昭和9年　第1冊

SEISMOMETRICAL REPORT

OF THE

EARTHQUAKE RESEARCH INSTITUTE

TOKYO IMPERIAL UNIVERSITY

1934

Part 1

(January 1—March 31, 1934)

Published by the Institute
Tôkyô 1934

Seismometrical Report.

(Earthquake Research Institute, Tôkyô, Japan.)

(Part 1, 1934.)

(January 1—March 31, 1934.)

(1) Seismological stations in the Kwantô districts.

List I.

Station	Coordinate		Apporoximate distance from Tôkyô (Hongô)
	Longitude (E)	Latitude (N)	
Tôkyô (Hongô)	139° 45′ 59″	35° 42′ 40″	0 km
Komaba	139 41 01	35 39 18	10
Mitaka	139 32 32	35 40 20	20
Tukuba	140 06 36	36 12 39	64
Kamakura	139 32 39	35 18 32	48
Misaki	139 37 05	35 09 26	62
Kiyosumi	140 09 02	35 09 22	70
Titibu	139 04 54	35 58 56	69
Tôgane	140 21 38	35 34 00	55
Sakura	140 14 10	35 42 49	43
Itô	139 05 44	34 57 53	103
Koyama	138 58 59	35 21 20	82
Yosiwara	138 41 07	35 09 35	116
Asama	138 34 21	36 24 08	133

(2) *Sensible earthquakes in Tôkyô for the period January 1—March 31, 1934.*

List II.

Time = Central standard time of Japan. (Mean solar time of the meridian 135°E.)

Notation :

Prel. tr. = Preliminary tremor.
N. S. = North-South component.
E. W. = East-West component.
2A = Range of motion.
T = Period of earthquake motion.
λ = Longitude.
φ = Latitude.

Intensity : 0 (insensible), I (slight), II (rather weak), III (weak), IV (rather strong), V (strong), VI (violent).

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N. S.		E W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
1	Tôkyô	Jan. 18	11 11 59·8	8·1	2	104	0·32	104	0·32		139·78	36·11	50	I
	Komaba		11 11 59·7	9·0	2	180	0·4	90	0·4					
	Mitaka		11 12 00·3	8·4	3	50	0·38	74	0·38					
	Tukuba		11 11 57·3	6·3	2	31		17	0·17					II
	Kamakura		11 12 04·2	11·4	2·5	38	0·47	14	0·28					
	Misaki			12·7	3	27	0·75	23	0·75					
	Kiyosumi		11 12 03·8	13·1	2	10	0·73	6	0·73					
	Titibu			9·7	2	20	0·45	18	0·38					
	Tôgane			11·7	2	16	0·68							
	Sakura			9·1	2	64	0·28	26	0·28					
	Itô			18·5	2	12	0·3	20	0·3					
	Koyama			17·0	2	96	0·7	92	1·0					
2	Tôkyô	19	18 35 22·6	8·7	3	124	0·91	132	0·91		140·00	36·10	50	I
	Komaba		18 35 22·0	10·0	5	130	0·4	130	0·4					
	Mitaka		18 35 24·9	8·9	3	94	0·58	90	0·47					
	Tukuba		18 35 19·0	5·8	1·4	128		52	0·14					II
	Kamakura		18 35 27·7	13·4	4	50	0·56	44	0·47					
	Misaki			14·7	3	27	0·65	16	0·65					
	Kiyosumi		18 35 26·7	13·7	2	16	0·76	8	0·76					
	Titibu			11·7	2	32	0·56	31	0·56					
	Tôgane			10·3	3	42	0·64	6	0·64					

(to be continued.)

List II. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total.	N.S.		E.W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
	Sakura	Jan. 19		6·4	2	82	0·20	52	0·20					
	Itô			17·0	2	24		24						
	Koyama			15·0	2	104	0·5	80	0·5					
	Yosiwara			19·0	3	24	0·5	28	0·5					
3	Tôkyô	24	23 25 39·0	8·3	4	65	0·61	42	0·61		140·11	35·79	60	I
	Komaba		23 25 44·2	9·3	3	44	0·72	24	0·32					
	Mitaka		23 25 43·8	9·7	3	12	0·25	14	0·25					
	Tukuba		23 25 42·1	9·5	1	4	0·26	6	0·24					I
	Kamakura		23 25 44·0	11·2	2·5	26	0·91	20	0·71					
	Misaki			10·4	3·5	19	0·65	18	0·82					
	Kiyosumi		23 25 41·5	10·4	3	17	0·78	18	0·78					
	Titibu			12·6	2	10	1·12	10	1·57					
	Sakura			7·8	4	42	0·93	52	0·93					
	Itô			14·5	1	8		8						
	Koyama			16·0	2	24		28						
	Yosiwara			21·0	2	24		20						
4	Tôkyô	25	6 42 04·1	20·0	7	100	0·57	72	0·57		141·02	37·00	50	II
	Komaba		6 42 00·2	20·4	7	86	0·72	80	0·80					
	Mitaka		6 42 04·3	22·7	6	24	0·25	24	0·25					
	Tukuba		6 41 54·6	13·8	1·8	50	0·22	38	0·22					II
	Kamakura		6 42 14·3	25·6	7	58	0·68	40	0·58					
	Misaki			26·0	6	40	0·53	23	0·53					
	Kiyosumi		6 42 10·5	22·4	4	12	0·77	8	0·87					
	Titibu			22·7	4	38	0·67	46	0·79					
	Sakura			18·5	7	76	0·58	120	0·67					
	Itô			31·5	3	24	0·4	28	0·4					
	Koyama			32·0	3·5	56		40						
	Yosiwara			34·5	4·5	48	0·5	36	0·5					
5	Tôkyô	Feb. 1	9 16 15·9	13·7	8	220	0·41	230	0·41		139·41	35·27	80	II
	Komaba		9 16 15·5	12·8	5	500	0·40	360	0·32					
	Mitaka		9 16 15·0	12·4	8	380	0·21	690	0·21					II
	Tukuba		9 16 19·6	16·8	2	53	0·57	31	0·57					I
	Kamakura		9 16 14·1	11.7	7	128	0·49	165	0·49					I
	Misaki			11·2	7	96	1·00	67	1·00					I
	Kiyosumi		9 16 16·7	13·7	5	54	1·31	40	1·31					I
	Titibu			15·3	5	155	0·94	50	0·94					
	Tôgane			16·5	6	156	0·82	92	0·82					II
	Itô			10·9	2·5	120	0·6	128	0·8					
	Koyama				2·5	148	0·7	260	0·6					
	Yosiwara				3	72		80						
	Asama			18·0	4									
	Susaki		9 16 16·8	13·2	4	16	0·99	40	0.99					
6	Tôkyô	3	3 31 53·5	11·6	3	154	0·49	132	0·49		139·43	35·22	70	I
	Komaba		3 31 53·2	11·2	4	132	0·40	104	0·40					
	Mitaka		3 31 53·6	11·3	3	40	0·39	52	0·39					
	Tukuba		3 31 57·6	15·2	1·4	8	0·42	10	0·35					
	Kamakura		3 31 52·1	7·8	2	92	0·42	52	0·42					I
	Misaki			10·2	3	42	0·46	27	0·46					
	Kiyosumi		3 31 53·1	12·9	2	12	0·53	16	0·53					

(*to be continued.*)

List II. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total.	N.S.		E.W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
	Titibu	Feb. 3		14·1	1·5	18	0·52	30	0·52					
	Tôgane			14·1	2	31	0·81	32	0·63					
	Itô			10·8	1·5	28	0·3	104	0·4					
	Koyama			11·5	2	112	0·4	168	0·4					
	Yosiwara				1·5	24	0·5	20	0·5					
	Asama			18·2	2									
7	Tôkyô	9	8 18 37·7	8·7	2	30	0.32	23	0·24		140·32	35·69	50	I
	Mitaka		8 18 38·1	9·4	1·5	20	0·29	20	0·29					
	Tukuba		8 18 39·1	9·1	1									
	Kamakura		8 18 39·5	9·6	1	14	0·25	16	0·25					
	Misaki			10·6	3	26	0·57	25	0·57					
	Kiyosumi		8 18 09·6	7·2	2	26	0·51	24	0·51					
	Titibu			15·7	1	4	0·73	4	0·73					I
	Tôgane			6·9	3	94	0·67	104	0·67					
8	Tôkyô	11	7 02 30·4	30·0	25	203	0·82	218	0·88		142·09	37·40		I
	Komaba		7 03 16·5	29·4	10									
	Mitaka		7 02 31·5	33·5	20	174	1·14	192	1·14					I
	Tukuba		7 02 20·8	25·9	1·8			88	0·63					
	Kamakura		7 02 39·2	35·0	14	338	1·84	102	0·92					
	Misaki			36·1	10	75	1·13	74	1·13					
	Kiyosumi		7 02 39·1	38·7	13	330	4·03	190	4·03					
	Titibu			34·2	12	126	1·03	180	1·03					
	Tôgane			32·2	20	586	1·77	516	1·66					
	Sakura			30·8	20	380	1·52	250	1·52					
	Itô			42·0	6	72	1·0	76	1·2					
	Koyama			41·0	8	980	2·4	540	2·1					
	Yosiwara			44·0	8	260	1·0	176	0·7					
	Asama			39·0	5									
	Susaki		7 02 47·2	55·5	7	36	2·33	38	1·94					
9	Tôkyô	17	12 10 28·0	17·2	20	270	1·61	100	1·88		141·30	36·29	60	I
	Komaba		12 10 34·1	17·8	9									
	Mitaka		12 10 38·1	17·4	11	200	1·75	196	2·15					
	Tukuba		12 10 27·0	11·2	1·8									
	Kamakura		12 10 40·8	19.6	10	14	0·41	254	1·55					
	Misaki			25·7	10	308	2·40	189	2·40					
	Kiyosumi		12 10 32·8	17·9	7	34	1·25	56	1·15					
	Titibu			24·4	7	30	1·14	28	1·14					
	Tôgane			13·0	10	440	1·46	360	1·63					II
	Sakura			14·2	10	290	1·60	286	1·36					
	Itô			30·0	6	32		32						
	Koyama			32·0	5	255	1·5	280	1·8					
	Susaki			29·2	5			16	1·9					
10	Tôkyô	17	15 15 08·7	24·3	7	50	0·50	34	0·50		141·50	37·08		I
	Komaba		15 15 09·6	23·2	5	40	0·40	50	0·24					
	Mitaka		15 15 08·8	25·6	6	20	0·50	16	0·50					
	Tukuba		15 15 59·1	16·4	1·8	17	0·39	28	0·31					
	Misaki			31·1	5	10	0·62	19	0·62					
	Kiyosumi		15 15 16·9	26·7	5	6	0·62	4	0·62					
	Titibu			27·5	4	26	0·51	20	0·41					

(*to be continued.*)

List II. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N.S.		E.W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°		
	Tôgane	Feb. 17		22·7	4									II
	Sakura			20·3	4	37	0·22	16	0·22					
	Itô				2	12		12						
	Koyama				3	80	1·3	72	1·0					
	Yosiwara				3	44		28						
11	Tôkyô	17	18 16 36·3	15·9	13	217	0·50	117	0·50		141·16	36·30	60	I
	Komaba		18 16 37·3	17·3	7									I
	Mitaka		18 16 38·9	17·5	13	100	1·26	200	1·26					
	Tukuba		18 16 32·2	11·5	1·8	50	0·45	61	0·65					I
	Kamakura		18 16 45·8	20·0	11	270	0·87	16	0·43					
	Misaki			22·3	8	128	0·85	81	0·85					
	Kiyosumi		18 16 34·3	17·4	5	66	1·02	60	1·02					
	Titibu			20·5	4	36	0·74	36	0·64					
	Tôgane			13·2	8	270	0·88	370	0·88					II
	Sakura			12·4	10	316	0·85	220	0·85					
	Itô				7	56	0·4	52	0·4					
	Koyama			27·5	6	253	1·0	140	0·8					
	Yosiwara				10	92	1·5	112	1·2					
	Asama			26·5	5									
	Susaki			28·1	6			28	1·9					
12	Tôkyô	17	21 06 40·6	15·6	7	84	0·89	42	1·05		141·09	36·32	50	I
	Komaba		21 06 40·5	17·4	6									
	Mitaka		21 06 43·1	17·6	7	40	1·25	70	1·63					
	Tukuba		21 06 32·7	11·1	1·7	18	0·32	16	0·38					
	Kamakura		21 06 45·7	22·7	7	46	0·82	42	0·82					
	Misaki			21·8	6	33	1·70	55	1·70					
	Kiyosumi		21 06 38·1	17·4	5·5	46	1·44	50	1·11					
	Titibu			20·7	4	8	0·83	12	0·83					
	Tôgane			13·0	6	98	0·92	132	0·92					
	Sakura			11·4	6	94	1·06	96	1·06					
	Koyama			32·0	4	88		72						
	Yosiwara			36·0	7	32		40						
	Asama			28·5										
	Susaki			24·2	4			10	2·66					
13	Tôkyô	21	15 47 49·4	9·1	2	260	0·64	280	0·64		140·00	36·00	60	I
	Komaba		15 47 48·1	9·2	4	180	0·40	170	0·40					I
	Mitaka		15 47 49·7	9·9	3	42	0·53	56	0·53					
	Tukuba		15 47 49·2	8·7	1	17	0.21	28	0·26					I
	Kamakura			10·8		24	0·25	46	0·4					
	Misaki			12·1	3	46	0·82	40	0·82					
	Kiyosumi		15 47 49·4	10·7	3	16	0·84	22	0·84					
	Titibu			11·7	2	10	0·50	12	0·50					
	Tôgane			9·7	3	28	0·64	50	0·64					
	Sakura			9·2	2·5	88	0·33	108	0·33					
	Itô			14·0	1·5	32	0·2	40	0·2					
	Koyama			13·5	2	56		56						
	Asama			20·0	3									
	Susaki		15 48 06·4	23·8	1	6	0·35							
14	Tôkyô	22	10 50 13·5	16·8	4	170	0·71	143	0·71		141·16	36·07	45	I

(*to be continued.*)

List II. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N. S.		E. W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
	Komaba	Feb. 22	10 50 14·0	17·2	4	130	0·8	110	0·4					
	Mitaka		10 50 15·8	17·3	5	126	0·74	110	0·74					
	Tukuba		10 50 07·9	11·1	2	141	0·45	204	0·6					II
	Kamakura		10 50 22·6	18·1	4·5	70	0·48	38	0·29					
	Misaki			21·2	5	31	0·74	18	0·74					
	Kiyosumi		10 50 13·8	16·7	5	24	0·54	36	0·54	N45°E, d				
	Titibu			17·6	4	31	0·62	44	0·62					
	Tôgane			12·6	4	90	0·75	44	0·75					
	Sakura			12·3	4	60	0·83	170	1·04					
	Itô			19·5	2	32	0·3	63	0·4					
	Koyama			22·0	3	168	0·4	132	0·3					
15	Tôkyô	Mar. 21	12 40 10·8	15·0	20	620	2·15	860	2·15	S58°W, d	138·92	34·85	4	I
	Komaba													
	Mitaka		12 40 10·7	14·0	20	406	2·75	690	2·75	S75°W, d				
	Tukuba		12 40 20·3	23·4	1									
	Kamakura		12 40 04·7	10·3	15	2250	4·18	3600	4·50	S45°W, d				I
	Misaki			8·8	20	400	2·34	228	2·35	N 60° E				
	Kiyosumi		12 40 10·6	14·8	17	226	3·93	710	4·50	N69°E, u				
	Titibu													
	Tôgane			18·9	20	280	3·24	220	2·88					
	Sakura			20·5	20	172	3·51	240	2·18					
	Itô			3·0	10+	4880+	0·78	5440	0·78	N 30° E				IV
	Koyama			8·1	20	2000	2·65	1000	1·50	S 8° W				III
	Yosiwara			5·5	10	1500	0·81	1000	0·81	S 22° E				III
	Asama			22·5	16									
	Susaki		12 39 55·5	2·7	12·5	2700	1·40	2080+	1·40	N9°W, d				I I
16	Tôkyô	23	7 16 26·4	10·4	2	56	0·33	26	0·33		139·97	36·16	50	I
	Komaba		7 16 22·8	12·8	2	40	0·32	38	0·32					
	Mitaka		7 16 22·7	12·4	2	16	0·22	13	0·43					
	Tukuba		7 16 17·3	6·0	1·3	44	0·16	42	0·16					II
	Kamakura		7 16 28·5	14·9	2	16	0·30	8	0·30					
	Misaki			15·5	3	10	0·69	8	0·52					
	Kiyosumi		7 16 26·8	15·5	2	6	0·94	5	0·74					
	Titibu			11·6	1·2	6	0·37	8	0·37					
	Tôgane			12·2	2	14	0·30	20	0·40					
17	Tôkyô	30	13 31 29·8	7·9	2	120	0·31	134	0·31		139·93	35·84	60	I
	Mitaka		13 31 31·9	8·7	2·5	66	0·29	96	0·29					
	Tukuba		13 31 29·6	7·5	1·4	23	0·37	20	0·18					II
	Kamakura		13 31 34·4	10·3	2	56	0·48	32	0·39					
	Misaki			12·6	3	24	0·46	18	0·36					
	Kiyosumi		13 31 33·3	12·6	3			12	0·33					
	Tôgane			9·3	2	20	0·41	17	0·41					
	Itô			14·6	1·5	20	0·30	16	0·30					
	Koyama				1·3	44		48						

(3) *Important distant earthquakes as observed in Tôkyo (Hongô).*

List III.

