	128°	27°	720		6	6	1.2	0.8	0.7	136°	35°	747	
	10	1.2	0.6	0.5					10	10	1.2	0.6	0.5				
	14	—	—	—					14	14	—	—	—				
	18	—	—	—					18	18	—	—	—				
	22	—	—	—					22	22	—	—	—				
6	2	1.2	0.5	0.8				Above typhoon travelled into Eastern sea and lost its energy.	12	2	—	—	—				Ditto.
	6	1.2	1.2	0.6	127°	30°	740		6	6	—	—	—				
	10	1.2	—	0.8					10	10	—	—	—				
	14	—	—	—					14	14	—	—	—				
	18	—	—	—					18	18	—	—	—				
	22	1.3	—	1.8					22	22	1.2	0.5	—				
7	2	1.1	—	0.8				Above typhoon changed its course and travelled into Japan sea.	13	2	—	—	—				A high press. area located on SW coast and covered the central part of Main land.
	6	1.2	2.0	2.3	129°	36°	730		6	6	0.9	0.7	0.5				
	10	1.4	2.8	2.5					10	10	0.9	0.5	—				
	14	1.4	1.9	1.9	131°	37°	740		14	14	1.0	—	0.6				
	18	1.3	1.7	1.9	134°	41°	740		18	18	1.0	0.7	0.6				
	22	1.2	0.8	1.1					22	22	1.0	—	1.0				
8	2	1.2	2.2	1.8				Ditto.	14	2	1.0	0.5	—				Ditto.
	6	—	—	—					6	6	1.1	0.7	0.5				
	10	1.5	—	0.8					10	10	1.1	—	0.5				
	14	—	—	—					14	14	—	—	—				
	18	—	—	—					18	18	1.1	0.6	0.7				
	22	1.1	—	0.5					22	22	0.9	0.5	—				

Date	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm	Remarks.
					Position.			
					Long. E	Lat. N		
15	2	0.9	—	0.5				A small cyclone situated in Korea strait.
	6	1.0	1.2	0.5	130°	35°	759	
	10	1.0	0.5	0.5				
	14	—	—	—				
	18	1.0	0.5	0.5	134°	36°	759	
	22	0.8	0.6	0.6				
16	2	—	—	—				
	6	0.8	0.5	0.5				
	10	0.9	0.5	—				
	14	1.0	0.8	0.5				
	18	1.5	0.6	0.6				
	22	0.9	0.7	0.7				
17	2	0.9	0.6	—				A typhoon appeared in Eastern sea and Secondary cyclone was induced near Kiushiu
	6	0.9	0.8	—	130°	32°	753	
	10	1.0	0.7	0.5				
	14	1.1	1.3	1.2	132°	34°	754	
	18	1.1	1.5	0.5	132°	33°	753	
	22	1.2	1.7	1.4				
18	2	1.2	1.1	0.9				Above cyclone moving along the Main land in NE direction.
	6	1.3	2.5	1.3	136°	35°	747	
	10	1.5	0.8	1.0				
	14	—	—	—				
	18	1.0	0.7	—	138°	39°	747	
	22	1.2	0.6	0.7				
19	2	0.9	0.5	—				
	6	—	—	—				
	10	0.9	0.5	—				
	14	—	—	—				
	18	—	—	—				
	22	0.8	0.6	—				
20	2	—	—	—				A high press. area situated in Yellow sea and covered the W part of Japan.
	6	—	—	—				
	10	0.9	0.6	—				
	14	0.9	0.8	0.7				
	18	0.9	0.6	—				
	22	0.9	1.3	0.7				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm	Remarks.
					Position.			
					Long. E	Lat. N		
21	2	1.0	1.2	0.8				Ditto.
	6	0.9	0.6	—				
	10	0.8	0.7	—				
	14	—	—	—				
	18	—	—	—				
	22	1.1	0.5	—				
22	2	1.2	0.6	0.6				Above anticyclone covered all over Japan.
	6	1.0	1.2	0.6				
	10	1.0	0.7	0.5				
	14	1.0	0.5	—				
	18	—	—	—				
	22	1.0	1.3	0.8				
23	2	0.9	0.6	0.5				Above high press. area moved E and covered the E part of Japan.
	6	0.9	1.2	0.8				
	10	0.9	1.2	—				
	14	0.9	0.8	—				
	18	0.9	0.5	—				
	22	—	—	—				
24	2	—	—	—				A small cyclone was moving easterly along the S coast.
	6	1.1	1.2	1.2	126°	29°	760	
	10	1.2	1.3	0.7				
	14	0.9	0.6	—	137°	31°	760	
	18	—	—	—				
	22	—	—	—				
25	2	—	—	—				A high press. area was in Yellow sea, and covered the W part of Japan.
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
26	2	—	—	—				
	6	0.8	0.6	0.5				
	10	0.8	0.5	—				
	14	0.9	0.6	0.5				
	18	—	—	—				
	22	1.0	1.2	0.8				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Position: Long. E	Lat. N		
27	2	1.1	1.9	0.8				A high press. area erred over the Japan and the Main land.
	6	1.0	0.5	—				
	10	0.9	0.6	0.5				
	14	0.9	0.8	0.8				
	18	0.9	0.6	—				
	22	1.1	1.0	0.6				
28	2	1.1	1.2	0.5				A Typhoon loca near Rasa isl. and secondary cyclone induced off Shikoku
	6	1.2	1.2	0.8	132°	24°	740	
	10	1.2	1.9	1.3				
	14	1.3	1.2	3.1	131°	26°	740	
	18	1.2	1.3	1.2	131°	28°	740	
	22	1.3	0.9	0.8				
29	2	1.3	2.3	1.3				Above Typhoon v moving in NNE dir tion near Ami Oshin
	6	1.5	1.5	2.0	131°	28°	740	
	10	1.4	2.7	3.2				
	14	1.2	2.5	0.9	132°	30°	738	
	18	1.2	2.2	1.2	133°	31°	738	
	22	1.2	3.0	1.9				
30	2	1.2	2.4	1.2				Above Typhoon reached off Shikoku
	6	1.2	1.3	1.2	133°	32°	738	
	10	1.4	3.1	1.0				
	14	1.2	1.1	0.8	134°	33°	738	
	18	1.2	1.3	1.1	136°	33°	740	
	22	0.9	1.3	0.5				

