

1926

1929-1930

# SEISMOLOGICAL BULLETIN

OF THE

AITIKEN METEOROLOGICAL OBSERVATORY

NAGOYA, JAPAN.

VOL. I. No. 1.

1926

NAGOYA

March, 1927.



# NAGOYA JAPAN.

## SEISMOLOGICAL BULLETIN

of the Aitiken Meteorological Observatory of Japan

Latitude ; 35° 10'N  
 Longitude ; 136° 58'E from Greenwich  
 Altitude ; 51,<sup>m</sup> 7 above mean sea level  
 Time ; The Central Standard Time of Japan  
 i.e, the civil mean time of the Meridian 135°E

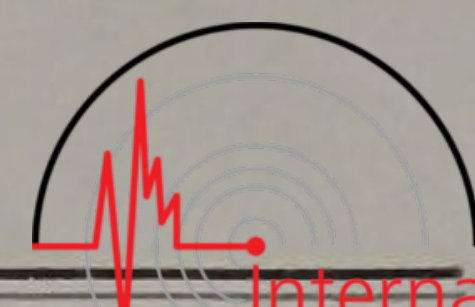
Instrument (from Jan. to May)

Omori's Seismograph  
 (Horizontal Pendulum)

	$T_0$	$\xi$	$\frac{r}{T_0^2}$	V		$T_0$	$\xi$	$\frac{r}{T_0^2}$	V
AN	13. <sup>s</sup> 0	—	—	50	AN	9. <sup>s</sup> 0	—	—	20
AE	15. <sup>s</sup> 0	—	—	50	AE	8. <sup>s</sup> 0	—	—	20

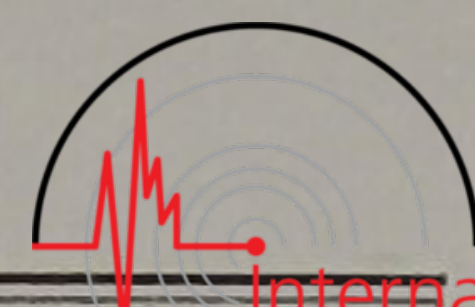
No.	Date	Phase	Time <small>Civil M. T. of 135°E</small>	Period	Amplitude			$\Delta$ Epicentre- Distance	Remarks
					AN	AE	AZ		
			h m s	s	$\mu$	$\mu$	$\mu$	km.	
1	Jan. 10	eP	18 02 55	3.0	-100			445	In the Kasima-Nada.
		L	18 03 55						
		MN	18 04 15						
		C	18 06 18						
		F	18 09 48						
2	Jan. 10	eP	18 35 32	3.2	-30			475	Ditto.
		L	18 36 36						
		M	18 37 05						
		C	18 37 37						
		F	18 38 59						
3	Jan. 15	P	23 44 23					Near the Mount of Tanzawa.	
		F	23 45 54						





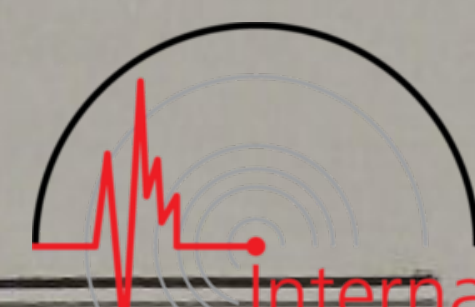
No.	Date	Phase	Time <small>Civil M. T. of 135°E</small>	Period	Amplitude			△ Epicentre- Distance	Remarks
					AN	AE	AZ		
			h m s	s	μ	μ	μ	km.	
4	Jan. 15	P	23 55 17					924	In the sea SSE off Nemuro.
		L	23 57 21						
		F	0 03 04						
5	Jan. 19	e	06 39 41						Very faint record.
		eF	06 57 42						
6	Jan. 25	iP	09 45 05					7410	A distant earthquake. Epicentre probably in the southern Pacific.
		iS	09 52 16						
		L	10 02 08						
		M <sub>1E</sub>	10 02 29	16.0		-520			
		M <sub>2N</sub>	10 03 13	16.4	-260				
		ME	10 04 16	11.6		-520			
		C	10 14 09						
F	10 39 45								
7	Feb. 4	P	06 47 24						NE off Hatijō-Island.
		F	06 54 02						
8	Feb. 4	P	15 46 11					1243	Eeastern part of the Tugaru straits.
		S	15 46 43						
		L	15 47 31						
		ME	15 48 19	4.6		-70			
		MN	15 48 21	2.7	+101				
		C	15 51 04						
		F	15 59 26						
9	Feb. 8	eP	21 55 39					45	Felt slightly but record is very small. Epicentre near the River- Suzuka, Mie-prefecture.
		L	21 55 45						
		C	21 56 25						
		F	21 57 27						
10	Feb. 13	P	23 59 03						Upper course of the River Kinu.
		F	0 04 17						