Date	Phase	Time of occurrence (G. M. T.)	Amplitude 2A	Period	Probable epicentre
1934					
Jan. 15	*P*	8h 51m 54·1s			
	S	8 58 30·4			Δ=5000 km. Destructive Indian earthquake. λ=86°E, φ=25°N (U.S.C. G.S.)
	L	9 4 37·1			
	M	9 13 08·0			
	F	11·4			
Feb. 14	*P*	4 05 03·0			
	S	4 09 51·1	(E.W.) 2.63 mm. (N.S) 3·40	21·7 s 22·3	λ=118°E, φ=18°N (U.S. C.G.S.)
	L	4 13 09·8	(E.W.) 1·57 (N.S.) 5·55	25·7 27·5	
	F	5·6			

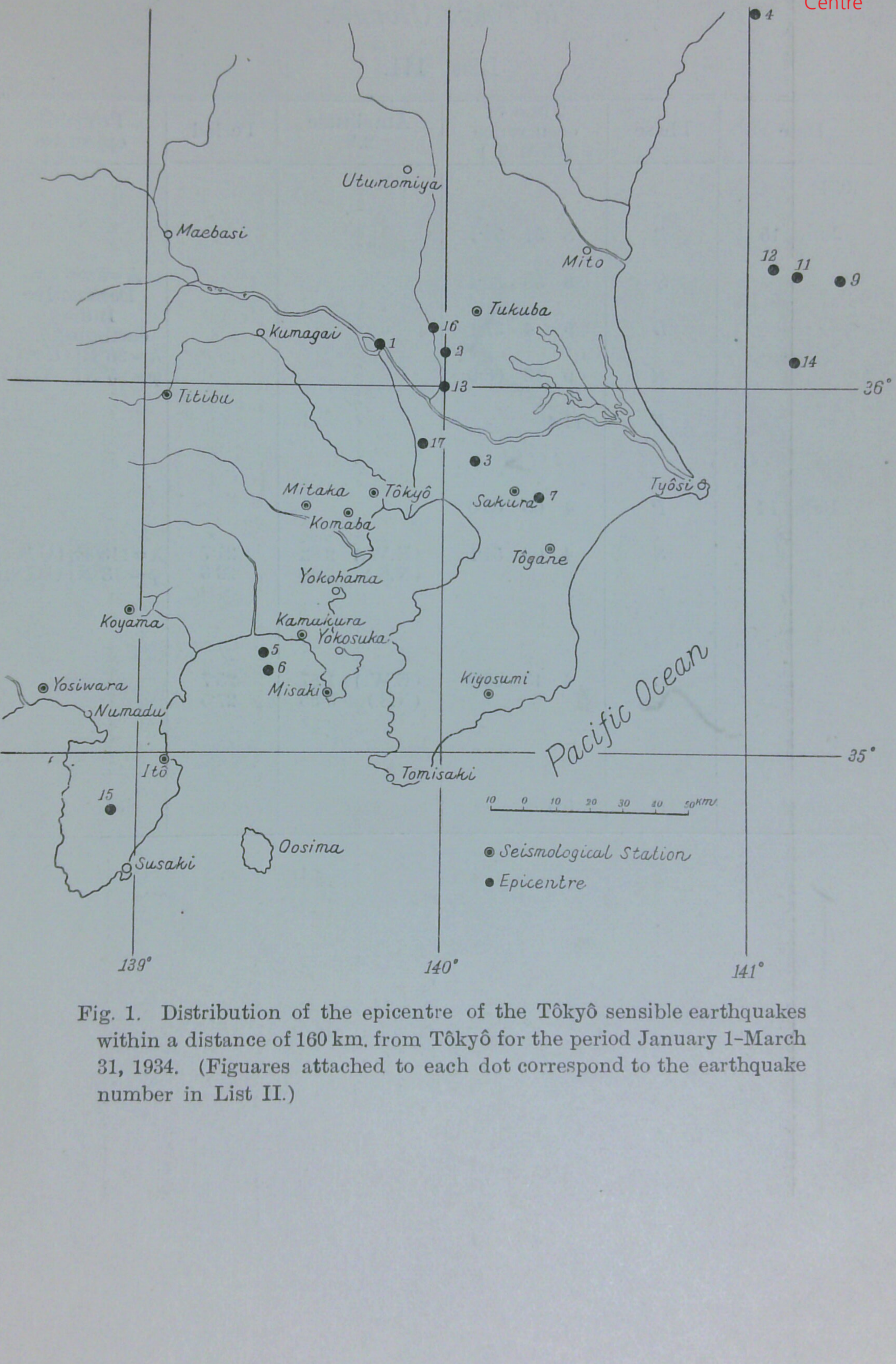


Fig. 1. Distribution of the epicentre of the Tôkyô sensible earthquakes within a distance of 160 km. from Tôkyô for the period January 1–March 31, 1934. (Figuares attached to each dot correspond to the earthquake number in List II.)

地震觀測報告

昭和9年 第2册

SEISMOMETRICAL REPORT

OF THE

EARTHQUAKE RESEARCH INSTITUTE

TOKYO IMPERIAL UNIVERSITY

1934

Part 2

(April 1—June 30, 1934)

Published by the Institute
Tôkyô 1934

Seismometrical Report.

(Earthquake Research Institute, Tôkyô, Japan.)

(Part 2, 1934.)

(*A*pril 1—June 30, 1934.)

(*1*) *Sensible earthquakes in Tôkyô for the period April 1—June 30, 1934.*

List I.

Time = Central standard time of Japan. (Mean solar time of the meridian 135°E.)

Notation :

Prel. tr. = Preliminary tremor.
N. S. = North-South component.
E. W. = East-West component.
2A = Range of motion.
T = Period of earthquake motion.
λ = Longitude.
φ = Latitude.

Intensity : 0 (insensible), I (slight), II (rather weak), III (weak), IV (rather strong), V (strong), VI (violent).

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N. S.		E. W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
18	Tôkyô	April 5	7 11 34·2	5·5	1·5	52	0·25	50	0·25		139·83	35·57	40	I
	Komaba			5·3										I
	Mitaka		7 11 33·5	6·5	1	28	0·23	20	0·23					
	Tukuba		7 11 37·9	9·2	0·7	2	0·21	2	0·18					
	Kamakura		7 11 34·3	7·7	1	30	0·28	24	0·28					
	Misaki			9·9	3	11	0·54	13	0·54					
	Kiyosumi		7 11 55·4	8·8	3	8	0·61	9	0·61					I
	Titibu			10·8	1	4	0·76	4	0·76					
	Tôgane			7·5	1·5	16	0·27	20	0·27					
	Sakura			6·6	1·5	60	0·33	24	0·33					
	Koyama			13·0	1·5	36		16						

(*to be continued.*)

List I. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total.	N.S.		E.W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
19	Tôkyô	April 5	17 57 21·3	14·6	15	124	2·33	90	2·33		140·86	35·33	50	I
	Mitaka		17 57 22·2	16·3	8	126	2·50	128	3·00					
	Tukuba		17 56 17·5	15·8	1·6	24	0·48	30	0·67					
	Kamakura		17 57 23·8	14·7	8	70	4·70	36	4·70					
	Misaki			18·5	10	203	2·41	171	2·41					
	Kiyosumi		17 57 17·0	14·4	6	120	1·76	150	1·65					
	Titibu			24·6	7			40	1·78					
	Tôgane			9·6	10	430	2·15	810	2·68					
	Itô			24·1	6	28		36						
	Koyama				5	136		60						
	Susaki		17 57 28·2	21·0	5	12	1·2	12	2·8					
20	Tôkyô	7	4 10 10·6	26·2	30	825	1·00	800	1·06		141·50	37·11	60	II
	Komaba			25·8										II
	Mitaka		4 10 11·5	26·5	20	760	1·38	610	1·38					
	Tukuba		4 10 02·2	18·8	7									III
	Kamakura		4 10 18·9	28·5	18	1314	5·3	1656	4·6					I
	Misaki			31·2	20	450	2·08	342	2·08					
	Kiyosumi		4 10 17·5	30·5	20					N32°E, d				II
	Titibu			26·8	15			560	1·50					
	Tôgane			26.5	20	640	1·28	840	1·30					III
	Itô			34·3	13	511		380						I
	Koyama			34·1	10	2180	3·61	800	3·61					I
	Yosiwara			34·2	15			160	2·70					
	Susaki			39·0	18	300	5·00	308	6·00	S33°W				
21	Tôkyô	11	19 53 58·3	8·9	5	260	0·45	230	0·46		140·05	35·61	60	II
	Komaba			9·6										II
	Mitaka		19 54 00·9	10·4	7	130	0·42	116	0.42					
	Tukuba		19 54 00·2	9·3	1·7	29	0·17	16	0·17					I
	Kamakura		19 54 00·7	11·1	6	126	0·47	116	0·47	N45°E, d				II
	Misaki			10·8	5	142	0·79	92	0·79					I
	Kiyosumi		19 53 59·2	9·9	5	58	0·76	76	0·76					II
	Titibu			1·48	4			42	0·94					
	Tôgane			8·8	8	220	0·76	190	0·76					
	Sakura			7·8	9	396	0·61	130	0.61					
	Itô			14·0	1·8	52	0·27	76	0·21					
	Koyama			14·0	4	112	0·6	140	0·4					
	Yosiwara			17·2	4	200	0·3	104	0·3					
	Susaki		19 54 11·8	16·7	3	8	0·8	8	0·4					
22	Tôkyô	15	19 33 42·7	17·2	30	520	1·68	820	1·55	N11°W, u	140·00	34·52	60	II
	Komaba			16·8										II
	Mitaka		19 33 43·7	17.8	40	730	1·82	380	1·82					
	Tukuba		19 33 47·1	24·7	1·8									
	Kamakura		19 33 37·5	15·3	17	450	0·65	2900	1·46	N39°W, u				III
	Misaki			12·5						N 50°W				II
	Kiyosumi		19 33 29·5	18·0	25			920	1·94	N7°E				II
	Titibu			24·0	5	262	1·62	312	2·03					
	Tôgane			16·3	25	380	1·46	510	1·83	N12°E				II
	Sakura			18·0	20	800	2·87	680	2·87					
	Itô			14·5	16	3320	0·62	1520	0·62					II
	Koyama			18·3	14	860	0·90	2080	1·17					I

(*to be continued.*)

List I. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total.	N. S.		E. W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
	Yosiwara			22·5	14	4200	2·30	1680	2·00	S 72° E				
	Susaki	April 15	19 33 37·4	14·7	21	1725	5·0	930	4·00					II
23	Tôkyô	20	1 15 00·4	69·9	17	366	1·32	413	1·32	NslightW,u	138·56	29·92		I
	Komaba			70·0										I
	Mitaka		1 15 00·7	70·0	35	170	1·68	250	1·68					
	Kamakura		1 14 58·2	66·8	13·5	240	0·68	114	0·78	N, u				
	Misaki			65·2	12	353	2·08	155	1·85	N 22° E				I
	Kiyosumi		1 14 55·5	68·2	15	460	4·73	370	4·73	N26°E,u.				
	Tôgane			69·8	15	616	2·13	320	2·13					I
	Sakura			72·0	17	500	2·12	320	2·12					
	Koyama			78·0	9	560	2·69	520	3·42					
	Susaki		1 14 51·6	62·4	11	252	6·0	140	4·8	N5°W				
24	Tôkyô	27	7 47 51·8	15·1	20	608	0·68	1050	0·65	N 13°W,u	139·84	34·65	30	II
	Komaba			14·8										II
	Mitaka		7 47 51·6	16·0	6	133	0·70	312	0·62					
	Tukuba		7 47 57·0	20·8	1·6	24		42						I
	Kamakura		7 47 50·2	10·4	11	244	0·64	508	0·73	N 32°W				II
	Misaki			9·9	10	351	1·02	271	1·02	N 38°W				II
	Kiyosumi		7 47 43·7	8·0	11	104	0·69	112	0·69	N 26°E,u				II
	Titibu				6	40	1·05	60	1·05	N 45°W				
	Tôgane			13·8	15	276	0·78	230	0·73					
	Sakura			16·2	15	232	1·15	170	1·15					
	Koyama			15·7	6	600	0·81	340	0·81					I
	Yosiwara			17·0	6	200	0·6	200	0·5					
	Susaki		7 47 46·9	10·5	10	104	0·61	112	0·81					I
25	Tôkyô	May 3	4 47 00·7	9·8	4	20	0·32	24	0·32		140·22	35·37	50	I
	Mitaka		4 47 02·2	9·5	4	** 15	0·33	* 18	0·39					
	Tukuba		4 47 02·1	10·8	0·8	6	0·69	6	0·60					
	Kamakura		4 47 02·2	8·8	2	42	0·26	25	0·18					
	Misaki			9·4	4	46	0·51	32	0·51					
	Kiyosumi		4 47 00·1	7·6	3	46	0·46	32	0·46					
	Tôgane			7·4	3	146	0·70	146	0·70					I
														I
26	Tôkyô	9	19 08 01·4	7·8	4	165	0·31	136	0·31		139·63	36·07	40	II
	Komaba			8·4										II
	Mitaka		19 08 03·4	8·0	5	125		208						
	Tukuba		19 07 59·4	5·6	1·8									II
	Kamakura		19 08 08·8	11·3	5	66	0·38	72	0·46					
	Misaki			14·2	6	60	0·50	66	0·50					
	Kiyosumi		19 08 07·3	15·7	3	36	2·20	24	2·65					
	Titibu			9·1	3	50	0·31	30	0·40					
	Tôgane			13·6	4	56	0·74	45	0·74					
	Koyama			12·8	4	144	0·28	220	0·36					
	Yosiwara			19·0	4	112	0·4	52	0·4					
27	Tôkyô	11	9 24 48·8	10·1	2	73	0·54	38	0·54		139·50	35·80	70	I
	Komaba			10·8										I
	Mitaka		9 24 47·3	10·1	1	** 35	0·34	* 20	0·34					
	Tukuba		9 24 48·0	10·4	1	9	0·12	8	0·15					I
	Kamakura		9 24 51·7	11·7	1·5	24	0·32	10	0·21					

(*to be continued.*)