Date	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm	Remarks.
					Position: Long. E	Lat. N		
	6	—	—	—				A cyclone off of E coast induced a secondary one near Kii peninsula.
	10	—	—	—				
	14	1.1	0.6	0.6	136°	34°	750	
	18	1.1	0.8	0.8	147°	38°	748	
	22	1.1	0.6	0.4				
	3	2	1.2	0.7	0.6			
	6	1.5	0.7	0.5	144°	39°	748	A high press. area developed on Eastern sea and the press. gradient became stiep.
	10	1.6	0.6	1.0				
	14	1.2	1.3	1.2	148°	41°	748	
	18	1.0	1.0	0.6	148°	41°	750	
	22	—	—	—				
	4	2	—	—	—			
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	1.1	0.6	—				
	5	2	1.1	0.5	0.4			
	6	1.1	1.4	0.8	126°	33°	760	A cyclone was trav- elling in Korea strait.
	10	1.2	1.3	1.2				
	14	1.2	0.8	0.5	129°	34°	760	
	18	1.2	0.8	—	130°	34°	760	
	22	1.5	1.3	0.8				
	6	2	1.3	0.6	0.7			
	6	1.1	0.8	0.5	136°	34°	760	Ditto.
	10	1.1	2.0	1.4				
	14	1.1	0.6	0.5	135°	37°	760	
	18	—	—	—				
	22	—	—	—				
	7	2	—	—	—			
	6	1.0	0.6	—				A high press. area covered over Japan sea.
	10	0.9	0.8	0.6				
	14	0.9	0.4	0.4				
	18	—	—	—				
	22	—	—	—				
	8	2	1.2	1.1	1.0			

October, 1925,

1	2	1.0	1.2	0.6				A cyclone on South coast moved in ENE
	6	1.0	0.6	—	140°	34°	742	
	10	1.0	0.5	—				
	14	1.0	0.8	—	143°	36°	744	
	18	1.0	0.6	0.5	145°	37°	745	
2	2	1.0	0.5	—				

Date	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm	Remarks.	
					Long. E	Lat. N			
9	6	1.3	1.0	0.5	134°	32°	761	A small cyclone situated off of Shikoku.	
	10	1.2	1.3	1.1					
	14	1.1	0.8	0.6	136°	30°	760		
	18	—	—	—					
	22	1.1	0.6	0.4					
	2	1.2	0.4	0.4					
	6	1.0	0.8	0.9	133°	31°	758		Ditto.
	10	1.0	1.0	0.6					
	14	0.9	0.4	—					
	18	—	—	—					
10	22	0.9	0.6	—				An anticyclone Yangtse valley covering the W part of Japan.	
	2	0.9	0.4	0.4					
	6	—	—	—					
	10	1.0	0.5	0.4					
	14	1.0	0.6	0.4					
	18	1.0	0.5	—					
	22	0.9	0.5	0.4					
	2	0.9	0.6	—					
	6	—	—	—					
	10	—	—	—					
11	14	1.0	0.5	0.4				Ditto.	
	18	1.0	0.8	—					
	22	—	—	—					
	2	0.9	0.6	—					
	6	—	—	—					
	10	—	—	—					
	14	1.0	0.5	0.4					
	18	1.0	0.8	—					
	22	—	—	—					
	2	—	—	—					
12	6	—	—	—				Ditto.	
	10	—	—	—					
	14	—	—	—					
	18	—	—	—					
	22	1.0	0.6	0.6					
	2	—	—	—					
	6	—	—	—					
	10	—	—	—					
	14	—	—	—					
	18	—	—	—					
13	22	—	—	—				Ditto.	
	2	—	—	—					
	6	0.9	—	0.5					
	10	—	—	—					
	14	0.9	0.5	0.6					
	18	—	—	—					
	22	—	—	—					
	2	—	—	—					
	6	—	—	—					
	10	—	—	—					
14	2	—	—	—				Ditto.	
	6	—	—	—					

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		
15	6	1.0	0.6	0.5				A high press area in Manchuria developed up to Japan sea.
	10	—	—	—				
	14	1.0	0.7	—				
	18	—	—	—				
	22	—	—	—				
	2	1.1	0.5	0.5				
	6	1.0	0.4	—				
	10	1.0	0.5	0.5				
	14	—	—	—				
	18	—	—	—				
16	22	—	—	—				A high press area developed from Japan sea to the E coast.
	2	1.1	1.2	0.7				
	6	1.1	0.8	0.5	135°	32°	760	
	10	1.1	1.5	1.8				
	14	1.0	1.3	1.1	134°	32°	760	
	18	0.9	1.1	0.9	133°	32°	760	
	22	0.9	1.3	1.4				
	2	1.0	0.6	0.6				
	6	1.0	1.2	0.8	133°	32°	761	
	10	1.1	1.8	1.9				
17	14	1.2	1.4	1.8	133°	32°	761	Ditto.
	18	1.2	1.4	1.3	133°	32°	761	
	22	1.2	0.4	1.5				
	2	1.1	—	0.5				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
18	6	—	—	—				Ditto.
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	1.1	—	0.5				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
19	22	—	—	—				Ditto.
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
20	2	0.9	0.5	—				Ditto.
	6	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Long. E	Lat. N	Depth. mm.	
21	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	0.9	0.8	0.5				
	18	—	—	—				
22	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	1.0	—	0.4				
	2	1.0	—	0.5				
	6	1.2	0.8	1.0				
	10	—	—	—				
23	14	—	—	—				
	18	1.1	—	0.5				
	22	1.1	0.5	0.6				
	2	1.2	1.0	1.1				
	6	1.2	1.0	0.8				
	10	1.2	0.5	0.6				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
24	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
25	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
26	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.			Remarks.
					Long. E	Lat. N	Depth. mm.	
27	6	—	—	—				
	10	—	—	—				
	14	0.9	0.5	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
28	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	0.9	0.4	0.5				
	14	—	—	—				
	18	—	—	—				
	22	1.2	—	0.6				
	2	1.2	—	0.5				
	6	1.1	0.8	0.8				
	10	1.1	1.0	1.2				
29	14	1.2	1.2	1.4	133°	31°	761	
	18	1.4	1.2	1.2	133°	32°	762	
	22	1.5	1.0	1.2				
	2	1.2	0.8	0.6				
	6	1.2	0.8	1.2				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
30	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
31	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
	2	—	—	—				
	6	—	—	—				
	10	—	—	—				