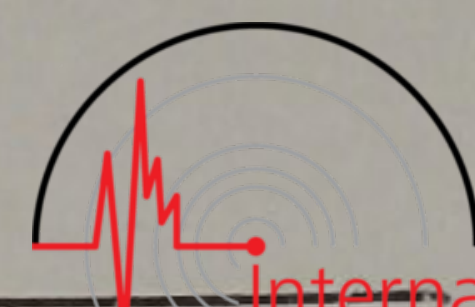
No.	Date	Phase	Time <small>Civil M. T. of 135° E</small>	Period	Amplitude			△ Epicentre Distance	Remarks		
					A <sub>N</sub>	A <sub>E</sub>	A <sub>Z</sub>				
			h m s	s	μ	μ	μ	km.			
11	Feb. 25	P	01 40 45						In the course of the River, Suzuka, Mie-Prefecture.		
		F	01 44 15								
12	Feb. 27	P	17 10 25						In Wakasa Bay.		
		F	17 12 11								
13	March 4	P	18 37 24					2702	A distant earthquake.		
		L	18 42 27								
		F	19 06 20								
14	March 9	eP	05 25 04					1636	Off the Cape of Erimo.		
		L	05 27 24								
		F	05 48 16								
15	March 15	P	16 59 50					48	Felt Weakly. Upper course of the Toyokawa, Mikawa Province		
		L	16 59 57								
		ME	17 00 04							2.5	+900
		C	17 00 52								
		F	17 04 55								
16	March 16	P	04 06 11					52	Upper course of the River-Yabagi, Aiti-Prefecture.		
		L	04 06 18								
		F	04 07 31								
17	March 23	P	20 01 03						Near the Lake of Kasumiga- Ura.		
		F	20 03 44								
18	March 25	eP	22 19 19					1780	Southern off the Cape of Erimo.		
		S	22 21 25								
		L	22 22 01								
		ME	22 22 10							3.3	-100
		C	22 21 49								
		F	22 27 03								
19	March 27	eP	19 56 48						A distant earthquake.		
		F	20 01 52								





No.	Date	Phase	Time <small>Civil M. T. of 135° E</small>	Period	Amplitude			△ Epicentre- Distance	Remarks
					A <sub>N</sub>	A <sub>E</sub>	A <sub>Z</sub>		
			h m s	s	μ	μ	μ	km.	
20	Apr. 2	P	01 05 37	3.1	-1150	-1630		267	Far Southern off the Ensyu-Nada.
		L	01 06 13						
		ME	01 06 15						
		MN	01 06 25						
		C	01 08 24						
		F	01 13 35						
21	Apr. 7	eP	04 36 31						Off the Cape of Erimo.
		F	04 43 22						
22	Apr. 12	eP	17 41 44						A distant earthquake.
		F	17 52 24						
23	Apr. 18	P	15 55 07	3.3		-210		252	In Tokyo-Bay.
		L	15 55 41						
		ME	15 56 03						
		C	15 57 43						
		F	16 01 26						
24	Apr. 27	P	23 18 16						Lower course of the River-Kinu Tiba-prefecture.
		F	23 20 37						
25	May 1	P	02 36 53						Ditto.
		F	02 40 30						
26	May 7	P	15 12 57						Near Ogasawara-Islands.
		F	15 20 36						
27	May 18	P	10 25 30						
		F	10 29 53						
28	May 19	P	02 00 17					252	Lower course of the River-Kinu Tiba-prefecture.
		L	02 00 51						
		C	02 01 23						
		F	02 02 49						





No.	Date	Phase	Time <small>Civil M. T. of 135° E</small>	Period	Amplitude			△ Epicentre- Distance	Remarks
					A <sub>N</sub>	A <sub>E</sub>	A <sub>Z</sub>		
			h m s	s	μ	μ	μ	km.	
29	May 20	P	09 54 31						Felt slightly. Epicentre, near Ogaki. Mino-Province.
		L	09 54 37						
		F	09 56 01						
30	May 24	P	10 10 51						In the sea near Oshima Izu-Province.
		F	10 12 51						
31	May 27	P	04 46 16	3.2	+130			727	Far southern off the Cape of Erimo.
		L	04 47 54						
		MN	04 48 59						
		F	04 55 11						



Instrument, (from <sup>June</sup> July to Dec.)