List I. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N.S.		E.W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°		
	Misaki	May 11		19·1	2	4	0·95	5	0·95					
	Tôgane			14·3	1·5	10	0·60	5	0·60					
	Sakura			12·5	1·5	12	0·29	10	0·29					
28	Tôkyô	17	20 53 48·6	8·7	8	350	0·79	454	1·02	S40°E	139·87	35·41	60	II
	Komaba			8·8										II
	Mitaka		20 53 49·4	9·7	5	480	0·61	480	0·61					
	Tukuba		20 53 50·2	9·9	1·8	39	0·47	42	0·66					I
	Kamakura		20 53 50·0	10·2	7	404	0·62	346	0·62					II
	Misaki			10·1	6	196	0·64	262	0·64					I
	Kiyosumi		20·53 48·8	8·7	7	108	0·68	172	0·68					II
	Titibu			12·8	3	60	0·74	80	0·74	S45°E				
	Tôgane			9·9	8	84	0·70	154	0·70					
	Sakura			8·4	10	190	0·79	150	0·59					
	Koyama			11·6	3	188	0·36	360	0·36					I
	Yosiwara			15·6	5	500	0·2	192	0·2					
	Susaki		20 53 59·3	15·3	2·5	32	0·36	20	0·38	N41°E				I
29	Tôkyô	21	15 39 50·5	10·5	5	69	0·33	84	0·33		139·51	36·37	40	I
	Mitaka		15 39 54·9	10·4	4	** 36	0·52	* 34	0·42					
	Tukuba		15 39 47·6	7·8	1·2	10	0·21	8	0·22					I
	Kamakura		15 40 03·8	15·8	3	12	0·36	4	0·24					
	Kiyosumi		15 40 05·9	18·5	3			10	1·56					
	Titibu			9·1	2	20	0·17	20	0·17					
	Tôgane			15·9	5	12	0·83	10	0·73					
30	Tôkyô	31	8 04 14·2	13·9	20	730	1·65	580	1·65	S41°W,u	140·52	36·25	60	II
	Komaba			13·9										II
	Mitaka		8 04 15·9	14·9	16	960	1·72	730	1·77	S45°W				
	Tukuba		8 04 07·4	8·2	5·5									III
	Kamakura		8 04 20·9	19·4	15	1530	4·06	324	4·06					I
	Misaki			21·5	15	1280	2·85							I
	Kiyosumi		8 04 18·7	22·3	15	1650	3·43	1380	3·43					II
	Tôgane			12·6	18	610	1·00	640	1·50					III
	Sakura			9·7	18	1080	1·25	1460	1·25					III
	Koyama			22·3	7	1520	1·5	1160	2·0					I
	Susaki		8 04 26·1	28·0	10	60	1·2	44	1·1					
31	Tôkyô	June 1	10 36 01·9	18·6	40	84	0·65	136	0·65		140·08	34·31	70	I
	Komaba			17·8										I
	Mitaka		10 36 02·7	19·1	10	42	0·74	125	0·74					
	Tukuba		10 36 05·9	24·4	1·5	7	0·70	20	0·83					
	Kamakura		10 35 58·2	14·4	9	21	0·50	18	0·50					
	Misaki			14·2	10	65	0·74	23	0·74					
	Kiyosumi		10 35 51·8	12·6	8	490	3·88	244	3·33					I
	Tôgane			12·0	11	160	2·63	104	2·63					I
	Koyama			17·6	8	124	0·57	200	0·91					
	Susaki		10 35 57·7	14·4	11	280	4·00	132	2·00	S45°E				
32	Tôkyô	3	16 17 24·1	7·5	18	1319	0·48	1090	0·48		140·25	35·94	35	III
	Komaba			10·5										III
	Mitaka		16 17 28·2	9·2		146	0·47	125	0·49					
	Tukuba		16 17 22·3	6·9	4·8	586		380	0·69	S31°E,d				II

(*to be continued.*)

List I. (*continued.*)

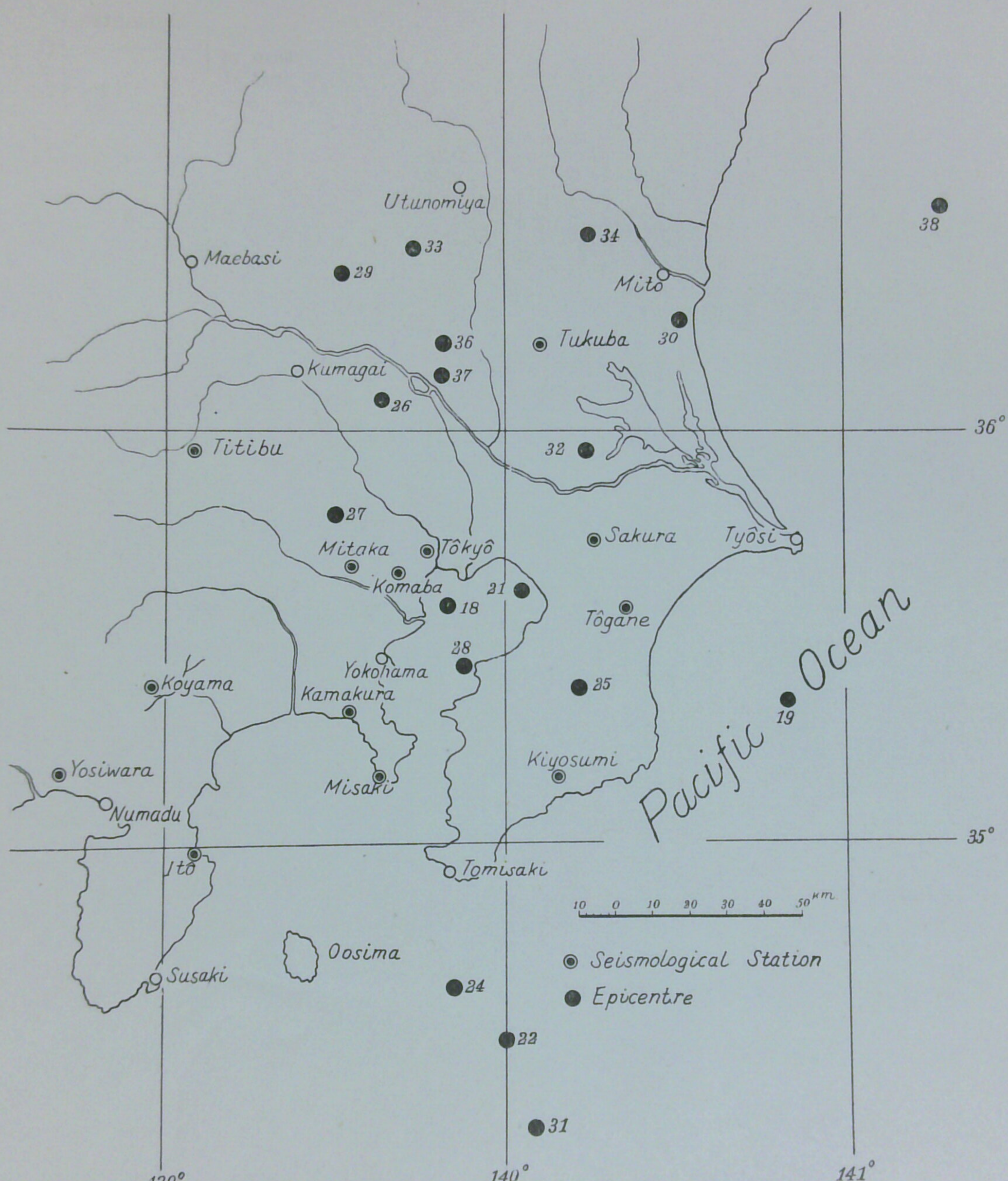
No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N. S.		E. W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
	Kamakura	June 3	16 17 33·4	15·8	9	366	0·73	224	0·73					I
	Misaki			14·1	10	375	1·56	233	1·56					I
	Kiyosumi		16 17 28·2	12·4	10	180	1·10	140	1·03					II
	Tôgane			7·0	13	1010	1·07	1190	1·07					III
	Sakura			5·5	13	1660	1·12	2930	1·12					III
	Koyama			18·4	5	1320	1·89	960	1·89					I
	Susaki	4	16 17 41·2	17·0	7	40	1·60	40	1·6					
33	Tôkyô		11 35 27·2	17·1	3	81	0·49	57	0·49		139·72	36·43		I
	Mitaka		11 35 25·2	17·7	4	** 53	0·42	* 46	0·42					
	Tukuba		11 35 24·5	14·6	1·5	18	0·22	11	0·19					I
	Kamakura		11 35 34·5	17·6	1·5	50	0·54	10	0·32					
	Misaki			19·0	3	18	0·52	14	0·46					
	Kiyosumi		11 35 31·6	20·3	2	7	1·47	4	1·23					
	Tôgane			19·7	3	6	1·05	12	1·05					
	Sakura			16·3	2			12	1·03					
	Koyama			16·7	2	68	0·40	68	0·40					
34	Tôkyô	12	22 07 09·9	13·7	7	70	0·38	60	0·38		140·25	36·47	50	I
	Mitaka		22 07 10·9	15·8	5	55	0·39	61	0·39					
	Tukuba		22 07 02·3	7·6	2			210	0·38					II
	Kamakura		22 07 18·5	21·0	3	36	0·43	12	0·27					
	Misaki			19·8	3	20	0·54	19	0·54					
	Kiyosumi		22 07 17·4	16·8	3	10	0·99	8	0·75					
	Titibu			16·1	3	24	0·18	36	0·27					
	Tôgane			14·0	5	12	0·38	8	0·38					
	Sakura			12·3	7	40	0·46	80	0·69					
	Koyama			21·9	2	56	0·52	64	0·42					
	Yosiwara			23·5	2	100		32						
35	Tôkyô	13	10 53 22·4	105·7	20	144	1·21	79	1·12		146·79	43·76		I
	Mitaka		10 58 22·3	107·0	10	**104	1·09	* 124	1·29					
	Tukuba		10 53 12·9	102·8	3·8	22		40						I
	Kamakura			122·0	16			100	1·12					
	Misaki			112·5	10	67	1·45	39	1·45					
	Kiyosumi		10 53 25·9	114·0	15	70	4·87	270	5·50					
	Titibu			106·1	10	86	1·52	56	1·53					
	Tôgane			113·2	20	214	3·23	140	3·07					
	Sakura			105·0	10	150	1·44	140	1·44					
	Koyama			112·1	11	140	1·59	200	1·59					
36	Tôkyô	15	14 31 48·3	8·5	18	365	0·56	430	0·56		139·81	36·21	40	II
	Komaba			10·5										II
	Mitaka		14 31 49·7	10·3	9	333	0·93	685	0·94					
	Tukuba		14 31 45·4	6·5	2			56	0·22					II
	Kamakura			13·1	9			358	1·33					I
	Misaki			14·0	6	89	1·27	108	1·27					
	Kiyosumi		14 31 56·0	15·3	10	140	1·08	96	1·08					I
	Titibu			9·7	6	314	0·40	316	0·40					
	Tôgane			9·9	10	160	2·32	70	1·86					
	Sakura			9·1	10	232	0·86	130	0·57					
	Koyama			13·6	6	480	0·49	850	0·49					I

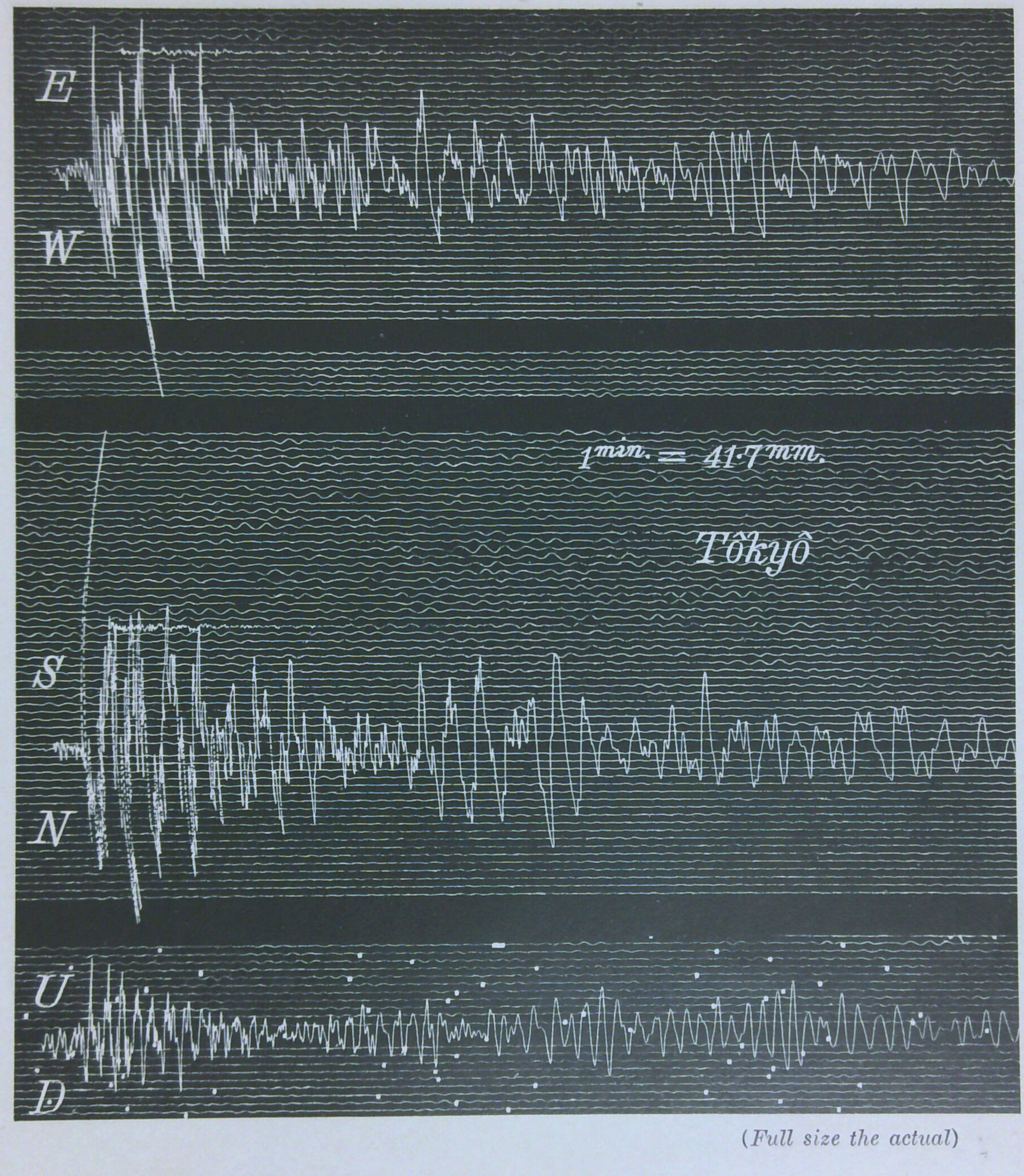
(*to be continued.*)

List I. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N. S.		E. W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
	Yosiwara	June 15		18·5	7	380	0·4	184	0·4					
	Susaki		14 32 03·4	18·2	6	40	0·7	28	0·8					
37	Tôkyô	21	8 59 14·3	7·2	3	88	0·31	65	0·31		139·81	36·13	30	I
	Komaba			7·2										I
	Mitaka		8 59 16·4	8·9	4	62	0·44	73	0·49					
	Tukuba		8 59 12·7	5·6	1·5			48	0·22					II
	Kamakura		8 59 23·1	10·3	2	14	0·30	62	0·51					
	Misaki			13·2	3	11	0·61	15	0·61					
	Kiyosumi		8 59 21·8	14·2	3	16	0·90	10	0·78					
	Titibu			9·3	2·5	8	0·49	8	0·49					
	Tôgane			11·7	3	26	0·41	8	0·41					
	Sakura			8·6	3	130	0·18	140	0·27					
	Koyama			16·7	2·5	56	0·81	104	0·76					
38	Tôkyô	27	5 39 34·4	17·9	20	380	2·57	334	2·97		141·29	36·53	40	I
	Mitaka		5 39 36·3	18·6	10	156	2·52	208	2·32					
	Tuknba		5 39 25·9	11·8	1·4	36	0·18	27	0·19					I
	Kamakura		5 39 39·7	19·3	12	260	2·80	64	0·25					
	Misaki			21·6	10	247	2·36							
	Kiyosumi		5 39 39·0	23·3	13	180	3·82	130	3·13					
	Titibu			22·5	7	50	2·03							
	Tôgane			14·6	12	530	3·45	500	3·67					
	Sakura			13·8	14	620	3·23	550	2·68					
	Koyama			27·4	6	188	1·39	172	1·16					
	Susaki		5 39 55·9	24·8	7	20	4·4	24	3·2					