A high press. area
Yellow sea covered
over Japan.

Ditto.

An unicyclone situated
on the central part of
Main land and a small
cyclone appeared off of
S coast.



Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		
1	2	1.2	—	0.6				All Japan were covered by a high press. area.
	6	1.2	—	0.6				
	10	1.2	0.5	0.7				
	14	1.2	—	0.6				
	18	—	—	—				
	22	—	—	—				
2	2	—	—	—				A cyclone travelled through off of S coast.
	6	1.1	—	0.5	134°	31°	750	
	10	1.1	0.5	0.8				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
3	2	—	—	—				
	6	—	—	—				
	10	1.0	0.5	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
4	2	1.1	0.5	—				A high press. area developed in Manchuria developed up to the W part of Japan.
	6	1.1	0.5	—	138°	40°	751	
	10	1.2	0.6	—				
	14	1.2	1.4	0.8	146°	41°	759	
	18	1.1	0.5	—				
	22	1.1	0.5	—				
5	2	—	—	—				Ditto.
	6	—	—	—				
	10	—	—	—				
	14	1.2	0.8	—				
	18	1.2	0.6	0.5				
	22	1.2	0.8	—				
6	2	1.2	0.5	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		
7	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
8	2	—	—	—				
	6	1.2	—	0.8				
	10	1.2	—	0.6				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
9	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
10	2	—	—	—				A high press. area covered all over Japan.
	6	1.2	—	1.0				
	10	1.2	1.4	1.0				
	14	1.1	0.7	—				
	18	—	—	—				
	22	1.2	0.8	0.6				
11	2	1.2	2.0	1.4				A cyclone travelled through Japan sea and a secondary one induced off of Shikoku.
	6	1.5	1.9	1.4	134°	31°	759	
	10	1.3	2.7	1.6				
	14	1.2	0.5	—	136°	33°	758	
	18	1.2	0.5	—	140°	40°	753	
	22	1.0	0.8	—				
12	2	1.0	0.5	—				A high press. area on Siberia developed up to Japan sea.
	6	1.0	0.6	0.5	145°	42°	740	
	10	1.0	1.0	0.6				
	14	1.0	0.5	—	147°	44°	750	
	18	—	—	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		
13	2	1.0	0.8	0.5				
	6	—	—	—				
	10	1.0	0.6	—				
	14	1.1	1.3	1.7	136°	37°	750	A cyclone tra through off of S
	18	—	—	—				
	22	—	—	—				
14	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
15	2	1.0	0.8	0.5				
	6	—	—	—				
	10	1.0	1.3	1.1				
	14	1.0	1.2	1.1	140°	45°	752	A high press. are situated in Easter sea.
	18	—	—	—				
	22	1.0	0.7	—				
16	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
17	2	—	—	—				
	6	—	—	—				
	10	1.1	1.3	0.5				
	14	—	—	—				
	18	—	—	—				
	22	1.0	1.9	0.8				
18	2	1.2	1.3	0.6				
	6	1.3	1.8	0.5				
	10	1.3	2.0	2.2	135°	31°	760	A cyclone moved of S coast.
	14	1.1	2.0	1.3	135°	31°	760	
	18	1.2	0.9	0.5	136°	30°	760	
	22	1.2	1.6	0.6				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		
19	2	1.2	1.1	0.7				
	6	1.2	1.1	0.7	134°	31°	762	Ditto.
	10	1.2	0.9	0.8				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
20	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
21	2	—	—	—				
	6	1.0	0.6	0.5				A high press. area located on W part of Japan.
	10	1.0	0.8	0.7				
	14	1.0	0.5	—				
	18	—	—	—				
	22	—	—	—				
22	2	—	—	—				
	6	—	—	—				
	10	1.0	0.9	1.1				
	14	—	—	—				
	18	—	—	—				
	22	1.0	1.2	0.7				
23	2	1.0	0.6	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	1.0	1.3	0.5				
24	2	1.0	0.8	0.5				
	6	1.0	0.8	0.6				A high press. area located on E part of Japan.
	10	0.9	1.3	1.0				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.	
					Long. E	Lat. N			
25	2	—	—	—					
	6	—	—	—					
	10	—	—	—					
	14	1.1	0.7	0.7	130°	30°	760	A high press. area Siberia developed to Japan sea.	
	18	1.0	0.6	—	130°	28°	760		
	22	—	—	—					
26	2	1.1	1.0	0.8					Ditto.
	6	1.1	1.1	0.6	130°	28°	760		
	10	1.0	0.8	0.8					
	14	1.0	0.5	—	139°	31°	760		
	18	1.0	0.9	0.5	144°	31°	759		
	22	1.0	0.5	—					
27	2	In motion.						A high press. located on Japan	
	6	1.0	1.0	1.2					
	10	1.1	1.2	1.2					
	14	1.1	0.5	0.5					
	18	—	—	—					
	22	—	—	—					
28	2	1.1	0.8	1.2				There were two press. area, one in tse valley and the on E coast.	
	6	1.1	1.2	0.5	134°	32°	760		
	10	1.1	1.9	2.0					
	14	1.1	1.9	1.3	135°	33°	756		
	18	1.1	0.7	0.5	137°	33°	751		
	22	1.1	0.8	—					
29	2	1.1	0.7	—				A cyclone trav through Japan sea a secondary one duced off of Shiko	
	6	1.1	1.2	0.5	136°	41°	744		
	10	1.1	2.4	0.8					
	14	1.1	1.3	1.5	139°	42°	737		
	18	1.1	1.1	0.6	140°	44°	739		
	22	1.0	0.5	—					
30	2	—	—	—					
	6	—	—	—					
	10	—	—	—					
	14	—	—	—					
	18	—	—	—					
	22	—	—	—					