Wiechert Seismograph.

Omori's Seismograph.

(Horizontal and Vertical)

(Horizontal Pendulum)

	$T_0$	$\epsilon$	$\frac{r}{T_0^2}$	V
A <sub>N</sub>	6.0	0.48	—	85
A <sub>E</sub>	6.0	0.55	—	85
A <sub>Z</sub>	4.0	0.03	—	64

	$T_0$	$\epsilon$	$\frac{r}{T_0^2}$	V
A <sub>N</sub>	4. <sup>s</sup> 0	0.06	—	40
A <sub>E</sub>	4. <sup>s</sup> 0	0.05	—	40

No.	Date	Phase	Time <small>Civil M. T. of 135° E</small>	Period	Amplitude			$\Delta$ Epicentre Distance	Remarks
					A <sub>N</sub>	A <sub>E</sub>	A <sub>Z</sub>		
			h m s	s	$\mu$	$\mu$	$\mu$	km.	
32	June 5	P	18 10 28					571	N. part of the Hyuga-Nada.
		L	18 11 45						
		ME	18 11 49						
		MN	18 11 51	3.2	+90				
		C	18 14 35	2.1		-70			
		F	18 25 31						
33	June 15	P	08 34 03					438	SSE off the Kinkazan.
		L	08 35 02						
		ME	08 35 45	3.5	+60				
		MN	08 35 47	4.2	+82				
		C	08 36 45						
		F	08 45 34						
34	June 21	P	17 51 34						For SE off the Bôsô-Peninsula.
		F	17 56 25						
35	June 25	eP	06 24 18						Near Nagoya.
		F	06 28 55						



No.	Date	Phase	Time Civil M. T. of 135° E	Period	Amplitude			△ Epicentre Distance	Remarks	
					A <sub>N</sub>	A <sub>E</sub>	A <sub>Z</sub>			
			h m s	s	μ	μ	μ	km.		
36	June 25	P	06 30 42	3.1	-40				Upper course of the River Ōi, Sizuoka Prefecture.	
		L	06 32 14							
		MN	06 32 28							
		C	06 33 51							
		F	06 37 55							
37	June 28	P	18 51 43					223	Middle part of the Bōsō-Peninsula.	
		L	18 52 13							
		F	18 55 39							
38	June 29	P	23 29 56	2.1	-38			957	Near Okinawa-Island.	
		L	23 32 06							
		ME	23 32 15							+51
		MN	23 33 01							
		C	23 42 49							
		F	24 49 42							
39	July 4	P	15 46 50					186	Upper course of the Sagami-river, Sagami province.	
		L	15 47 15							
		F	15 51 32							
40	July 5	P	15 13 54						Along the Nobi Fault, Gifu-Prefecture.	
		F	15 16 50							
41	July 10	P	18 25 14					104	Lower course of the Arita-River. Kii Province.	
		L	18 25 28							
		F	18 29 58							
42	July 10	eP	19 54 04						A distant earthquake Epicentre perhaps in Southern Pacific.	
		F	20 19 38							
43	July 11	P	08 02 12	3.5	-210			378	Near Tyosi.	
		L	08 03 03							
		MN	08 03 28							
		ME	08 03 35							+150
		C	08 05 15							
		F	08 13 05							