**.....NE. SW. Component. *.....NW. SE. Component.





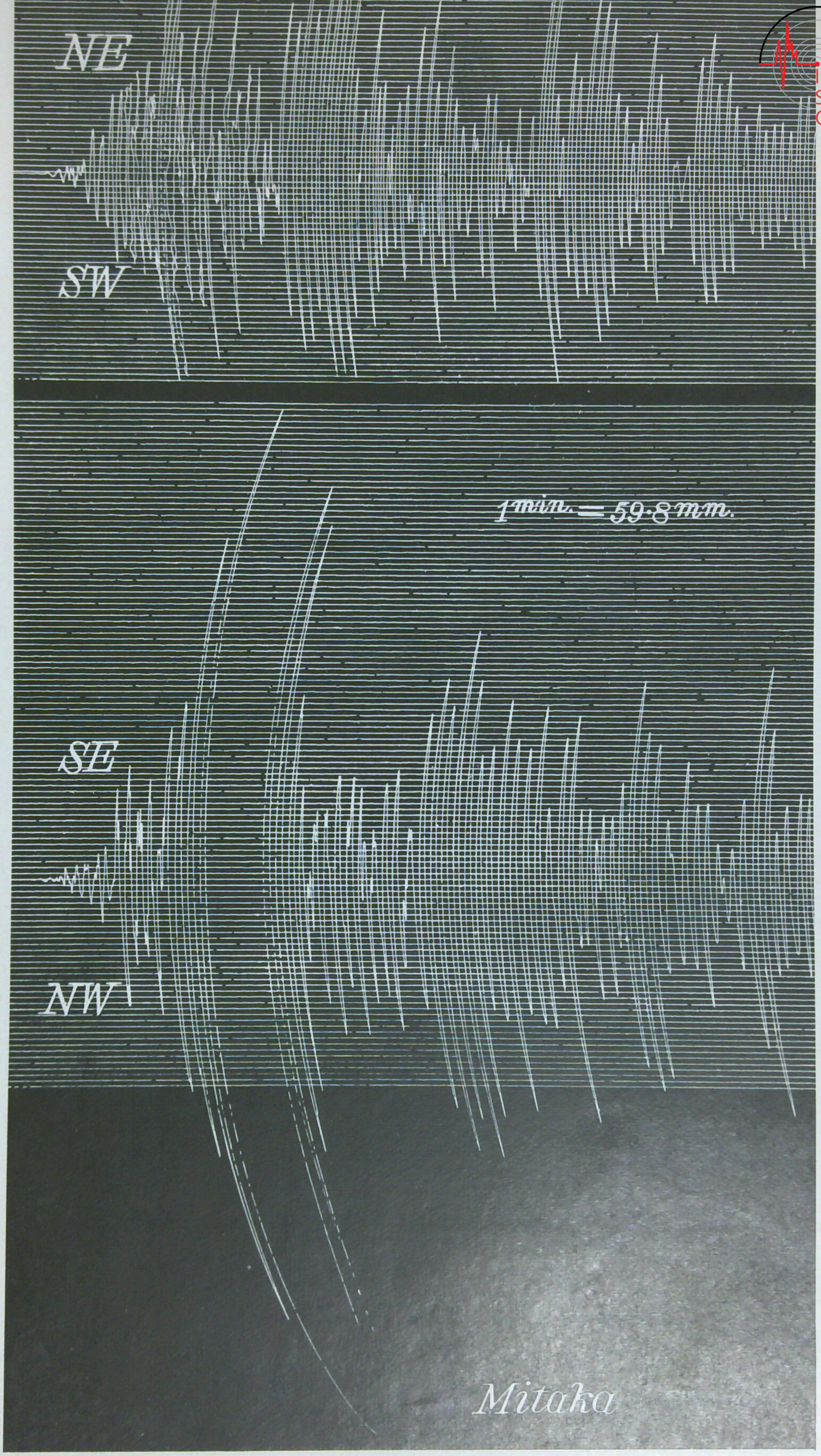
（地震報告　一九三四　第二號　[b]圖版）

(*Full size the actual*)

Fig. 2. Seismograms of the earthquake of June 3, 1934. (Eqk. No. 32.)

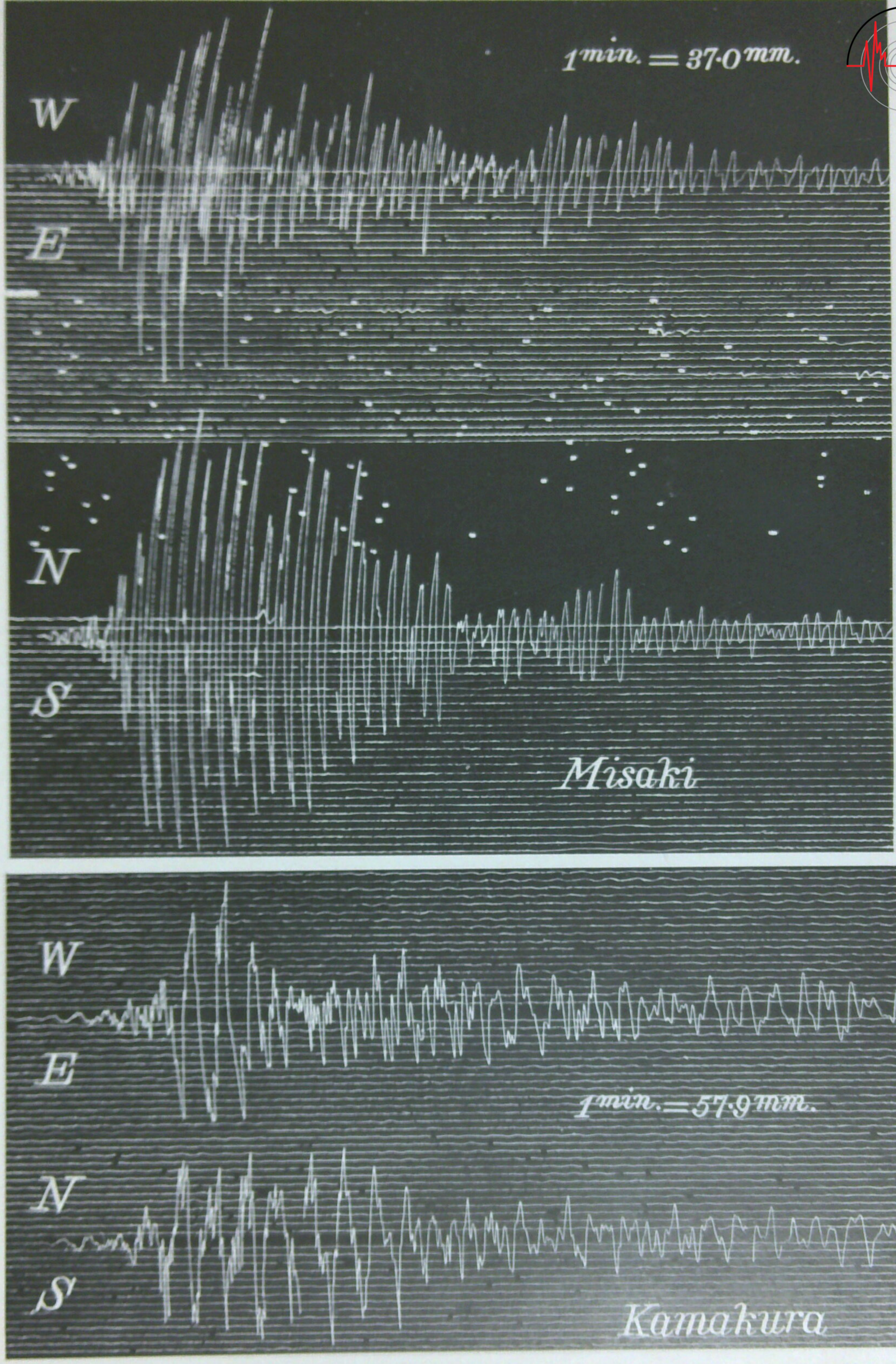
Instrumental Constants :

V (N. S., E. W.)=50
V (vert.) =28
T (N. S., E. W., vert,)=7^s
ε (N. S., E. W., vert.)=1·5



(*Full size the actual*)

Fig. 3. Seismograms of the earthquake of June 3, 1934. (Eqk. No. 32.)

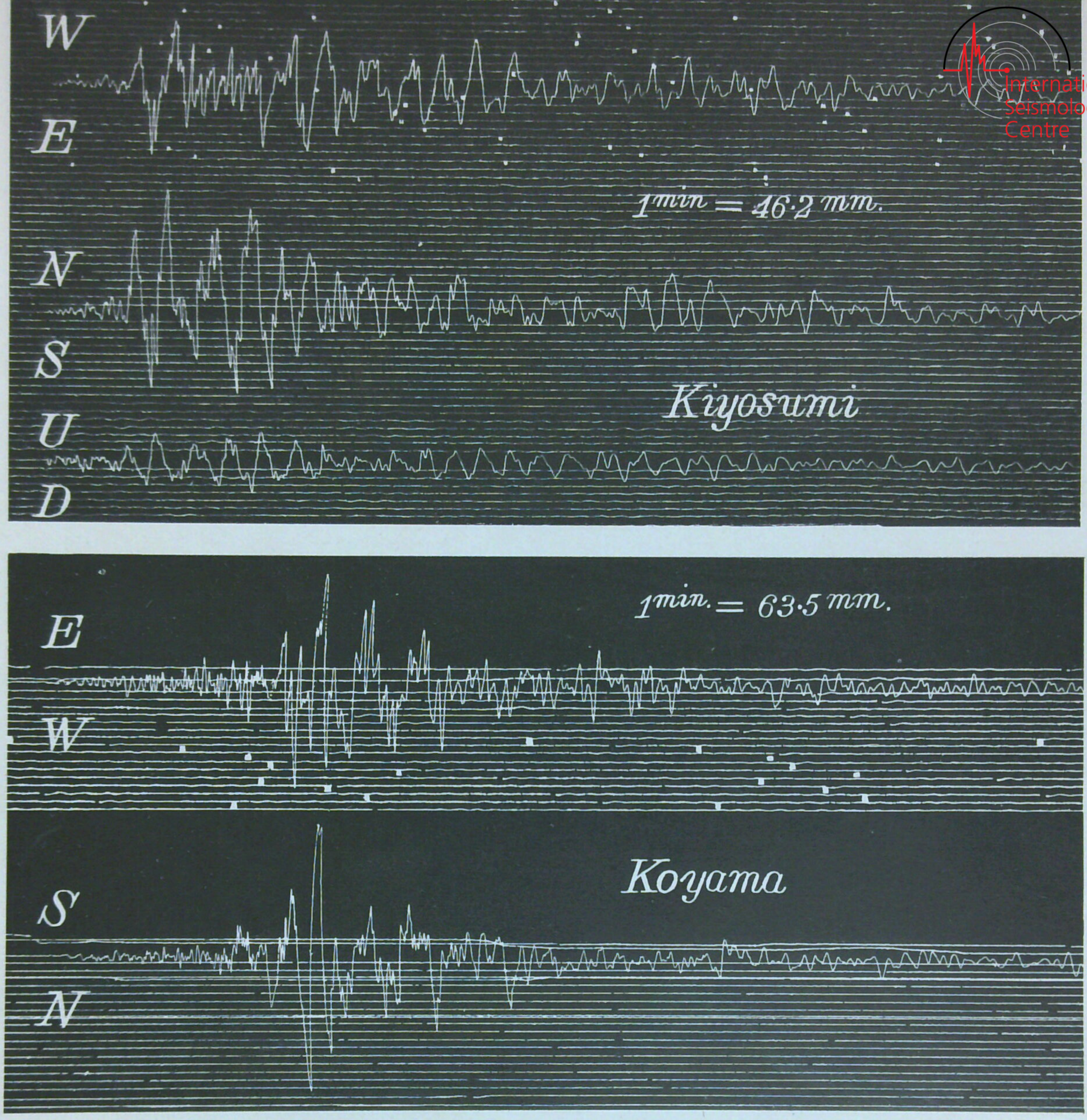


(*Full size the actual*)

Fig. 4. Seismograms of the earthquake of June 3, 1934. (Eqk, No. 32.)

Instrumental Constants :

	Misaki	Kamakura
V (N. S., E. W.)	120	50
T („ „)	4^s	5^s
ε („ „)	1·5	1·3

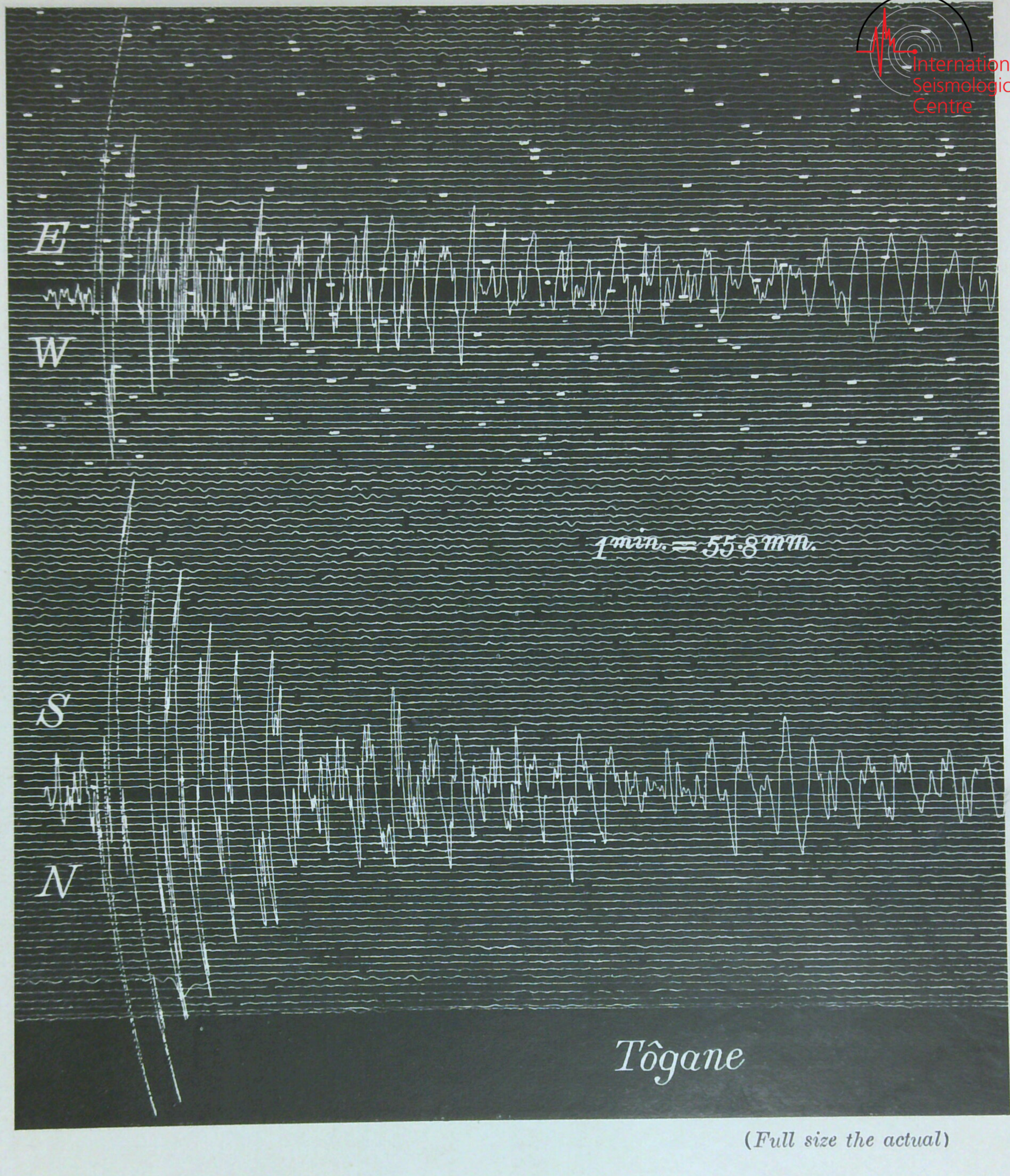


(*Full size the actual*)

Fig. 5. Seismograms of the earthquake of June 3, 1934. (Eqk. No. 32.)