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		
1	2	—	—	—				A continental cyclone travelled into Japan sea
	6	1.0	0.6	0.5	128°	38°	752	
	10	1.1	1.8	1.9				
	14	1.1	0.8	0.8	132°	39°	751	
	18	—	—	—				
	22	1.1	0.6	—				
	2	2	1.0	0.7	0.6			
6		1.1	0.8	0.6	134°	41°	744	
10		1.0	0.8	1.8				
14		1.2	1.8	1.3	136°	41°	746	
18		1.1	0.8	1.4	138°	42°	744	
22		1.2	1.9	1.3				
3		2	1.2	1.9	1.3			
	6	—	—	—				
	10	—	—	—				
	14	1.0	0.6	—				
	18	—	—	—				
	22	1.0	0.8	1.1				
	4	2	1.1	0.9	0.8			
6		1.2	1.2	0.6	133°	33°	760	
10		1.0	1.3	0.8				
14		0.9	0.6	—	134°	39°	750	
18		—	—	—				
22		—	—	—				
5		2	—	—	—			
	6	—	—	—				
	10	1.6	0.7	1.5				
	14	1.2	1.9	1.2	137°	39°	754	
	18	1.2	1.3	0.8	137°	39°	754	
	22	1.2	1.0	0.9				
	6	2	1.2	0.8	0.7			
6		—	—	—				
10		—	—	—				
14		—	—	—				
18		—	—	—				
22		—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		
7	2	—	—	—				
	6	—	—	—				
	10	0.9	0.6	—				
	14	0.9	0.5	—				
	18	—	—	—				
	22	—	—	—				
8	2	1.0	1.3	0.8				
	6	1.0	1.2	0.6	138°	31°	764	
	10	—	—	—				
	14	1.0	0.6	0.6	142°	34°	761	
	18	—	—	—				
	22	—	—	—				
9	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	0.9	0.5	0.5				
	18	—	—	—				
	22	—	—	—				
10	2	0.9	0.5	—				
	6	0.9	0.6	0.6	130°	42°	750	A continental cyclone travelled into Japan
	10	1.1	1.4	1.3				
	14	—	—	—				
	18	—	—	—				
	22	1.0	0.8	—				
11	2	—	—	—				
	6	1.0	0.6	—				
	10	1.0	0.5	0.5				
	14	1.0	0.7	—				
	18	—	—	—				
	22	—	—	—				
12	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	1.0	0.5	0.5				
	18	—	—	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		
13	2	—	—	—				
	6	—	—	—				
	10	0.9	1.0	—				
	14	0.9	0.5	0.5				Ditto.
	18	0.9	0.5	—				
	22	—	—	—				
14	2	1.0	0.6	—				
	6	—	—	—				
	10	1.0	0.8	0.5				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
15	2	0.9	0.6	—				
	6	0.9	0.5	—	124°	36°	756	A cyclone situated in Yellow sea travelled through Japan sea.
	10	1.0	1.4	0.9				
	14	1.1	1.3	1.1	129°	34°	754	
	18	1.3	4.9	1.3	132°	36°	750	
	22	1.0	1.9	1.3				
16	2	—	—	—				
	6	1.0	0.5	0.6	142°	43°	738	A high press. area developed in North China and the press. gradient become very large.
	10	1.0	0.8	0.5				
	14	1.0	0.9	0.6	148°	46°	732	
	18	0.9	0.6	0.6	148°	46°	742	
	22	1.0	0.8	0.7				
17	2	—	—	—				
	6	—	—	—				
	10	1.1	0.6	1.1				
	14	1.1	0.8	—				
	18	1.5	0.8	1.1				
	22	1.3	0.6	0.8				
18	2	—	—	—				
	6	—	—	—				
	10	1.5	0.7	0.8				
	14	1.4	0.6	0.7				Ditto.
	18	1.3	0.6	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		
19	2	1.1	0.5	—				Ditto.
	6	—	—	—				
	10	1.2	0.7	—				
	14	1.0	0.9	—				
	18	1.0	1.0	0.5				
	22	1.0	0.8	—				
20	2	—	—	—				A cyclone located of S coast moved direction.
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	1.0	0.6	0.8	134°	31°	753	
	22	1.3	1.4	1.9				
21	2	1.5	1.4	3.8				Above cyclone travelled through the sea and moved Japan sea.
	6	1.3	1.9	0.8	136°	34°	746	
	10	1.3	1.9	2.8				
	14	1.1	1.0	1.8	136°	39°	740	
	18	1.1	1.3	1.4	136°	40°	738	
	22	1.0	1.4	2.5				
22	2	1.0	0.7	0.6				A high press. area located in Yangtze valley and a cyclone near Hokkaido.
	6	1.0	0.9	0.5	140°	40°	728	
	10	0.9	0.7	1.2				
	14	1.0	0.9	0.8	142°	42°	728	
	18	0.9	0.5	0.5	142°	44°	730	
	22	1.2	0.6	0.5				
23	2	1.2	0.7	0.6				Ditto.
	6	1.2	0.8	0.7	146°	44°	730	
	10	1.1	1.1	1.2				
	14	1.1	1.2	1.2	146°	46°	732	
	18	1.0	0.5	—	146°	47°	736	
	22	—	—	—				
24	2	1.2	0.8	—				A high press. area developed in East sea and the pressure gradient become very steep.
	6	1.1	0.6	0.6				
	10	0.9	0.7	1.0				
	14	0.9	0.6	0.5				
	18	0.9	0.7	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks.
					Long. E	Lat. N		
25	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
26	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
27	2	—	—	—				A cyclone travelled through Korea strait.
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	1.0	1.3	1.2	129°	34°	759	
	22	1.1	1.2	—				
28	2	—	—	—				
	6	—	—	—				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				
29	2	—	—	—				A high press. area situate in Yangtze valley and A cyclone on E coast.
	6	—	—	—				
	10	—	—	—				
	14	1.1	0.8	0.9	143°	39°	752	
	18	1.0	0.9	0.8	147°	40°	752	
	22	1.0	0.6	0.6				
30	2	1.0	—	0.6				
	6	1.0	—	0.7				
	10	—	—	—				
	14	—	—	—				
	18	—	—	—				
	22	—	—	—				