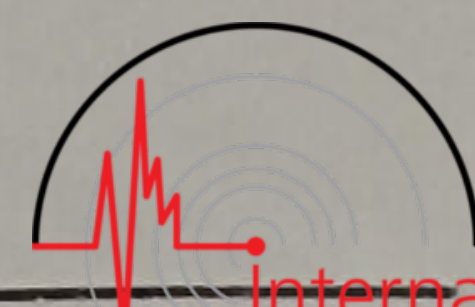
No.	Date	Phase	Time Civil M. T. of 185° E	Period	Amplitude			△ Epicentre- Distance	Remarks
					A <sub>N</sub>	A <sub>E</sub>	A <sub>Z</sub>		
			h m s	s	μ	μ	μ	km.	
44	July 12	P	19 06 56						Titibu distinct.
		F	19 08 43						
45	July 14	P	04 03 48						Upper course of the River of Sagami.
		F	04 06 29						
46	July 14	P	14 41 59						A faint record.
		F	14 45 34						
47	July 14	P	15 40 38					163	Near the mouth of the Maruyama-River, Tajima-Province.
		L	15 41 00						
		ME	15 41 05	1.4		+18			
		MN	15 41 05	1.5	-20				
		C	15 42 25						
		F	15 47 25						
48	July 14	P	19 02 23					SSE off Isinomaki.	
		F	19 06 12						
49	July 15	P	04 31 01					252	Upper course of the River of Sinano.
		L	04 31 35						
		MN	04 31 37	2.5	+41				
		C	04 32 49						
		F	04 38 23						
50	July 19	P	18 56 51					186	Off the Tanabe Bay, Kii-Peninsula.
		L	18 57 16						
		ME	18 57 25	1.3		+10			
		C	18 57 56						
		F	18 01 46						
51	July 20	P	22 59 47					45	Felt weakly. Upper course of the Ibi-River, Gifu-Prefecture.
		L	22 59 53						
		ME	22 59 55			-200			
		MN	22 59 55		-200				
		C	23 00 20						
		F	23 06 40						





No.	Date	Phase	Time <small>Civil M. T. of 135° E</small>	Period	Amplitude			△ Epicentre- Distance	Remarks
					A <sub>N</sub>	A <sub>E</sub>	A <sub>Z</sub>		
			h m s	s	μ	μ	μ	km.	
52	July 22	P	15 37 35						Near the mouth of the Arita-River.
		F	15 40 25						
53	July 26	P	15 39 42						In the Kumano-Nada. (By Omori's Seismometer.)
		F	15 43 23						
54	July 27	eP	03 49 10						SE off Kinkazan.
		F	03 54 00						
55	July 27	P	03 55 33					275	Far southern part of the Kumano-Nada.
		L	03 56 11						
		ME	03 56 33	3.2		+630			
		MN	03 56 33	4.1	-340				
		C	03 58 13						
		F	04 12 17						
56	July 29	P	07 02 15					646	S. off Hatijyo-Island.
		L	07 03 42						
		F	07 10 43						
57	July 30	eP	00 42 30						Very faint record.
		F	00 45 36						
58	Aug. 2	P	14 06 58					2427	A distant earthquake.
		L	14 11 19						
		F	14 47 33						
59	Aug. 3	eP	12 45 54						Near Botol-tabago, Formosa.
		F	13 11 37						
60	Aug. 3	P	18 26 51					252	Bay of Tokyo.
		L	18 27 25						
		MN	18 28 07	3.2	±1150				
		ME	18 27 59			±730			
		CN	18 28 52						
		CE	18 28 56						
		FE	18 34 33						





No.	Date	Phase	Time <small>Civil M. T. of 135° E</small>	Period	Amplitude			△ Epicentre Distance	Remarks
					A <sub>N</sub>	A <sub>E</sub>	A <sub>Z</sub>		
			h m s	s	μ	μ	μ	km.	
61	Aug. 3	eP	19 39 36						Off Okinawa Island.
		F	20 02 08						
62	Aug. 7	P	15 15 28					430	Southern off Mera, Awa Province. (By Omori's Seismometer)
		L	15 16 08						
		M <sub>N</sub>	15 16 26	2.3	-350				
		F	15 26 10						
63	Aug. 9	P	13 39 09					Upper course of the Hitaka River, Kii-Province. (By Omori's Seismometer)	
		F	13 42 46						
64	Aug. 9	P	23 06 13					Off Okinawa Island. (By Omori's Seismometer)	
		F	23 44 10						
65	Aug. 12	eP	20 09 11					In the Kii Channal.	
		F	20 12 44						
66	Aug. 13	P	13 29 14				186	SE. part of Mt. Fuji.	
		L	13 29 39						
		F	13 34 16						
67	Aug. 30	P	20 50 35					A distant earthquake.	
		F	21 05 12						
68	Sept. 5	P	00 39 23				818	Eastern off the Cape of Erimo.	
		L	00 41 17						
		M <sub>1 E</sub>	00 41 41	3.0	+180				
		M <sub>2 E</sub>	00 42 05	3.0	-150				
		M <sub>N</sub>	00 43 25	3.7	-170				
		C <sub>E</sub>	00 45 03						
		C <sub>N</sub>	00 45 03						
		F <sub>E</sub>	01 06 48						
		F <sub>Z</sub>	01 06 48						
F <sub>N</sub>	00 48 07								