Instrumental Constants :

		Kiyosumi	Koyama
V (N. S., E. W.)		50	50
V (vert.)		28	
T (N. S., E. W. vert)		6s	6s
ε	(N. S.)	3·7	1·6
	(E. W.)	1·3	1.6
	(vert.)	1·1	



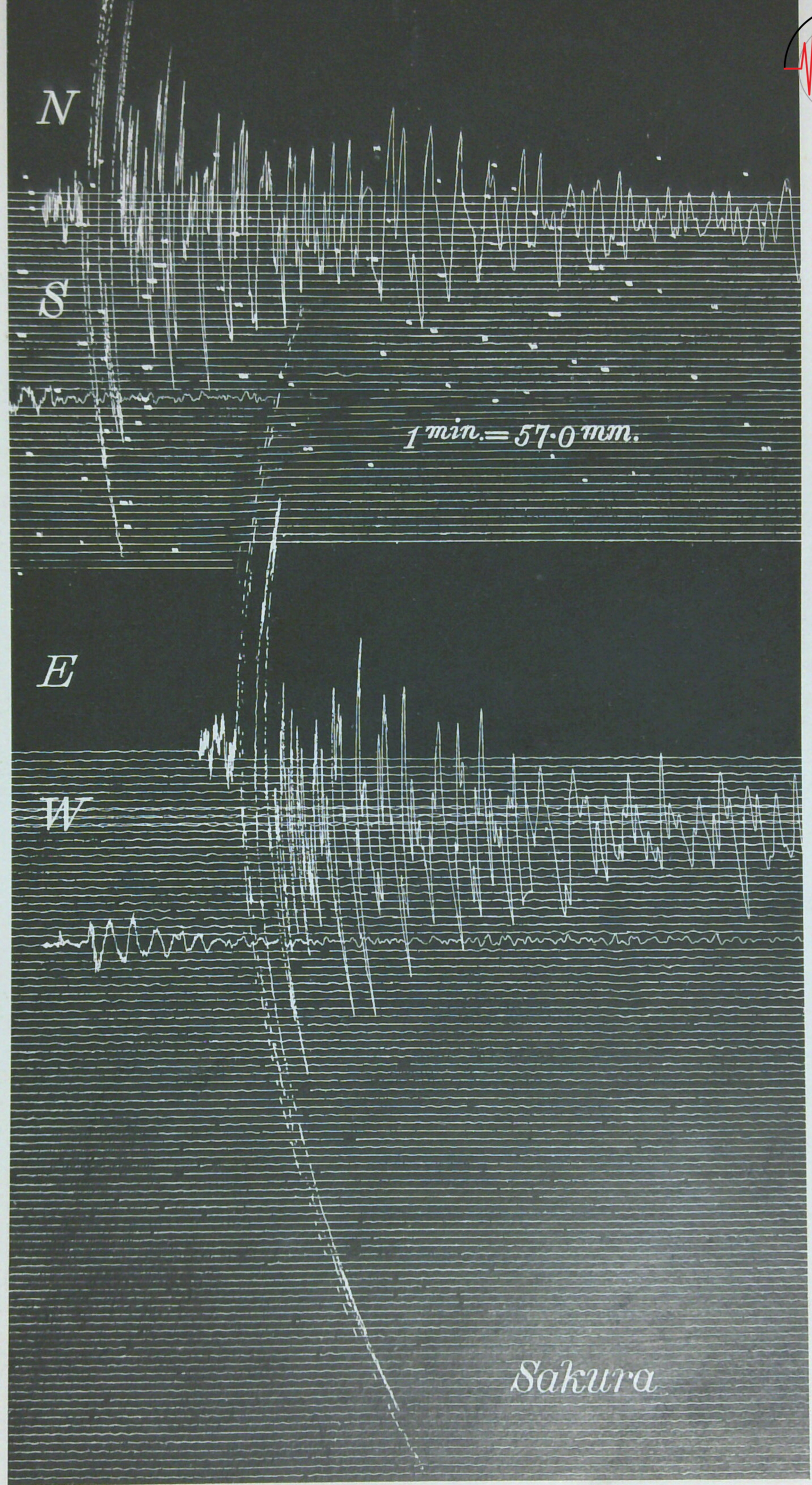
(地震報告　一九三四　第二號　圖版)

(*Full size the actual*)

Fig. 6. Seismograms of the earthquake of June 3, 1934. (Eqk. No. 32.)

Instrumental Constants :

V (N. S., E. W.) = 50
T („ „) = 5^{s}
ε („ „) = 1·4



(地震報告　一九三四　第二號　圖版)

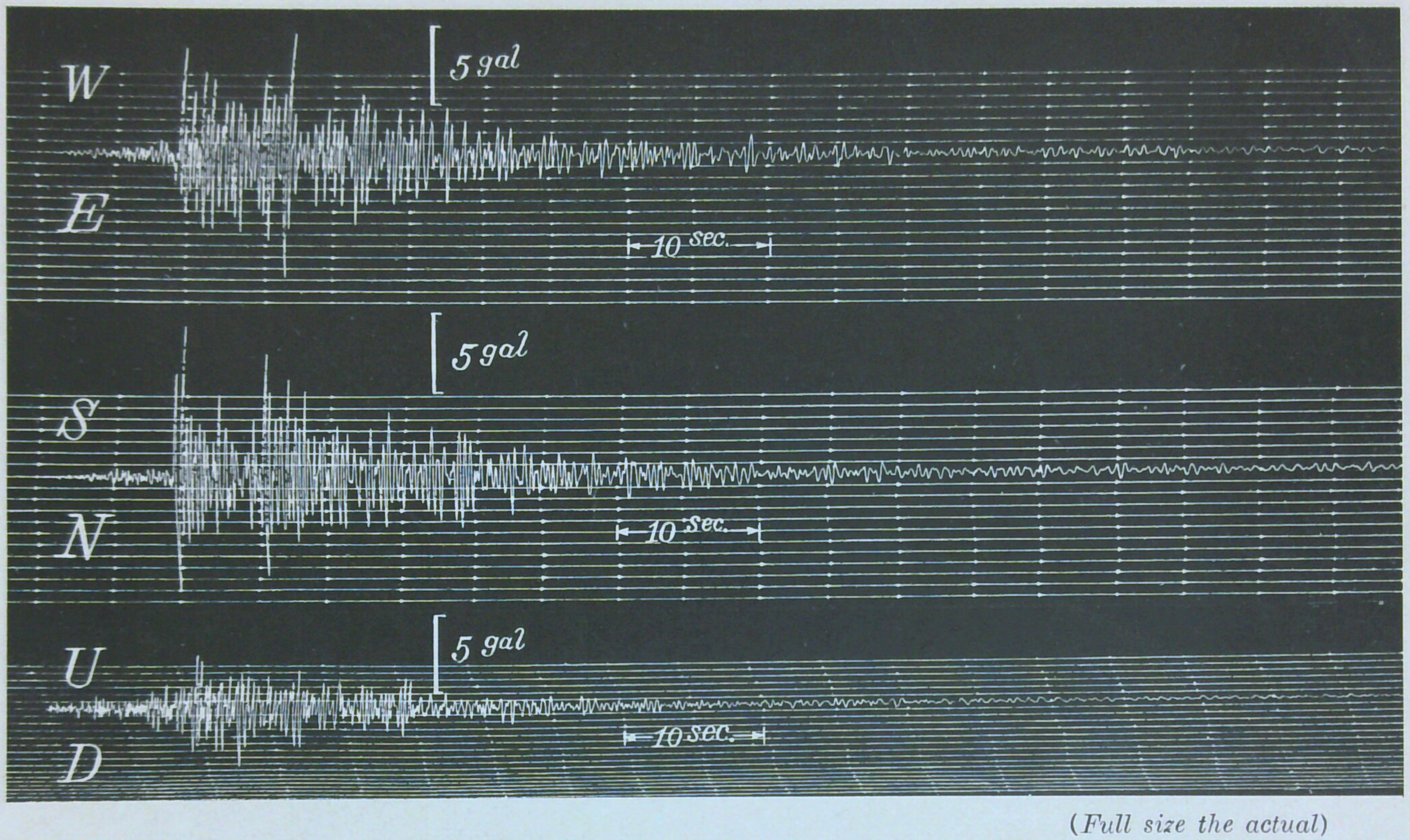
(*Full size the actual*)

Fig. 7. Seismograms of the earthquake of June 3, 1934. (Eqk. No. 32.)

Instrumental Constants:

V (N. S., E. W.)=50

T (　　)= 3ˢ



(*Full size the actual*)

Fig. 8. Ishimoto acceleration seismograph diagrams of the earthquake of June 3, 1934, obtained at Hongô (Tôkyô).

昭和9年　第3冊

SEISMOMETRICAL REPORT

OF THE

EARTHQUAKE RESEARCH INSTITUTE

TOKYO IMPERIAL UNIVERSITY

1934

Part 3

(July 1—September 30, 1934)

Published by the Institute
Tôkyô 1935

Seismometrical Report.

(Earthquake Research Institute, Tôkyô, Japan.)

(Part 3, 1934.)

(1) Sensible earthquakes in Tôkyô for the period July 1—September 30, 1934.

List I.

Time = Central standard time of Japan. (Mean solar time of the meridian 135°E.)

Notation :

Prel. tr. = Preliminary tremor.
N. S. = North-South component.
E. W. = East-West component.
2A = Range of motion.
T = Period of earthquake motion.
λ = Longitude.
φ = Latitude.

Intensity : 0 (insensible), I (slight), II (rather weak), III (weak), IV (rather strong), V (strong), VI (violent).

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N. S.		E. W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ s		μ s			°	°	km	
39	Tôkyô	July 13	19 17 57·1	9·8	2	20	0·54	16	0·41		139·04	35·46	30	I
	Komaba		19 17 13·5	8·4	2	50	0·4	60	0·32					
	Mitaka		19 17 12·1	7·3	2	** 53	0·31	* 46	0.31					
	Titibu			7·8	1·5	8	0·41	20	0·41					
	Tôgane				1	4	0·39							
	Sakura			12·5										
	Koyama			4·0	2	452	0·40	680	0·40					I
	Yosiwara			6·2	1·5	128	0·27	32	0.27					
40	Tôkyô	16	5 06 55·5	5·1	3	145	0·45	97	0·43	N 68° E,u	139·54	35·66	30	I
	Komaba		5 06 54·1	4·6	3	180	0·4	190	0·24					I

(to be continued.)

List I. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total.	N. S.		E. W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
	Mitaka	July 16	5 06 55·5	4·2	3	**769	0·37	* 260	0·37					
	Tukuba		5 07 23·7	10·3										
	Kiyosumi		5 07 03·0	12·0	2	10	0·66	6	0·66					
	Titibu			4·9	2			16	0·58					
	Tôgane			10·6	2·5	12	0·77	14	0·77					
	Koyama			7·6	2	56	0·37	68	0·37					
	Yosiwara			10·1	1·5	72	0·34	36	0·34					
41	Tôkyô	20	22 39 19·4	10·2	15	350	0·72	227	0·77		140·55	35·89	40	II
	Komaba		22 39 20·8	10·4	13	244	3·84	300	2·00					II
	Mitaka		22 39 22·5	13·0	10	**174	1·03	* 98	1·03					II
	Tukuba		22 39 17·2	7·0										II
	Kamakura		22 39 27·3	10·7	6	30	0·51	150	0·85					
	Kiyosumi		22 39 20·8	12·9	10	100	1·12	40	1·12					II
	Titibu			15·1	5	36	0·72	52	0·72					
	Tôgane			7·0	10	430	0·84	636	0·82					III
	Sakura			5·8	10	1536	0·82	986	0·82					III
	Koyama			18·5	6	480	2·83	292	2·53					
	Yosiwara			20·5	4	132	0·95	70	0·95					
	Susaki		22 39 37·0	21·8	4	16	1·00	14	1·00					
42	Tôkyô	24	19 12 46·7	10·6	4	60	0·41	52	0·41		140·13	35·06	30	I
	Komaba		19 12 46·8	10·2	5	40	0·4	60	0·4					
	Mitaka		19 12 48·5	10·4	5	** 74	0·43	* 81	0·43					
	Tukuba		19 12 52·8	14·8										
	Kamakura		19 12 45·5	8·5	4	130	0·6	134	0·7					
	Kiyosumi		19 12 39·3	4·1	5	430	0·25	380	0·25					III
	Titibu			17·2	4	24	0·79	16	0·85					
	Tôgane			8·0	4	128	0·55	120	0·60					I
	Susaki		19 12 51·1	14·0	1·5	10	0·4							
43	Tôkyô	28	21 13 35·2	29·8	10	110	0·47	90	0·47		141·50	37·85		I
	Komaba		21 13 36·1	31·4	8	136	0·39	100	0·24					I
	Mitaka		21 13 36·8	32·0	6	** 79	0·43	* 50	0·43					
	Tukuba		21 13 26·5	24·5										
	Kamakura		21 13 43·0	34·7	6·5	32	0·60	44	0·60					
	Misaki			35·9	6	22	0·52	15	0·52					
	Kiyosumi		21 13 38·2	34·7	8	10	0·67	6	0·67					
	Titibu			31·6	6	36	0·83	64	0·88					
	Tôgane			30·9	8	45	0·85	30	0·85					
	Koyama			35·3	5	80	0·97	100	0·97					
44	Tôkyô	Aug. 2	17 07 07·5	8·7	4	130	0·48	93	0·48		140·07	35·93	60	I
	Komaba		17 07 09·3	9·1	4	116	0·64	120	0·80					I
	Mitaka		17 07 10·2	10·9	5	** 73	0·42	* 80	0·42					
	Tukuba		17 07 09·3	9·4	1·2	8	0·26	5	0·22					I
	Kamakura		17 07 17·0	10·3	3·5	124	0·39	86	0·44	N63°E,d				
	Misaki			12·3	4	68	0·57	67	0·57					
	Kiyosumi		17 07 08·1	11·1	3			36	0·73					
	Titibu			13·3	3	16	0·80	8	0·88					
	Tôgane			9·7	4	86	0·39	44	0·39					
	Sakura			8·3	4	76	0·72	76	0·58					
	Yosiwara			18·2	2	72	0·32	104	0·38					

(*to be continued.*)

List I. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total.	N. S.		E. W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ s		μ s			°	°	km	
45	Tôkyô	Aug. 2	17 32 42·6	9·3	5	203	0.61	50	0.61		140·12	35·63	60	I
	Komaba		17 32 42·5	9·3	4	50	0·56	50	0.24					
	Mitaka		17 32 43·8	10·6	3	** 34	0·42	* 40	0·42					
	Tukuba		17 32 43·3	9·4	1·3	8	0·21	6	0·18					I
	Kamakura		17 32 50·3	11·0	2	12	0·23	30	0·45					
	Misaki			12·0	3	26	0·58	38	0·58					
	Kiyosumi		17 32 43·6	9·6	2			12	0·55					
	Titibu			14·8	2	4	0·35	4	0·52					
	Tôgane			9·1	4	40	0·46	28	0·46					
	Sakura			7·4				56	0·57					
	Yosiwara			17·6	1·5	28	0·33	52	0·38					
46	Tôkyô	3	21 24 31·9	9·7	21	2368	1·28	4030	1·44		140·14	36·04	60	III
	Komaba		21 24 32·5	10·0	8	2610	1·60	1840	0·80	NE, d				III
	Mitaka		21 24 34·1	10·4	11	**1333	1·29	* 973	1·34	N 61° E				III
	Tukuba		21 24 29·7	7·2	2·7									II
	Kamakura		21 24 36.6	11·6	15	402	0·32	700	0·32	N37°E,d				I
	Misaki			13·8	12	520	1·01	595	1·01	N 27° E				I
	Kiyosumi		21 24 35·2	12·6	14			230	1·03					II
	Titibu			12·0	12	354	0·79	336	0·79	N 85° E				
	Tôgane			10·5	15	1030	2·00	1010	2·00	S 13° E				III
	Sakura			9·4		2664		574	0·76					
	Yosiwara			17·9	13	760	0·54	252	0·54					
	Susaki		21 24 45·8	18·8	8	49	0·6	112	0·6	N 29° E				I
47	Tôkyô	5	17 43 30·9	8·9	3	92	0·55	68	0·55		140·17	35·63	60	I
	Komaba		17 43 32·4	8·8	3	70	0·4	50	0·4					
	Mitaka		17 43 32·6	9·3	3	** 56	0·23	* 39	0·31					
	Kamakura		17 43 33·5	10·0	2	40	0·30							
	Misaki			11·6	3	42	0·55	31	0·55					
	Kiyosumi		17 43 32·2	9·4	2			26	0·41					
	Titibu			15·0	2	8	0·49	4	0·49					
	Tôgane			7·8	3	22	0·58	20	0.50					
	Sakura			8·0	3	24	0·60	21	0·60					
	Koyama			13·7	2	24	0·25	32	0·25					
48	Tôkyô	18	11 39 17·8	30·2	25	1725	2·57	1735	2·93	N74°W	136·98	35·68	15	I
	Komaba		11 39 17·9	29·2	23	2040	3·6	1800	4·00					I
	Mitaka		11 39 15·0	28·0	12+	1833	3·73	1562	2·43					I
	Tukuba		11 39 20·2	35·6	5									
	Kamakura		11 39 14·3	34·7	16	1600	1·7	5100	3·86	WslightN				
	Misaki			30·3	12	1290	1·94	930	1·94					
	Kiyosumi		11 39 18·6	37·8	20	690	3·85	710	2·73					
	Titibu			23·7	15	1740	2·96	1000	2·96					
	Tôgane			39·5	20	1000	3·87	1260	4·30					
	Sakura				20	960	3·00	1000	2·80					
	Koyama			21·8	16	2860	2·92	2550	2·92					
	Yosiwara			18·7	17	1720	2·16	3720	2·16					
	Asama			21·1	13									
	Susaki		11 39 10·4	24·5	13	960	3·0	840	3·0	N22°W				
	Gifu		11 38 43·5	4·2										
	Nagoya		11 38 46·1	7·3										
	Takayama		11 38 48·1	7·6										