Date.	Hour. (135° E)	Period. T Sec.	AN μ	AE μ	Cyclone.		Depth. mm.	Remarks
					Position. Long. E	Lat. N		
31	2	—	—	—				High press. area in Yangtse valley devel- oped up to W part of Japan.
	6	—	—	—				
	10	1.2	1.0	1.1				
	14	1.2	0.9	0.8				
	18	—	—	—				
	22	—	—	—				



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A SHORT NOTE ON THE EARTHQUAKE OF MAY 23rd, 1925.

by K. Suda.

A little after 11 o'clock in the morning of May 23rd, 1925, the central part of Japan (mainly San-in, Sanyo and Kinki) was shaken strongly by an earthquake. The seismic intensity in the epicentral region was so great that about 4000 houses were totally over turned by the shock or burnt down by the fire caused by the earthquake and the number of killed or wounded people under these destroyed houses or by the fire amounted to about 1000 in the northern part of Tajima and Tango district.

The total energy and the damaged area of this earthquake were both only about one tenth of those of the great Sagami bay earthquake of Sept. 1st, 1923, but the seismic intensity at the epicentral region was comparable with that of the latter, so that the earthquake may be classed in one of the violent earthquakes which ever occurred in Japan.

Observation at Kobe. The shocks were felt with moderate intensity, the doors rattled, some of the hanging clocks stopped, and some people escaped out of door. Among the seismographs installed in the observatory, Omori's seismometers were thrown out of order after a few oscillations, so that we could only obtain the time of occurrence and the direction of the first movement from the records of them, but fortunately, Wiechert's seismographs registered the waves faithfully, the results of which are as follows:—

The time of occurrence	11 ^h 10 ^m 02 ^s (135° E)
Duration of the preliminary tremors	13.3 seconds
Direction of the second movement	N 28° W
Max. actual amplitude and its period	2.0 mm and 1.6 sec. resp.
Character of the first movement	condensational
Total duration of vibration	18.25 m

From these data, the epicentral distance becomes 99 kilometers and the epicenter may be found near the mouth of the Maruyama river as shown by Fig. 1, Plate I.

Observation at Toyooka. At the town of Toyooka which is located in the epicentral region the seismological observations have been being made during these five years by a branch station of the Kobe Meteorological Observatory, so that the observations of this earthquake at that station may be best utilized in the investigation of the manner of the vibration at the epicentral region. At 11^h 9^m 57^s (135° E)

feeble shocks with the strong earth sound "do-don" like the booming of a distant cannon firing were felt which lasted a few seconds and then the greatest shocks in E—W direction came suddenly; at the same time all articles on the floor of the observatory were turned over in various directions, the walls were cracked and the roof tiles have fallen down. Three similar violent shocks were felt in short successions in only 16 seconds as follows;—

Time of occurrence	Seismic intensity	Earth sound
11h 9m 57s	violent shock	"do-don"
11h 9m 59s	violent shock	"do-don"
11h 10m 10s	violent shock	"do-don"
11h 10m 13s	violent shock	"do-don"

These four violent shocks can not be taken as the different sub-phases of the main phase of the single earthquake but must be individual earthquakes, for they were all accompanied with the separate earth sound and preliminary tremors. Such considerations may lead us to an interesting insight into the mechanism of the rupture of the earth crust, but full account on this point will be left to a latter occasion. By those four violent shocks some houses were destroyed, fires took place here and there and the severe losses were brought in a few minute. The seismograph installed at the Toyooka observatory was partly broken at the second movement of the preliminary tremor, so that we could obtain from the seismogram only the time of occurrence and the direction of the first movement, namely the former was 11h 9m 57s and the latter S 26° W.

Thus the duration of the preliminary tremor was unknown, but in half a day the seismograph was repaired and we could begin the observations of the after shocks; the durations of the preliminary tremor for the after shocks observed were between 2.5 sec. and 3.2 sec. and the corresponding epicentral distances were about 20 or 25 kilometers.

The epicenter and the seismic focus. Combining together the observations made at all meteorological observatories in Japan by the ordinary geometrical method of the determination of the epicenter, the epicenter may be located near the mouth of the Maruyama river (135°, 46.8' N. & 35°, 39.4' E) which is well in accordance with the results given by the observations at Kobe and Toyooka. The results of these observations are shown in Table I. On the other hand by using the emergency angles at Kobe and Osaka we can determine the seismic focus; it is located at the depth of nearly 60 km under the epicenter. Thus the depth of seismic focus may be comparable with that of the great Sagami bay earthquake, Sept. 1st, 1923.

The seismic intensity and the damage. Fig. 2, Plate II represent the distribution of the seismic intensity according to the current classification in Japan the feebly shaken area correspond to 70% of that great Sagami bay earthquake and nearly equal to that of the greatest after shock of the latter occurred on Sept. 2nd; 1923. The seismic intensity near the epicenter was of the class "disastrous" especially along the course of the Maruyama river. It is not shown in Fig. 2 to avoid the confusion.