No.	Date	Phase	Time <small>Civil M. T. of 135° E</small>	Period	Amplitude			△ Epicentre Distance	Remarks
					A <sub>N</sub>	A <sub>E</sub>	A <sub>Z</sub>		
			h m s	s	μ	μ	μ	km	
69	Sept. 7	P	21 30 51						
		F	21 51 00						
		Fz	21 40 00						
70	Sept. 7	eP	22 38 50						A local shock.
		F	22 41 23						
71	Sept. 9	P	10 12 01					59	North part of Nobi Fault.
		L	10 12 09						
		ME	10 12 13	1.5		±35			
		MN	10 12 15	1.5	-35				
		CE	10 12 53						
		FE	10 16 45						
		Mz	10 12 13	1.6			-23		
		Fz	10 16 45						
72	Sept. 10	eP	19 43 15						Far Southern off Ensyu-Nada ?
		FE	20 35 39						
		FN	20 35 39						
		Fz	19 47 06						
73	Sept. 13	P	00 47 59					2106	Near Kasyoto, Formosa.
		L	00 51 31						
		MN	00 51 39	5.0	+47				
		FE	01 14 51						
		FN	01 15 11						
74	Sept. 17	eP	03 08 01					6070	A distant earthquake.
		SEN	03 15 06						
		L	03 21 39						
		MN	03 25 53	15.8	+82				
		ME	03 25 49	15.0		±47			
		FEN	03 59 06						
		Fz	03 17 06						



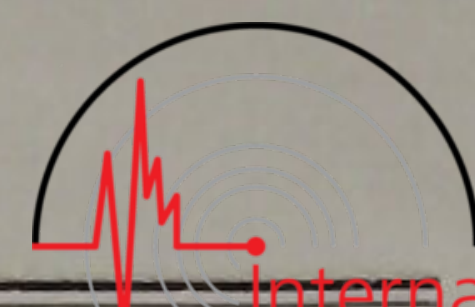


No.	Date	Phase	Time <small>Civil M. T. of 135° E</small>	Period	Amplitude			△ Epicentre- Distance	Remarks
					A <sub>N</sub>	A <sub>E</sub>	A <sub>Z</sub>		
			h m s	s	μ	μ	μ	km.	
75	Sept. 17	eP	05 49 53						In the course of the Kinu-River.
		FE	05 55 53						
		FN	05 56 53						
76	Sept. 26	P	10 06 39					341	Northern part of Hatijyo Island.
		L	10 07 25						
		MN	10 07 47	3.2	-35				
		ME	10 08 03	2.8		-35			
		CN	10 09 30						
		FN	10 15 05						
		FE	10 15 35						
		FZ	10 11 15						
77	Oct. 4	P	15 03 08						E. off Kinkazan.
		L	15 04 19						
		MN	15 04 58	2.5	+22				
		ME	15 05 01	2.0		+23			
		FE	15 09 38						
		FN	15 09 44						
78	Oct. 14	P	04 17 04					4415	A distant earthquake.
		L	04 26 29						
		FE	05 54 09						
		FN	05 53 29						
79	Oct. 17	P	09 33 05						L Phase, not distinct. Epicentre probably near the city of Gifu.
		FN	09 36 48						
		FE	09 36 53						
80	Oct. 19	P	9 30 24						SE off the Cape of Erimo.
		L	9 32 52						
		MN	9 33 07						
		C	9 35 01						
		F	9 41 44						