(*to be continued.*)

List I. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N.S.		E.W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°		
	Hikone	Aug. 18	11 38 51·3	11·2										
49	Tôkyô	Sept. 1	20 17 42·2	7·9	10	860	0·68	600	0·77	S14°W	139·88	36·05	50	II
	Komaba		20 17 42·9	9·3	7	620	0·32	1060	0·56	SW, u				III
	Mitaka		20 17 42·6	9·0	10	**868	1·33	* 960	0·79	S64°W				II
	Tukuba		20 17 38·2	5·4	2·5					N40°E, u				III
	Kamakura		20 17 48·0	12·7	8	260	0·45	900	0·45	N27°E				I
	Misaki			14·2	8	174	0·58	217	0·58					I
	Kiyosumi		20 17 48·5	13·3	7	280	1·18	260	0·94	N16°W				II
	Tôgane			10·6	7	370	1·00							II
	Sakura			7·8	9	584	0·68	440	0·68					II
	Koyama			15·0	5	400	1·50	660	1·20					I
	Yosiwara			18·9	5	180	0·72	252	0·90					
	Susaki		20 17 57·9	18·4	5	54	0·7	48	0·6					
50	Tôkyô	17	9 30 31·4	6·9	8+	630	0·55	636	0·55	N61°E, d	140·00	35·77	50	II
	Komaba		9 30 32·7	8·0	7	420	0·4	300	0·8	E,d				II
	Mitaka		9 30 33·1	8·5	7	**331	0·85	241	0·8	N85°E				II
	Tukuba		9 30 33·8	7·4	3	70	0·32	126	0·31					II
	Kamakura		9 30 35·6	10·4	5	56	0·69	154	0·87	SW, u				
	Misaki			9·8	5	75	0·59	82	0·59					
	Kiyosumi		9 30 36·5	10·2	7	56	1·06	60	1·18					I
	Titibu			12·2	5	294	1·41	120	1·41					
	Tôgane			7·8	10	420	1·31	440	1·31	S34°E				II
	Sakura			7·5	10	730	1·04	530	1·04					II
	Koyama			14·6	5	70	1·17	92	1·17					
	Yosiwara			17·4	5	100	0·97	80	0·97					
51	Tôkyô	24	13 53 58·2	11·7	11	339	0·48	117	0·47	N69°E, u	138·85	35·43	15	II
	Komaba		13 53 55·9	10·4	10	320	1·36	310	1·20					I
	Mitaka		13 53 54·8	9·2	8	**316	0·11	* 666	0·41	N66°E				II
	Tukuba		13 54 06·0	16·6	1	20	0·59	24	0·55					
	Kamakura		13 53 54·0	8·1	7	204	0·52	344	0·65					II
	Kiyosumi		13 54 01·8	14·2	7	20	0·69	20	0·69					
	Titibu			8·6	6	78	0·35	80	0·33	N10°E				
	Tôgane			16·6	7	60	0·74	36	0·74					
	Koyama			2.5	3+	2680+				S18°E				III
	Yosiwara			5·2	6	3100	0·79	3450	0·79	N21°E				III
	Asama		13 54 04·0	14·7	4									
	Susaki		13 53 54·8	9·0	6	27	0·6	36	0·4	S				

**....NE. SW. Component. *....NW. SE. Component.

(2) *Conspicuous distant earthpuakes as observed in Tôkyô (Hongô).*

List II.

Date	Phase	Time of occurrence (G. M. T.)			Amplitude (2A)		Period	Probable epicentre
					μ		s	
1934		h	m	s				
July 18	*P*	19	49	22·7				
	S		57	02·1	(NS)	2675	25·5	16·°8 S, 167° E. (J. S. A.)
			57	11·3	(EW)	1660	26·0	
	L	20	02	19·3	(EW)	4400	36·3	
			02	26·3	(NS)	3100	39·0	
	M		04	54·0	(EW)	5460	20·8	
			04	56·3	(NS)	6000	29·5	
	F	23·5						
July 21	*P*	6	26	56·8				
	S	6	34	30·0	(NS)	2075	34·7	
			35	28·1	(EW)	1000	25·7	18·°2 S, 164° E (J. S. A.)
	L		39	05·7				
			39	53·9	(NS)	3050	33·2	
			40	37·4	(EW)	5567	39·3	
	M		42	14·8				
			43	23·1	(NS)	2175	17·3	
			46	56·1	(EW)	2200	17·8	
	F	9·4						

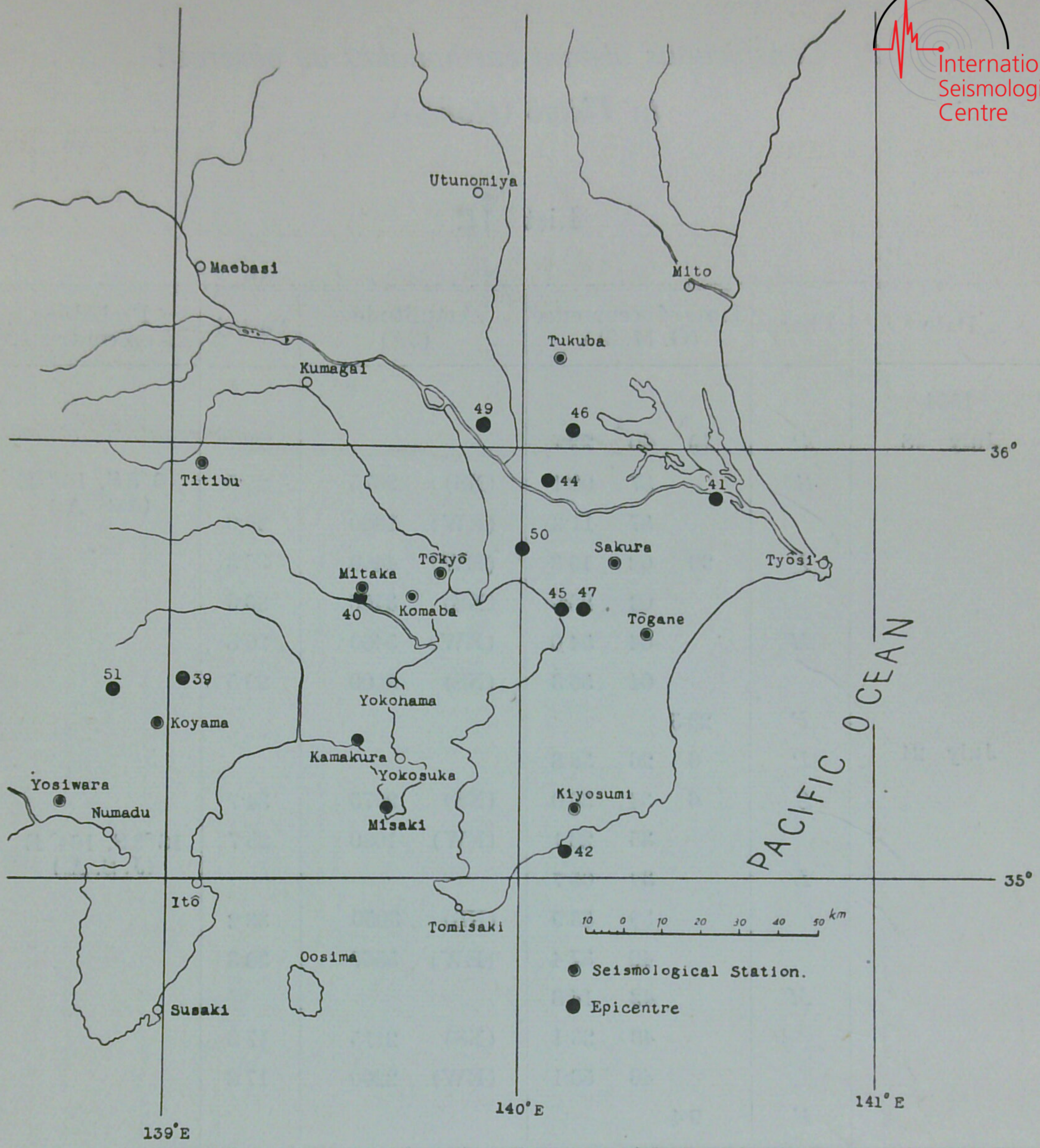
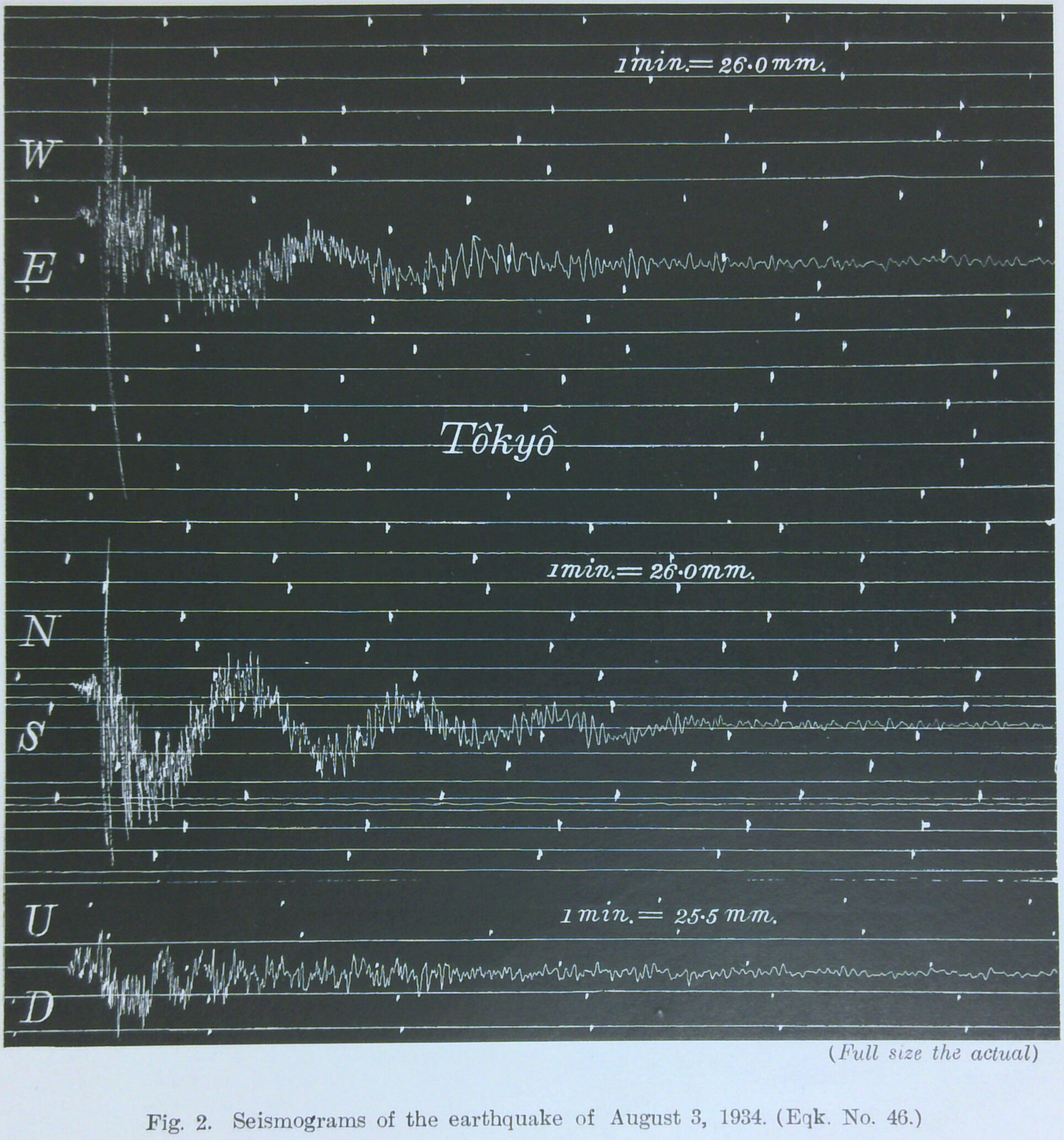


Fig. 1. Distribution of the earthquakes that were felt in Tôkyô during the period July 1- Sept. 30, 1934. (Figures attached to each dot are the earthquake number in List I.)

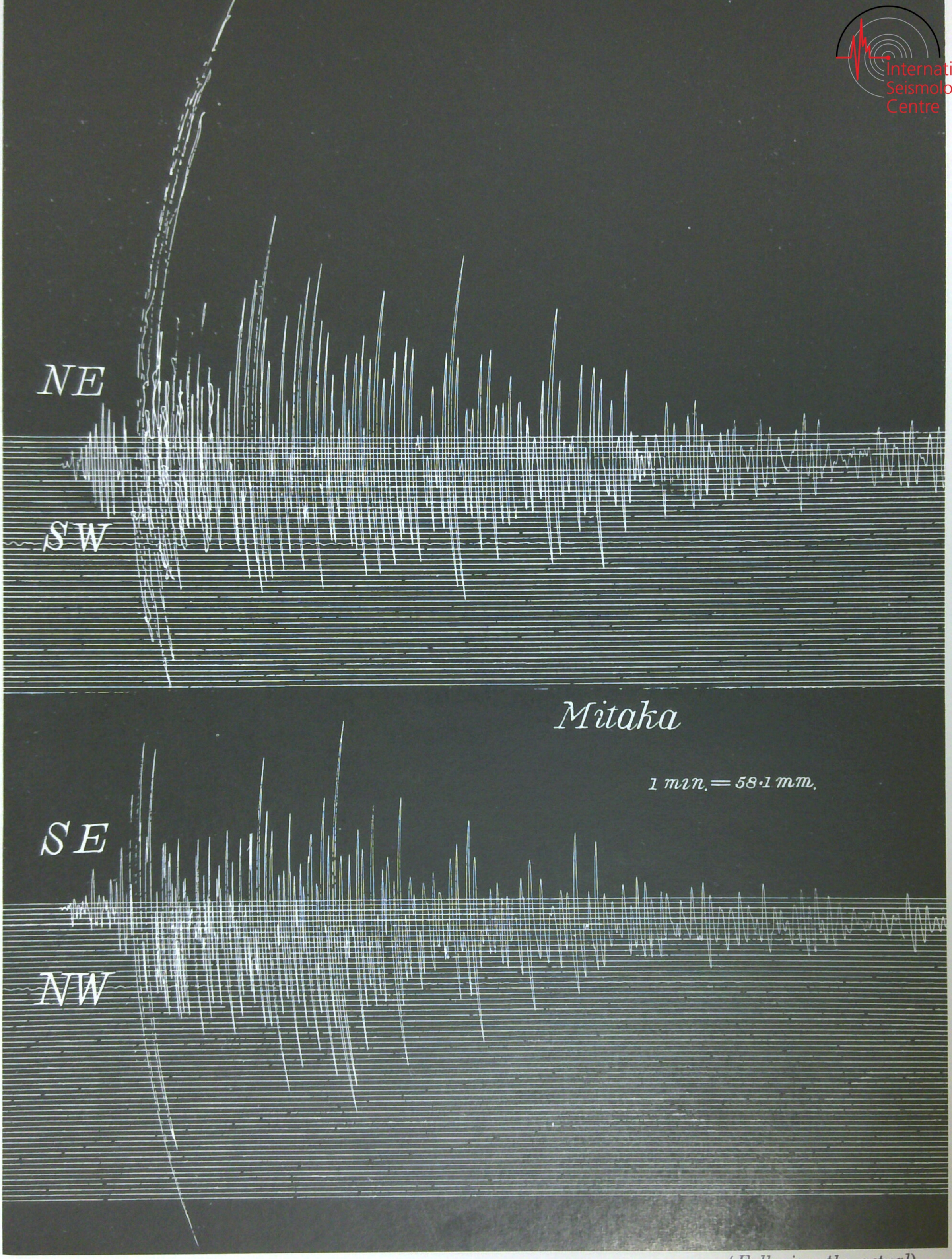


(*Full size the actual*)

Fig. 2. Seismograms of the earthquake of August 3, 1934. (Eqk. No. 46.)