The maximum acceleration of the seismic wave determined from the observations of fallen bodies in the epicentral region was comparatively large; at Toyooka it reached 2000 mm/sec² or 3200 mm/sec², at Kinosaki, Kumihama 3500 mm/sec² and on the surrounding hill it reached 2200 mm/sec². Also the maximum value was found near the mouth of the Maruyama river reaching nearly 4000 mm/sec² and even on the surrounding hills it was 3000 mm/sec². Thus the acceleration may be comparable with that in the most heavily damaged portion of the Kwanto province at the occasion of the great Sagami bay earthquake. The damage caused by the earthquake was most severe at the towns of Toyooka, Kinosaki and Kumihama and at the villages along the lower course of the Maruyama river and near the mouth of it. Especially the towns Toyooka and Kinosaki, the famous hot spring resorts, were almost entirely destroyed by the violent shocks and the big fire. Fig. 1, Plate I is the rough map of the epicentral region and the curves represent the degree of the seismic damage where the number of destroyed houses include those burnt down, and Table II. shows the statistics of the damage. At a glance of the figure, it is seen that the heavily damaged area extends along the Maruyama river; this may be explained as owing to the geological structure of that district.

The direction of the first movement and the first displacement at the seismic focus. From the observations of all meteorological observatories in Japan we can determine the direction of the first movement of the preliminary tremors at each place. Fig. 3, Plate II represents those directions at various observatories. There are seen two nodal lines pp and ss, of which the former may be the primary nodal line and the latter the secondary one. In the region lying on the SW side of the line pp and that lying on the NE side of the line ss, the character of the first movement is condensation, but between these two lines it is rarefactional. This fact may mean that the first displacement at the seismic origin took place in nearly E—W direction between upper and lower stratum in a horizontal plane. Thus the cause of the earthquake may be possibly attributed to the sudden sliding between two strata of the earth-crust.

The miscellaneous physical phenomena caused by the earthquake in the epicentral region.

There are no remarkable phenomena observed in the epicentral region such as the upheaval or subsidence of the land as well as of the sea bottom in the case of the great Sagami bay earthquake; there was no change of the level of the land and the results of the precise soundings near the Tsuiyama bay carried out by the hydrographical department of the Japanese Navy showed no change in the configuration of the sea bottom as compared with the previous observations.

The sea shocks were felt on the fishing boats off the coast of Tsuiyama bay and Takeno, but without any destructive influences and also the mareograms obtained at Sakai and Tsuiyama showed no trace of "tsunami" waves caused by the earthquake. The cracks and the land falls occurred at some places, but they were not so numerous as and their scales far inferior to those of the great Sagami bay earthquake. The cracks on a hill lying to the east of Tsuiyama bay were relatively noticeable and considered to be the fault lines related in some way to the cause of the earthquake and named the "Tai fault lines" by some seismologists, but it seems to me that they are not the fault lines but the mere cracks caused by the violent stationary surface waves which reached their full development at that place as favoured by the topographical and geological conditions.

One of the characteristics of this earthquake is that the directions of the greatest vibration were nearly the same every where in the epicentral region, namely nearly E—W in the main with the maximum deviation of only 10° or 15°.

The remarkable foretoken of this earthquake was not observed, but the gradual upheaval of the land on the coast of the Tsuiyama bay going on in the past age can not be doubted according to the fact that the trace of the old beach line at Kel or Tsuiyama village are seen at the height about 6 meter above the present mean sea level, which may be considered as a secular foretoken of the earthquake.

Existence of the Mohorovičić wave. In Japan, the question of the appearance of the Mohorovičić's wave can not be made clear at present; this may be mainly due to the imperfect registration without any satisfactory damping device in almost all seismographs used in this country. According to Prof. Dr. Gutenberg's kind advice I looked for the waves of that kind on 576 seismograms taken by the Wiechert instrument from June 1923 to April 1925 at this observatory and found that only 12 earthquakes originated on the Pacific side were accompanied with P and \bar{P} , whereas on the seismograms of 24 earthquakes occurring in Japan Sea whose epicenters are located on some points of the so-called "Inner seismic zone" almost without exception we could easily found the trace of the Mohorovičić's waves. As

to the earthquake in consideration in the present communication many seismograms taken at various stations in Japan have been put under our investigations by the kindness of directors of the respective stations and utilized in the confirmation of the view sketched above.

The seismograms registered at Hamamatsu, Numazu, Matsumoto, Tokyo, Kumagai, Mito, Nagano, Utsunomiya in northeastern part of Japan and Shimonoseki, Hiroshima, Fukuoka, Nagasaki, Miyazaki, Kagoshima in the southwestern part all indicated the P and \bar{P} as shown in the remarks of Table I. The epicentral distances of these observatories are between 198 and 621 kilometers. Moreover we traced the space time curve for \bar{P} and also investigated the relation between the displacement at the seismic origin and the direction of the first displacement of the Mohorovičić's wave. Detailed account of it will be given in the Memoir of the Imperial Marine Observatory.

The cause of the earthquake. As mentioned before, the direct cause of the earthquake must be the sliding of the strata of the earth crust at the seismic focus; also the earthquake may be regarded as one of the consequences of the increased activity of the "Inner seismic zone" whose activity has been nearly ceasing since the Shōnai earthquake of Oct. 23rd, 1894. It is more interesting to regard the earthquake as having been induced by the effect of the great Sagami bay earthquake. After the great Sagami bay earthquake, the seismic activity in Japan gradually increased as seen from the fact that the frequency and the intensity of the earthquake had a tendency to increase in various districts and the activity transferred gradually from the Kwanto district to other regions along the arc of island and reached to a place to the south east of Hokkaido in the north eastern direction and to the central part of Shikoku in the southwestern direction toward the end of last year. As a result a numbers of moderate and strong earthquake occurred at many places, among which may be counted the earthquake of Jan. 15th, 1924 at the central part of Sagami and the one of Aug. 15th, 1924 at the northern part of Kashima sea as remarkable. The intensities of those two earthquakes have been both classed as "violent" near the epicenter.