No.	Date	Phase	Time <small>Civil M. T. of 185° E</small>	Period	Amplitude			△ Epicentre- Distance	Remarks
					$A_N$	$A_E$	$A_Z$		
			h m s	s	$\mu$	$\mu$	$\mu$	km.	
81	Oct. 19	P	23 05 24	1.6	+35			134	Near Yagi, Nara-Prefecture.
		L	23 05 42						
		M <sub>N</sub>	23 05 44						
		C	23 06 40						
		F	23 10 19						
82	Oct. 20	P	10 41 16					74	Felt weakly. Epicentre, upper course of the Kizuryu River, Fukui Prefecture.
		L	10 41 26						
		M <sub>N</sub>	10 41 28						
		M <sub>Z</sub>	10 41 33						
		C	10 44 25						
		F <sub>Z</sub>	10 48 43						
		F	10 45 53						
83	Oct. 26	P	12 51 48	24.8	-118			2989	A distant earthquake.
		PR <sub>1</sub>	12 53 26						
		S	12 57 35						
		L	13 00 36						
		M <sub>N</sub>	13 07 33						
		C	13 10 44						
		F	13 40 08						
84	Oct. 28	P	19 46 13					408	In the sea off Tyosi.
		L	19 47 08						
		F <sub>N</sub>	19 49 05						
85	Oct. 29	eP	09 13 52						A distant earthquake.
		F	09 19 43						
86	Nov. 6	eP	04 06 41	1.7	-40			385	In the coast of Kasima-Nada.
		L	04 07 33						
		M <sub>N</sub>	04 07 40						
		M <sub>Z</sub>	04 07 40						
		C	04 08 58						
		F	04 13 20						





No.	Date	Phase	Time <small>Civil M. T. of 135° E</small>	Period	Amplitude			△ Epicentre Distance	Remarks
					$\Lambda_N$	$\Lambda_E$	$\Lambda_Z$		
			h m s	s	$\mu$	$\mu$	$\mu$	km.	
87	Nov. 10	P	17 57 13					111	Northern part of Kyoto.
		L	17 57 28						
		M <sub>1</sub> N	17 57 32	0.3	-105				
		M <sub>2</sub> N	17 57 58	1.8	-94				
		M <sub>1</sub> E	17 57 52	—		-71			
		M <sub>1Z</sub>	17 58 02	1.6		-71			
		C <sub>N</sub>	17 58 35						
F <sub>N</sub>	18 04 55								
88	Nov. 11	P	12 02 40					408	E off Iwaki.
		L	12 03 35						
		M <sub>E</sub>	12 04 20	2.2		+165			
		M <sub>N</sub>	12 04 20	2.1	+247				
		M <sub>Z</sub>	12 04 25	1.6		±94			
		C	12 05 23						
		F	12 16 20						
89	Nov. 23	P	20 05 17					126	
		L	20 05 34						
		M <sub>N</sub>	20 05 36	1.1	+24				
		M <sub>E</sub>	20 05 37	0.9		+24			
		F	20 09 36						
90	Dec. 1	P	13 58 03					363	Off the coast of Idumo, Simane Prefecture
		L	13 58 52						
		M <sub>N</sub>	13 59 12	2.4	±47				
		M <sub>E</sub>	13 59 09	2.3		±46			
		C	14 00 57						
		F	14 04 39						
91	Dec. 5	P	14 53 53					526	Southern off Hatijyo Island.
		L	14 55 04						
		F	15 00 30						



No.	Date	Phase	Time (Civil M. T. of 135° E)	Period	Amplitude			△ Epicentre Distance	Remarks
					A <sub>N</sub>	A <sub>E</sub>	A <sub>Z</sub>		
			h m s	s	μ	μ	μ	km.	
92	Dec. 6	P	06 12 51					385	Northern part of Kasima-Nada.
		L	06 13 43						
		M <sub>N</sub>	06 14 11	2.4	+58				
		M <sub>E</sub>	06 14 08	2.0		-60			
		C	06 15 07						
		F	06 19 58						
93	Dec. 13	eP	07 01 59					312	In the Lake of Kasumiga-ura. Ibaragi-Prefecture.
		P	07 02 12						
		L	07 02 41						
		M <sub>N</sub>	07 03 07	2.1	-188				
		M <sub>E</sub>	07 03 04	2.4		-123			
		M <sub>Z</sub>	07 03 06	2.0			-93		
		C <sub>N</sub>	07 04 14						
		C <sub>E</sub>	07 04 15						
		F	07 10 51						
94	Dec. 16	P	02 51 26					59	Upper course of the River Ibi. Gifu Prefecture.
		L	02 51 34						
		F	02 53 26						
95	Dec. 17	eP	14 06 21						Near Nagoya.
		F	14 09 47						
96	Dec. 17	eP	17 06 35						Ditto.
		F	17 07 57						