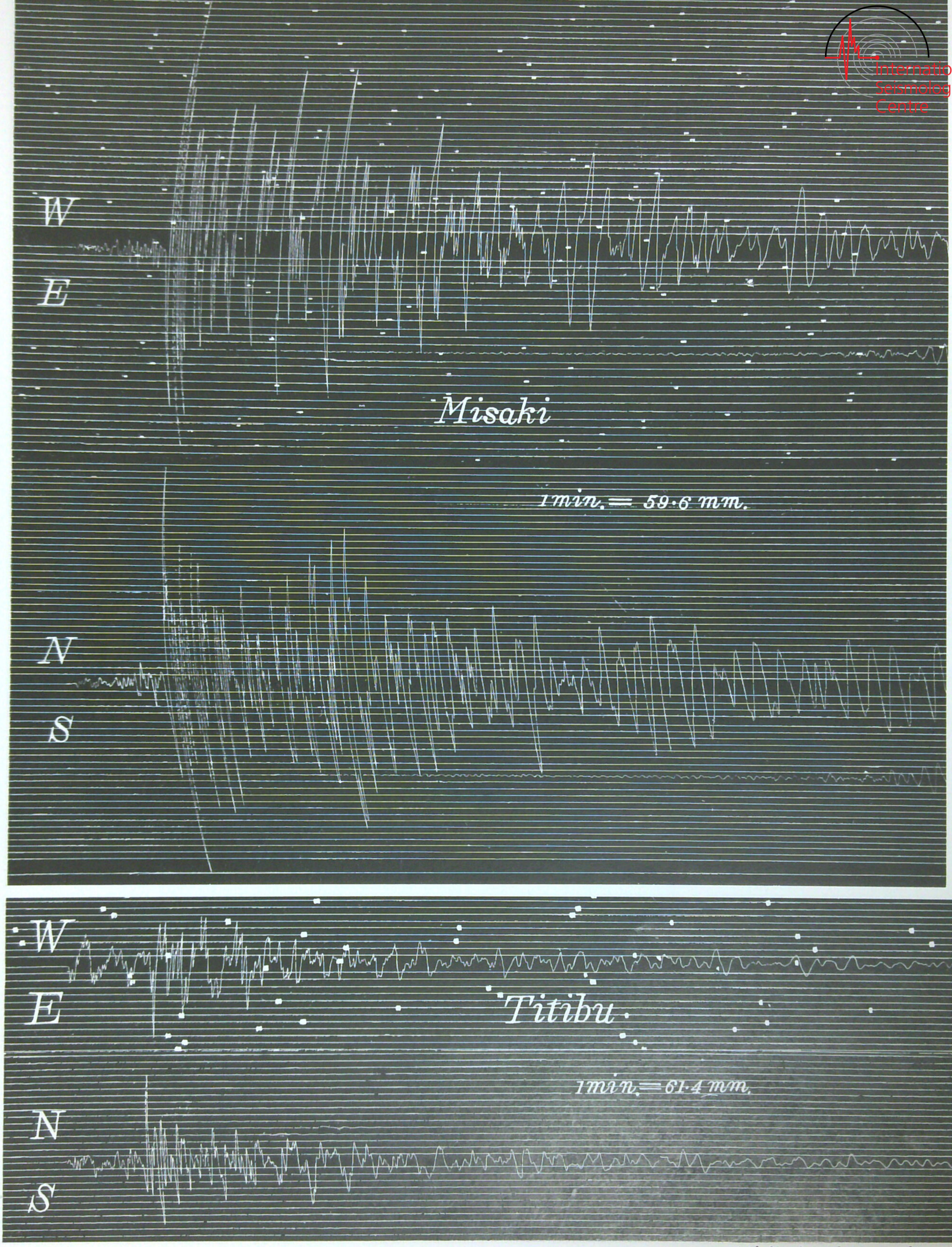
Instrumental constants:

V	N.S. = 20	T	N.S. = 52·6^s	ε	N.S. = 3·0
	E.W. = 15		E.W. = 63·1		E.W. = 4·5
	Vert. = 20		Vert. = 12·4		Vert. = 1·6



(*Full sisze the actual*)

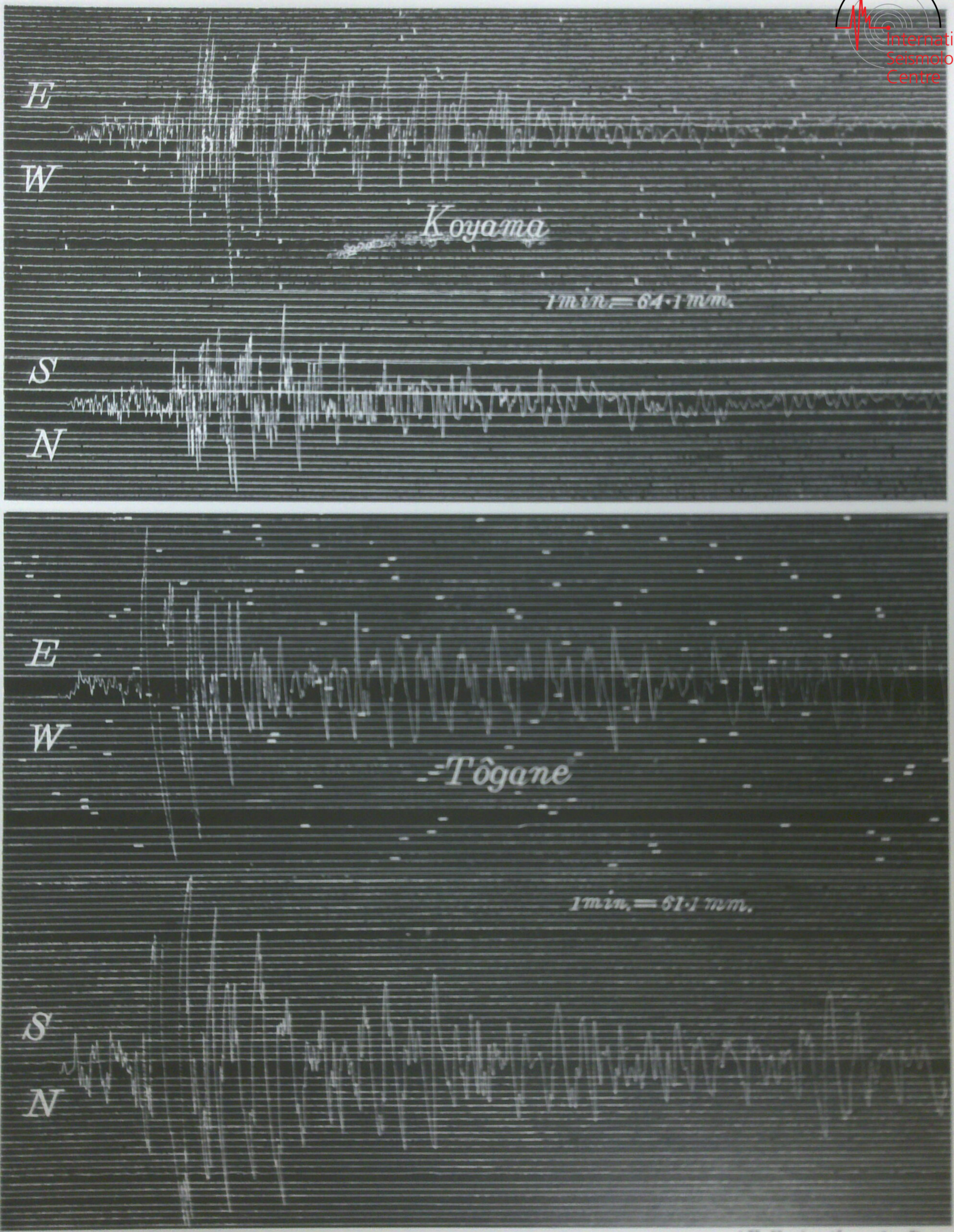
Fig. 3. Seismograms of the earthquake of August 3, 1934. (Eqk. No. 46.)
Instrumental constants:
V (NE-SW, NW-SE.)=80
T (NE-SW, NW-SE.)=1·4^{s}.
(NE-SW=2·5



(*Full size the actual*)

Fig. 4. Seismograms of the earthquake of August 3, 1934. (Eqk. No. 46.)
Instrumental constants:

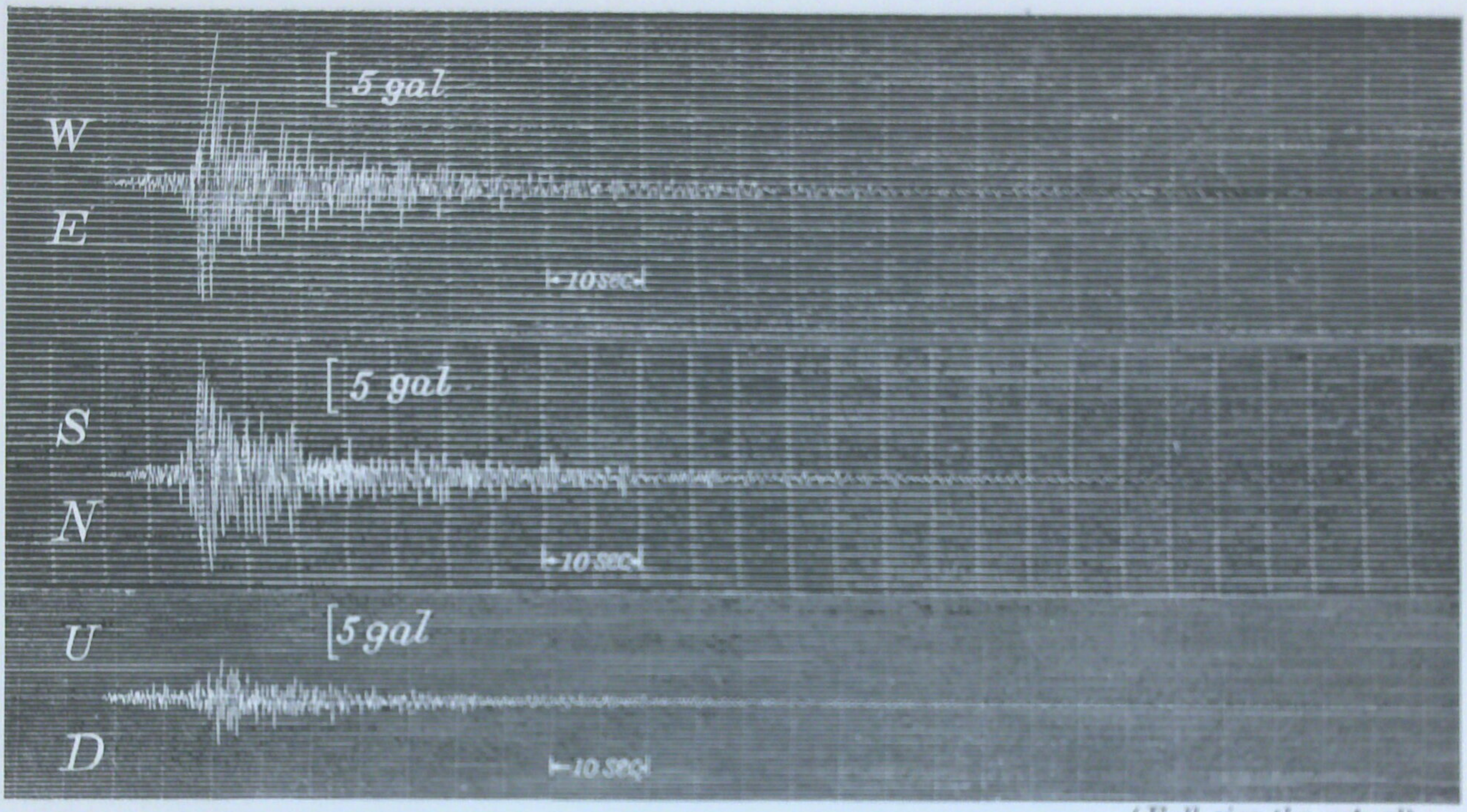
	Misaki	Titibu
V (N.S., E.W.) =	120	50
T (〃 〃) =	4ˢ	6ˢ



(*Full size the actual*)

Fig. 5. Seismograms of the earthquake of August 3. 1934. (Eqk. No. 46.)

	Koyama	Tôgane
V(N.S., E.W.)=	25	50
T(N.S., E.W.)=	6ˢ	5ˢ
ε(〃 〃)=	1·6	1·4



(Full size the actual)

Fig. 6. Ishimoto acceleration seismograph diagram of the earthquake of Aug. 3, 1934, obtained at Hongô, Tôkyô.

地震觀測報告

昭和9年 第4冊

SEISMOMETRICAL REPORT

OF THE

EARTHQUAKE RESEARCH INSTITUTE

TOKYO IMPERIAL UNIVERSITY

1934

Part 4

(October 1~December 31, 1934)

Published by the Institute

Tôkyô 1935

Seismometrical Report.

(Earthquake Research Institute, Tôkyô, Japan.)

(Part 4, 1934.)

(October 1~December 31, 1934.)

---

(1) Sensible earthquakes in Tôkyô for the period

October 1~December 31, 1934.

List I.

Time=Central standard time of Japan. (Mean solar time of the meridian 135°E.)

Notation:

Prel. tr.=Preliminary tremor.
N. S. =North-South component.
E. W. =East-West component.
2A =Range of motion.
T =Period of earthquake motion.
λ =Longitude.
φ =Latitude.

Intensity: 0 (insensible), I (slight), II (rather weak), III (weak), IV (rather strong), V (strong), VI (violent).

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N.S.		E.W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
52	Tôkyô	Nov. 4	19 38 14·4	15·2	5	74	1·20	69	1·20		139·96	36·45	40	I
	Komaba		19 38 15·0	16·0	4	40	0·32	40	0·64					I
	Mitaka		19 38 15·2	16·7	4	** 46	0·67	* 34	0·67					
	Tukuba		19 38 11·7	11·6	1·7									I
	Kamakura		19 38 21·9	18·5	3	44	0·59	38	0·59					
	Misaki			19·0	4	17	0·97	10	0·73					
	Kiyosumi		19 38 20·8	18·2	3	9	0·45	10	0·45					
	Titibu			16·1	2·5	22	0·93	16	0·75					
	Tôgane			16·1	3	10	0·74	14	0·74					
	Sakura			15·3	2	40	0·19	26	0·15					
	Koyama			18·3	2·5	28	0·32	28	0·32					
	Susaki		19 38 25·2	25·9	1·5	12	0·9	24	0·9					

(to be continued.)