I have investigated the manner of the transfer of seismic activity and have found that it is just like that of the flow of heat through a semi-infinite solid body when the instantaneous heat doublet is placed on the surface and it seems to me the earthquake of May 23rd of this year may be explained as one of the remarkable earthquakes resulting from the transference of seismic activity according to the above principle.

The more detailed quantitative account of this earthquake will be given in the Memoir of the Imperial Marine Observatory; here I only gave the out line of it to arouse the general attention to the promising prospect or such a mode of explanation.

20th, September, 1925.

The Imperial Marine Observatory, Kobe.

TABLE I.
The results of the observations of the earthquake made at the local meteorological observatories in Japan.

Name of stations.	The time of occurrence. (135° E)	The duration of the prel. Tremors. Sec.	The epicent-ral distance. km.	The seismic intensity.	The Direction of the first movement.	Remarks.
Okayama	11 10 07	17	126	rather strong	S S E	The houses were shaken violently.
Kōbe	11 10 02	13	97	moderate	S 2S°E	Dull vibration.
Sakai	11 09 39	—	—	strong	—	Rapid vibration, clock stopped.
Kyōto	11 10 01	13	97	strong	NW	Dull vibration, clock stopped some people escaped out of door.
Matsuyama	11 10 31	31	230	rather strong	—	Dull vibration, houses were shaken.
Tadotsu	11 10 04	25	186	—	SE	Dull vibration, houses were shaken violently, some people escaped out of door.
Yagi	11 10 05	14	100	strong	N N W	Rapid vibration, houses were shaken.
Tsu	11 10 02	7	52	rather strong	W N W	Accompanied with vertical motion and successive shock.
Hamada	11 10 24	20	147	—	—	
Ōsaka	11 10 04	15	111	strong	NW	Houses were shaken violently, some people escaped out of door.
Hikone	11 10 08	18	134	rather strong	—	Clock stopped.
Fukui	11 10 12	15	111	rather strong	SW	Clock stopped, door rattled.
Wakayama	11 10 14	20	147	strong	S	Dull vibration, horizontal vibration rather large.
Hamamatsu	11 10 09	—	—	rather strong	—	Rapid vibration, clock stopped, accompanied with P.
Nagoya	11 10 18	24	178	moderate	NW	Dull vibration, clock stopped.
Oita	11 10 47	53	394	slight	W	Dull vibration.
Shiomisaki	11 10 19	21	156	moderate	N N W	Ditto.
Yamagata	11 11 05	81	600	not felt	NE	
Mera	11 10 54	62	460	not felt	E N E	
Akita	11 11 31	137	1029	not felt	NE	
Mito	11 10 57	66	490	not felt	E S E	Accompanied with P.
Matsumoto	11 10 28	41	304	not felt	—	Accompanied with P.
Taihoku	11 13 26	189	1402	not felt	—	
Izuhara	11 11 54	82	610	not felt	SW	
Iida	11 10 36	26	193	not felt	E	
Takayama	11 10 16	31	230	not felt	E N E	

Name of stations.	The time of occurrence. (135° E)	The duration of the prel. Tremors. Sec.	The epicentral distance. km.	The seismic intensity.	The Direction of the first movement.	Remarks.
Utsunomiya	11 10 48	62	460	not felt	—	Accompanied with \bar{P} .
Kanazawa	11 10 27	15	111	moderate	SW	Dull vibration, houses were shaken.
Jinsen	11 11 24	133	987	not felt	—	
Fusan	11 11 15	38	282	not felt	—	
Fukuoka	11 11 00	58	431	not felt	W	
Nagano	11 10 30	44	327	moderate	E N E	Accompanied with \bar{P} .
Numazu	11 10 39	48	356	slight	NE	Ditto, Rapid vibration.
Morioka	11 11 21	90	668	not felt	NE	Ditto.
Kōchi	11 10 04	—	—	moderate	—	
Chōshi	11 11 05	82	609	not felt	—	
Ishinomaki	11 11 31	94	698	not felt	—	
Miyazaki	11 11 02	79	586	not felt	—	Accompanied with \bar{P} .
Nagasaki	11 10 59	67	497	not felt	W S W	Dull vibration, accompanied with \bar{P} .
Shimonoseki	11 10 42	45	334	not felt	W S W	Rapid vibration, vertical vibration was large, accompanied with \bar{P} .
Hiroshima	11 10 28	35	260	rather strong	SW	Dull vibration, clock stopped.
Tokushima	11 09 06	19	142	strong	S	Rapid vibration, clock stopped.
Kumagal	11 10 46	55	408	slight	E N E	Dull vibration, accompanied with \bar{P} .
Fushiki	11 10 16	30	223	moderate	NE	Dull vibration, houses were shaken a little.
Maebashi	11 10 50	58	430	not felt	NE	
Kagoshima	11 11 13	83	616	not felt	—	Accompanied with \bar{P} .
Kofu	11 10 44	46	342	rather strong	E S E	Dull vibration in horizontal plane.
Sumoto	11 10 09	—	—	—	S S E	Houses were shaken violently some people escaped out of door.
Niigata	11 10 49	62	460	slight	NE	Dull vibration.
Gifu	11 10 17	22	164	moderat.	W N W	Some people escaped out of door, clock stoped.
Takata	11 10 38	47	349	not felt	E S E	
Chichijima	11 12 37	117	868	not felt	—	
Mizusawa	11 11 17	86	639	not felt	NE	
Tsukubasan	11 10 50	71	527	not felt	—	
Toyooka	11 09 57	—	—	disastrous	S 26° W	Heavy damage was caused.