List I. (*continued.*)

No.	Station	Date	Time of occurrence	Duration Prel. tr.	Duration Total	Maximum motion N.S. 2A	Maximum motion N.S. T	Maximum motion E.W 2A	Maximum motion E.W T	Direction of initial motion	Epicentre λ (E)	Epicentre φ (N)	Depth	Intensity
			h m s	s	m	μ	s	μ	s		°	°	km	
53	Tôkyô	Nov. 7	20 30 40·4	25·6	5	119	0·59	48	0·59		141·42	37·08		I
	Komaba		20 30 42·7	27·0	5									
	Mitaka		20 30 42·8	26·8	7	** 50	0·86	* 30	0·86					
	Tukuba		20 30 32·1	20·2	2			26	0·32					
	Kamakura		20 30 48·4	32·5	6	52	0·74	46	0·74					
	Misaki			38·0	6	25	1·07	21	1·07					
	Kiyosumi		20 30 46·0	36·2	6	32	2·00	50	3·50					
	Titibu			30·5	6	40	1·06	60	1·02					
	Tôgane			32·8	5	114	1·21	110	1·67					I
	Sakura			30·5	6	206	2·47	162	2·67					
	Koyama			45·8	6	180	1·72	170	1·16					
	Susaki		20 31 08·1	43·0	3	8	1·10	6	0·75					
54	Tôkyô	18	21 17 38·1	8·7	5	108	0·48	68	0·48		140·00	36·08	50	I
	Komaba		21 17 39·5	8·8	4	44	0·32	54	0·32					I
	Mitaka		21 17 40·8	9·0	4	** 30	0·33	* 29	0·33					
	Tukuba		21 17 37·4	5·5	1·5	400		205						II
	Kamakura		21 17 47·1	11·8	2	15	0·40	14	0·40					
	Misaki			15·4	5	10	0·53	7	0·40					
	Kiyosumi		21 17 44·2	15·2	3	10	0·50	10	0·50					
	Titibu			13·1	3	12	0·39	6	0·39					
	Tôgane			10·6	2	12	0·45	10	0·45					
	Sakura			8·8	2	36	0·31	32	0·31					
	Koyama			16·2	3	28	0·62	64	0·74					
55	Tôkyô	23	6 29 56·5	13·1	2	16	0·50	16	0·31		140·73	36·22	40	I
	Komaba		6 29 53·2	12·9	2	20	0·24	20	0·32					
	Mitaka		6 29 51·4	16·5	3	** 11	0·33	* 11	0·33					
	Tukuba		6 29 43·0	7·9		48		42	0·24					II
	Kiyosumi			13·3	1·5	30	0·59	2	0·59					
	Titibu			16·3	1·5	6	0·52	5	0·52					
	Tôgane			11·8	2	6	0·43	5	0·43					
56	Tôkyô	26	12 38 46·0	7·7	4	211	0·39	86	0·39		139·37	36·00	40	I
	Komaba		12 38 45·5	8·1	4	160	0·40	220	0·32					I
	Mitaka		12 38 44·1	8·4	4	**120	0·45	*220	0·45	S19°E				I
	Tukuba		12 38 46·2	7·8	1·7	34	0·25	28	0·31	N60°E,u.				II
	Kamakura		12 38 48·7	10·2	3	44	0·47	52	0·47					
	Misaki			12·4	4	46	0·49	18	0·49					
	Kiyosumi		12 38 53·5	14·4	3	8	0·57	6	0·57					
	Titibu			5·9	2	48	0·45	52	0·45					
	Tôgane			14·4	3	20	0·51	30	0·61					
	Sakura			11·9	2	50	0·55	42	0·55					
	Koyama			10·4	3	148	0·45	124	0·45					
	Susaki		12 38 58·4	15·6	2	4	0·37	2	0·44					
57	Tôkyô	27	10 33 40·2	9·3	4	63	0·37	80	0·30		139·77	35·34	50	I
	Komaba		10 33 39·9	9·5	2	100	0·40	130	0·40					I
	Mitaka		10 33 40·5	9·1	3	** 73	0·28	* 94	0·28					
	Tukuba		10 33 45·9	12·0	1	2	0·4	2	0·4					
	Kamakura		10 33 40·4	7·5	1·5	26	0·28	10	0·28					
	Misaki			8·0	4	10	0·40	10	0·40					

(*to be continued.*)

List I. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N.S.		E.W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
57	Kiyosumi	Nov. 27	10 33 40·9	8·7	2	8	0·49	7	0·49					
	Titibu			13·8	1	13	0·42	10	0·42					
	Tôgane			9·3	2	12	0·35	10	0·39					
	Sakura			9·5	2	12	0·18	4	0·18					
	Koyama			9·0	2	88	0·38	112	0·38					
	Susaki		10 33 46·1	12·3	1	4	0·36	3	0·36					
58	Tôkyô	27	14 50 11·7	12·0	15	600	1·08	817	1·18		140·60	35·47	40	I
	Komaba		14 50 12·5	13·6	14									I
	Mitaka		14 50 15·1	14·2	9	**336	1·08	*179	1·08	S79°E				
	Tukuba		14 50 09·9	9·0	4	67	0·53							II
	Kamakura		14 50 17·1	16·9	7·5	349	1·72	649	1·72	E slight S, d				I
	Misaki			14·0	10	267	1·61	308	1·34					I
	Kiyosumi		14 50 11·6	8·8	10	330	2·23	310	2·23					II
	Titibu			20·5	10	142	2·85	88	2·10					
	Tôgane			8·0	15	2600	0·73	2860	0·73					III
	Sakura			9·0	15	800	1·80	550	0·90					II
	Koyama			22·2	10	280	2·90	520	2·32					I
	Susaki		14 50 24·3	19·7	9	20	1·2	16	1·2					
59	Tôkyô	28	0 56 47·9	7·8	10	497	0·41	453	0·41		139·97	36·07	40	II
	Komaba		0 56 47·9	8·5	6	400	0·32	540	0·40	S30°W, u				II
	Mitaka		0 56 48·8	8·4	6	**586	0·41	*353	0·41	S18°W				
	Tukuba		0 56 45·4	5·6	3	276		116		N51°E, u				III
	Kamakura		0 56 54·0	12·4	6	188	0·44	158	0·44	N, d				II
	Misaki			13·8	6	167	1·16	119	1·16					
	Kiyosumi		0 56 54·6	14·9	6	110	2·17	80	2·17	N19°W, d				
	Titibu			10·1	5	128	0·38	96	0·38					I
	Tôgane			10·2	6	106	0·69	60	0·69	S26°E				I
	Sakura			7·8	9	110	0·34	180	0·34					II
	Koyama			13·4	5	392	0·46	368	0·46					
	Susaki		0 57 02·9	20·9	3	20	1·6	24	1·6					
60	Tôkyô	29	3 33 08·8	14·3	9	119	0·48	200	0·48	N69°E	140·85	36·05	40	I
	Komaba		3 33 03·5	21·6	5	50	1·04	100	2·40					
	Mitaka		3 33 03·1	16·7	6	** 25	0·52	* 22	0·52					
	Tukuba		3 32 55·9	9·0	1·3	29	0·42	28	0·42	S53°E, d.				I
	Kamakura		3 33 04·8	18·9	5	14	0·45	72	0·45					
	Misaki			20·0	6	58	1·40	54	1·00					
	Kiyosumi		3 33 00·5	15·7	7	44	0·91	70	1·00					
	Titibu			20·7	5	20	1·04	10	1·04					
	Tôgane			10·6	5	144	0·61	180	0·61					II
	Koyama			25·9	5	80	1·47	92	1·47					
61	Tôkyô	29	21 55 45·7	27·8	10	24	1·21	50	1·21		140·57	33·78		I
	Komaba		21 55 41·9	27·4	10	30	1·60	60	2·00					
	Mitaka		21 55 42·4	30·2	6	** 28	0·79	* 15	0·79					
	Tukuba		21 55 45·7	35·4	2·3									
	Kamakura		21 55 40·4	24·2	7	38	0·69	144	0·99					I
	Misaki			26·5	8	131	1·88	24	1·04					
	Kiyosumi		21 55 31·5	24·7	8	80	2·83	104	2·83					
	Titibu			36·3	6	20	2·10	30	2·10					

(*to be continued.*)

List I. (*continued.*)

No.	Station	Date	Time of occurrence	Duration		Maximum motion				Direction of initial motion	Epicentre		Depth	Intensity
				Prel. tr.	Total	N.S.		E.W.			λ (E)	φ (N)		
						2A	T	2A	T					
			h m s	s	m	μ	s	μ	s		°	°	km	
61	Tôgane	Nov. 29		25·8	8	50	3·95	60	3·95					
	Susaki		21 55 35·9	24·8	10	40	1·4	48	2·0	S 52° E				
62	Tôkyô	Dec. 8	0 24 19·3	7·5	5	46	0·65	42	0·65		140·00	36·03	40	I
	Komaba		0 24 23·2	7·2	5	60	0·32	50	0·32					
	Mitaka		0 24 20·7	8·5	3	**123	0·80	* 63	0·80					
	Tukuba		0 24 17·2	5·6	1·6									II
	Kamakura		0 24 27·2	10·5	3	25	0·57	34	0·47					
	Misaki			13·5	4	17	0·67	15	0·83					
	Kiyosumi		0 24 28·1	13·8	3	9	0·80	10	0·80					
	Titibu			9·2	2	20	0·42	16	0.42					
	Tôgane			9·7	4	12	0·73	12	0·83					
	Sakura			7·6	3			32	0·17					
	Koyama			14·8	3	68	0·48	72	0·48					
63	Tôkyô	8	10 13 52·8	10·5	4	58	0·49	42	0·49		140·55	35·68	50	I
	Mitaka		10 13 49·0	10·8	3	** 13	0·80	* 13	0·90					
	Kamakura		10 13 56·5	10·8	3	16	0·55	18	0·37					
	Misaki			15·6	4	18	1·18	17	0·96					
	Titibu			17·8	2	7	1·22	8	1·47					
	Tôgane			6·4	3	110	0·56	120	0·56					
	Sakura			7·1	3	68	0·88	74	0·91					
64	Tôkyô	10	18 05 34·6	7·9	2·5	42	0·49	37	0·43		139·93	35·47	50	I
	Komaba		18 05 37·2	8·0	2	60	0·56	70	0·32					I
	Mitaka		18 05 37·0	9·9	4	**111	0·29	* 91	0·29					
	Tukuba		18 05 37·7	12·9	1									I
	Kamakura		18 05 37·9	9·1	2	86	0·59	72	0·69					
	Misaki			9·3	3	41	0·48	33	0·48					
	Kiyosumi		18 05 34·2	8·0	2	15	0·49	12	0·37					
	Tôgane			7·2	2·5	88	0·42	84	0·53					
	Sakura			8·9	2	16	0·41	10	0·41					

**.....NE. SW. Component. *.....NW. SE. Component.

(2) *Daily frequencies of the earthquakes felt in Tôkyô in 1934.*

List II.

Month / Day	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Sum.
1		1				1			1				3
2								2					2
3		1			1	1		1					4
4						1					1		2
5				2				1					3

(to be continued,)

List II. (*continued.*)

Day \ Month	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Sum.
6													0
7				1							1		2
8												2	2
9		1			1								2
10													
11		1		1	1								3
12						1							1
13						1	1						2
14													0
15				1		1							2
16							1						1
17		4			1				1				6
18	1							1			1		3
19	1												1
20				1			1						2
21		1	1		1	1							4
22		1											1
23			1								1		2
24	1						1		1				3
25	1												1
26											1		1
27				1		1					2		4
28							1				1		2
29											2		2
30			1										1
31					1								1
Sum	4	10	3	7	6	8	5	5	3	0	10	3	64

Observations of Volcano Asama during 1934.

Since the Autumn of 1932, Asama has been quite inactive, there having occurred no violent eruptions. Hardly any earthquakes originated in the volcano, although the seismograph recorded occasional microseisms. The only earthquake originated in the volcano this year was observed at our station on August 28.

Date	Time of occurrence	Duration		Maximum motion			
		Prel. tr.	Total	N. S.		E. W.	
				2A	T	2A	T
	h m s	s	m	mm	s	mm	s
Aug. 28	8 32 39	2·5	1·3	0·030	0·3	0·034	0·3

The emission of vapour from the crater, which was very regular up to August, became abnormal in September, the volcano discharging at times huge volumes of vapour and at other times only a small amount.

On the 13th of November a minor eruption took place, accompanied with sounds and the emission of dark vapours, but without any volcanic earthquake. The tilting of earth blocks was very slight during the months from April to August, while for a week in September the angle of tilting increased to some three or four seconds. It will require extended observations through several years in order to determine whether this phenomenon was due volcanic activity or whether to annual variations in the tilting.

Even in this state of inactivity, the volcano continued to emit vapours from its crater walls as well as from its lava surfaces.

Until August the crater bottom, which is about 180 metres deep (measured at the southern crater wall), and which was observed to be sinking, has been rising since September.

The volcano on the whole showed little activity during 1934.

Volcano Shirane, which is situated near Asama, has been inactive since the explosions of October 1932.

Besides occasional emission of vapours from the crater this volcano also was very quiet in 1934.

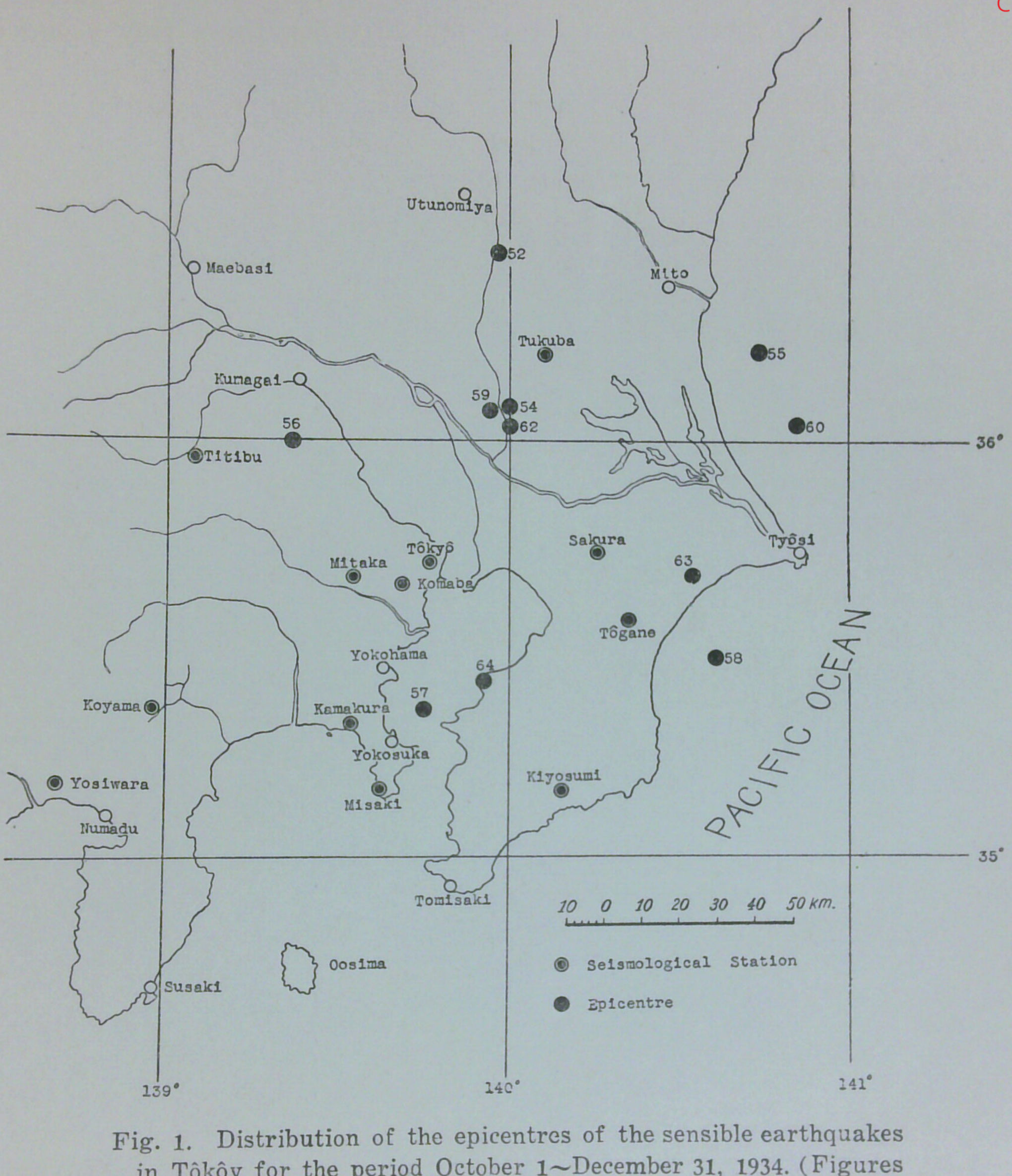


Fig. 1. Distribution of the epicentres of the sensible earthquakes in Tôkôy for the period October 1~December 31, 1934. (Figures attached to each dot are the earthquake number in List I.)