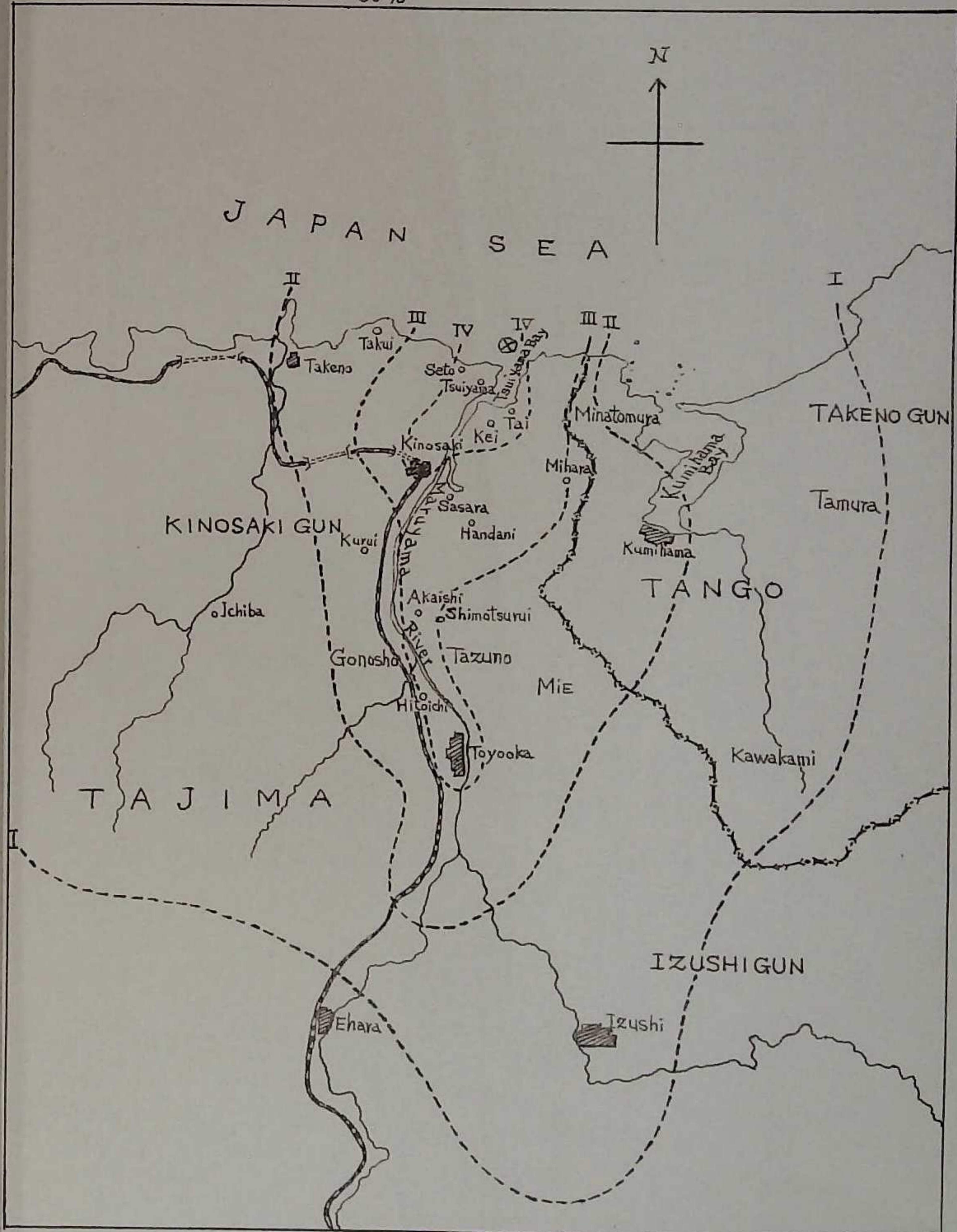
TABLE II,
The statistics of the seismic damage.

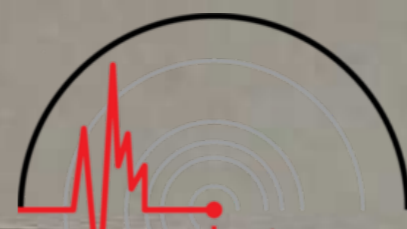
Locality.	Entirely destroyed houses.	Partly destroyed houses.	Houses burnt down.	Persons killed.	Persons wounded.	The missing.	% of the * destroyed houses to the total number of houses.	% of the killed and wounded people to the total population.
Toyooka	87	137	1.169	83	232	17	64.5	3.56
Gonoshō	55	8	—	6	26	—	9.1	1.00
Tazuno	190	85	—	3	14	—	57.3	0.69
Sinden	28	127	—	3	14	—	30.9	0.68
Hachiō	37	44	—	2	—	—	21.5	0.10
Mie	27	22	—	—	20	—	10.9	0.81
Nakasuji	7	29	1	—	6	—	7.1	0.23
Kinosaki	?	104	496	235	84	11	90.6	9.04
Minato	265	280	161	37	249	1	84.1	0.21
Uchikawa	21	53	28	12	14	—	33.7	1.67
Takeno	32	63	—	—	18	—	12.8	0.53
Nakatakano	—	26	—	—	—	—	6.9	—
Izushi	67	205	1	1	1	1	—	—
Mikata	—	1	1	1	1	1	—	—
Kumihama	69	94	—	5	50	—	—	—
Kumitani	—	180	—	2	5	—	—	—
Kawakami	—	1	—	—	—	—	—	—
Kamisano	—	—	—	1	—	—	—	—
Tamura	—	1	—	—	—	—	—	—
Kamino	4	11	—	—	—	—	—	—
Minatomura	4	21	—	—	—	—	—	—
Amino	4	41	—	—	2	—	—	—
Kizu	1	—	—	—	—	—	—	—
Total	898	1.533	1.857	391	736	31		

* The destroyed houses include those partly destroyed or burnt down.

Map of the epicentral region.

- I There were few numbers of destructed houses. ⊗ Epicenter.
- II Destroyed houses > 3%
- III " " > 20%
- IV " " > 50%





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